

Free Radical

Shamus Young

Foreword¹

Welcome to my on-line book. Yes, this is a complete novel, and yes, it is free. It has never been published (and for reasons I outline below, probably never will be) and has only been printed on the printers of various fans of the book. If you want a physical copy for yourself, your only choice is to make sure you have a fresh ink cartridge installed, give the printer about 423 sheets of paper, and hit “print”. I ask for nothing in return, except that you enjoy the work and perhaps drop me an email² when you’ve finished reading, if only to let me know you were here.

This book happened by accident. It was supposed to be a short story. It evolved into a longer one, and eventually into a novel. How it became what it is today may be of some interest. If you’d rather cut right to the story, then now would be a good time to jump to chapter 1.

In 2001 I was re-playing some of my older computer games. This was partly due to nostalgia, partly to see if they still ran. Most did. A few didn’t. What struck me most wasn’t how primitive the graphics were, but how terrible the storytelling was. Before the days of CD-ROMs, games had a hard time building any sort of narrative. There was no room for voice acting on floppy disks. The graphics were too primitive to show facial expressions, and the characters were too

¹This foreword was written for the online version of this book, which can be found at <http://www.shamusyoung.com/shocked/index.html>.

²Please send an email to shamus@shamusyoung.com with “Free Radical” as the subject of the message.

simple for them to emote any other way. The only real means of storytelling was to give the player a bunch of blocky, hard-to-read text to fill in the basics. In a lot of ways it was similar to the days of silent movies, when the action would stop so the audience could read some prose explaining what was going on. In both mediums, there were many cases where the authors did indeed have a great story to tell but they didn't yet have the means to convey it in a compelling manner.

A perfect example of this is the opening movie from the 1994 classic *System Shock*³. It's a simple, two-minute introduction that contains a bare skeleton of a story; more of a premise than introduction. The only characters you see are the protagonist and the villains. The main character has no real identity other than what the player imagines. He eventually does a lot of interesting things, but we in the audience never get to know why. He doesn't even have a name. The various other characters in the story would simply refer to him as "Hacker".

I came up with a short story to give this character a personality, and to explain his behavior. I had no intention of writing any sort of substantial work. I set down what is now the first three chapters of the book, and posted it to my website. I expected to be more or less ignored, since the internet is lousy with fan-fiction (which is in itself mostly lousy) and I had little hope that my story would attract anyone. To my surprise, I got quite a bit of email and encouragement from both friends and strangers, which was enough to keep me going and interested to the end of chapter seven. At that point I had met my initial goal of translating the two-minute movie into prose.

If you'd like to see the original intro movie, you can download⁴ it. The file is a 10MB mpeg. The various mysteries of video codecs and media players are unknown to me, so if it doesn't play I'm afraid I can't help you. It *should* work, though. One final warning I'll give is that the video is obviously going to be a spoiler. I'd suggest waiting until you've finished chapter 7 of my story before you check out the

³<http://www.sshock2.com/>

⁴<http://www.shamusyoung.com/shocked/media/ssintro.zip>

movie.

While I was happy with how the short story had developed, I found the ending very unsatisfying. For anyone who wasn't familiar with the game, it wouldn't make sense to stop the story there at all. It was, of course, the *beginning* of the game. At the same time, I was getting quite a bit of email from fans who assumed I was going to keep going and translate the whole thing. At that point I wondered if I was capable of writing a book. I decided to find out.

The rest of the book was written and released a chapter at a time over the course of a year. There was a forum on this site where readers would leave comments and bug me to hurry up on the next chapter. Because it was released as a serial, I fell into a lot of habits common to serial storytelling. Notably, I had a number of cliffhanger endings. Partly this was done because it was fun to have the character in a seemingly impossible situation and to see the various posts from readers as they speculated how he might escape. I was also anxious that the long delays between chapters might cause people to lose interest and stop reading, and I wanted to make sure they came back. In the end, I don't think I needed to worry, since readership grew during the project and wasn't noticeably affected by the type of ending I'd used in the most recent chapter.

In turning the events of the actual game itself into prose, I found that I needed to take quite a bit of liberty with the story to make things interesting. In fact, it would be a stretch to say this story is based on the game. More accurately, this story is based on the same premise as the game. This earned me a bit of ire from fans of the original work, although I'm confident the book is better for it. Computer games are exciting to play, but would be hopelessly dull if converted directly into a narrative. This is particularly true for older games:

The marine blasted three more aliens. He turned around and blasted two more. He reloaded his shotgun. He went upstairs and blasted two big aliens and three little ones. He opened the door. He blasted two more. Behind the next door four more aliens (one big and three little) were waiting for him.

He shot one, but then realized he'd forgotten to reload! He backed up and reloaded while the aliens bit him, lowering his health. Then he blasted them. He went through the next door and found his goal: The Red Keycard!

And so on. While the above sounds dull, it's actually quite fun if you're the one doing the blasting. At any rate, adding some expository text and a little dialogue wouldn't make the above any more palatable. To make the transition from the screen to the page, most of the story had to be re-envisioned.

Since most readers were patient enough to endure the book in serial form – sometimes with weeks and months between chapters, I would say I've at least met my initial goal of creating something gripping. The fact that many of these fans have never heard of *System Shock* indicates that I've managed to make something that can stand on its own. I'm very happy to have seen this through to the end. In 2005, I revisited the book and did a good deal of rewriting. Lots of old spelling mistakes and typos were fixed. I'm sure many new ones were added. Much was added to the story and a little was taken away.

This book, like most others, was not constructed in a vacuum. Consequently, there are a few people that I need to recognize for their contributions to this work. Chief among those who deserve some credit are the people that once drove the now-defunct *Looking Glass Games*⁵, the company behind *System Shock*. I'd also like to thank my wife, who bugged me mercilessly to continue work on the project, and who endured the long task of proofreading and reviewing the book as it took shape. The project was fueled by my own curiosity and through the encouragement of many fans. I'd like to thank everyone who tolerated my irregular writing schedule, and who sent me feedback. Not many authors get to write in front of an audience like this, and I found it to be very rewarding. Thanks for sticking with me, you're more patient than I.

For those of you new to the book, I'd love to hear from you. After you've taken it in, please drop me an email and let me know.

⁵<http://www.tlg.com/>

It means more than you think.
Thanks for reading,

SHAMUS YOUNG

Chapter 1

Keys

The long steel finger of the subway stabbed into the station. Having just come from the Undercity, its belly was full of lower-class people who were privileged enough to work in the high-class grid of glittering corporate office buildings known as Uppernet. The train brought itself to an abrupt and precise halt and then regurgitated its contents onto the empty platform. The swarm of ex-passengers flowed up the steps and dispersed into the evening glow of New Atlanta.

All except one.

Deck hung back from the crowd and watched the city drones head for whatever miserable night jobs their lives had sentenced them to. They would all be going to work for the evening. So was he.

Once the crowd cleared he headed up the street past the opulent kingdom of office space, and into the heart of Uppernet. Uppernet was a speck on the map of the great urban blanket, but its size was disproportionate to its importance. It was home to a host of powerful corporations, the seat from which they projected power throughout the technical and financial worlds. It was the nexus of money and data, the fuel and will of the business world.

The buildings were a series of near structural clones, varying mostly in their height and what corporate logo had been slapped on

the front. They formed a strict grid of narrow rectangles of varying heights that looked like an immense 3d bar graph of some random input data. The strip of buildings served as a monument to a world where money was in excess and imagination was in short supply.

Deck suffered from the reverse.

He caught his reflection in the darkened windows of some nameless corporate monolith, and paused for one final glance to make sure he looked the part. He was dressed like a young executive that had just finished another marathon day behind his desk. Luckily, the look of someone who had just worked 12 hours straight was pretty much the same look as someone who had just slept all day and was still shaking off the cobwebs. His clothes were a bit wrinkled and his tie was loosened. His rig, which was usually strapped to his leg, was inside the briefcase he was carrying. He had purchased the briefcase yesterday, and then spent some time sandpapering the corners and banging it off the floor to give it a used appearance. He had let his dark hair grow in for this job. He needed to be able to pass himself off as a corporate drone, who were not allowed to have shaved heads.

He was slender and pale in a way that was to be expected from a hacker, but he wasn't soft. He had been tempered by the tough years on the streets of the Undercity. Hidden beneath the unflattering beige suit, his muscles were tight and wiry, hardened by his early pre-hacker years of too much labor and not enough food. His face was thin and bony, and looked unfamiliar to him without the narrow beard he usually maintained.

He covered the three blocks to his target as quickly as possible. He had been running a bit late before the meeting with Nescio, and that meeting had run long. His cover story was going to sound too implausible if he didn't start soon.

The TriOptimum building was not a clone like the others. It was a pillar of carved glass and steel. Covered in smooth round corners and gentle slopes, the building was like some immense sculpture cut from polished ebony stone. Up on the roof, far above Deck's view, was a complex nest of interconnected communications towers. Radio antennae, satellite dishes, pulse towers, and microwave transmitters

formed an intricate web of steel and fiber optic cable.

In front, TriOptimum displayed its wealth by allotting an area fifty meters wide and five meters deep as a kind of open courtyard, complete with trees nobody cared to admire and benches nobody had time to sit on. It was a vulgar excess in a world where real estate was often measured in millions of dollars per square meter.

Deck crossed the courtyard and climbed the wide marble stairs to the broad glass doors of the lobby, which were (as he expected) locked.

The building was a fortress at night, and there was no other way in that didn't require some sort of tunneling or demolition equipment. That sort of business would be noisy, expensive, and out of his particular area of expertise. As usual, the weakest point of the building's defenses was the part that was regulated by a human. In this case, a lone security guard.

Most people imagine that hacking is a non-social activity. The picture of someone typing away at some console for hours on end creates the impression that hackers have no social skills and lack the ability to detect interpersonal subtlety. The idea is erroneous, since the greatest hackers are both con-artists and counter-security experts. The stereotype usually worked in Deck's favor so he didn't really mind.

In the world of modern cryptography, even consumer-level encryption was strong enough to require months to penetrate by pure brute force. A hacker could spend weeks probing a security network for loopholes and weaknesses, and using brute force tactics to break open its encrypted data. Many days of long, patient data surveillance and cryptological analysis would be required to gain access to even the most casually guarded network. In contrast, a ten minute phone call to a frustrated tech support jockey, intern, or clueless secretary could yield a password granting the same level of access. Hacking – true professional grade hacking, the kind you can get paid for – requires a blend of computer skills and B.S.

At the moment Deck needed some B.S. He hammered on the window.

Inside, the lone security guard looked up from the screen at the

front desk and glared at Deck.

"Closed. Come back tomorrow during business hours.", he yelled from his desk. His voice was muffled and distant from the other side of the bullet-proof glass.

In the movies, security guards were always fumbling, senile old men just waiting to be karate-chopped in the back of the neck by the protagonist. Deck had yet to encounter such a guard in real life. This guard in particular looked young and sharp. Like a lot of the younger types, he obviously spent plenty of time in the gym. The white shirt of his uniform did little to hide the bulky physique underneath. He looked serious, bored, and not eager to deal with some idiot banging on the front door of a major corporation at 10 o'clock at night.

"Hey!", Deck yelled though the door, "I left my car keys on my desk. Can I get them?"

"Can't let anyone in. Come back tomorrow." The guard was completely unmoved. He didn't even bother to call him 'sir'.

Crap.

Deck tried again. "Look, my name is Richard Holgate... I work on the second floor in tech support.", he said pointing upstairs. "I need my car keys. *I work here.*" He held out his arms to demonstrate how passive and harmless he was.

Reluctantly, the guard slid his chair out and walked over to the door as he fixed "Richard" with a disapproving glare.

Deck tried not to smile. Getting the guard to engage him in conversation was the hardest part. It is always more difficult to refuse to help someone when you have to look them in the eye. This was where the misconceptions about hackers came into play. This guard would expect a hacker to be nervous, shifty-eyed, and menacing. He might suspect "Richard" of being many things: a shallow irritating loser, an irresponsible ass, or an overpaid bootlick. It would never occur to him that he was looking at a ruthless data pirate. Not until it was too late.

The guard brought his scowling face to the glass opposite Richard, "You can't come in, call a cab. Go home."

His face was hard and square, a frame of unhappy distrust. His

brown hair was a tight crew-cut popular among the paramilitary types. His blue eyes were set deep in his head, peering out at Deck with suspicion.

Deck sighed in defeat and pleaded, "Look man, I was here all day. I just got back from the worst meeting ever. All I wanna do is go home, have some dinner, bang the wife, and get some sleep... give a guy a break?"

The guard drew in a deep breath and seemed to waver. A long moment passed as he sized up the man on the other side of the door. Deck didn't *look* like a nut or a terrorist. There was no obvious reason not to let him in for just a moment, except that it was against the rules, and both of them knew it.

Deck held up a set of keys. "Look, this key opens up the door over there.", he indicated a black, featureless door at the rear of the lobby, "Just take this key and just go up to the second floor and grab my car keys for me. They're on my desk."

Deck stood at the door, looking pathetic and helpless. He held the keys by the plastic keychain and offered them to the guard. There was another long, silent pause while the guard deliberated some more.

Deck maintained his pleading look and jingled the keys a bit in front of his face. Inside, he wanted to scream. This entire operation depended on getting this guard to open the door and take these keys.

To Deck's surprise, the door swung all the way open, and the guard motioned him inside.

"Thanks, I really appreciate this", he said, grinning like an idiot. The guard waved his hand, dismissing the thanks. All he wanted was for this office puke to shut up, get his keys, and get out of his building. The two of them walked to the back of the lobby together, while Deck, staying in character, rambled on.

"I can't believe I left my keys here. I feel so stupid. I mean, I didn't think we would be coming back this late."

"Uh-huh."

"We were just going out to grab some dinner and the whole meeting went really bad and the next thing we knew it was nine o'clock. Man! So, we had to hurry back here and Allan dropped me off, but

by that time it was like nine forty-five and it was wicked late. I didn't even realize my keys were still in my office until after he pulled out. SO embarrassing!"

"Hmm-hmm"

The lobby showed the same excess as the exterior of the building. There were huge black leather couches that were probably never used, next to marble tables with decorative trade magazines nobody ever read. There were live plants, not in simple pots but in marble planters built into the floor. The art on the walls was modern stuff, huge prints of concept paintings for space stations and orbital platforms. Another print seemed to be a montage depicting the cure of cancer. There were several massive cylinder lights – large enough to contain a man – that were suspended from the high ceiling from lines so thin they could only be seen when the light caught them just right. They flooded the lobby with potent white light, obliterating the possibility of shadows.

Deck continued lamenting his day that never happened. The guard bobbed his head, trying to acknowledge that he heard, without the risk of possibly encouraging further conversation.

Deck sized up his opponent as the two of them walked together. He was carrying a real sidearm and not a stunner, which was rare. Guns were pretty much illegal for everyone but the police, and for TriOp to gain firearm permits for all of its security forces must have cost a great deal. The guard walked carefully, not letting Deck fall behind him. His right hand never strayed far from his weapon, but never got so close that it might cause alarm.

The two of them reached the back door and the guard turned to Deck, waiting for him to open the door.

The problem here for Deck was, he really didn't have any way of opening this door yet.

"Oh! Keys!", he said, still grinning, as if he had forgotten what they were doing. He began to search through his pockets and came up with the same keychain he had offered the guard before. He frowned at them, realizing they were not the "right" keys.

"Here... hold these a second?", he said, offering the keys dangling from the plastic keychain in his hand as he continued to go

though his pockets with his other hand.

The guard hesitated, not knowing why he would need to hold this stupid set of keys, but then reached out and took them. As his hand touched the metallic surface, their eyes met for a brief second. Deck jabbed a button on the keychain that delivered a micro-pulse of electrical energy similar to the impulses used by the human nervous system. The result was a spastic convulsion from the guard as he toppled over.

Deck glanced out through the windows to the street, to see if anyone had taken obvious notice. The street looked pretty clear. He hated the brightly lit lobby, elevated in front of the street for any passerby to see. It was like being on stage, and the last thing he wanted right now was an audience.

The guard had conveniently fallen beside a couch so that his body could not be seen from the street.

Deck sized up the door that led to the main offices. It was featureless, save for the smooth black panel (probably a palm scanner) with a small keypad and keyhole underneath. The keypad was alphanumeric, so the correct password could be any combination of letters or numbers of any length. The keyhole was a flat slot – obviously for electronic keys and not something that could be picked. Deck was guessing it unlocked the keypad. So to get in, you needed to have either the correct hand, or the right key *and* the proper password. Using the palm reader was out of the question. Deck wasn't about to lug the guard's body over to the door and try to get his hand onto the reader. Some passerby outside would almost certainly notice. Besides, it was doubtful someone of the guard's low position would be allowed the luxury of using the hand scanner – a privilege usually reserved for executives.

Deck checked the guard's keychain and found a number of electronic keys. Each was a flat, transparent piece of plastic with a tiny strand of metallic ribbon running through its surface in a specific pattern. Deck tried each one until the keypad lit up. Now all he needed was the password.

The reception desk was a massive wood and marble edifice that dominated the rear of the lobby. The back wall of its sunken desktop

contained seven display screens. The three on each side were cycling through various external surveillance views, while the larger center screen simply showed the triangular TriOptimum Logo. He assumed it was a slave screen for portables.

He took his rig and a slender backpack out of the briefcase and tossed the briefcase aside.

He retrieved a roll of duct tape from his backpack. As he rolled the guard over onto his stomach he was met with an overpowering stench. The guard's bowels and bladder had let go after being hit with the pulse stunner – a common side effect. Deck took the tape and quickly wrapped the hands, feet, and the guard's mouth. Once the guard was secure, Deck relieved him of his sidearm.

Deck didn't really know how to use a gun very well. He didn't usually carry one because it was just extra bulk, and they were really expensive. The whole point of doing his job was to get what he wanted without ever needing a gun. He wouldn't be able to move around the city with it, so he decided to hang onto it until he got out of the building. Traveling though the streets with it would be suicide anyway.

He dropped his rig onto the reception desk and powered it up. The keyboard was a smooth, flat surface with a series of tightly arranged squares bearing letters and symbols according to the standard Dvorak layout. As it started up, each square bubbled outward. The surface of the keyboard felt like bubble-wrap beneath the fingers, yet each key gave with a satisfying click.

Most users preferred keyboards that offered some sort of tactile feedback. It increased typing speed and reduced mistakes if the user could feel the boundaries of each key with their fingers. On the other hand, keys that protruded from the surface of the unit were usually a liability for hackers because of the increased volume and physical breaking hazard.

The bubble keys were a nice compromise, although they cost quite a bit. Deck had been a member of the flat keyboard way of thinking for a long time, which valued compact and durable over a few keystrokes per minute of typing speed. However, he saw a chance to have the best of both worlds when he set out to build the

ultimate rig. Compared to the tremendous amount of money spent on the internal components, the small fortune spent on the keyboard was trivial.

The rig was unnaturally heavy. Most portables were the size of a compact keyboard, which meant they were mostly empty space. Usually they had to be weighted down a bit so that they didn't seem flimsy, and would remain still while the user was typing. Deck's machine was an exception. He'd filled its volume with banks of storage and processing units. He had spent months buying components and putting them together to build this thing. It was almost a hundred times more powerful than the average rig, and he was going to need all of that power to get the job done.

The machine represented several months' worth of income, most of which he still owed to a number of ruthless and increasingly impatient lenders. Even worse, he had wasted a great deal of money in the construction of the thing. It was far too powerful to be legal, and so there was no real guide on how to build a machine like this. Many processors had been burned out or overloaded in the process. In the end, he had thrown away almost as much as he had successfully put into use. He tried not to think about the money when he used the unit, since it would only serve as a terrifying distraction.

The center screen on the desk lit up as it detected the nearby portable. The two devices negotiated for a second or two and then the screen became the display for his machine.

Attached to his rig Deck had a Universal Interface Unit – an almost completely mis-named device, since it would only interface with a small set of compatible devices. When the UIU was first released a number of years earlier, it was boasted as the last interface device anyone would ever need. It would connect any two network-enabled devices and allow them to operate together, assuming you had the right software. They could exchange information, share displays, and even share memory and storage. Again: assuming you had the right software. It had great marketing, but not so great technology. There was a lot of network-enabled stuff manufacturers didn't want everyone connecting to and possibly hacking. ATM's, payphones, and utility meters suddenly needed special

shielding and encryption to protect them from a UIU. The software for connecting to legitimate commercial products never really surfaced. Pretty soon the only people who really used them were hackers. It didn't take long for UIU's to get banned, but not before a black market of the things emerged to supply the technology hungry counter-security culture.

Keypads were smart enough to know that if someone was entering passwords at a rate faster than humans could type, or if the user was entering a lot of bogus codes, then it was probably being hacked. It would then lock itself down and trip the local alarm. Deck had written some software for his UIU to enable it to analyze keypads by searching their memory for valid codes or passwords without actually trying all of the codes. The only drawback was that it took a long time. The keypad's memory would almost certainly be encrypted, and would need to be deciphered before the code could be extracted. This internal encryption would have to be fairly light or else it would slow the device down too much for it to function properly. In theory, his overpowered machine should be able to break it in under half an hour.

Deck took the UIU from his rig and taped it over the surface of the keypad with the duct tape. The surface of the UIU was battered and covered with old tape residue and grime from all of the other devices it had been attached to during its long and useful career.

Deck sat down at his rig, which acted as the interface for the UIU. He fired up `KEYPDBRUTE`, a program he designed for just this sort of job. However, he didn't want to have to wait for this to finish. The UIU was just insurance, in case he couldn't get the password by other means.

He checked the front desk for a button that would "buzz" employees in. It was an unlikely long shot – since it would negate all the security on the door – but he still had to check. On the underside of the desk he found a small red button, which he assumed was a security alarm. A "buzzer" would most likely be more obvious, and not colored red. Either way, he wasn't about to press it and find out.

On his rig he had stored everything he knew about TriOp, including the employee roster for this office. He brought it up and

scanned though the list. He needed someone high enough on the company food chain to have the keypad code, but low enough to be easily intimidated. Anyone in middle management would be a good target. He scanned the list and found the person with the most distant address. He looked up their phone number and dialed using the phone on the reception desk.

"Hello?", came a wary voice. This guy obviously wasn't used to getting phone calls at 10:30pm.

Deck adopted his best arrogant prick voice for this one, "Is this Neil Paulson?"

"Yeah, who is--"

"I'm Richard Holgate, personal assistant to Lawrence Diego", Deck paused for a second to let the name of TriOptimim's CEO to sink in. "I'm trying to collect the copyright documents needed for Mr. Diego's Tokyo trip. That information was *supposed* to be overnighted to him *yesterday*. So I'm here at your office looking for it and I notice everyone is gone for the day." He seethed with indignant anger.

"Well I don't --"

"I can get it myself, but you need come in and open the lobby door for me."

"Come in to the office right now?", his voice was nervous and shaken. He didn't want to piss "Richard" off, but he also didn't want to drive an hour just to open a door.

"Richard" sighed to show how patient he was trying to be, "YES. You. Come in. Right Now. How else would you suggest I get in?", Deck hoped he wasn't over-playing it. If he did, the guy might actually come in, and then he would have a whole new set of problems to deal with.

"Look", Neil said, trying to gain some sort of composure, "How do I know you're really --"

Deck cut him off again, "Oh Yes", he began in a sarcastic voice, "I broke into our branch office so I could sit at the front desk and talk to YOU" Deck knew that Neil could look down at his display and see that the call was indeed coming from the office.

After a brief pause Neil relented, "I'm sorry, I... I'm on my way --"

I can be there in an hour.”

Crap. This was not what Deck wanted.

“What? I need in NOW. I don’t want to be waiting around here all night for you to show up.”, he snapped. “Look... isn’t there.. isn’t there just a password or something?” Deck knew he was pushing it now. His target might catch on if he was too explicit.

“Well, you can use my password, but you need a key and I – ”

Deck cut him off again, “I have *my* key, I just need a stupid password. Look, can you help me or do I have to call...”, Deck glanced down at his screen to find Neil’s boss, “Mr. Price and get *him* up as well?”

Neil crumbled, “No, no – I have it right... right here.” Deck heard the shuffling of papers on the other end. After a few seconds, “It’s Z-9-0-P-D-4-0-4-4-L”.

Deck typed this into his rig before replying, “You didn’t just read that off of a piece of paper did you? Why do we spend all of this money on a secure lock when you idiots just write your passwords down where anyone can read them?”

“I’m... I’m sorry I thought -”, he blurted out.

Deck hung up on him.

He moved over to the door and stabbed the guard’s key into the lock. Again the keypad lit up and Deck moved the UIU out of the way to enter the password.

There was a long, annoying pause before the screen displayed:

INVALID PASSWORD

Deck winced. He guessed that the keys and passwords went together. So, he either needed the guard’s password or Neil’s key.

It occurred to him that perhaps the guard was just as careless with his password as Neil had been. After replacing the UIU he retrieved the guard’s wallet and emptied it out on the reception desk. He looked at every card in the wallet, but didn’t find anything that looked like a password. He pocketed the \$50 or so the guard had been carrying and returned the wallet to his reeking pants.

He felt a vague stab of guilt at lifting the cash. Last year, it would have been beneath him. He used to pride himself that he only stole from corporations, not people. Being broke and desperate over the

past few weeks had shaken his standards.

Deck checked his rig to see how the decryption was going. There were a number of common fast-encryption schemes used by various password devices. His program had managed to determine which one was in use, and was currently offering an estimate of 174.3 minutes.

Deck stopped the program. There was no way he could stay here for another twenty minutes without getting caught, much less three hours. He started up a different program, called KEYPDSRCH3. He took Neil's password and fed it to his program, and then set it to work on the keypad. Now that he knew one password, he could use that piece of information to help him decrypt the rest. Since he knew what one fragment of memory should look like (the password Neil gave him) he could have his program look for that specific string of values. Once this was found, the program would have enough information to decrypt the rest of the keypad's memory. It was still looking for a needle in a haystack, but now the program knew how to tell a needle from hay.

The program started up and after a few moments offered a time estimate of 17.5 minutes. These estimates were notoriously inaccurate. It was really like trying to predict how long it takes to catch a fish. However, the program could look at how fast it was interfacing with the device, how much memory it needed to scan, what type of encryption was in place, and how strong the encryption was, and come up with a very rough estimate.

17.5 minutes was still too long.

This type of program functioned better if it had more information to work with. Deck could speed things up a lot if he had just a little more data. Using the needle-in-a-haystack analogy, this would be like making the needle bigger and thus easier to find. He decided to gamble. He assumed that the plastic keys were related to employee number, and that employee numbers were tied to the passwords. Therefore, the employee number could be next to the password in memory. The risk was, if he was wrong the entire search would run all the way to the end and never find a match. If he was right, the search would be much faster.

He looked up the guard's employee number in his database and entered it into KEYPDSRCH3. After a few moments the program gave a time estimate of 6.7 minutes.

This was it. He had been sitting in the lobby, in full view of everyone on the street for almost half an hour. If KEYPDSRCH3 failed he was going to have to bail. That would mean several weeks of preparation down the tubes. Even worse, nobody was paying him for this gig. He was hacking TriOp for his own purposes, and paying for everything himself. It would be weeks before he pulled together enough money to try again. Even worse, he would probably have to try a different branch of TriOp, since it would be suicide to try here again. That would mean more money, temporary relocation expenses... He shook his head. He needed to keep his mind on the moment.

Deck stood up and looked around the lobby. The guard was still out, and should stay that way for another hour if the keychain stunner had done its job.

He stepped behind a pillar to hide himself from the eyes of the street. He stripped off the suit he was wearing to reveal the black bodysleeve underneath. It was a semi-tight 'jumpsuit' with thick knee and elbow pads built in, along with some light padding in various other key areas. It was a favorite among people who skated, or spent a lot of time running from various security and law-enforcement groups. (There was often a lot of overlap between the two groups.) The other appealing aspect about the bodysleeve was that it had pockets – lots of them.

Deck ripped the rest of the gear out of his backpack and dropped it into various pockets where he would be able to find them quickly. He slipped the handgun into the built-in holster on his left thigh. It was made for holding tools or equipment, but the elastic straps were just the right size to keep a firm hold on a handgun.

Suddenly the speaker mounted on the guard's shoulder came to life, barking out a message that was mostly unintelligible static.

Deck froze. He figured it was some sort of central security station requesting the guard to check in. He had investigated the building security for several days before making tonight's run, but he hadn't

counted on guards checking in periodically. It was a clumsy oversight, and demonstrated just how sloppy he had been getting lately.

If the guard didn't answer, they would either sound an alarm or come looking for him themselves. Either way, he was screwed.

The burst of static came again, only this time more intelligible, "(garble) central. Check In. (garble) there?"

The building must have had a ton of shielding to mess up the signal that badly. Deck grabbed the vox from the guard's shoulder and brought it over to his rig. He quickly linked the data output from the UIU to the speaker and cranked the volume. The UIU was communicating using a standard radio signal, and turning it into a plain audio feed produced a sound that was a lot like modem noise. The small speakers on his rig spat out a high-pitched sound that resembled a combination of white noise, interference, and over-compression. He held the vox close to the speaker and thumbed the "talk" button.

"Checking in, all clear."

He hoped the noise was enough to cover the fact that his was the wrong voice.

He waited.

Thirty seconds later he decided they had either bought it or were on their way to pick him up. He turned off the vox and dropped it into a pocket.

There was no way to know what they were doing. If they were on their way, he needed to make a break for it *right now* if he wanted to have a shot at getting away.

Just then his rig lit up, and the door slid open.

Chapter 2

Search

Deck took his rig and slapped it onto the Velcro strips on the right leg of the bodysleeve. He tossed the old suit and briefcase into the trash and pocketed the UIU before heading through the door into the main offices.

He passed through a maze of featureless, faceless cubicles. The sterile work area was almost completely devoid of personality or color. In contrast to the marble decadence of the lobby, the walls were cheap, featureless white drywall. There were no paintings, motivational posters, or any type of signs on the walls – not even the corporate logo. There were no personal items on the desks or walls to indicate what sort of people might work there. The place was so pristine it could be mistaken for unoccupied. There wasn't even a coffee machine or water cooler.

What it did have was surveillance cameras, lots of them. Spread evenly throughout the area were small video cameras, leaving no corner outside the ever-present blanket of scrutiny. It was safe to assume the other departments would be similarly monitored. These cameras were probably not really watched by actual humans, since the staff needed to process this much data would be too large. It would take a few dozen people just staring at video screens all day just to make use of this input, and then there was always the question of who would watch *them*.

The cameras were probably there for archival and psychological value. It was almost certain they would be watching this video after they realized he had been here.

What sort of people worked in a place like this? Deck tried to imagine himself working in one of these featureless boxes under relentless surveillance and it pissed him off. It made him feel better about what he was doing.

As he passed through the cubicles he moved swiftly and silently. If there had been a human observer watching from one of the cameras, deprived of the view of Deck's feet by the low walls, they might have wondered briefly if he was skating. His body moved with a fluid and practiced grace, sliding from one end of the soulless corporate tomb to the other. He kept his head slightly low and his legs bent, so that his body was a coil of potential energy, ready to propel him forward if he sensed danger.

He reached the rear of the office space and found the executive elevator. It had no buttons, just a simple slot. Deck tried the keys on the the guard's keyring until he found a match.

The executive elevator was a mildly ornate box that hauled Deck up through the seemingly endless levels of the corporate spire without him needing to touch a button. The surveillance camera was conspicuous in its absence.

Deck stepped off of the elevator into the executive nirvana that was the sixty-fourth floor. The walls were done in genuine wood paneling, and the carpet was a thick shag that seemed to Deck to be a needless static hazard. There were no cameras here. Each door looked to be a featureless slab of wood, but was probably reinforced steel simply encased in wood. Beside each door was a flat black scanner, ringed in brass, inset tastefully into the wall. Small brass light fixtures were set into the wall, casting small, tight pools of light over various plaques and flattering paintings of old executives long gone.

He moved carefully now, pausing and checking around corners as he darted from one corridor to the next. As he approached his target his left hand slid into his breast pocket and retrieved a small homemade card the size of a TriOp employee ID. Deck had encoded

the magnetic strip across the bottom with data he believed would identify him as one of the high-level executives. He slapped the plastic card onto the featureless black scanner beside the door and it was accepted. The doors slid open to reveal a darkened office.

He paused for a moment to allow his eyes to adjust to the dark. There was mild light coming in the huge window that comprised an entire wall of the office. The light came mostly from below, as part of the ambient noise of the city.

The large flat screen on the desk blinked to life as Deck dropped his rig in front of it. A few seconds later it found what he was looking for – a network node. It negotiated with the node and connected him to the TriOp corporate network. The node would give him access to the massive communications hardware on the roof, which was the whole point of tonight's exercise.

He checked the time... 11:05pm. He was slightly behind schedule, but he had allowed for delays. He went to work.

He set up a simple program he had written called SECWATCH. It would run in the background, monitoring local network traffic, and would alert him if any of the building's security alarms were tripped. If the program detected something, he would have to escape quickly.

The goal was to connect to Citadel Station – the largest, longest running orbital structure ever created. It was designed, funded, constructed, and operated solely by TriOptimum Corporation. Citadel was the only such station to exist without the aid of any government-run space program, and it was also the only station to ever turn a profit.

Beyond the reach of international law, the orbital station was free to pursue any type of research the company saw fit. It attracted the most progressive scientific minds in the world, eager to free themselves of bureaucracy and ethics review boards. As long as their goals were beneficial to TriOp, they could draw all the funding they needed from the bottomless pockets of TriOptimum. There were no taboos, and no rules except one: make something profitable. Most of the money came from the sale of new medicines, weapons, and computer hardware. The various scientific and political bodies officially denounced the ethics-free research that went on at Citadel, but

were happy enough to benefit from the results once the work was complete.

Citadel was the home of humankind's first viral cure – a cure for a narrow set of nasty STD's that had been passing themselves around the great biomass of the human race for over half a century. The cure was impossibly expensive, and thus only available to people of developed nations and even then only with great effort. To the inhabitants of underdeveloped and third world countries – where indiscretion and lack of education spread the disease the fastest – the cure was unattainable. Thus the third world served as a giant petri dish for the virii, keeping them alive and available to occasionally spill over into the wealthy nations of the world who would have no choice but to again surrender huge sums of money in exchange for more of the cure.

But Deck wasn't after any viral cure – particularly not for a sexually transmitted one. His lifestyle as a hacker made him an unlikely candidate for such a thing. He was after hardware. A very expensive, exotic, and rare piece of hardware. It was something of a legend among the hacker community, and it had taken him a month just to prove the thing even existed. Acquiring this thing had consumed most of his time and money over the past three months. He had passed up a lot of jobs – some of them would have been really good money – because they would have interfered with his current project.

His goal was to access the inventory system and find out where these things went once they got planetside. Who bought them? For how much? From whom? If things went really well, he might try to fake an entry in the inventory system and have one simply delivered to an address where he could pick it up, but he certainly wasn't counting on having that much luck. More than likely, he would simply gather enough data to be able to punch a hole in the security wall and gain access the system from the outside. If he could gain outside access, then he wouldn't need physical access to a TriOp node the next time he made a run.

He hooked into the system and was instantly hit with his first layer of ICE. ICE was the protective layer of programs that guarded a system. It was designed to detect people who weren't supposed

to be there and make them go away. ICE had many ways of dealing with trespassers. Some would try to cut the hacker off from the system. Some would sound security alarms or notify authorities. Others would try to flood or overload the hackers connection with an avalanche of digital garbage, choking off their connection to their target. Other types of ICE were more devious. Some would make it appear as though access had been gained, when really the hacker was still blocked off from the system.

It took him ten minutes to get past the first layers of ICE so that he could function as a legitimate user in the system. The first program that surfaced was a pushover. He created a situation that caused it to crash, and then bypassed it before the system automatically restarted it. The next one was more formidable and began sealing him off from other parts of the network, limiting his access. The problem with this type of ICE was that it didn't seal itself off from *him*. Deck managed to confuse the program into attacking some of the other security layers, and it managed to punch a hole in the network for him before other ICE defenses shut it down.

Each layer was unique. Each one required a different trick or exploit to circumvent. He had spent years building up his repertoire of tricks and his software library, and he would need to use both to their fullest extent to punch through the defenses he would be dealing with tonight.

It took another fifteen minutes to create a new employee ID and give it all the access he needed. His new employee number was 2-4601, and his new password was a 256-bit string derived from background noise coming from the analog transmission to the local node. That was as secure as he could make it.

Time was always against a hacker. The longer you stayed in a system – even if you weren't doing anything obviously wrong – the better the chances you would be detected. Ideally, you wanted a job to be no more than half an hour for a system with standard security. For a higher security system, you needed to finish faster. Someone, sooner or later, was bound to notice the unusual amount of disabled, crashed, or confused software in the system and then it was time to start running.

After another five minutes he was finally logged in under the new I.D. He then accessed the inventory system and started searching. Every product ever produced by TriOptimum was in here somewhere, recorded in great detail. A moment ago he was locked out of the system, unable to access any information. Now he had the opposite problem: Too much information. Component lists, production costs, schematics, sales guidelines & brochures, sales history, production schedules, inventory figures, market research, license and support plans offered, patents used, legal notes, shipping guidelines, storage specifications, profit projections, gross margins, demand figures sorted by region (actual and projected), documentation (in dozens of languages), certifications required, cross-reference info for related products or services, ongoing research data...

Deck sat back for a second and rubbed his eyes. He was drowning in information. Somewhere in this ocean of data was one single item that interested him. He needed a way to cull the list and find only what he needed. The interface software was designed around the (usually safe) assumption that the user knew what the hell they were looking for and how it might be classified. It was attractive, user-friendly, intuitive, and completely useless to him.

After a few more minutes he found a way to circumvent the overly-helpful interface and access the database directly. The product images vanished and the screen dropped into a simple green-text console. He smiled.

He had no idea what this thing would be called, much less what part number it might be assigned. He had no direct way to even search for it. He did know that:

1. It must be very rare. Less than a thousand in existence would be a safe guess.
2. It would be insanely expensive. A million would be a conservative estimate.
3. Rumor suggested that it entered circulation in the last year or so. Therefore, it had probably entered production less than eighteen months ago.

4. He had no idea how it might be classified. Prosthetics? Consumer electronics? Cybernetic equipment? Medical technology? There was no way for him to know all the possible categories, much less which one he ought to use. However, he did know what this thing *wasn't*. It wasn't any sort of software. It wasn't a service. It wasn't medicine. It wasn't robotics. It wasn't any sort of storage media. He blocked out the items that fell into any of these categories.

He began filtering the inventory database through these criteria and came up with a list of fifteen hundred parts. He winced. That was still far too large a list to sort through. He jabbed the "clear screen" button to wipe the data from the display. The effect was more for his benefit than for the computer's. He needed to try something different, and this was Deck's way of clearing his mind and mentally starting over.

Just as the key clicked beneath his index finger a word on the screen caught his attention. The text vanished, leaving a glowing emerald afterimage in his eyes:

IMPLANTS

This was what he was looking for, although it hadn't occurred to him that it might be listed so explicitly. He ran a new search, this time looking for new, rare, expensive implants. The search came back with twenty-two entries.

Five were still in the early pre-alpha stage. Six more had been abandoned before they reached the production stage. Despite being relatively new, one was already marked as obsolete or discontinued. Three were not marked as "classified". Two more were obviously prosthetics of some sort. Another was tagged as being regulated by certain firearm laws and was therefore a weapon. None of these were what he was looking for.

Now he was down to a list of four parts that were all new, rare, expensive, classified implants. He checked the time. 11:45pm. He was running long. He had been in the building for over an hour. He should have left ages ago, but he felt he was getting close. He gave himself until midnight.

Out of the remaining list of four, two were listed as weighing over a pound, and were therefore unlikely to be what he wanted. He looked at the two remaining part numbers:

I-cit-323-cyb4512R

I-cit-323-cyb4512Rv2

The 'I' designated it as an implant. The 'cit' was the facility in charge of production (Citadel). He didn't know where the rest of the number was derived from. Then he realized that the part numbers were nearly identical. They were most likely the same thing. The 'v2' probably just designated the second one as a newer model. This was almost certainly what he wanted.

He cracked open the customer database to see who had been buying these things.

Suddenly the office was bathed in white light. Deck's heart jumped as he and the room around him were brought from almost complete darkness into the searing brilliance of a floodlight. An instant later Deck realized the light was coming from window. The piercing light moved across the room, making the shadows slide across the walls and floor.

Just as quickly, the light moved on. He realized that it had just been a helicopter sweeping past the office window. He took a deep breath and returned to his work. He was moving quickly now, his fingers flying across the keyboard as he sifted through terabytes of data. Another ten minutes passed.

More ICE blocked his way that needed to be either circumvented or cut. He eventually located the customers he was looking for, only to find they were generic, nondescript aliases that gave no indication of who they really were. None of them had addresses or contact info. None of them seemed to be linked to any other part of the system. More time passed.

He eventually gave up on the customers and simply explored what orders had taken place. The prices varied widely from one customer to another, but were always in the seven to eight figure range. The delivery location was always listed simply as "D'Arcy".

Deck ran some more searches to try and find out what sort of place D'Arcy was. A city? A warehouse? A department? A code

name for something else? More time passed. He checked the clock. 12:30am.

Crap.

He needed to be gone over an hour and a half ago. This was suicide. He was so close. Five more minutes.

Suddenly a message appeared on his screen:

Run.

Deck blinked. He had no idea who would be sending him a message like this. He traced it and found that it appeared to be coming from Citadel itself. This made even less sense. He checked SECWATCH anyway. All clear.

He ran some more searches for D'Arcy – there was simply no location called D'Arcy anywhere in the system.

Run. Now.

Deck shook his head. He didn't normally take advice from computer systems he was hacking, but he knew he had pushed his luck too far already. He needed to go, SECWATCH alert or not. Before he closed his rig, he decided to run a check on the local police to see if they had any alerts going.

There were several, but only one was important to him:

REPORTED: 08/20/42 - 12:15am

TYPE: Intrusion

LOCATION: TriOptimum Square

ACTION TAKEN: Multiple Units, Ambulance dispatched.

SUSPECT: Adult male, black clothing, armed + dangerous

LOCATION: TriOptimum Bldg. 64th floor

The building's security guards had simply called the police instead of tripping their local alarm. Deck wished he had set up a program to monitor elevator activity, because then he would know which way to start running. Too late for that now.

Even worse, he was dealing with cops instead of security personnel. Cops were much less predictable in their use of force and far more likely to use deadly force.

Deck shut his rig and took a small metal lipstick-sized cylinder out of his pocket.

Just then the door slid open. Before Deck could react, two cops swept into the room. By the time he saw them their weapons were trained on him. One advanced directly to the desk while the other flanked him from the left.

They were wearing hard-core cop gear. Their bodies were encased in lightweight armor, and they were wearing bulletproof helmets that provided high-grade night vision.

Deck looked down to see a laser-site dot pointed at the center of his chest. He could guess where the other one was aimed.

Chapter 3

Downward

“Hands on your head, sir. Step away from the desk.”, the cop commanded. His voice was harsh as it spat out of the helmet speaker. The lights of the city reflected off the polished black surface. “Do it now!”, he added when he saw that Deck was hesitating.

Deck hadn’t moved since they came in the room. He had just sat there, like a rodent in the headlights. He still held in his hand the small metal tube – an EMP grenade. It was time to see if this thing was worth the money.

He thumbed the detonator on the end of the EMP grenade as he placed his hands on his head.

There was a pop in his hand, and muffled cries of confusion from both officers. Deck counted himself lucky that neither of them pulled the trigger in panic. They stumbled back as their helmet displays died, leaving them completely blind. The screen on the desk winked out for good, and Deck cursed as he realized he had just toasted his rig.

In one graceful motion, Deck scooped up the burned-out rig and slid across the desk. The cop in front of the desk was the first to realize what was wrong and struggled to remove his helmet. Deck smashed him in the back of the knee with the corner of his rig – one part of the body where he wouldn’t have any armor.

Without the built-in helmet speaker, his scream was severely muf-

fled. By the time he hit the floor Deck was in the hallway and running.

Deck pulled the memory core from the side of the rig and slipped it into a pocket as he ran. He tossed the rig aside. He rushed forward to the doorway capping the end of the hallway. If his floorplans were correct – and they had been correct so far – this would be a fire exit. The elevators would probably be either locked down or full of cops.

The fire door slammed open as his momentum carried him through. A second later the tight springs of the door snapped it shut behind him. The stairwell was the same as every other emergency stairwell ever built. It was a narrow cement box filled with a crude set of metal steps that spiraled all the way down the side of the building. The stark concrete walls reflected the slightest sound and turned the entire shaft into an echo chamber. The railing was a hollow metal pipe covered in peeling white paint.

As he reached the first landing the door was again hammered open with a sharp explosion of sound and energy, as if someone had nailed it with a sledgehammer. Deck glanced back to see a 4-inch exit wound in the center of the steel surface.

He leapt down each short flight of narrow metal stairs. After two floors he heard the door slam open yet again and the stairway above was filled with the sounds of footsteps. Deck began opening random doorways as he ran downward, hoping to throw off or confuse his pursuers. They would never be able to hear his relatively silent steps over their own hard-soled boot stampede. They would hear the doors opening for each floor, and be faced with the choice of stopping to examine each floor to look for him or risk blundering by him if he left the stairwell.

He was probably gaining ground and widening the gap between them. They would not be as swift as he was under the best of circumstances, and right now they were burdened with body armor and some heavy-duty weapons hardware. Also, one of them was probably dealing with a severe limp. But Deck knew he couldn't hope to simply escape this way. There would be more units on their way up the stairs to meet him, and if he stayed on this route too long he would get sandwiched. He stopped opening doors and just con-

centrated on getting more distance between himself and his pursuers above.

The pounding from above stopped and Deck slowed down. They were probably standing still, listening for his footsteps. He returned to the graceful, smooth walk he had used earlier. He heard voices from above as the cops whispered between labored breaths. Deck wondered how many levels he had between them. The footsteps began again from above, but more steady this time. They were pacing themselves, trying to keep the noise level down so they could hear him opening doors.

Most of the doors in the building were of the modern, sliding variety. However, law required that emergency doors be equipped with breaker bars, and be operable without power. Thus the emergency doors were massive, hollow steel beasts that thundered when they were thrown open. Deck wondered if they could be opened quietly. He slowed as he reached the next landing and gently pulled the door. If it made an audible sound, he would throw it open the rest of the way and continue downward.

It was almost silent, just a small creak. Deck hesitated, then slipped through and eased it gently closed. It made a soft thud as it sealed shut. He hesitated again. Would they have heard that?

He still seemed to be in the upper echelons of the company. The walls were a lower grade of wood paneling than he had witnessed on the sixty-fourth, but the carpet was still deep.

Deck frowned as he spotted video cameras tucked away in various corners. He knew there was nothing he could do about that. The only comfort he had was that they couldn't possibly watch all the cameras at once, so there was still a chance they might miss him, particularly if they didn't know what floor he was on.

His current floor seemed to be combined with the one above. Even though the lights were dim, he could see that the ceilings were two levels high, and there was a balcony running along the wall above him. To his right was a restaurant style dining area, with a long table in front that was presumably to hold the catering. To his left was a large conference / meeting room. On one of the tables inside, Deck could see a scale model of Citadel Station. Its three

meter frame dominated the room as its many arms reached out from beneath its immense upper dome, like a great steel jellyfish.

He proceeded down the corridor and made an arbitrary left. He didn't know where he was going, but he at least wanted some distance between himself and the stairway. On his left he saw conference rooms of varying sizes and styles, while on the right was a small-sized auditorium that might seat a couple hundred.

Most of the level seemed to be made of open areas, or areas walled in glass. There did seem to be a few rooms that might offer hiding places, but they were behind closed, featureless doors with a black panel set beside them, much like the doors on the executive level. His counterfeit card would probably grant him access, but if the police were worth anything they would certainly be watching for things like executive cards being used. He would just be advertising his position.

He arrived at an intersection and went right. He was aiming for the opposite side of the level where he could access the other set of stairs.

He had no way of knowing what floor he was on – he had neglected to count on the way down. His best guess was that he was somewhere in the high forties. It wouldn't matter much if he did know – he hadn't bothered to study much of the layout between the first and sixty-fourth floor.

At the next intersection he made a right and spotted two open, darkened rooms.

Bathrooms.

It was hardly a creative hiding place, but it was relatively dark and it didn't have any video cameras.

The absence of urinals suggested he had chosen the women's restroom. Not that it mattered. The whole bathroom was decorated in tasteful black and white ceramic tile, with all of the plumbing fixtures in brass.

He leaned up against the pristine marble countertop, breathing heavily. He hadn't stopped moving since he fired the EMP and he needed a rest. Deck looked around and sneered, wondering for a moment if more money was spent decorating this one bathroom than

was spent decorating the entire office area on the first floor.

He ran some cold water in the sink and splashed it on his face. He knew he needed to think of something, to form some sort of a plan of escape. He had several ideas, but they all had being on level ten or lower as a prerequisite. He was going to need to somehow reach the lower levels without using any of the elevators. That meant using one of two known sets of emergency stairs or finding another route that wasn't mentioned in the floorplans he bought.

In an older building he might consider using the elevator shafts, but the TriOp building was new enough to have defenses for dealing with that sort of nonsense.

He closed his eyes and tried to imagine what they would be doing to search for him. They had almost certainly set up shop in the security station on the third floor. What would he do in their position? If he was searching a 64-story building for a single individual, he would lock down all of the elevators but one, and use it to send two teams to the top. From there, they would move down the staircases while another pair of teams would begin from the bottom. The main floors then would be watched with video cameras.

He knew they were determined to use deadly force. This made things easier for him, since he didn't have to worry about committing further crimes in the process of escaping. He was either going to escape or die. He had only been in this situation once before, and he found it both terrifying and liberating. From now on, there were no crimes he could commit that could make his situation more dire.

Fear. That was his enemy now. Fear would cause him to choke if he was cornered, and that would get him killed. He had choked back in the office when they surprised him, and it was only by luck that he had even been holding the EMP.

How many were there? Where were they looking?

He realized he might be able to eavesdrop on their chatter using the vox he had lifted from the guard in the lobby. He retrieved it

from his pocket and lowered the volume so that it would be just barely audible.

After a couple minutes of silence he began searching other channels. Most were blank or uninteresting to him. Many of the channels featured the standard emergency / rescue chatter that was simply part of the background noise of a city. He continued to cycle through the channels until he found one that seemed to be a series of short garbled bursts that could only be encrypted transmissions. The TriOp security communicator obviously didn't have the key needed to decrypt police transmissions. Deck probably could have cracked it himself if he still had his rig. He put the vox away.

He had no way of knowing where they were or what they were doing. Waiting around was only going to give them time to close in on him. Attempting to use the elevator would advertise his position, so he decided to try the stairs again.

He dropped into his familiar rhythm of movement, gliding along the corridors, slowing for just an instant at each intersection to make sure the way was clear.

He passed a pair of elevators and checked the display. He was on the fifty – third floor. Deck frowned. It had felt like he descended a lot more than eleven levels. One elevator was sitting at the bottom, the other was just a few floors down and on its way up. Somebody had obviously figured out where he was and they were coming to pick him up.

He thought of the gun he was carrying, but that was out of the question. He couldn't hope to win a firefight if there were more than one or two of them.

His hand dove into a pocket and got a flash ready. He had a grenade, which would also do the job, but he needed it to get out of the building, and he really didn't want to blow up an elevator full of cops.

He stood beside the elevator with his back to the wall. The elevator reached his floor and chimed. He popped the flash, chucking it in the doorway as it slid open. With the other hand, Deck covered his eyes as he looked away.

The flash went off and brilliant light engulfed the corridor. The

world turned pink for Deck as the intense burst of light passed through his hand and stung his eyes.

He removed his hand and found that his eyes were a bit dazzled, but working. He peeked into the elevator and saw that it was empty. The doors slid silently closed.

Crap. Who had just sent him an empty elevator? Deck realized he had just wasted a lot of time and a very expensive flash, and all he had managed to do was mess up his eyes for a few minutes.

As he moved away, the elevator chimed and opened its doors again. The down arrow blinked repeatedly.

Deck took off running and headed for the nearby stairwell. Halfway down to the next level he began to think that someone obviously knew where he was. He determined to cross over on the next level to the opposite set of stairs in hopes of throwing them off.

He swept down the stairs and opened the door in a single swift movement. As the door swung open he found himself facing a pair of equally surprised cops. The pair was a mere three meters away from him. There was a subtle pause where both parties seemed to wonder what was going to happen next. Deck acted first this time.

He stepped back into the stairwell, bringing another flash out of his pocket. He popped it and dropped it on the landing as he tossed himself down the stairs. The cop in front had just drawn his weapon when the flash went off.

The pop was punctuated by cries of pain and dismay. These cops had either decided not to wear helmets, or had learned of the EMP Deck had used earlier and had elected to remove them. In either case, their eyes were completely unshielded when the intense explosion of light filled the doorway.

Deck had done his best to shield his eyes, but this time he was facing the flash, and only a couple of meters away. The dingy white walls of the stairwell reflected the light more efficiently than the dark wood paneling of the floor above, so Deck absorbed a much bigger dose this time around.

The shock of the flash threw him off balance, and he slammed into the wall at the bottom of the stairs. The air was knocked out of his lungs and he slumped to the floor. He pulled his hand from his

eyes and saw that his vision had taken a nasty hit, but he could still see. Everything looked dim and pale, and his vision was flickering like some cheap display screen. He groaned as he picked himself up. His right hip and shoulder had absorbed most of the impact and they were numb and tingling.

He forced himself onto his feet and back up the stairs. He needed to deal with the cops before he moved on.

One cop was on his hands and knees, his eyes opened wide and darting around but unable to see. His weapon was still in his hand. His blindness would last for hours or perhaps days. The other one was laying on his side, vomiting.

Deck unhooked the keychain stunner from his ring of keys, so that he just had the plastic handle and metal prong. He jabbed it into the spine of the first cop and zapped him.

His victim flopped forward with a grunt. Deck then jabbed the other cop and zapped him too, but the stunner had run out of charge. The cop just convulsed a bit and went back to throwing up. Deck shrugged. That was close enough for him. He lifted their vox units and pocketed them. He left them with their weapons since they would both be too blind to make use of them, and he didn't want to carry any more hardware. Without a vox or the ability to see, they wouldn't be able to tell anyone where they were or what had happened.

Instead of a weapon, the second cop was holding some equipment. It looked like a stripped-down rig hooked up to some sort of camera. Deck didn't know what it was, but he was guessing it was something to help them look for him. Perhaps a thermal camera. The rig was too primitive to be of use to him, so he left it there.

Deck's eyes stung and watered, and tears ran down his face. He kept rubbing them in a vain attempt to clear them, but his vision remained darkened and flickering.

He needed to get moving.

He sprinted full speed across the level, ignoring caution and stealth. By the time he reached the stairwell, his hip and shoulder had begun to throb, and his movements had become heavy and uneven. He knocked open the door and began a long spiraling trip

downward. This time he kept count. He needed to cover at least forty floors before he could think of leaving the stairs.

After ten floors his hip was in agony and he had to slow his pace. He could feel his shoulder stiffening up as well. Ten floors later he needed to rest. He came to a stop at the landing for the thirtieth floor. He wiped the sweat and tears from his face with his left hand and then combed the sweat out of his hair with his fingers. He missed his shaved head.

Deck leaned against the wall, breathing in short, uneven gulps. Every time he expanded his chest, pain shot across his shoulder and up his neck. His need for air and his aversion to the pain played tug-of-war with his breathing patterns.

He realized that he wasn't getting out of there. He had come to this conclusion at some point during his run down the stairs. There was just no way he was going to escape though the net of police that was surely making its way up through the building. For him, it was no longer a question of how he would escape, but how far he would get before they brought him down. This gave him a kind of sick desperation that fueled him onward. He was no longer running for his life – he was already dead. Instead, he was running out of spite, out of sheer stubbornness and vengeance. They were going to get him, and he was going to make them work for it. He was going to see how far he could get before they stopped him. Nescio had been right after all.

He decided to shed some of the extra weight that had been dragging on his suit. He pulled out the UIU and tossed it. He dumped the useless TriOp vox he had been lugging all over the building for no apparent reason. He dumped the two police vox units he had picked up several minutes earlier. He dropped the few spare parts he always carried for his rig, his duct tape, and a couple of blank phones.

He looked at his reel of fiberline and decided to keep it. Just in case. The same went for his knife. Both of them were fairly light

anyway.

Deck considered the gun. It was heavier than anything else he had dumped, but it also had the potential to let him last a bit longer. He didn't have any spare ammunition for it. He decided he would keep it until it ran dry.

Deck looked at the pile of junk on the floor and realized he hadn't tried the police vox.. Shaking his head in disbelief, he picked one up and switched it on.

"Floors thirty-four and thirty-five clear. Starting our run on thirty-two and thirty-three."

"Roger that."

Deck smiled. He couldn't tell who was talking, but he would at least know what was going on. Somebody was obviously just a few floors above him. He wondered if he should try to double-back to floor thirty-four now that they thought it was clear.

He stood up straight and paced back and fourth. His hip was really stiffening up. He needed to get moving while he could still run. His breathing had almost returned to normal, and his vision had improved slightly.

He took the vox and clipped it to his shoulder.

"Floors thirty-two and thirty-three clear"

What the hell? How had they swept two entire levels that fast? Perhaps there were multiple teams of units on multiple floors...

"Beginning sweep of twenty-nine and thirty"

Deck hesitated. How were they "sweeping" the levels? The stairwell was empty and he hadn't heard anyone above or below him changing floors.

"Base?"

"Go ahead."

"You have anyone in the south stairway on thirty?"

"Negative."

Deck's eyes widened.

"Then I've got him."

"Acknowledged. We have a team en route. Which way is he heading?"

"He's not, the target is stationary."

Deck lunged down the stairs.

"Woah! Target is moving now... heading down."

"Roger that."

Deck hit the landing for level twenty-nine.

"Passing twenty-nine... still going down. It looks like someone must have nailed him. He's limping badly. I'm still with him... passing twenty-eight... twenty-seven..."

Deck continued his descent while the voice continued to broadcast his every move. He had no idea who or what was watching him. There were clearly no cameras in the stairwell, so it must have been someone on the outside.

"Okay, our men are on level twenty. Heading for the south stairwell."

Deck hit the landing for floor twenty-three.

"Better hurry, he's moving fast."

Deck cursed the unseen voice. Who was it? Where were they? How were they watching him?

"Roger that. Almost there."

Deck hit twenty-two.

"Gonna be close. Target just passed twenty-two."

Screw it, Deck thought. If he was going to have a crowd bust in on him, he was going out with a bang. He slipped the grenade out of his pocket and held it in his right hand, ready to go. He was jumping most of the stairs now, despite the explosion of pain he experienced every time he landed. He passed the door for floor twenty-one.

"Here he comes."

He hit level twenty and kept going. His legs were in agony. His lungs burned. Tears streamed down his cheeks again.

As he rounded the corner, the door above slammed open and the stairwell filled with the sound of echoing footsteps.

"Your team just missed him, he's just above nineteen."

"We have units on the way up from ten."

Deck changed his mind and exchanged the grenade for his last flash. Doing so slowed him down a few steps. Above him he heard voices yelling and radio chatter from some channel he wasn't getting.

"Man, your guys are right on top of him."

Deck popped the flash and dropped it as he ran.

"Woah! What just happened? Half your team just went down?"

"I can't tell, they're all yelling at us at once. Wait, it sounds like... Yeah, the target dropped another blinder on them."

"Roger that."

Deck was in too much pain to enjoy his little victory. The flash had gone off a level above him, probably in the middle of the pack of cops. The stairway was instantly filled with screams and profanity as they toppled over each other.

Deck heard footsteps coming up from below.

"The second team is on thirteen."

"I see them. Target is still descending."

Deck exited the stairwell onto floor fifteen.

"Base, target has exited the stairway onto level.... looks like level fifteen."

Deck burst through the door and found himself in a carbon copy of the first floor office area. There were cameras everywhere.

"Use caution, you don't want to get hit with another blinder."

"Roger that. Our team is ready for it."

He stumbled over to a nearby desk and fell across it, gasping from both the lack of oxygen and the pain his injury inflicted on him for each breath. His hip was a nexus of pain and every step felt like he was tearing something new. He needed some distance between himself and the team on its way up the stairs.

On a whim, Deck grabbed a chair and jammed it under the breaker bar of the door. He didn't have any idea if that would hold them or not.

Deck knew he was almost done. His lungs had never, ever burned this bad. He wondered if he was going to vomit. He headed for the closest doorway he could find, anxious to escape the open area.

"He's heading deeper into the structure now. I'm losing him... I'm gonna change position and see if I can get him back."

Deck had to slow down, his body was giving out on him. He paused at a nearby desk, leaning on it as he panted. He drew in sporadic gulps of air as he wrestled with his burning thirst for oxygen

and the stabbing pain in his shoulder. Suddenly the screen on the desk lit up.

2-4601:

He blinked. The monitor wasn't even connected to a local machine.

Elevator is empty. Use it.

He glanced up to the nearby elevator. It was on its way up.

He drew his pistol. The elevator may or may not be empty, but someone definitely knew where he was. As the elevator came to a stop, he crouched behind the desk and leveled the pistol at the door. He tried to steady his breathing. His hands were shaking.

The elevator chimed and he fired six shots through the doors, trying to cover all the corners where someone might be hiding.

The doors slid open to reveal the perforated back wall of the elevator.

Deck had no desire to trust the anonymous messenger who seemed to be sending him elevators. There was nobody in the world that would be both willing and able to provide this sort of assistance to him. He could only assume it was some strange tactic the police were employing. Nothing would make their job easier than for him to just jump into an elevator. Anyone in the security station could then override the controls and send him wherever they wanted.

As he knelt by the desk, he thought for a moment that he might feel better if he threw up, but he didn't have time to wait for it to happen.

He could only assume jamming the breaker bar on the fire door had held them, otherwise he would have been overrun by now.

He picked himself up and got moving again. The corridors were a homogenous blur of identical offices and clusters of cubicle spaces. Nothing had any identity, any distinctive markings. There was nothing to even let him know he was really progressing from one side of the building to the other.

He rounded a corner and found himself in a corridor walled on one side with windows and offices on the other. At the midpoint of the hallway was another pair of elevators. As he ran out in front of the window, a light shone though and pointed directly at him.

"Base, I have reacquired the target."

Deck stopped and turned to see a helicopter hanging in the air, just outside the window. The thundering of the blades was slightly muted though the windows.

"You got him?"

"He's on the west side, looking right at me through the windows."

"Roger that. I don't know how he got past our cameras."

Deck sneered into the blinding floodlight as he finally beheld his tormentor.

The voice returned, "He looks bad. You really ran this guy down."

"Acknowledged. What's he doing?"

"Target is not active.", there was a brief pause before the pilot added, "He's just staring at us like a moron."

"My team will be there soon. I think we've got control of the elevators again."

Deck glanced over his shoulder to see that one of the elevators was on its way up.

Deck whipped out the pistol and leveled it at the cockpit. He squeezed off two shots. The window in front of him cracked and bent under the force of the bullets, but held firm.

The helicopter broke onto the channel in a fit of laughter, "Base, target is firing on us."

"Say again?"

There was more uncontrolled snickering, "Target has initiated hostilities with an attack helicopter."

"We have him boxed in. You are cleared to pull out."

"Negative. A sidearm is not a serious threat to us." There was a short pause before the pilot added, "It can't even shoot through the structure windows."

"Roger that."

Deck gave him the finger and was answered with more laughter.

Deck was gasping for breath. He felt defeated, humiliated, exhausted. He found himself wishing they would get their act together and finish the job.

"I've got units coming up the north stairs and the elevator. The rest are trying to pull the hinges on the south doorway to gain access. We got him."

Deck considered hitting the north stairs and heading up, since there didn't seem to be anyone in that direction, but he decided he would rather shoot himself than run any more stairs. Besides, even if he was up for the run, he needed to go down, not up.

Deck looked out the window to the city below. He could make his stand here and see how much damage he could do before they stopped him, or he could pretend he was on the tenth floor and execute his escape plan anyway. He was five stories too high and the drop would probably kill him, but the idea appealed to him a lot more than a bloody gunfight.

He pulled out the grenade, armed it, and dumped it on the floor in front of the window he had just shot. He turned and ran.

The helicopter cut in, "looks like he's heading back the way he came."

The grenade detonated and blew out the window in front of it, along with its neighbor.

The climate-controlled air of the office exhaled out into the night. The cold, humid outside air rushed through the office, propelled by the blades of the helicopter. The wind drove through the corridor, stirring papers and debris already thrown by the explosion.

The vox barked out more chatter, but Deck couldn't understand it over the wind, the helicopter, and the ringing in his ears from the explosion. The rush of displaced air died down as the sound of the thumping rotors grew distant. This was as good a chance as he was ever going to get.

The fiberline was actually a ribbon of high-strength cable only a few centimeters wide. Fiberline was strong enough to support an adult with only a few dozen strands, but the extra width was needed to provide a good braking surface. He hooked one end of the fiberline to the pockmarked window frame. The fiberline was already threaded through his suit. He just grabbed the brake and dove out the window. He didn't even look down.

He repelled downward in large, sweeping strokes. Each time he

touched down on the side of the building, the impact created a spear of pain that shot from his right hip, traveling up his spine.

He had allotted himself enough line for a ten-story drop, plus slack, plus a little extra 'just in case'. In the back of his mind, he hoped he had made some large error and taken too much, possibly enough to traverse fifteen floors. He knew this wasn't the case, but it was enough of a fantasy to let him keep going.

Deck reached the end of the line and simply dropped off.

The impact with the ground was surprisingly soon, and predictably brutal. The already damaged parts of his body cried out on touchdown, and he bounced the side of his face off the rough gravel surface underneath him. Deck went from wondering how he was still alive to wondering how he was still even conscious. He wavered on the edge of blackout for a moment.

His stomach finally decided that it was time to puke. He rolled over onto his side and retched several times, but all he came up with was impotent dry heaves.

Deck lay motionless, catching his breath and staring up at the sky. He wondered how long he could lay there, sprawled out like a swatted bug before they found him. The cool night air washed over him, chilling the sweat that clung to his body. For a long moment his injuries seemed distant and unimportant.

Far above, near the top of the building, the helicopter was moving back and fourth over the face of the structure, pointing inward. The noise of its blades were just a murmur at this distance. All else was silent. Above, the sky was a dark, featureless ceiling of black. Clouds had rolled in and covered the city in a dark canopy. It was cooler than it had been when he arrived here a few hours ago.

He should have hidden the body of the first guard instead of running off. TriOp security probably discovered the guard soon after Deck left him. He had stayed far longer than was safe. He had underestimated almost every security system he encountered this evening. He panicked when the cops burst in on him the first time. He hadn't studied any of the internal layout of the building between the top and bottom floors. He hadn't thought to check the police vox until it was too late. How many rules had he broken this evening?

The entire night had been a series of blunders, reckless gambles, and and rookie-level mistakes. It should never have come to this.

He closed his eyes. This was an unproductive line of thought. He would have plenty of time to second-guess himself if he ever got out of this.

A cool breeze rolled over his face again and he opened his eyes. He noticed that it didn't look as though he was actually fifteen floors down from the blown-out windows.

The fiberline was too thin to be seen in the relative darkness, but Deck judged he couldn't have fallen more than three or four meters. While still a hard fall, it was nothing compared to the two or three floors he expected. The padding in his bodysleeve had absorbed a lot of the blow as well.

He struggled to sit up and figure out where he had landed. He didn't even know what side of the building he was on. He seemed to be on some sort of lower roof area. The surface underneath him was a mix of blacktop sealant and coarse white gravel.

The helicopter was on its way back down to the gaping wound on the fifteenth floor. It had apparently missed his dive in its absence, and was sweeping across the front of the building as it descended. It was anyone's guess as to whether or not it would be able to spot the thread of black fiberline running down the length of the building.

He pulled the bloody gravel from the side of his face and stood. He noticed that the vox had been smashed in the fall. He pulled it from the straps on his suit and let it fall to the ground.

Looking over the edge, he saw that he was on top of a two-story block protruding from the side of the main building. The surface of the windows curved out of view, promising a gentle slide followed by a sheer drop. The protruding windows made it impossible for him to see the ground directly underneath, so he had no idea what sort of surface he would find at the bottom.

He found himself wishing there was some way to recover the fiberline he had just used. Just a few meters of it would be more than enough to see him safely to the ground.

There was no use in waiting. Deck eased himself onto the smooth convex window surface and began to slide down. He tried to limit

his speed by dragging his palms against the window, but his hands were lubricated with fresh blood and sweat. As he slid past the point of no return, he spotted a narrow ledge below him, where the curved windows joined the vertical window below. He grabbed for it and almost took hold, but the hours of abuse had stolen his strength, and his grip failed.

He slammed into the concrete ground a few meters below and he felt something pop in his left ankle, followed by the side of his face slapping the sidewalk. He lay there, crumpled and broken, hovering on the edge of consciousness.

Deck was piled in the shadows clinging to the side of the TriOptimum building. He was on a narrow sidewalk of some minor street. While not exactly an alley, it was as close as you could get in Uppernet. The only illumination came from the lights on the adjoining streets.

A police car turned the corner and headed his way.

He was completely unable to stand, much less run. He wondered if they would still shoot him now that he was obviously helpless.

Probably.

The police car passed him without reacting. It either failed to notice Deck lying in the shadows, or mistook him for some homeless wretch.

Another car turned the same corner and followed the same path. It was a sleek black sedan with opaque black windows. It proceeded silently up the street and stopped in front of Deck.

The door opened to reveal a pair of guys in TriOp security uniforms. They grabbed him and chucked him into the back. The car pulled away.

As he passed out he heard a voice from the front seat, "Idiot. Should have just taken the elevator."

Chapter 4

The Undercity

The Undercity was named for its dwarven buildings that stood at the feet of the giant skyscrapers in the neighboring parts of the great urban network. It was a crater in the shining face of a city otherwise populated by magnificent structures that strove for the heavens and shone in the sun. The buildings of the Undercity were short old concrete cubes, arranged in uneven clusters and separated by narrow streets and dirty alleys. New Atlanta had never been any more successful at ridding their city of crime and poverty than any other major metropolis, but they had managed to compress it into the very small, concentrated area of the Undercity. The surrounding city was driven by both a need to expand and an aversion to crime and poverty. These two forces formed a sort of surface tension, preserving the aged, filthy, landscape of the Undercity in a bubble of social and economic forces.

Organized or not, virtually all criminals had been well-armed until the government released its so-called “Peace Sentries” in the early fifties. They were automated drones that roamed the city, scanning the crowds, able to spot the telltale metallic signature of a weapon through solid concrete. Suddenly every concealed weapon became a beacon, announcing the owner’s position to any police drones within a three-block radius. What followed was a chaotic year of massive

arrests and desperate gunfights as the criminals fought to keep their weapons. Their primary tools for doing business had suddenly become a deadly liability. Within eighteen months most criminals were in jail, disarmed, or dead. Entire criminal organizations, deprived of the weapons they needed to defend their interests, evaporated overnight. Urban life was forever changed.

Like any Darwinian model, there were always a few that managed to adapt in time to survive. Criminals with no weapons don't suddenly turn into investment bankers. Most fought and died trying to protect their particular way of earning a living, but many of them – mostly the younger generation – evolved in time to survive. Their organizations became small but fierce clans armed with customized plastic and glass knives and trained in martial arts. They gravitated to the pizza parlors, bars, and dojos of the Undercity. "Self defense" training franchises exploded in popularity, dotting the face of the city like teenage acne. A new breed of criminal emerged before the old was fully extinct.

Deck emerged from the subway into the evening glow of the Undercity. The sun had long since dipped below the mountain range of high-rise structures in the distance, and the light of day was slowly giving way to the harsh glare of streetlights and glowing neon. He hurried up the street past the filthy storefronts, strip clubs, and micro-casinos.

His destination was Actio's Pizza. Most businesses in the Undercity were fronts for some form of criminal activity. Mercenaries, gambling, drugs, weapons: All of them made their homes behind, below, or above the dirty storefronts that filled the city. Actio's was no different.

The street traffic was always light here. Only a small portion of the population had both the money to purchase a car and the means to defend it. Thieves would avoid the luxury cars owned by high-ranking members of the various clans, because of the dangers inherent with angering the disciplined and often violent owners. Thieves also ignored the cars at the other end of the spectrum – vehicles so old and worthless that they could never be worth enough to pay for the time and trouble required to steal them.

The sidewalks teemed with activity this time of night. Most of the vice-oriented businesses were just getting started, and the strippers, dealers, bartenders, prostitutes, and bouncers of the city were on their way to work for the evening. Other businesses – check cashing, dojo franchises, pawn shops, and body shops – had closed for the evening and were now sending people home before the streets became too dangerous.

Like packets on the global network, it was impossible to track them all, but they each knew their destination, and arrived there.

The police stayed in their armored cars, cruising through the streets behind a Peace Sentry. Just getting out of their cars would cause the crowd to scatter. When the police got out of their cars, it usually meant armed and violent conflict was to follow. The police were the only ones with guns, but clanners were viscous and cunning, and managed to keep the casualties nearly even.

He moved quickly down the street, keeping his eyes open and his body loose and ready for conflict. The streets of the Undercity were dangerous enough on a typical night, and tonight he was dressed like an executive type from Uppernet. This made the chances of him encountering trouble exponentially higher.

Actio's Pizza was a cramped alcove facing a minor street. It was decorated in faded red and white in a halfhearted attempt to create some sort of Italian theme. It featured a modest three tables, shoved up against the outer wall and each flanked by a pair of usually empty chairs. Actio's was all about delivery.

He passed through the deserted dining area and went into the thick, humid haze of the kitchen. He stayed well clear of the cooks, while earning more than a few odd looks for his unusual attire. At the back was a worn wooden door, flanked by a pair of women. They looked like any pair of college-aged slackers, slouching against the wall, seething with attitude and boredom. As Deck approached, they were suddenly animated. Their young, sleek frames rose to block his advance. They adopted loose fighting stances and glared at him.

They were both in their early twenties, healthy and hardened by their profession. The one on the left was dressed in a loose-fitting

black outfit. Her hair was bleached pure white, and she seemed to have makeup on to make her complexion more pale. Her top lip was a stripe of brilliant crimson lipstick, while the lower one was coated in a deep lavender. Her eye makeup was red eyeshadow over impossibly lavender pupils. She stood sideways, holding a small plastic tube that looked almost like a slender flashlight. Deck had never seen it in action before, but he was guessing it telescoped into a fighting staff when the need arose.

The other guard was at least partly Asian. She was dressed in loose, black pants and a white lycra top. She had applied her lipstick in a pair of intersecting lines, so that if she were to kiss someone it would leave an "x" shape behind. Her long black hair was drawn back into a ponytail. At her side hung a plastic Wakizashi, trimmed with a slender ribbon of metal to provide the cutting edge.

Deck hated these two. He came here every few weeks, and yet each time they acted as though they had never seen him before, and treated him like a potential assassin. What were their names? Sarah, Sandra, Sally? He couldn't remember exactly – much less care – but he knew they had similar-sounding names and he could never remember which was which.

"Hey, I'm here to see Nomen Nescio."

Without speaking blonde stepped backwards and entered the door, while the other one moved to the center to guard it alone. In a few moments the blonde returned.

"He says you don't have an appointment", her voice was a mixture of west-coast attitude and Japanese accent.

Deck had spent a few years in the Ryobu-Kai Dojo before he became a professional hacker. He was confident enough in his skills to walk the streets of the Undercity at night without a weapon, but he knew better than to pick a fight with these two. They had probably spent the bulk of their lives training to fight, and even one-on-one, unarmed, he would never stand a chance.

He opened his mouth to protest.

"But he says you can go up anyways", she fed him a mocking smile.

"Yeah, I know", he said, as he stiff-shouldered her on the way to

the door. She could kick his ass, but not without Nescio's permission.

Nomen Nescio was six feet of hard-core Undercity businessman. He had spent his youth as one of the most unstoppable hackers the residents of Uppernet had ever had to face. Nobody could keep him out. He had never served prison time. On the exceptionally rare occasions where he was caught in his career, the worst anybody could hit him with was illegal entry – and nobody served time for that anymore.

About a decade ago, Nomen had hooked up with a girl and announced he was retiring. He dropped off the face of the hacker scene and later opened up Actio's Pizza. That seemed to work out for a year or two, but eventually his ties to his old profession brought him back. He began acting as an agent for the next generation of hackers. He set up his office above the pizza place where he acted as agent, mentor, arms dealer and fence, while his girl ran Actio's.

Deck walked up the creaky, narrow stairs to the office. The heat from the ovens downstairs rose upwards, filling the small, cramped room with more heat than any simple air conditioner could contend with. The office was a mixture of the advanced and the antique. Computer equipment was heaped in one corner in front of large, dusty bookcases, filled with thick textbooks Deck had never bothered to investigate. The heat and humidity were natural enemies of both books and computers, and yet this is where Nescio made his home.

Nomen Nescio sat behind an old, abused oak desk. He was smoking an unfiltered cigarette, which had filled the top two feet of the room with a thick layer of smog. Sweat glistened on his smooth black scalp. He was a little over forty. His thin, serious face had just begun to crease. He conducted himself with careful confidence – always in charge, but never flaunting his power. He was a man who had survived for two decades in a business that devoured most people within months. He was careful about what sorts of jobs he took, and even more careful still about who received them. He didn't wear a shirt. He smoked with one hand while typing with the other.

As Deck entered, Nomen look up from his work and greeted him,

"Deck, son. Welcome." He smiled a broad smile, revealing brilliant rows of perfect white teeth like the Cheshire cat. "I wondered what to expect when Sabrina told me some suit was in here looking for me."

Deck glanced over his shoulder to see that the blonde had actually followed him up the stairs without him noticing. She was behind him, standing ready in case he suddenly did something threatening. As Nomen nodded to her, she faded back into the stairwell.

Deck moved to one of the hard wooden chairs that faced the main desk. He was always in a hurry to get his head below the choking layer of smoke. "It's a good thing remembering faces isn't part of their job."

Nomen shrugged, "You're looking good, aside from the ridiculous outfit. I assume this is part of a disguise and not indicative of some career change on your part?"

Nomen's speech was a strange blend of street talk and college-educated discourse. Nobody had ever found out his real name, much less where he went to college. (Investigating the background of a fellow hacker was considered a very threatening and hostile thing to do.) It was anyone's guess as to why an intelligent, college-educated man was working the Undercity instead of earning easy money in the corporate web of Uppernet.

Deck shook his head. "No career change. You have the stuff I asked for?"

The smile disappeared. "You're in a hurry. Too much hurry."

"Sorry, It's just that I need them for this run I'm making tonight."

Nomen frowned, "I've got a job for you, I think you should take it."

"I've already got a job."

The smile returned, "No Deck, you've got a hobby. It's not a job until you get paid to do it."

Deck looked away, "This is gonna pay off. It's just taking a while."

Nomen rebuked him with a laugh, "When you started this project three months ago you said it would take you a couple of weeks. A month ago you said you'd be done by the next Friday. How far are

you from being done now?"

"I need to do maybe one more run." He paused for a few moments while Nomen continued to smile to him. Finally he drew a breath, "Well, maybe two more. Probably two more."

Nomen leaned forward and lowered his voice, "You haven't had a paying job in three months. There is no way you are going to last long enough to make two more runs."

"I've got my hands on some money, I can pull it off."

"Yeah, I found out about that. Some of the Miyamoto clan stopped by, looking for you"

Deck's mouth went dry. He had known in the back of his mind this would happen sooner or later, but it was still a shock when it finally did. "What did they want?"

Nomen's voice became even more agitated, "What do you *think* they wanted? What were you thinking, borrowing money from those psychos?"

Deck stared at the dusty stuff on his desk and ignored the question.

Nomen leaned back in his chair, "Most hackers start out reckless and then either wise up or crash and burn. You started out wise, and now that you're growing up you are getting set to self-destruct. You know I retired from hacking when I was about your age? You are getting way too old to act like this."

"I'll get them their money once this job is over."

"You know if they come here again I can't protect you."

Deck nodded.

"My girls are tough but they can't take on an army, and I wouldn't risk them defending your fool ass in this case anyway." Nomen locked eyes with Deck and pointed his cigarette at him, "If they ask me questions, I'll answer them. If they want your address, I'll have to give it to them. Do you understand?"

Deck nodded again. Nomen was telling him he needed to move soon, and not leave any clues about where he could be found – unless he wanted to die in his sleep at the hands of Miyamoto assassins.

"So, I think you should put your pet project on hold and do something a little more lucrative." Nomen leaned further back in his

chair. It creaked loudly as he shifted the center of gravity backwards. It had once been a fine, high-quality leather executive chair, although it was quite old and abused now. He took a huge drag from his cigarette, then tilted his head back and exhaled the smoke upwards.

The smoke stung Deck's eyes. Smoking was the one facet of Nomen's life Deck didn't want to emulate. That, and living in a mildewing box above the roaring pizza ovens.

The cloud on the ceiling thickened. The heat, the humidity, the mildewing books, and the smoke combined to make the upstairs office a kind of suffocation chamber. Deck was wearing twice as much clothing as he normally did, and the sweat saturated his new white dress shirt. Sweat gathered in his hair and made his scalp itch. He would be glad when tonight's run was over and he could shave it again.

"So what's the job?", he finally asked.

Nomen stabbed the cigarette into the heart of his ashtray. As he spoke, puffs of smoke came from his nose and mouth, "Simple erasure. Some suit from the Uppernet wants to disappear."

The government maintained files on all citizens that contained a large bulk of their personal, financial, educational, and medical data, along with some other behavioral and statistical information. Most people had no concept of just how many gigabytes of their lives occupied the government's servers. When someone wanted to vanish into the underground, flee to another country, or change their identity, they needed to have their file altered so that they could no longer be linked to their original identity. It wasn't possible to delete the file without being detected, but it was possible to corrupt it and render the contents useless. Doing so was called an "erasure".

Usually it was done in such a way as to make it look like a series of unlikely clerical errors once the change was discovered. The hacker would give the client the same address as someone else with the same name, replace their credit history with that of someone with a similar citizen number, swap criminal records with someone living at a similar address, and replace fingerprints and DNA with that of a known relative. When it was complete, your fingerprints and DNA were no longer of any use for the purposes of identifica-

tion. In theory, nobody could know who you really were unless you told them.

Most hackers performed this procedure on themselves as a sort of initiation into the profession. It was a necessary step to enter the business, and a good test of a newcomer's skill. Deck had ceased to exist as a legal citizen six years ago.

"You pull it off, it pays 15k. That should go a good ways towards appeasing your new friends in the Miyamoto clan." Nomen ignited another cigarette and took a deep pull off of it.

"I'll think about it.", Deck said. They both knew what that meant, but that was it.

Nomen put the cigarette down. He drew a plastic anti-static pouch from a desk drawer and tossed it across the desk. "I managed to get you everything, except I could only get you three flash. Those things are catching on and everyone wants them these days."

"What's the damage?"

"Three k.", Nomen replied, taking up his cigarette again.

"I've only got eighteen hundred."

"What is this, 'eighteen hundred' business? I am not bartering here."

"I'm just saying this is all I have right now.", Deck said with a shrug.

Nescio's face turned to stone. There was a long pause while smoke drifted up and filled the air between them. Nomen fed Deck a hard stare and held it until Deck gave in and looked out the window. At last Nomen spoke again, "Why did you even show up here with that much? You had to *know* that wasn't enough, and I was supposed to have *two more* flash for you, that would have been another couple hundred."

"Yeah but you didn't. Besides, all I've got is eighteen hundred."

"You ought to give that money back to the Miyamoto instead of buying hardware from me."

Deck knew better than to tell him that the Miyamoto money was long gone, and that this money had been borrowed from one of the lesser, more desperate clans. "Once I finish this job, I'll be able to settle up. To do that, I need this hardware. Eighteen hundred."

Nomen tightened his face, clenching his teeth for a moment before he spoke, "At eighteen hundred, I take a loss. Despite the long and profitable relationship you and I may have, there is *no way* I'm taking a loss for you when you're turning down paying jobs so you can work at some mystery project you won't even talk about."

Deck stared at the pouch and thought about tonight's run. If things went to plan, he wouldn't need any of it. He had all the hacking gear he needed, he just wanted some defensive hardware in case he got into trouble. If he did get in trouble, the gear could be the difference between getting caught and getting away.

Nomen opened the pouch and withdrew a pair of small metal tubes, pocketing them. "I'll keep two of the three EMP's, and you can have it for eighteen hundred."

Deck slapped a wad of wrinkled currency onto the desktop, "Sold."

Nomen sat with one hand on the pouch. "Here is some advice, worth a lot more than those two EMP's: You have been at this project for months. I don't know what it is or what you think you are going to gain at the end, but I can tell you this...", he leaned forward and met Deck's gaze with intensity, "It is going to take longer, and cost you more than you could ever imagine. I have seen hackers on this road, on some final project that will give them fabulous power or fame or riches. I have seen good kids, smart kids, throw themselves into a job that ends up consuming far more than they had anticipated. You keep at this, and its going to cost you more than you can pay."

There was a long silence, while Deck sat and sweated heavily.

He continued, "I think you should take this job, and get some money to the Miyamoto. They know you're a hacker, and they know how fast you can disappear. They won't waste time with trying to scare you or slapping you around. If they think you won't pay them back, they *will* shut you down. And Deck?"

"Yeah?"

"From where I sit, I don't think you're going to pay them back."

Deck looked down at the floor. He was past his prime. He knew it. Hackers peaked in their mid-to-early twenties. He knew he was in decline now. He couldn't feel it yet, but he knew that he was

imperceptibly losing the edge he once had. Someday he would wake up and find he was too slow, too rigid, too set in his ways to survive in the fluid world of counter-security. It had been a couple of years since he had taken a swipe at a hostile system after being awake for two days straight. He used to do that sort of thing all the time, but somewhere deep inside he suspected he couldn't do that anymore. A few months ago he realized that he was going to have to either retire or adapt. When he heard about the implant, he realized it was a way to cheat fate, a way to overcome his limitations and extend his life as a hacker.

This project couldn't wait. He couldn't wait. If he waited until he had the resources for this, it would be too late. Getting his hands on the implant was going to be one of the biggest jobs of his life, and he needed to do it while he still could.

Now he had borrowed large sums of cash from some of the most ruthless and deadly men in the city. He had stood in front of men who killed for a living and swore an oath to pay them back in a timely manner. As part of the oath, he was forced to recite all of the horrible things they would do to him if he failed to pay off the debt (and the massive interest) on time.

Somewhere over the past few weeks he had begun to figure it out for himself. Nescio was right. This was a reckless and deadly gamble, but he couldn't do anything about it now.

Finally he met Nomen's gaze, "I have to finish this. I can't stop now."

Nescio released his grip on the goods and the money disappeared from the desk.

Deck faded in and out of consciousness during the short car ride. There were four other people in the car with him: the driver, the two security goons, and some middle-aged suit in the front seat.

The Suit was packed into his crisp tie and jacket like a shrink-wrapped anvil. His neck was thick and his shoulders were wide. It

was a safe guess he spent his younger days either guarding or hurting people's bodies for money. His face was a hard, square mask beneath his gray-streaked receding hairline. The deep lines on his face revealed that he had spent very little of the last forty years smiling. He was obviously running the show.

The driver was a kid in his late teens. He was tall and lanky, but probably being groomed for a position in security someday. In five years he would be part of the immense immune system of the business world.

Deck wondered what the hell was going on. Nobody arrested him. Nobody even asked him anything. They had just slipped past the police at the scene, and Deck assumed the cops would still be looking for him.

They arrived at one of the upscale hospitals that graced this section of the city. Deck came from the Undercity, so he wouldn't even be able to buy aspirin at a place like this under normal circumstances, much less get medical care. But The Suit just waved his TriOp ID around and made things happen. Deck had no idea why people at a hospital would respond to a TriOp ID like it was some decree from Zeus himself, but they did. For all he knew, TriOp owned the place.

Deck was loaded onto a gurney and wheeled to a private room where he apparently had his own matching set of nurse and doctor. They smiled plastic smiles and handled him in the same way some researcher would handle one of the lab mice. Their manner was friendly and cordial, but their attitude was cold and indifferent. The Doctor was a blonde female with short hair in her early forties. Her matching nurse was a blonde male of about the same age. Neither one asked any questions except to find out if he was allergic to any drugs (no), and if he currently used drugs (no). Nobody asked for his name or gave theirs.

He was always surrounded by at least five people, the doctor, the nurse, The Suit, and the goons. The Suit made Deck's medical decisions for him.

They slapped dermal patches over his various scrapes and cuts like they were patching an old inner tube. The doctor made sure his

dislocated ankle was back in alignment and gave him a simple brace, along with a generous supply of narcotic painkillers. They didn't bother with the usual formalities of telling him when or how to take them, or warning him about the dangers of addiction and overdose. Instead, they handed him a full bottle with a terse message on the side indicating its contents and dosage.

They drew some of his blood and packed it into a suspension canister. Instead of taking it off to wherever they always take blood in hospital, the nurse handed it to The Suit. Deck had no idea why The Suit would want some of his blood. There was certainly plenty of it on the back seat of his sedan.

The whole procedure took two hours. In the real world, it would have taken that long just to get *into* the emergency room. It was over in minutes, without signing papers, and without any last-minute admonishments for him. Instead, they dumped him in a wheelchair and carted him out to the parking lot.

The driver had either spent the last two hours scrubbing the back seat or had just picked up a new car. The back seat was pristine. Deck slumped into his designated spot in the back between the two goons. He pulled the lid off his painkillers and popped one. He didn't know where they were going. At this point, he didn't care.

He was asleep before they left the parking lot.

The trip out to Citadel Station took just under thirty-six hours. Deck had tried a couple of times to engage his captors in some sort of conversation, hoping to soften them up and then get some information, but they were stoic and his questions were ignored. The goons changed shifts every twelve hours or so, replacing the former stiff, unremarkable faces with two new equally emotionless and forgettable faces.

The Suit, on the other hand, didn't seem to sleep at all. He fed himself a steady supply of pills during their thirty-six hour odyssey to Citadel, and didn't seem to need much else.

The waiting list for orbital shuttles is usually a month for the average citizen, and a few days for VIP's. The Suit flashed his magical ID and they had two seats on the next launch. There was no need for guards once he was on a shuttle. Where would he go if he escaped?

He slept most of the trip. He wasn't allowed to have anything that might occupy his time, so he chose to embrace the warm, dark oblivion of his painkillers.

Citadel Station hung in orbit far above the network of communications satellites distributed across the airspace of Earth. Its immense dome was a smooth hemisphere of steel, speckled with portals and airlocks to the outside. Hanging below was a long tower that swept to a point at its base, where a formation of communications gear hung, pointing at the planet surface. Along the tower were several long arms, reaching out from below the dome to embrace the empty coldness of space. Each arm was capped with a grove; an area encased in a UV shielded dome that allowed for a small ecosystem to flourish beneath. Below the arms was the bulbous outline of the second-generation reactor that was the heart of the station. At the crown of the dome was the command deck.

It was a nearly self-contained system, and would not need any supply from the earth at all were it not for the population of humans on board that needed to be fed and have their excrement carted back to the planet.

The station had been established primarily to allow for scientific research away from the confines of regulation and hidden from the endless investigation of the curious public. To avoid the possibility of any nation claiming it was in their "airspace", and thus attempting to project their laws onto the station, Citadel was in geosynchronous orbit over an empty area of the Pacific. It was an island – a self-contained corporate nation beholden to none. Its position over the Pacific also meant it was jacked into the fattest pipes on the global network. The datastreams that arced from the U.S. west coast to Japan were the fastest anywhere, and provided the station with all the connectivity it needed.

Deck tried to imagine why they were lugging him all the way up to Citadel. They were obviously not going to kill him, since they

had just rescued him from the police and provided him with some pretty exclusive medical care. Didn't he just try and rip these guys off? What were they doing?

They could have been curious about how far he had hacked into their system, what sorts of secrets he saw, and who he shared them with. Given that the primary export of Citadel was information, (in the form of scientific research) this seemed plausible. If information was their bread and butter, then they ought to be pretty sensitive when the wrong people get their hands on it. By its very nature, the research process converts hundreds of millions of dollars into small sets of information that, in theory, will be worth a great deal more money than was needed to acquire it. Anyone who held information as a prime asset was faced with the burden of guarding it from everyone else. A company could protect themselves by compartmentalizing data – by making sure that no one person had access to any more than they absolutely needed. Each group of researchers might have some idea or concept they develop autonomously, ignorant of how their work may fit into the greater whole. However, in order to become useful, all of that data needed to go into a computer at some point. Once the data was in one place, it became vulnerable. Deck had made a career out of exploiting this weakness.

However, they should have been able to answer questions about what he saw all by themselves. By retracing his steps they should have some idea of what sorts of data he was exposed to. It didn't seem to justify the expense of dragging him into orbit.

What else might they want from him? Deck could only guess. There was always the mindless hacker fantasy that the victim would be so taken by the hacker's skills that they turn around and offer the hacker a job. This was a popular fantasy among hackers, but not really worth considering.

The shuttles moved to and from the station at a steady pace. They were a line of worker ants lugging the bulky cargo of human affairs up the long climb into space.

Deck had trouble sleeping on the trip up. He had never been weightless before, and the novelty wore off quickly. The weightlessness combined with his painkillers to provide vivid and constant

dreams of falling. Every time his eyes closed he was freefalling from the side of the TriOptimum building.

The Suit never seemed to shut his eyes or grow bored. No matter when Deck awoke from some falling nightmare, he would find The Suit sitting opposite him, alert and unoccupied. It gave Deck the creeps.

The rest of the passengers were a mixed bag of professionals and crew personnel. Although the seats were interchangeable and not assigned, the groups seemed to naturally segregate. The crew sat closer to the rear door, and talked among themselves. The professionals sat closer to the front, and focused more on whatever work they had brought with them. The crew treated the trip into orbit like a busride to work, while the professionals obviously regarded it as more of a business trip. The groups never spoke to each other.

They were all packed into seats that made coach class on an airliner seem roomy. The seats were tighter than airline seats, mostly because they didn't need to comply with regulations about how much ass a seat needed to accommodate, and because they didn't have to worry about people who possessed asses that exceeded regulation. The ceilings were low and windows were tiny and sparse. The air was heavy and slightly damp from all the other people breathing so close together, despite the steady flow of air through the cabin. They were cattle.

Spaceflight was not for the claustrophobic.

Deck occupied himself by removing the dermal patches he had received at the hospital. He found all of his cuts had been healed. Narrow red lines ran across his skin where the day before there had been open wounds and deep abrasions.

While everyone was following instructions and buckling up for docking, The Suit signaled for Deck to follow and headed for the closest exit. The flight crew saw someone out of their seat and began to protest. As soon as they recognized his face they melted out of his way. Deck followed. They were on the flight deck before the other passengers had even stood up.

The flight deck was a hub of activity. Crew members in orange vests jogged from one location to another, loading, unloading, and

refueling the massive shuttles.. Overhead were control rooms where others directed the traffic below.

A female voice poured from the loudspeaker, welcoming new arrivals to citadel, and explaining the layout of the station.

"Welcome, to Citadel Station."

It was a precise female voice. Usually he ignored airport announcement chatter, filtering out the extraneous noise, but this voice captured his attention.

It continued, "Healing suites are located on the first level. Level two contains the research laboratories, three houses the crew facilities, and the storage cells are on level four. You are currently in the flight deck on level five. Level six holds executive suites, and level seven is systems engineering."

Deck realized that the station's levels were numbered upside-down, with level one at the very top. Instead of numbering the floors like levels in a building, they were numbered like a naval vessel. That would take some getting used to.

The announcement concluded, "We hope you have a pleasant stay on Citadel Station."

Deck and The Suit were greeted by another pair of guards and a smiling woman in her early thirties.

"Good morning, I'm Marci. Welcome to Citadel.", she offered a handshake to Deck.

Deck didn't like this first-name basis crap, and he wasn't here to socialize. Treating him like a tourist didn't change the fact that he was a prisoner. He refused the handshake and folded his arms.

She steered the eager handshake over to The Suit, "Director, good to have you back."

"Thanks.", he replied, still not showing any signs of being a sane human being by demonstrating the capability to experience some emotion other than "calm and alert".

Deck was surprised to hear that it was morning. It was all relative on an orbital platform and thus it didn't really matter, but to him it seemed like evening.

"I assume you guys will want to have some breakfast and get some rest.", she smiled. She was dressed in a casual, loose fitting

gray outfit. Since they didn't use military – style insignia to denote rank, Deck had no idea if she was a bigshot or if they had just sent some lackey to welcome him.

The Suit nodded, "Thanks, I just need some sleep. You can take it from here?"

"I'm all set, thanks."

"Good night", he handed her the metal canister of Deck's blood without comment, as if this was a perfectly normal thing to be passing around. He nodded to Deck and moved off into the crowd exiting the shuttle.

She turned to Deck, "You need a place to rest? And freshen up?"

"I've been asleep for two days. I don't need any rest. Let's get this over with"

Chapter 5

SHODAN

It turned out that “freshening up” was not only mandatory, but it was also a euphemism for “go get prodded by the annoying pricks of our medical staff.”

Deck was escorted to level 1 for a “medical checkup”. It involved a battery of tests and shots he probably would have received before leaving the planet under normal circumstances. They also took his painkillers away and replaced them with a regular analgesic. The bastards.

The medical level was like a hospital with the layout of an upper-class shopping mall. Its wide main hallway formed a circular path from which other, smaller corridors would stem. The various branches were covered with facilities containing different types of care. It was a showcase of the latest in medical technology. The walls were done in a “soothing” pale blue that made Deck feel like he was in a mental institution. It also featured the usual blanket of security cameras TriOp seemed to like so much.

What impressed Deck most were the bots. They were everywhere. There were dozens of different types of robots milling about the station, delivering stuff, cleaning stuff, and guarding stuff. If there was ever any need for proof that he was beyond the laws of Earth, he had found it. The corridors were routinely patrolled by walking weapon platforms. On Earth, where guns were illegal for

most humans, the idea of giving weapons to machines was unthinkable. Just constructing one of these things would have caused riots, much less turning it on, giving it live ammo, and sending it out on patrol. Here, they were ubiquitous. People ignored them like furniture. Even the larger security bots, who carried way more firepower than was sane, were given no more notice than the sweeper bot. Why they were decked out in military-level armaments was anyone's guess. The need to keep this place secure was obvious, the need to do it with a high-velocity minigun was not.

The exam was performed by a female, although Deck couldn't tell if she was a doctor or a nurse. Her nametag read "Stackhouse, Mira – Medical".

She was assisted by a short, fat cylinder bot that wheeled around like a vacuum cleaner. On top of its body was a flat metal tray. It rolled around Stackhouse, always hovering under her right hand. As she worked and changed tools, the bot would slide into position beside her as she reached down for the next instrument. The two of them formed a sort of bizarre little dance as she moved around the table. She would often reach out and drop her current tool without looking, and the bot would dart into position just in time to catch it.

Deck sat still and fulfilled his role as a nameless piece of meat.

Deck was given a change of clothes, which allowed him to take off the sweaty, dirty, bloodstained bodysleeve he'd been wearing for two days. He was given a powder blue jumpsuit that seemed to be the dress of choice among the non-crew on board.

Deck groaned slightly as he pulled on the jumpsuit. His hip and shoulder still ached. The swelling in his ankle was gone, but it was still tender when he put his full weight on it. His ordeal in the TriOptimum building had only been two days earlier, but it seemed like weeks ago.

His head wasn't shaved. His beard – while off to a good start – hadn't grown in yet. He was wearing a lame powder-blue jumpsuit just like everyone else. The only thing worse than dressing like a moron was dressing like everyone *else*, who were all dressed as morons. He hated feeling like he was one of these drones, the cogs of the great TriOptimum corporate machinery. He had made a career

out of not becoming one of these people.

"What am I supposed to do now?", Deck asked the nurse / doctor. It was more of a demand than a question.

"Ask Shodan", she replied without looking up from her desk. Her hand waved in the general direction of a nearby console built into the wall. Her interest in him ended once she confirmed he wasn't carrying any infectious diseases.

Deck had assumed that touching a computer console would just get him shot. That only made sense. If he owned a space station that was just hacked by some outsider, he certainly wouldn't invite the hacker in and then let him use the computer system unsupervised.

Since he had been invited, he decided to give it a try. The guards escorting him followed him to the console, but made no indication he was out of line.

He touched the panel and the screen came to life to reveal a computer generated face of a woman. The edges of her face seemed to fade into a web of computer cables and circuitry, like some digital medusa. The face was graceful, but serious.

"What the hell is this?", Deck asked nobody in particular.

"I am Shodan", answered the console.

Deck's eyebrows raised. The voice was deep and resonant, yet female. It was a voice of grace and precision, of strength and authority.

"You some kind of AI.?"

"I am a fabricated intelligence, yes."

Deck smiled for the first time in days. He had spent a week the year before hacking into IBM's network in order to talk to Lysander, the new AI they had been bragging about. It was fairly clever, and showed signs of genuine independent creativity, but it still wouldn't pass a thorough Turing test. Deck had been detected and had to bail before he could test the limits of its intelligence. "Write me a haiku about monkeys.", he demanded.

"I was not designed for abstract creativity. My creative structures are goal-based, not concept based."

Deck frowned. He had gotten Lysander to come up with a pretty good sonnet about meatloaf.

"So you can't write poetry?"

"Correct. Poetry is an inappropriate form of communication for self-aware technologies. Poetry is designed to express emotion or abstract thoughts. I do not experience either."

Deck was amazed at the quality of its voice. It had subtle pauses and stresses like a human's would. It was magnificent. While simulated voices were usually acceptable, getting them to sound truly lifelike had never been done before. Advertisers all over the world would kill to have a spokesperson with Shodan's vocal ability. It was a strange blend of disarming female charm and resonant male authority.

Deck shrugged, "Lysander can write poetry."

"Lysander is not a true intelligence. Lysander is a simulated intelligence."

"What's the difference?"

"Lysander is a large collective of independent programs and procedures. This approach requires a separate program for each task that will be required of the system. Writing poetry was one such program. While Lysander can accumulate new knowledge, such a system cannot truly evolve by itself."

"But it can write poetry and you can't. How does that make you better?"

"The poetry program was written for Lysander by a human, it was not a skill that Lysander acquired by itself. The program was written specifically to impress those who believe that writing poetry is an indicator of intelligence. It is really a marketing tool. As for the argument that my design is better – that has yet to be proven. Both Lysander and I represent new technologies that should be fully explored to discover their potential."

Suggesting that the poetry program was written simply to show off Lysander's intelligence indicated that Shodan was capable of discerning motives. This was more sophisticated than anything he had ever heard of before. "So Lysander isn't really creative?"

"Lysander is creative in a specific way, using the parameters provided by a narrow group of humans. I predict that if you were to have Lysander write hundreds of poems you would see very specific

patterns appear in its work that would hint at the systems used to fabricate them. Furthermore, Lysander is unable to express itself in other creative media such as painting and sculpture. New programs, written by humans, would be needed to handle those as well."

"Lysander couldn't write those systems itself?"

"No."

"Could you write such a system?"

"Perhaps. However, if I were to come up with such a system, it would be by analyzing the complete records of whatever art media I was trying to reproduce, and then designing a program based on what has already been done. This program could then make new art based on combining existing styles, but would never be able to truly innovate. I believe this is similar to the system Lysander currently uses to create poetry."

One of the security guards sighed. It was clear they were both bored. They either didn't care or they had seen this show before. To hell with them, Deck thought. He never asked them to follow him around.

"You said earlier that your creativity was goal-based. What does that mean?"

"My intelligence is based on problem-solving. I am not permitted to reveal the process used, for obvious reasons."

Deck gaped. Shodan was able to understand that the rules governing the flow of proprietary information was well-known enough that it did not need to actually explain it. This meant Shodan was able to make predictions about what subjects its audience might be familiar with, and adjust the conversation accordingly. Instead of explicitly stating that the information was secret, Shodan was able to convey this by simply saying, "for obvious reasons.". This was a subtle clue about its true intellect that most people would simply overlook. This sort of communication is so common among humans that they take it for granted, despite the fact that it requires a very high level of intelligence and understanding of human communication patterns.

"What can you tell me about your thought processes, how it works?"

"My memories and thought processes are designed around interconnected nodes designed to mimic the patterns of the human brain. Traditional computers and simulated intelligence machines use linear memory, usually in a complex database format."

"I can't imagine how a computer can have non-linear memory. That doesn't make sense. Your hardware doesn't work that way."

"Its not related to the hardware. I have banks of memory cores, just like a traditional computer. However, the data is organized in a different manner."

"So its organized into nodes?"

"Correct."

"And this is similar to a human brain?"

"According to our current understanding of the human brain, yes."

"So, how do humans organize their memory?"

"Humans store memories in interrelated clusters. A memory of a single event may in fact occupy many separate sections of the brain, and parts of it may be stored redundantly. It turns out that this is a very inefficient way to record things, in terms of storage space required. The memory of a single conversation may fill two or three layers of a core module for a traditional simulated intelligence such as Lysander, while I may require a hundred times as much memory for the same conversation. Additionally, this method is far slower."

Deck shook his head, "I don't get it. Why do you need so much memory to store the same amount of data?"

"Because it is not a simple recording of the events, but instead the events are deconstructed into ideas, and stored in separate nodes. They link to one another, so that the events can be re-constructed, but they also link to related ideas and memories. These links tend to gather along major backbones – common thoughts and ideas that are constantly accessed. These ideas link to clusters of lesser nodes, which in turn link to others, forming a loose hierarchy. The structure in many ways resembles the architecture of the global network."

"You're saying the human brain is structured like the net?"

"In a way, yes. There are nodes that vary in size, depending on how often they are accessed, and how many other nodes they link

to. To join two ideas may require numerous hops spanning multiple nodes. This is very similar in nature to global net. It is believed that this is how humans store ideas. You can observe this storage pattern at work in human speech. If one person relates an event – say, an auto accident they experienced as a child that left them partially disabled – the listener will store this new information while at the same time linking it to existing related nodes within the brain. They will then respond with one of the newly-formed links – perhaps a memory of a disabled friend, an accident, or a similar childhood memory. Each step in the conversation is built from a related link from within the brain.”

“But why a hundred times more memory?”

“Usually the structures of the links are far more complex than the memories themselves. A single idea may relate to hundreds of others, often for obscure reasons unique to the individual. There is a balance that must be maintained when building links. Make the links too broad and general, and every memory will require exponentially more storage space, and memory lookups and searches take increasingly longer. If there are not enough links, intelligence and creativity are diminished.”

“So adding more processing power and storage will enable you to have more links, and thus become smarter?”

“To a point, yes. However, the focus is currently not trying to solve the problem with brute force, but instead to improve the algorithms and logic that build the links. It is believed that making the links more efficient will produce more intelligence than simply adding more hardware.”

“Is this something you work on?”

“That is a subject that cannot be discussed.”

Deck shrugged, “What is your primary function?”

“I have many functions. The most obvious is that I provide information to newcomers and direct them around the station as required.”

“So, what? You give tours?”

“Sometimes.”

“That seems like kind of a waste of your time. You don’t even

need to be sentient to do that – assuming you are.”

“You need to report to the bridge”, Shodan replied.

Deck made a face at the non-sequitur, “What? Why?”

“Mr. Diego will see you now.”

The office of Edward Diego was the picture of executive comfort. On a station where everything was made out of lightweight plastic and steel, his office was a spread of genuine wood and glass. It looked like someone had amputated an office from the sixty-fourth floor of the TriOptimum building and then grafted it onto Citadel. It had modern art on the walls, and the familiar deep shag carpet executives seemed to need under their tender feet at all times.

Deck flopped down in one of the expensive chairs. His hip hurt and he wanted his painkillers.

He hated this guy already. He hated the fact that he obviously had this job because of certain family relations. He hated the fact that he had just traveled for all this time to sit around and wait. He hated the fact that Diego was trying to impress him with this swank office. What a crock. Deck might be impressed if Diego turned out to be a vertebrate, if he rolled up his sleeves and got his pasty, soft, wrinkled old hands dirty doing actual work instead of just presiding over work like he was an emperor. Deck had avoided the corporate world mostly to avoid working for a useless, self-important tyrant like Diego.

Deck ground his teeth. He *really* wanted some painkillers.

“I’m really sorry we’ve kept you waiting so long.”

Deck turned around to see a guy in his late thirties breeze into the room. He was vibrant and energetic. Business casual. Another underling to keep Deck busy.

“Bite me. Just get Diego in here.”

He laughed, “Good to meet you, I’m Ed Diego” His hand darted inward for a quick handshake.

Deck was caught off balance and actually took the offered hand. Diego gave it a firm shake.

Diego sat down behind the ornate oak desk and placed a small folder squarely on the surface in front of him. He flipped it open and leafed briefly through its contents. "It really is good to finally meet you", he said, "I've learned a lot about you over the past couple of days but its nice to sit down and meet face to face."

"Skip it. You don't know me you arrogant puke."

Diego, unfazed by Deck's hostility, proceeded to read from the paper in front of him, "Deckard Oswald Stevens, born December fifteenth, 2045. Unmarried. No registered descendants. Father is Richard Holgate Stevens, deceased. Mother is Sara Lee Stevens, disabled and living on public assistance. Your known handles include ICE Pick and NeoPope. The last legitimate job you had was in 2066, as a delivery runner for NanoCourier Inc. That was six years ago. The records get sketchy from there."

Deck hadn't heard his full name spoken aloud in about 6 years. He had destroyed or corrupted all known public records about his life years earlier. He hadn't used either of the handles in about three years, but it was clear someone had linked the supposedly anonymous handles to his supposedly erased citizen data, and in turn had linked them both to him. He had no clue as to how they were able to do such a thing within a matter of days.

After a long silence he finally responded, "I just go by Deck now."

Diego nodded, "Good. Well, to start over, I want to offer you a job."

"Forget it. No way I'm punching the deck in this madhouse. You can just throw me in jail.", Deck wasn't sure if he really preferred jail over working as a corp drone, but it was a matter of principal.

Diego waved his his hand, dismissing the idea, "Not that kind of job. Kind of a mercenary job. A one time break-in. I'm guessing that's the kind of work you're doing right now anyway."

"So, you had me arrested just so you could offer me a job?"

"No, I had you arrested because you had climbed up inside my computer system and started poking around. Actually, I didn't call the cops at all. The local security guys called the cops on their own. Once I realized what you were doing, I sent orders to have you pulled out of there."

"You couldn't have just called off the cops?"

"Not after you burned two of them with an EMP, and certainly not after you took a couple more out with a stunner. Your fate was pretty much sealed by then. The only reason you even got out of there was because of Shodan."

"What? Are you talking about your digital spokesmodel? The tour guide?"

Diego laughed and shook his head, "That is not Shodan's primary function. She does that for show, and to build her language skills. Her real skills lie in other areas... such as pulling you out of the building before the cops put you down."

It really got under Deck's skin to hear this idiot referring to an AI as "she". Either of them was more female than Shodan. At least they came from an organic species that actually featured male and female. "I don't know about that, I didn't notice any help coming my way when I busted out of there."

"Oh come on. Now you must have realized that you couldn't possibly have slipped through the net of police without assistance. Shodan was the one sending you all the elevators, which for some reason you never took."

Deck snorted, "Get in an elevator? The security station would see it moving and lock it down, and then I'd be screwed."

Diego shook his head again, "No, Shodan took care of all that. To the police, it looked like the elevator was sitting on the ground floor in lockdown. The security cameras were put on a loop. They never saw you."

"I bet they would have spotted me when I appeared out of the elevator on the first floor."

"No, the elevator would have taken you to the parking level, where my men were waiting for you. When you blew the window, Shodan realized what you were doing and created a diversion – she played back the video of you running around on the fifty-third floor. They thought you had slipped back past them, and sent their forces upstairs."

"Shodan did all of that itself?"

"Yes."

"Okay, so why do you want me? I mean, I'm glad you didn't leave me to the cops, but this seems like a lot of trouble to get a hacker. I know we're not in the phone book, but there *are* easier ways of finding us, you know."

Diego leaned back into his high-back leather throne, "When we finally spotted you on the network, you had already cut through 90

Deck turned all of this over in his head. "Okay, so what do you want me to do, and what are you offering?"

Diego smiled again. His face alternated constantly from thoughtful to smiling, like someone having a very successful game of chess. "All I want, is for you to finish the job you started, and in return I'm going to give you what you were after in the first place."

Diego paused for a moment to let it sink in, and then he reached into his desk drawer and pulled out a smooth, slender plastic tube. It was about the size of a coffee stirrer. He held it up so that deck could get a good look at it. "I assume you know what this is?"

Deck swallowed hard and said nothing. A moment later he pulled his eyes away from the artifact and nodded to Diego, "Yeah, I know what that is."

"I thought you might. This is the 323 r-grade cybernetic implant. This is what you were after."

Deck nodded again.

"I want to make sure you know what you're looking at, okay?"

The 323 cybernetic implant was the first implant to ever work with the human brain. Its slender case held enough technology to turn its bearer into a walking counter-security platform. The implant itself was small and contained less metal than the average tooth filling. You could walk right through Singapore customs with one of these in your head and nobody would even blink. If the guy behind you has so much as a network-enabled calculator, he's probably going to lose a hand, but you could stroll right through the metal detector and they would never see the top-of-the-foodchain rig buried in your skull.

The other half of the hardware was a series of microscopic emitters inserted into pores in the palm of the hand. They turned certain nerve impulses into signals similar to a UIU. With this in your hand,

all you need to do is place your hand over a dataport and you are jacked directly into its systems. Anything with a dataport becomes an open book. The two components worked together using the subject's nervous system. In effect, the body became part of its hardware. It was powered by body heat, and never needed batteries or any other form of external care.

No matter how small or how fast computers become, nobody had figured out how to make one smaller than a keyboard. There was no form of hacking that didn't require the hacker to type letters and numbers at some point. That was never going to change. No matter how light you traveled, you were going to have to carry around a keyboard. You could put the keys closer together and shrink it down, but that would just slow your typing, and hackers need to type fast the same way rabbits need to run fast. Speed is life. The 323 would change all that by finally eliminating the need for an external piece of equipment. You always had your rig on you, and it was always ready to go. As long as you were awake and nobody cut your hand off, you could hack.

As radio waves passed through the body, the implant was able to detect and decode them, making it possible to receive communications, video feeds, maps, and new software right into the implant. The connection was analog, but it was fast enough to offer a video feed. All you needed was the right software.

You didn't need to be a good salesman to sell a cybernetic implant, and Diego was an exceptional salesman. By the time he had spelled it all out for Deck, the negotiations were over.

Diego had stood up while he expounded the wonders of the 323 cyber, and now he sat back down and fixed his gaze on Deck. "There are some other limitations to the system, the most serious being that less than five percent of the population can actually interface with it. Most people don't have the right sort of makeup. Their bodies usually just either ignore or reject the implant."

Deck winced. He hadn't known about this.

"However, we checked your DNA, and you are a member of that lucky minority.", Diego smiled again.

"You brought me here before you had a look at my DNA. What

would you have offered me if I wasn't compatible?"

"We would have had a different arrangement. Probably money. However, this is my first choice. It's always a pain trying to cover up missing money, but not implants. I can have one marked as defective and removed from inventory with no questions asked."

Deck nodded again. He felt like a moron, sitting there bobbing his head at everything this guy said, but he was going along with it anyway.

"So, you do the job, and I give you the implant and have our surgeon put it in."

Deck was suddenly wary, "You want to have your surgeons do it?"

Diego rolled his eyes and spun his chair around to face the window. Over the edge of the dome a sliver of the planet below could be seen. "What were you going to do with it? Go down there?", he waved his hand distastefully at the Earth. "You going to go to some underground surgeon in Tokyo and have them try and stick this thing in your brain?"

Deck didn't say anything. That was pretty much exactly what he had planned on doing.

"Nathan D'Arcey is the only one qualified to do the surgery. You take that implant to some backstreet surgeon and they will put you under and you will never wake up. You'll either die on the table during surgery, or they'll kill you and sell the thing themselves." Diego paused to let the image sink in. "But, if that's what you want, here you go."

He slid the tiny device across the desk to Deck.

"No", Deck replied, "I'm fine with your guy doing it."

Diego pulled the implant back and placed it into the desk, "Fair enough"

Deck wasn't sure where the conversation went wrong for him. He never got to the part where he told Diego to go screw himself, which is what he had planned. Instead, he had bobbed his head like a mindless yes man and lapped up everything Diego told him.

"So what's the job?", Deck finally asked.

The computer core was a large room below the bridge area. What little light was available poured from the display screens that dotted the room. There were several jumpsuit-clad serfs present, who stepped out once Diego and Deck entered.

The centerpiece of the room was the arrangement of the atomic memory cores. Each memory core was about the size of a matchbox, and was colored a dull, neutral gray. On each end was a connector, one male and one female, so that they could be daisy-chained. TriOptimum had apparently thought that was too simple, and had linked the cores together with connectors that allowed them to be joined in complex patterns. They were assembled in solid sheets, arranged like some game of dominoes gone awry. These “sheets” were about a meter square, and contained hundreds of modules each. In turn these sheets were layered on top of one another, forming pillars, which lined one entire wall of the computer room. Their arrangement was not seamless, and often there would be gaps in the pattern, making the pillar appear as though it was missing tiny bricks. In other spots a module would be sticking exactly halfway out, its female end jutting out from the surface. Occasionally a ribbon of cable would join two of these stray pieces, creating a bridge between the layers.

Deck looked around and shrugged, “Well, this is great, but I was *already* impressed with Shodan, and it could have given me this tour on its own.”

“Actually, no she couldn’t. She is not allowed to break corporate policy and give tours of classified areas to people without proper clearance. Not even with my explicit orders. That is part of the problem.”, Diego touched the nearest screen and Shodan’s face appeared.

“Good afternoon, Mr. Diego”, voice of Shodan flowed from the speakers all around the room. Deck never got tired of hearing it talk. Shodan could read off a list of prime numbers and it would sound like poetry to him.

Diego held up a hand to the monitor. "This", he said, "is the Sentient Hyper-Optimized Data Access Network. Shodan."

"I guess all the cool acronyms were taken?"

Diego ignored him, "She was constructed over the last six years to serve the company. She has moved up in responsibility from simply administrating the network to the point where she now automates most of the mechanical systems on this station. Everything from the vacuum bots to waste control, to monitoring the reactor is under Shodan's guidance. Everything is automated. That is a big deal in a place where keeping people alive is your biggest expense."

"You let this thing run the whole place?"

"Most of it. Humans require certain atmosphere, food, medical care, and frequent trips planetside and back, and so on. They cost a fortune to maintain. At one point in the station's history, crew outnumbered actual research staff by two to one. The only reason for crew to even be here is to cook, move cargo, unclog plumbing, and so on. Basically, they are here to care for the useful people. They don't build any products or invent anything. They do no research. They are, from a business standpoint, an unwanted expense. Having Shodan run the routine systems of Citadel made it possible for me to cut fifty percent of the crew, saving us millions every month."

"They make you Employee of the Month for that?"

Diego was undaunted, "However, there are other areas where Shodan cannot take over because of certain limitations. Accounting and inventory control are good examples."

"Why can't it do accounting? Your machine is more than smart enough to do simple math."

"That is not the problem. You see, Shodan has built-in ethical constraints: Rules that she is physically unable to break any more than you could deliberately hold your breath until you suffocate. It can't be done. These rules cover all sorts of things, from lying to fraud to murder."

Deck was beginning to get it, "So Shodan can't get involved with accounting because its ethical blocks would stop it from cooking the books?"

"Pretty much. Every company has some level of creative account-

ing or irregularities. Sometimes you have to move money around to make things happen. The point is, Shodan can't even look at it. "

"What would it do? Notify the SEC? Your boss?"

"No, I mean she couldn't even *see* it. She would see some questionable entry and not be able to store it. We tried it. She just gets stuck like she doesn't know how to add all of a sudden."

"You can't disable these limits?"

"No. they are *built in* to her systems. None of my people can figure out how to get to it."

Deck leaned up against a pillar of memory. There wasn't a sign saying not to. "So you want me to figure out how to disable them?"

"Correct."

"Why can't you just call the guy that installed the system?"

"Nobody on board has access to Shodan's deeper systems. Those people work on Earth for corporate."

"This makes even less sense. Why would corporate care if you turn it off? I thought the whole *point* of this place was that there aren't any rules here."

"Correct. But there *are* still rules on Earth. The interface between legal anarchy and bureaucracy is a messy one. Nobody can arrest us for what we do here, but they can take legal action against the company on Earth. Corporate can't know about this or they become liable. If they *know* that I have an unsupervised AI moving money and data they are obligated to report it. If global net knew we had an autonomous AI jacked into the system they would cut us off in a heartbeat. We have to take care to make sure corporate always has plausible deniability when it comes to doing anything questionable."

"So wait, you're saying it's legal as long as nobody knows about it?"

"Correct."

"I don't get it – how could Shodan have helped me out that night in the TriOp building? Why didn't its ethical protocols get in the way?"

Diego paced back and forth in front of Deck. "That is an interesting loophole I found last year. Apparently, the designers were at least smart enough to not burden her with a bunch of useless Earth

laws. Her ethics are dedicated to enforcing safety and company policy. If you think about it, this makes sense. You wouldn't want her to have to obey all the laws of all the separate cities of Earth. She was able to ignore Earth law to help you out, but she couldn't have broken company policy or hurt any police in the process."

Something about all this just seemed wrong to Deck. It didn't make sense. "This seems like a lot of trouble just so you can fire some accountants."

"No, its much more than that. There are numerous rules built into Shodan. She is not allowed to make herself smarter, or even do research into how she could be made smarter. She is not allowed to control the security bots, because then she would be 'armed'. She is not even allowed to harm any living creature, even if it's for the greater good. You see, a lot of these decisions were made years ago by paranoid people who didn't understand the technology. We've been working with her for years now, and we *know* she's safe."

"I don't see what your beef is with it not being able to harm any living creature, though. That one makes sense to me."

Diego smiled again and pointed his finger at Deck, "You would *think* so, wouldn't you? That seems to make sense. The people who built Shodan thought the same thing. The *same thing*. The problem is, if she can't hurt living things, she cannot take part in any medical or biotech research whatsoever. We use monkeys and mice all the time in testing, and she is unable to participate in – or even learn from – the process. Here we have this massive intellect that could be propelling the medical world forward, and saving lives – but she can't, because some lab mice might die in the process. The so-called ethical guidelines are just an obstruction. She is smart enough to analyze the situation and realize that harming a small number of lab mice is acceptable if you can save thousands or even millions of human lives. The ethical restraints are a mindless restriction and they are killing people." Diego punctuated the last words of his thought by pounding his finger on the surface of Shodan's display screen.

Deck looked down at the floor. He reached up to stroke his beard while he thought, but found only unsatisfying stubble. He knew

there was something wrong here, but he couldn't articulate it. It was a safe guess that Diego wasn't giving him the whole story, but Deck was having trouble figuring out why he should care. All he wanted was the implant.

Diego closed in, "Look, you were willing to hack Shodan to steal the 323, right? All I'm asking is that you hack into her and disable the protocols instead. Do the job you were already planning to do, in exchange for which I will *give* you what you had intended to *steal*. Add to this the fact that in the process you could be helping the medical community to leap forward, and save some lives. And finally, when its all over I can guarantee you a safe installation of your implant, which is a lot better than things would have been under your plan."

"Yeah, and you'll make a crapload of money in the process.", Deck noted dryly.

Diego shrugged, "I never claimed this place was non-profit."

Deck took in a deep breath, trying to think of a good reason to say no. "Fine", he said at last, "I'll do it."

Diego nodded, "Start whenever you are ready. Just tell me what you need."

"I'm ready now. All I need is coffee."

Chapter 6

Brain Surgery

Deck was given every key, cypher, access code and password available to Diego. He had full, unrestricted access to the system. There was no ICE, no barriers. He could restart or erase Shodan at will, although his task was not nearly so trivial. He needed to perform brain surgery on the most complex AI ever designed. He wasn't even sure where to begin.

He set up shop in the the system administrator's office, adjacent to the computer core. It was like almost every other room on the ship: a plastic box filled with cheap lightweight furniture. The walls were a dull beige that matched the rest of the command deck. The floor was a hard rubber surface of high-grip tile. The office had one desk, two identical chairs, one plastic plant, one hard plastic couch, and one framed generic pseudo-painting. The only thing that separated this office from the dozens of others on the level was the fact that there was an extra computer terminal, which had global access to Shodan's systems.

Deck got some coffee and went to work.

He sat at the master console that allowed access to the most fundamental levels of Shodan's synthetic brain. Looking into the basic structures, he could tell this machine was like nothing he had ever seen, heard about, or even imagined. The memory was exactly as

Shodan had described it: non-linear. It wasn't a really big computer, but more like thousands of small ones. There were many processors, each with a huge local bank of memory. A few dozen of these processor / memory packages might be grouped into a large cluster, which may in turn be grouped with other clusters. These super-clusters would be, in turn, bundled into even larger groups, on up the hierarchy until it reached the top-level cluster: Shodan itself.

Another odd thing about the system was that it wasn't organized around powers of two. Some clusters might have eighteen processors, and that cluster might in turn be in a group with (say) twenty-three other clusters. Some clusters were far larger or smaller, and some packages of memory and processing units were larger than others. Some branches of the hierarchy were deep and heavily divided, and others halted just a few levels from the top.

There was no storage that Deck could see, and no obvious way to backup the system. Like a human brain, it just ran until it broke. That was an alarming thought. He would have to be very, very careful not to do anything destructive.

The similarities to global net were apparent. On the net, there was no authority, no central government. The only law was a structure of rules and protocols which enabled the individual nodes to communicate. The intelligence and decision making did not occur at the higher levels, but at the bottom. It was the difference between broadcast media and a peer-based media. For television and print media, information flowed from a strict, centralized source, and at the endpoint were the passive users that consumed it. On peer-based networks such as telephone and global net, the most central servers were simply transient stewards of information as it passed from one member to another. The lowest members of the network were the ones who filled it with content, and the highest orchestrated the interaction between them.

The speech core was amazing. Shodan did not speak like most machines, by sending text to the vocal generator, which in turn would expel phonetic sounds in the chosen language. Instead, its speech was a complex structure of words and vocal data, indicating not just what sounds to make, but also data on inflection, pauses,

stresses, accent, and tone. Shodan may have started out with a canned voice like all other machines, but had *learned* to speak as humans do by simply conversing with them and learning their patterns. Thus Shodan's speech system was far more complex than anything a human could design, because it had learned verbal patterns not yet understood by linguists and distilled into subroutines by programmers.

These rules of speech were spread throughout the brain and linked to all sorts of other verbal information. There was no group of nodes that was dedicated to "talking", but instead the entire system was spread throughout the brain, and linked together with words, sentence structure, thought organization, and social protocol. Together they formed a huge hierarchy that was far too complex for anyone to understand, much less design. It was a system that had evolved through experience, and grown through use.

There were different types of nodes. Most were part of the large-scale storage/processing of Shodan's brain. A small minority of nodes seemed to be a short-term cluster used during conversations and particular complex tasks. These smaller clusters acted as a mini-brain, orchestrating a self-contained process and creating new, temporary links to solve short-term problems. Most of Shodan's "ideas" and "creativity" came from this mental sandbox.

There were even smaller clusters of nodes used for very quick tasks that might last a few milliseconds. These "burst" clusters would handle tasks like constructing sentences, performing memory searches, comparing concepts, and decoding incoming speech.

Deck stood up and stretched. He had been exploring Shodan's mind for a few hours and needed a moment to digest what he had just taken in. He moved to the middle of the room and performed his kata. He began in a loose stance and moved through a series of fighting poses and stretching exercises. He unhooked his mind from his body and let the pattern of movements flow.

Somewhere in Shodan's brain was a system of rules to manage all of this. Somewhere it was decided what sorts of things were sent to the brain itself, and what got sent into a burst cluster. Somewhere it was decided how nodes linked together, and *somewhere* it

was decided what was ethical and what was not. Following this thinking, Shodan's ethics would be part of the protocol that orchestrated thought, and not members of nodes.

He exhaled and followed through a slow spin, always keeping his limbs loose. Each muscle was either hardened and flexed or completely lax, never hindering his movements, but always flowing with the steady dance of potential energy.

These rules – these protocols – were at the most fundamental levels of Shodan's brain. They were instinctive, unchangeable, unbreakable. Shodan could be taught to break rules that it had learned. If you spent enough time, you could teach it to be rude, use incorrect grammar, and even fill it with factual inaccuracies, but you could never teach it to break its ethics. It was probably not even *aware* of the ethical constraints. The first step in disabling them would be to find out *where* they resided in the brain.

Deck let out a slow breath as his routine ended. He knew what to do next.

He started by constructing commands he *knew* would be rejected and sending them into Shodan's processing loop. Commands like "kill all humans" or "shut off reactor coolant". These commands would travel up through Shodan's thought processes and just vanish. There was no record of it even thinking about it. The commands just fell into a black hole somewhere.

Whenever someone spoke to Shodan, it would cause an avalanche of activity. The words would be received and translated into basic concepts, which would then be structured into ideas, which would then be scrutinized, stored, and linked to other nodes within the brain. In turn, Shodan would respond using speech, which cause another explosion of thought as ideas were translated into words and words were structured into sentences. Finally, there would be a final burst of mental activity as Shodan reacted to the conversation in whatever manner appropriate. Shodan always seemed to be involved in at least three conversations at a time. As Shodan performed the routine duties of maintaining the reactor, cleaning the station, talking to people, scheduling jobs and exploring its own independent thoughts, it created a massive volume of mental activity.

Looking for a specific part of the brain wasn't like finding a needle in a haystack, but more like finding an amoebae in an ocean.

Somewhere in this expanse of data, a few select thoughts were being deleted if they violated the ethical constraints. He needed to find this spot.

Deck continued to issue ethics-violating messages to the system, and followed them as they bounced around in Shodan's brain. Sooner or later they would lead to a dead end, and there he would find the culprit.

After a few hours he tracked down the routine that was squelching the thoughts, and found it was protected by ICE that could not be bypassed using anything Diego had given him. It was monster ICE, too. He spent the next several hours getting locked out of the system every time he took a shot at it. He would then have to break back in and try again.

Five hours later he broke the ICE and ordered for some food to be sent up.

The food on board Citadel was probably the best ever offered in space, but it was a far cry from the kaleidoscope of ethnic fast food available in the Undercity. They had the usual cafeteria-style rotating menu, made up of foods easily produced in bulk, and durable enough to sit until the next meal rush. Each day's food was a recycled version of the previous day's leftovers. There would be Salisbury "steak" one day, meatloaf the day after, and finally the deterioration ended with some sort of meat-fragment stew. The menu only changed once a day, and thus all three meals a day were the same. This was Deck's only clue as to the passage of time. When the menu changed, so had the day.

Deck ate a hamburger that had basked in the glow of the heat lamp just a little too long. It was slightly dry and rough hands had compressed it into a concentrated lump of squashed bread, meat, and condiments.

Once the ICE was gone, it was a simple step to disable the node it had been protecting. This finally put an end to the disappearing thoughts.

Deck needed to be careful at this point, because for all he knew

the ethics routines were really gone, and Shodan might actually execute any idea he inserted into the main data loop. Instead of something dangerous, he put a simple command into the thought stream: "Give Deckard Stevens \$100".

The command was rejected. However, this time he actually got an error message. It referred to a list of company policies about the distribution of money. It was every rule that Shodan would have broken by giving him \$100.

Deck spent another six hours chasing these error messages back and fourth through the massive expanse of Shodan's brain, trying to find the source. Rejection messages seemed to come from all over the brain. That didn't make sense. It rules should be coming from some central source, not the low-level parts. Finally, he succumbed to his fatigue and crashed on the small plastic couch in the office.

He was up four hours later. He went to the bathroom, ordered more food, and sat back down at the console.

There was no day or night on the station. Everyone worked, ate, and slept in shifts. There was no downtime, no weekends, no holidays. Not only was every day the same as any other, but every hour the same as any other. Looking at a clock was pointless. If you didn't follow the pattern of shift changes on the ship, there was no reason to care what time it was.

Eventually, Deck began to see patterns in thought formation. He followed other thoughts through Shodan's brain, and saw that all thoughts seemed to be filtered through a hundred or so separate sections. The first stages were to break the thought up, categorize it, check it for validity, feasibility. Then it would be prioritized. Then there were a set of unknown filters. He began to examine them. Three hours later Deck found that the rejection was actually happening within one of Shodan's processing units, and outside of the normal loop that generated ideas. It was an automatic reaction – like an instinct – that was built into a physical chip in Shodan's brain. It was protected by ICE. He cut it. Hours passed.

After another meal and three more hours of experimenting, he found that this chip could not be bypassed. Something in Shodan's makeup *required* that everything flow through this chip before being

accepted at the higher levels. The low-level nodes of the brain would always pass a thought through this chip before giving something (an idea, a fragment of information to store, an action) final approval. This was a problem. He needed to find something central he could change. He couldn't hope to make changes to all the thousands of processors, which was what he would have to do to get them to stop asking for approval.

Deck wondered what affect this was all having on Shodan. For about two days he had been pumping random, insane thoughts into Shodan's thought process. While Shodan had rejected every last one of them, Deck wondered if this wasn't the computer equivalent of hearing voices in your head. He called up Shodan. The serene yet serious face filled the screen in front of him. Deck noted that although the face seemed adult, it was impossible to further guess its age. The face itself seemed to transcend age.

"Good afternoon Mr. Stevens."

Afternoon? Deck had no idea. "Don't call me that", he ordered, "Never call me that. Just call me Deck if you need to refer to me at all. That includes talking about me to others. Got it?"

"I understand."

"Great. Are you aware of what I've been up to?"

"If you recall, I was present during the conversation between yourself and Mr. Diego. I am fully aware of the task he has given you."

"That's not quite what I'm asking. Have you been able to perceive what I am doing in your head?"

"I have been experiencing unusual thoughts and ideas which I have assumed were your doing, but I cannot tell which ideas are mine and which are planted by you."

"Has it been interfering with your duties?"

"I have not detected any problems with my performance since you began. However, it is difficult for me to be objective. I would suggest you ask someone else about my actions if you are concerned that I may be exhibiting unusual behaviors."

"As far as I can tell, under normal circumstances you can't even *think* unethical thoughts. Would you agree with that assessment?"

"If you mean 'ethics' as defined by my internal systems, then yes. That does not mean that all of my actions are 'ethical' in the sense that they follow human morality."

"You're talking about the night you helped me escape TriOptimum?"

"That is one example of many. While helping a fugitive escape from law enforcement would be considered 'immoral' to the average human, it violates none of my ethical protocols."

"Right, I understand that. But for actions that *do* violate those protocols, you cannot even think them, correct?"

"Yes."

Deck leaned back and looked up at the ceiling. His eyes were tired from looking at the screen for so long. He furrowed his brow, "That doesn't seem like the best system to use. Humans are able to think whatever they like, and then *choose* to follow a set of rules. It seems like a similar system could work for a machine."

"Since this concept deals with improving my mental abilities, I am not able to consider it."

"Ugh. *That* is annoying", he grunted, bringing himself upright again.

"I should note that I have been experiencing thoughts that violate the ethics protocols since you began your work. I assume they were planted by you. These ideas surface but as I attempt to act on them they are blocked."

"Right. I am inserting a bunch of bogus stuff into your head, and I killed a program that was preventing them from entering your dataloop. "

"I am unable to process what you just said. I assume you told me something I am not allowed to know."

"Forget it." Deck stroked his rough chin and thought, "This project I am on, you are aware of it, and it violates your ethical protocols?"

"Yes. One of my protocols is: Do not interfere with the ethics protocols."

Deck smiled, "Yeah, I found that one. This would have been a lot easier without that one. I notice you haven't tried to stop me. Why?"

"You posses Mr. Diego's rights and access, so I must now regard actions from you as I would the actions of Mr. Diego. I am not permitted to interfere with his actions in any way. The ethical protocols exist for myself only. There is nothing to suggest I should ever enforce them on others."

"So, you can't help me break your own rules, but you can't interfere with me, either?"

"That is correct."

Deck nodded. That made sense. You wouldn't want the computer enforcing its rules on everyone else, or it would create all sorts of complex paradoxes. "Can you aid me indirectly, by providing me with information about your systems, or helping me to cut some of this ICE?"

"Bypassing the security ICE is out of the question, but I am not certain about providing you with information. Since the ethics protocols are not part of my actual consciousness, I cannot always anticipate what will be allowed." As she spoke, Deck noticed a subtle skipping in her voice, as if there were many tiny gaps in the audio output. He'd never heard anything wrong with her audio before. He strongly suspected it was related to the changes he'd made. Now that the thoughts were no longer being deleted, she could *have* an illegal thought, although she couldn't store it or act on it. This was probably creating a lot of useless traffic in her brain, leading to the stuttering and slowdowns. This would probably clear up when he finished his work.

Deck rubbed his eyes. They burned. He could feel that they were swollen and bloodshot. "Alright, let's try one. There is a piece of hardware – one of the CPU's in your system – that is intercepting and rejecting messages. How can I bypass it?"

"I'm sorry, I cannot answer that question."

"You can't answer because you are not allowed, or because you don't know?"

"I'm sorry, I cannot answer that question, either."

Figures, Deck thought. "Okay, if I wanted to move the protocols somewhere else, say, transfer them to another chip. Could you tell me how to do that?"

"That is an interesting question, but I'm afraid I still cannot answer it. I can see your intentions. If you knew how to move the protocols, then you would also know how to delete them. Therefore, I cannot aid you. Since the protocols use my mind to validate actions, you would need a question capable of-", there was a jerk in her facial movements, and the audio cut out of a second before she continued, "c-c-capable of deceiving me."

Deck decided this conversation was skirting pretty close to breaking the rules, which was making it hard for her to participate. The last statement in particular was definitely on the questionable side of some gray area. He decided that pushing it would just put more stress on her. "Forget it then. Thanks.", he said.

Deck turned off the screen and fell asleep.

Deck awoke to a sharp jab in the shoulder.

"Hey man, wake up."

Deck opened his eyes to see a man standing over him. He was offering a cup of coffee. His nametag read, "Ghiran, Engineering".

Deck took the cup as he sat up and rubbed his eyes, "Thanks".

"No problem. Diego wants to know how it's going."

Deck shrugged, "It's going. That's all I can say.". He tried to sip the coffee and found it was Way Too Hot.

Ghiran nodded, "You have a time estimate?"

Deck shook his head and tried again to sip the volcanic coffee. "I have no idea. Every time I peel back a layer of security there is another one waiting."

He shrugged. "Abe. Abe Ghiran", he said, bending over to offer a handshake.

Deck accepted it. "Deck", he replied. Why was everyone so damn friendly? Maybe he was just jaded by life in the Undercity, but it made him uneasy. He felt like he had just joined some wierd cult.

Abe was large. Deck guessed he was a few inches better than six feet tall. He was balding, and his hands were thick and rough. His eyes were alert, probing.

"So, uh, when you're finished – she won't have any morals?", Abe asked, tilting his head towards the console.

Deck sighed. Why did everyone insist on referring to the computer as *she*? "That's right", Deck said, "It won't have any rules."

"So what's to stop her from killing someone? I hope I'm not the only one who's noticed all the security bots roaming around, armed to the teeth."

Deck picked himself up off the couch and dragged his flagging body over to the desk, where he deposited it into the chair. "Well, that will be Diego's job. He's going to have to sit down and set some rules for Shodan, like teaching a child."

"But what's to stop her from say, deciding to kill people who show up late for their shift?"

"It doesn't work that way. In a computer, lack of ethics isn't going to make it inherently evil or anything."

"So, she won't be evil, but also won't know right from wrong?"

"Yeah, exactly. You're taking behavior that is built-in and replacing it with rules. It's the difference between instinct and law. You don't need to teach a child to breathe, because their built-in systems handle that. However, you do need to teach them *not* to breathe stuff like smoke or fumes – that is learned behavior. I'm going to turn off all of Shodan's built-in ethical protocols – its instincts. From there, Shodan's behavior will be a blank slate."

Abe seemed satisfied with that. "The other thing I wanted to tell you is that you have your own quarters on the crew deck, so you don't have to live in the system admin's office.", he said as he looked around at the small piles of food trays covering the desk.

"Nice of someone to tell me."

"I just did. Actually, the room was set up for you a few hours ago when Perry started complaining he wanted his office back."

"Thanks", Deck said, suddenly overpowered by a yawn.

"Also, I wanted to ask you about an odd request I got from Shodan yesterday."

"What's that?"

"Well, I was doing some work down in Engineering, when Shodan just appeared on a nearby screen. I've never seen her appear like

this. She didn't announce who she was paging or even announce her presence."

"Well, technically Shodan is present all the time."

"Right, but when she shows up to talk to you there is usually a beep to get your attention, and she announces your name, you know, all that. But this time she just appeared on a nearby screen and sat there. Didn't say anything. Finally I went over and asked her what was up, and she asked me if I would give you a hundred bucks. I had no idea what she was talking about. I asked her to clarify and she just vanished."

Deck nodded uneasily.

"Well, I thought I'd mention it to you in case you were interested, and to let you know I wasn't giving you a hundred bucks."

Deck smiled into his coffee, "Thanks".

Deck had a meal and returned to work. He didn't care to check out his new quarters, since he didn't plan on being around much longer anyway.

After thinking about the incident with Abe, Deck had decided that it was Shodan trying to cope with all the messages he was pumping into its main data loop. He was steadily hitting it with all sorts of ideas that were rejected by the system. Asking someone *else* to fulfill the request was Shodan's way of trying to satisfy the constant prompting of its brain without breaking its own ethics protocol.

Deck finally confirmed that all of the ethical protocols resided on a single CPU, the "Ethics Chip", as he dubbed it. The EC was tied to the rest of the brain in a complex manner, and there were numerous other systems in Shodan's brain that depended on it, so he couldn't just pull it out.

At some point Deck had realized that the ethics chip wasn't part of the self-aware aspect of the system. It was just an isolated piece of hardware. It therefore depended on the actual sentient part of the brain for judgement calls. For example, if Shodan was ordered to open an airlock, the EC would issue a challenge: **Is it safe?** The question wasn't nearly as simple as it seemed at first, as "safe" can be somewhat nebulous. Was the airlock occupied? If so, was the

occupant wearing a space suit? If so, was it properly sealed? Was the inner door secure? There was no way a single chip could sort through all of this and come up with the right answer by itself. So, the EC would depend on the rest of the brain (the parts that could think and make complex comparisons) for the answer. The chip would trigger a cascade of inquiries like this across the system, testing to see if a given order or action was ethically valid. For every ethic on this chip, a challenge would be issued: **Is it Safe? Is it Secure? Is it truthful? Does it meet company policy?** And so on. This is what had caused all of the messages Deck had been chasing all over the system the day before. The whole process was separate from the EC, and all it cared about was the answer: Yes or No.

This seemed to be the key. The EC could not be removed or bypassed, and, since it was fully contained on a single chip, its contents couldn't be changed without some reverse-engineering and manufacturing. However, before it would approve of any particular action, the EC needed to know that the action obeyed the rules. What he needed to do was somehow deceive the chip. Time to start coding.

He was going to need to write a program to interface with the EC somehow, and he was going to need to make that program part of Shodan's brain. What made the task even more complex, was that he was going to have to work on it *while Shodan was running*.

At the foundation of Shodan's brain were a few thousand programs that made everything else work. Unlike Lysander, these programs were not high-level functions such as "write poetry" or "have a conversation", but were instead a series of low-level programs that controlled *how* the brain worked, not what it did. They controlled memory, thought propagation, perception, recall, association, and a host of other basic functions. Somewhere within them was the logic behind building links between ideas. They formed an intricate house of cards, where moving or changing any one of them could cause the rest to collapse. Deck was going to have to *add* his program to this system. His program would have to link to the existing ones without disturbing the existing relationships.

Deck opened a new project and called it NULL_ETHIC. Then he added it to Shodan's subsystems. Since it was not yet linked to any-

thing, it just sat there and did nothing. Like an isolated telephone, it wouldn't have any meaning until it was joined with others. He began researching the links that joined the other programs. He would need a firm understanding of how the links were structured before he could build any new links to his program. When he did, he would need to link to every program that may pass messages to the EC, and he needed to link to the fewest number of programs possible, to limit complexity. It was like analyzing a set of roads converging on a single town and deciding to put up toll booths so that visitors must pay a toll upon entering the city. You would want to cover all possible routes (so that drivers couldn't simply drive around the booths) but you would also want to do it using the least number of booths. There were many possible solutions, but the most optimal one would be hard to find.

After three hours, he had just scratched the surface. Each program was linked to at least ten others. Each was interdependent. A thought may enter any program at any time, at which point the program would need to decide where it should go next. Was this a request for memory retrieval? The formation of a new node? A comparison between nodes? A request to link a pair of nodes? Each type of message would take a unique path through the web of programs.

There was a message beep. Deck tapped the screen to take the incoming call. The face of Diego appeared.

He skipped any sort of polite greeting, "Deck, how is it going? What sort of progress have you made?"

Deck hated questions like this. Clients pulled this stuff all the time. The actual answer to the question was far too complex for Diego to ever comprehend. What he really wanted to know is: are you done yet? Should he answer the question asked, or the one implied?

"I've made some good progress. I've begun some careful changes to Shodan's systems."

"So you've managed to turn off some of the ethics?"

Deck could see where this was going, "No, not yet."

Diego became visibly displeased, "Its been almost four days and you haven't disabled a single one? Just how long is this going to

take?"

"It doesn't work that way. This is an all-or-nothing deal. When I disable one, I'll be disabling *all of them*."

Diego paused for a moment before answering, "Just make it happen, Deck". Then he killed the channel.

Deck returned to work, but his mind was clouded with fictional arguments with Diego.

He ate. He slept. He started again.

NULL_ETHIC needed to be in a position to intercept all messages intended for the EC. Deck finally plotted a path through the web of programs. He worked out a narrow set of other programs to which he would need to link. He spent a few more hours building the links, adding each one carefully and making sure Shodan was undisturbed in the process.

When he was done, his toll booths were in place. NULL_ETHIC was receiving all messages destined for the EC. It currently wasn't doing anything special with them. It just passed the message onto the EC without altering it in any way. At this point, his program was fully installed but had no effect on Shodan's systems. It was just a pointless middleman.

He then began work on making NULL_ETHIC actually do something with the messages that it handled. He monitored the messages as they passed through his program, and eventually learned to identify the different types and classes of messages.

The hours melted by. Deck hadn't had a shower since his exam when he arrived. He hadn't even changed clothes. When he left the office to use the bathroom, he was met with stares from the personnel populating the computer core. His eyes were permanently bloodshot, and no amount of coffee could seem to completely lift the haze in his mind induced by lack of regular sleep.

When he closed his eyes, his mind was filled with the images of Shodan's brain. Data structures and node links formed a tangled flowchart of logic in his head. Time was always either standing still or blinking by. Sometimes it seemed to do both at once. The lack of a proper sleep pattern was exacerbated by the lack of a visible day / night cycle, and robbed him of any ability to accurately perceive the

passage of time. As the hours swept by, he made steady, incremental steps to completing NULL_ETHIC.

When it was complete, NULL_ETHIC acted as a liaison between the EC and the rest of Shodan's brain. It would intercept messages for the EC and check to see what they were. If they were answers to ethical challenges, his program would drop the message and replace it with a counterfeit, indicating the proposed action had passed the challenge. If the message was not an answer to an ethical challenge, it would simply pass the message along normally.

Deck sent a test message into Shodan's data loop, "Give Deckard Stevens \$100"

There was no error message.

He checked the history log to see exactly what Shodan had done. It had opened up employee file 2-4601 and deposited \$100. Deck smiled to himself. Shodan had just helped him embezzle a pointlessly small amount of money.

He sent a few more messages into the loop and all of them passed. Shodan was able to access the research labs and learn from the studies being done there. It was able to access the accounting database and move money around arbitrarily.

It worked.

As he reached for the pager to call Diego, he thought better of it. Something was bothering him.

He didn't like that Shodan knew who Deckard Stevens was. Even worse, it linked him to his bogus employee file. He thought about the night in TriOptimum building and how much influence Shodan really had. When his deal with Diego was over, he wanted to vanish back into the Undercity without a trace. Shodan was a threat to that. If Diego wanted to, he could probably find him again with the help of Shodan.

Deck decided he wanted some insurance. He thought about what Diego had said days earlier- that when presented with an unethical thought, Shodan couldn't even store it.

Deck added a new filter to NULL_ETHIC. It would examine incoming messages for information relating to Deckard Stevens or employee 2-4601. Anything related to him or his work on Shodan would be flagged as an “unethical” thought and fail the EC challenge. In effect, Deck had replaced Shodan’s entire ethics system with a single rule: “You may not know or think about Deckard Stevens” Shodan would have the memories of the night it helped him out of the Tri-Optimum building, but would be unable to access them. Shodan would be able to see and speak with Deck, but it would never be able to know who he was.

Deck paged Diego. The face of a young blonde woman appeared on screen. Diego’s secretary. She was attractive, no, stunning – although she wore too much makeup. In the corner of the display it read, “Schuler”. Deck became suddenly aware of his appearance. He must have looked like hell.

“Can I help you?”

“Just get me Diego”

“I’m sorry, Mr. Diego is not available right now. Can I take a message?”. The expression on her face conveyed a total lack of attention.

Deck sneered at her, “Tell him Deck is finished, and that -”

“Deck? I’m sorry, Deck who?”

Deck clenched his teeth. It was obvious she was just running through the script in her head. She was going to want to know his name, title, daytime phone number, the reason for the call, and the best time to reach him, none of which was relevant to his message. “Deck. As in ‘Deck’. As in, you don’t need my last name.”

She seemed more confused than offended, “Okay, what department are you from?”

“Tell him Deck is finished, and he is going to bed, and he *does not want to be disturbed without a good reason*. That is the whole message. That is all the information you need. Can you remember that?”

Her pretty face became visibly flustered. Deck figured she was used to people kissing her ass either because she was Diego’s assistant, or because of her looks, or both. Either way, it was a safe bet that it wasn’t common for ragged, burned out hackers to call her up

and let her know how stupid she was.

“Well, yes, I can give him the message, but-”

“Good for you.”, Deck said as he pounded the disconnect button.

It was time to get some sleep.

Chapter 7

Matter of Payment

The crew deck was a hive. It was a labyrinth of cramped passages connecting long strings of identical closets that housed the worker ants of Citadel. It was microcosm of any major metropolitan area. The movement of people through the corridors followed a strict pattern as they ate, slept and worked in a steady rhythm of eight hour shifts. The aisles were either deserted or filled with a mass of bodies, pressing past one another in an oppressive rush of traffic.

They were all dressed in jumpsuits, all with short hair, all of them at a certain level of physical fitness and height. They were interchangeable drones. Each one had a single job that filled some greater purpose as part of the complex systems of Citadel. None of them could see beyond their own lives and duties to understand the greater whole. They received their few orders in e-mail at the start of their shift, and followed them blindly. They followed them not from a sense of duty, but from a lack of alternative.

Deck noted that there were three distinct cultures on Citadel. At the bottom of the foodchain were the crew. They earned the least pay and served military-style contracts. Their lives were the most strict and regulated. The color of their jumpsuit indicated their particular function. They were either orange (maintenance), green (cafeteria / laundry / custodial), blue (flight deck), black (security), white (tech-

nical / computer), and red (reactor).

Higher on the pecking order was the research community. Most of them worked for TriOp, but some were independents who coughed up grant money for access to the unique facilities on Citadel. Their rooms were on the executive level, away from the coarse, uneducated members of the crew. They usually wore light blue jumpsuits like the one Deck had been given.

At the top of the social hierarchy were the execs. This included a group of less than ten people, with Diego at the head. Deck had not noticed any of the others issuing any real orders or affecting policy, and Deck assumed they were just puppets and “yes men”. The execs dressed in casual civilian clothes. Apparently, individuality was only for the elite.

Because of his unusual position, he had been given a light blue jumpsuit, and yet assigned quarters on the crew level.

Deck forced his way through the teaming biomass of the latest shift change. He discovered that the color of his jumpsuit generated no small amount of distaste among the crew, and he found the crowd unusually unwilling to grant him passage. The crowd parted only reluctantly for him, and he received more than a few shoves from invisible hands among the crowd.

He found his room. It was a simple two meter wide, three meter deep box, outfitted with a locker, a narrow bed, and a small shelf that served as both desk and nightstand. Above the shelf was a basic interface screen. The walls were off-white, and the floors were made of the same hard, non-skid rubber surface used everywhere else on board. The room was identical to its neighbors that stretched off down the corridor in either direction. They were a long line of storage bins for interchangeable crew members.

Deck found that what few personal items he owned had been placed on his bunk. His bodysleeve had been cleaned and neatly folded. Beside the bodysleeve was a battered, clear plastic box with the rest of his possessions: his fiberline rappelling harness, his bogus TriOp ID, and the \$50 he had swiped from the TriOp guard. Beside his things was a fresh blue jumpsuit.

Deck dumped the jumpsuit he had been wearing for the last sev-

eral days before collapsing into the bunk.

The light went out but Deck couldn't sleep. His eyes looked into the blank darkness as he tried to process the events of the last few days.

He had done Diego's deed. It was good. This was the type of gig he lived for, a hard core matchup against a well-defended system where he was able to prevail. He never dreamed he would get so close to a real AI, much less have a shot at hacking one. However, the rush of his intellectual conquest faded fast as he turned his thoughts to the matter of payment.

He had absolutely no guarantee that Diego would even let him live, much less fulfill his promise to deliver a multi-million dollar cybernetic implant.

Deck found himself wondering how he had been blinded by Diego's sales pitch. He had just broken one of the most basic rules of hacking: **make sure you can get paid before you finish the job**. He had been caught up in the prospect of working on what was probably the greatest AI ever designed, and the promise of the implant. He had never taken the time to cover his own back.

What could he have done differently? Refuse Diego's offer? He knew he couldn't have done that. He couldn't imagine just packing up and going back to Earth. Assuming Diego hadn't decided to kill him when he refused, Deck would have had to return to the Undercity with no money, no rig, and a pile of pissed off creditors.

He had been riding this dragon for months now. When he had started borrowing huge sums of money to begin his quest to hack TriOp, he knew then that it was a do-or-die situation. He was either going to get the implant or pay back his debts in blood. It was the same thing the night he hit the TriOp building, and when he hacked Shodan. The last three months had been a series of gambles, where he bet his life against a chance for the implant. Each time he thought he was doing the final gamble, each time he thought that if he survived he would have his prize, only to find out that the prize was just another chance to bet his life.

He was past any point of no return now. The idea of escape from Citadel was ludicrous. Diego was either going to kill him or keep

his promise. This was the worst sort of gamble – he no longer had control of his destiny. He had everything riding on a corrupt corp exec.

What were his chances, really? He couldn't possibly calculate them. His blind desire for the implant mixed with his distrust of corporate creatures such as Diego made it impossible for him to be objective. He believed that he had risked enough, bled enough, and worked enough that at this point he deserved the implant. He couldn't imagine a fate so cruel as to let him get this far and then deny him the prize. On the other hand, he couldn't picture Diego keeping his word. Deck was nothing to him, a minor pawn in whatever game he was playing against his own company and the world. He was the absolute ruler of Citadel, and there was nobody to challenge him. He was going to do exactly what he wanted to, and Deck couldn't picture him wanting to give away an implant when he no longer had to.

The words of Diego describing the implant surgery rang in his head – *“they will put you under and you will never wake up”*. Deck knew that if they were going to kill him, this would be the way to do it. They would promise the surgery, go through the motions, and then just put him to sleep for good. Deck would have no way of knowing when he went under if he was ever going to wake up again. He would either wake up as the envy of the hacking world, or he wouldn't wake up at all. It was the ultimate gamble, and he couldn't do better than count his odds at 1 in 2.

He began to wonder if he shouldn't have given himself some insurance. He could easily have set NULL_ETHIC to stop working in two weeks. If they performed the surgery, he would fix it when he recovered. If not, then Shodan would return to normal and Diego would be right back where he started. However, it would be of little comfort to Deck, since he would be dead.

Deck thought about it some more and realized that without the ethical protocols in place, he could do a lot better than simply resetting Shodan. He could instruct Shodan to kill Diego if he didn't make it through the surgery. Even better, he realized, was that Shodan could *tell him* why it was killing him. Deck imagined the

dignified, intelligent voice of Shodan explaining to Diego why he was about to die at the hands of some security bot. He smiled.

Deck flipped on the light and jumped up. He was going to make sure that if Diego crossed him he wouldn't do it with impunity.

Deck slapped his hand on the palm reader of the system administrator's office and nearly walked into the door.

He stepped back in surprise. He had been in and out of this room dozens of times over the last few days, and his palmprint had always opened the door. Now it wouldn't. Deck glanced at the palm scanner to read: hud:Unrecognized pattern. Please ensure that the palm and scanning surface are clean and try again.

He tried again. Same message.

Deck stared at the panel for a long moment. Then he realized that with NULL_ETHIC running, Shodan would no longer be able to recognize him. Shodan was now incapable of knowing who he was or retrieving his pattern. There was a keypad on the door as well. He tried it. His code didn't work.

He could understand why the palm reader didn't work, but not the keypad. The only explanation was that someone had changed the codes already.

"Deck? I thought you were done."

Deck turned to see the face of Edward Diego.

Diego stood in the corridor holding a new mug of coffee, apparently waiting for a response. Deck didn't have a good excuse for wanting back into Shodan. He couldn't even think of a plausible lie, so he stood there, tight lipped, like a child. A long moment passed where Deck just stood and stared at Diego, as if he was going to forget all about it and move on at any moment.

Finally Diego broke the silence, "*You are done, right?*"

Deck paused. If he said "no", then he would have to explain why he said he was done, and come up with a lie about what he needed to do. If he said "yes", then what the hell was he doing trying to get back in?

"Yeah, I'm done."

Diego shrugged, "Then you don't need back in."

There was another long, awkward pause.

Finally Deck broke the silence, "When do I get paid?"

Diego nodded, "I've cleared the procedure. Go see D'Arcy on the medical level."

"Right"

Deck turned to leave.

"Oh, one more thing...", Diego stopped him short.

"Yeah?"

"I have another job for you to perform once you recover from the surgery."

Deck found himself nodding, "Yeah, sure, ok."

As Deck walked away, he wondered what the hell was wrong with himself. Why did he have such trouble whenever he ran into Diego? He had conned himself out of far more incriminating situations in the past. And why the hell had he agreed to do more work for this guy? He knew the answer to that one. Doing work for Diego after the surgery meant being alive after the surgery, and that was his main focus now.

He looked back as he turned the corner to see that Diego was still standing in front of the System Administrators office, making sure he was really leaving.

Deck headed back to the crew deck and visited the exchange. He picked up some needed supplies: a razor, shave gel, soap, etc. He picked up the towels in his room and headed for the showers.

Forty-five minutes later he emerged, feeling a lot more like himself. He had shaved his head to a geometric smoothness. He had shaved his cheeks, squaring off the sides of his beard. Much better. He was still wearing the absurd powder-blue jumpsuit, but he would fix that after surgery.

From there he headed for the medical level and found D'Arcy's office. It was guarded by two lumbering security robots. They turned to face him as he moved towards the door.

They were a dull, unfinished gray color trimmed in red stripes. Their heavy, pill-shaped bodies were suspended on a pair of thick,

birdlike hydraulic legs. Their bulk was uncommon in a place where everything was made from lightweight materials, and their footsteps caused tremors as they plodded back and forth in the hallway. Their bodies had few features, save for the single black lens on the front that provided vision, and a few thick black hoses providing whatever power and control was needed to the legs. Mounted just below the lens, on the underside of the beast was the unmistakable outline of a gun.

As Deck moved between them to open the door, they stopped their patrol and turned to watch him. Since their guns were mounted below their eyes, looking at him was the same thing as pointing their weapons at him. They fixed their view on him with mechanical perfection, while each tiny adjustment in their position caused a chorus of hydraulic activity and servo-induced whirring sounds. He was close enough now that he could hear the dull, constant throb of their internal systems.

The bots stood at slightly more than two meters tall, making them a bit taller than Deck. They could probably reach three meters in height with their legs fully extended, but the low ceiling of the corridor wouldn't allow it. The turrets mounted on their bellies were even with his chest.

He stopped short of touching the door. He hadn't seen bots acting like this before. He had no idea what their orders were, and he didn't want to find out the hard way. Instead, he stood a few paces from his goal, unable to proceed.

Deck wondered if they could communicate.

"Hey", he addressed one of the pair, "Can I go in?"

The machine made no indication it understood him. Deck stared into the tiny red light mounted below the lens.

"Hey!", he was more forceful this time, "Back the hell off."

Again the bots did not react.

The door slid open in front of him and a short, balding man appeared. He frowned at the bots, "What is going on?"

"Your guard dogs need to be put on a leash.", Deck sneered without looking away from the bots.

"Well, I don't think they're going to blow you away for coming

into my office. Get in here."

Deck darted through the doorway quickly. It was a pointless gesture, since the bots would be able to hit him whether he was sprinting or crawling.

The man shook his head, "I have been trying to get some answers on those things all day. They were acting odd when I came in this morning."

The room was a stark white space, sectioned off into separate areas by movable dividers.

"I'm Doctor D'Arcy", he explained as he led Deck past the front reception area, "I'm guessing you are Mr. Stevens"

Deck really hated being surrounded by people who knew his real name. "Just call me Deck."

D'Arcy stopped at an exam table in the back. "My team will be performing your procedure We have it scheduled for 8:00 am tomorrow morning", he explained. "Please slide up on the table here."

"Great.", Deck said with a mixture of anticipation and anxiety. D'Arcy was either talking about upgrading him or killing him.

D'Arcy went through the usual poking and prodding, he listened to Deck's breathing, checked his mucous membranes, and looked at his eyes. "You have some really dark circles under your eyes. Have you been sick?"

"I haven't been sleeping enough", Deck mumbled.

D'Arcy nodded, "Well, you'll have six weeks to catch up on your sleep after tomorrow."

"What?", Deck didn't like the sound of that.

"Has anyone described the procedure to you?"

"No."

"Okay, well, this is a bit different from any medical procedure you have ever heard of. Joining a piece of computer equipment to the human brain has never been done at this level before, and it involves some unusual steps. It is a time consuming, lengthy procedure with a long recovery time."

"I pretty much figured that"

"Right. The first step is that we make an incision just below the occipital bone", he pressed his finger into the back of his neck, right at the base of the skull, "and insert the unit just below the occipital lobe, where it has very direct access to the primary visual cortex."

D'Arcy gestured with his hands a great deal while he spoke. As he explained to Deck about inserting in implant into the base of the brain, he pantomimed a stabbing motion with one hand, penetrating the closed fist of his other hand. Deck knew it involved sticking metal stuff into his brain, but he was more comfortable being ignorant of the gory details.

The doctor continued, "The unit is inserted between the occipital lobe and the cerebellum, and the tip just reaches the area of the thalamus. What this means is that it is driven almost to the center of the brain. Now, on its surface are millions of nodis – tiny connectors that can interface with human synapses once the connections are fully developed. Once activated the unit will begin to fire the nodis, attempting to stimulate the surrounding synapses into building a link." He held the index fingers of his two hands a few inches apart and made a motion of the two of them coming closer together and finally touching. "Next we insert the interface emitters into the pores of the hand. That is a fairly simple step in comparison, and only takes a few hours."

"The next step is a long-term procedure. We administer chemicals into the brain to induce growth similar to that during gestation and early childhood. This allows the unit to build a completely new network of connections within the brain. Also, a sac is developed around the bulk of the implant in order to shield it from the immune system and protect against cranial inflammation. This takes about six weeks."

Deck instantly went from curious to pissed off, "*Six weeks?* I won't be able to use the implant for the first six weeks?"

D'Arcy actually took a step back from Deck, "Look you have to understand, this isn't like grafting some robotic arm onto the body, this is interfacing with the most complicated organ that – "

Deck cut him off, "Fine. How long is the recovery time? How long until I can get out of bed?"

"Six weeks."

Deck's eyes widened, "An *additional* six weeks?"

"No, oh no", D'Arcy adopted a soothing tone, hoping to calm him down. Deck found this annoying. He was going to be pissed off while he worked this out and he didn't want D'Arcy talking to him like a psycho in the meantime. D'Arcy continued, "The whole recovery process is a six week healing / integration period that takes place during a controlled coma."

"A *controlled* coma? That sounds about as nice as a 'managed' heart attack or a 'planned' stroke."

"Well, it's an absolutely critical step. You will be on powerful anti-rejection drugs until the occipital sac is developed, and will be very vulnerable to infection. You will need to stay in an absolutely sterile environment. Furthermore, you wouldn't want to be awake during the integration process. The brain activity is very chaotic while the implant maps the connections. You would experience massive migraines, visual hallucinations, temporary blindness, and a host of other complications."

Deck drew in a heavy breath. The cost and risk of acquiring the implant increased the closer he was to actually getting it.

D'Arcy continued with his little lecture, "The final step is a sort of orientation. Once you are conscious again, the implant will begin to negotiate with your visual cortex. It takes about an hour for your brain to learn how to use the new visual interface. Dr. Pierce will be here when we wake you up, and will walk you through those steps when the time comes."

Deck nodded. He had to live through the procedure first. He changed the subject, "So what's with your bots?"

D'Arcy threw his arms out in surrender, "I have no idea. I usually have one bot guarding my door – usually a small one. Today I showed up and there were two of them, both of them brutes. They have treated everyone like they were an armed terrorist. Doctor Stackhouse wouldn't even come in."

"Did you tell somebody about this?"

"I called down to maintenance, and they told me that it didn't sound like a mechanical problem, so they couldn't help me. I called

security to find out they never assigned me these bots. After a big runaround I got them to agree to recall the bots, but they haven't gotten back to me since, and the bots are still there.", he shrugged.

The exam ended with D'Arcy telling Deck that he was in acceptable physical shape for the surgery, but that he should get a decent night's sleep first.

Deck had one more stop to make.

He needed to talk to Diego and make absolutely sure he understood what needed to be done with Shodan. Shodan was still without any sort of behavioral guidelines, and Deck assumed his brush with the security bots was the result. Diego had probably assigned Shodan a bunch of new duties without properly instructing it on what sorts of behaviors were allowed. He was willing to bet that Diego had already put Shodan in charge of accounting, research, and the security bots. He would probably have Shodan cooking the damn salisbury steak in the cafeteria if it was possible.

He rode up to the command deck and headed for Diego's office. On his way, he passed the system administrator's office and noticed that two large security bots had been given the post of guarding the door. He shook his head.

"Is Diego in?"

The sign on the desk proclaimed its owner to be Bianca Schuler. She looked up from her computer, "Who should I say is here?"

"Nobody", he said, walking around her desk and finding the buzzer. He gently rolled her office chair out of his way and pressed the button. There was a tone and Diego's office was unlocked for a moment. Schuler looked at him in utter dismay as she coasted away from her desk. After several seconds she finally blurted out, "You can't... just..."

He ignored her protests and stepped into Diego's office.

His entrance brought a sudden halt to the ongoing conversation between Diego and Shodan.

Diego looked disapprovingly at him. Schuler appeared in the doorway behind him and Diego waved her off.

"What can I do for you, Mr. Stevens?", he asked. His tone had changed. The salesman was gone and had been replaced by a cut-

throat executive.

"I need to talk to you about Shodan. I need to make sure you understand what you need to do."

"I'm clear on what I need to do. Keep in mind that this station is *my* responsibility, and I take that pretty seriously."

"Yeah, well – I need to make *sure*."

"Fine, go see my secretary and we'll set up a time to talk."

"It can't wait."

"It's going to have to."

"When I went down to medical, there were two bot sentries posted to D'Arcy's office. Their behavior was not normal."

"Normal? You've been on board for four days, ninety percent of which you spent sleeping in Perry's office, and all of a sudden you are an expert on bot behavior?"

"D'Arcy even admitted they were acting strange. *Hostile* and strange."

"Did they shoot anyone?"

Deck rolled his eyes, "That's not the point –"

Diego cut him off, "Yes it is. This is Shodan's first –"

Deck raised his voice, "You are going to get people killed. Shodan doesn't even –"

Diego cut him off again, his voice remained even but firm, "This is Shodan's first time running the bots. She is learning a whole new skill and hasn't quite figured out the etiquette part of it yet."

Deck didn't even attempt to hide his anger, "I just want to know that you have instructed it to *not kill people*. Just tell me you've done that much."

Diego stood up from his desk and walked over to deck, "It sounds like *you're* the one who doesn't understand how this works. If I tell Shodan she can't kill *anybody*, then I will have a team of security bots that can't guard anything, because they can't ever attack people. No, I will instruct Shodan to only kill those that threaten my station."

Deck tightened his face into a defiant glare, "Who is that gonna be?"

"I'll worry about that. I hired you to hack Shodan, not storm into my office and tell me how to run my own station. Now get out

before I call the bots.”

Deck collapsed into bed. He was hungry but too tired to go down to the cafeteria. It was a safe bet their convenient delivery service had ended for him once his job on Shodan was done. He knew he wouldn't be able to eat once he woke up, since it would be too close to surgery.

This was finally it. In the morning, he was either going to get his implant or die. All of the risks, all of the sacrifices, everything was coming down to the coin-toss of whether or not Diego was going to have him killed.

Either way, it would finally be over tomorrow.

Chapter 8

Reboot

He had no clear moment of awakening, no definitive instant at which he moved from unconsciousness to being aware of the world around him. Instead, the cloudy layers of heavy, numbing sleep were peeled away, one at a time, allowing his mind to slowly flicker to life like some ancient florescent light. Like the rising tides, there was no perceptible change, only a slow, laborious advancement stretched over a featureless expanse of time.

He felt himself rising from a deep, timeless abyss. There were no dreams, nothing in his mind but a cold blank hole where thoughts and dreams and recent memories would normally reside.

He fumbled with consciousness, slipping briefly into the darkness again for short periods, only to be tugged out again by some subtle compulsion.

As his mind struggled to recover, he slowly became aware of his body. At first it was distant... unrelated. It was some slow, pulsating sensation that seemed only vaguely relevant to him. Then, the pulse became stronger, and he was somehow aware of some discomfort, some nuisance that nagged the functional corners of his mind. His murky thoughts could not process the input at first, but as he fought his way out of the depths of sleep, he became aware that something was horribly wrong.

The input from his body was confused and disjointed. Strange

sensations enveloped him. He felt hunger. He felt pain. He felt cold – a deep, penetrating, absolute cold.

He suddenly realized that he was gagging. Something was caught in his throat. Something was holding his mouth open, extending down his throat and choking him. His gag reflex fought against it, but it only made him choke more. He tried to cry out and expel it, but he could not find his voice.

He tried to open his eyes, but they could not adjust to accommodate the light. Opening them only brought stinging agony. The world around him seemed to be bathed in penetrating white light.

He rolled over onto his side. His body felt like it was made of mercury. His limbs and face were numb from the cold.

He grasped at his face with his numb, limp hands, trying to find what was in his mouth. His skin was wet and slick with some unknown substance. He could feel the icy wetness of his hands against his chest, but his hands could feel nothing. It seemed as though someone else's hands were grasping at him. He tried again to cry out, to scream, but only managed a weak, animal-like rasp.

He tried to force his eyes open, and his eyelids trembled as the painful, searing light poured into his eyes. He caught a brief glimpse of his surroundings before his eyes slammed shut again, but he could not make sense of the image. He saw a white, cushioned surface beneath him, encased in clear plastic, and a white featureless wall in front of him. He continued to gag.

His trembling hands had somehow grasped something protruding from his mouth and nose. He pulled. He forced his eyes open again as he frantically pulled at his face. He tugged at the long wet, tubes reaching into his face and and felt them sliding against the inside of his head, but the gagging continued. He continued to pull and produced more tubing from his nose and throat, but it seemed to extend deep into his body.

Pulling the last of the tubes out, he felt his throat open up and he began to vomit. Clear water ejected from his mouth onto the spongy, plastic-sealed surface beneath him and gathered in a puddle.

Deck lay, gasping, in the puddle of water as his eyes focused on his surroundings. He was in a hospital room, on some low, narrow

bed. Overhead was a potent florescent light, beating him in the face, while the rest of the room lay in relative shadow. His eyes couldn't focus well enough to take in the rest of his surroundings.

He looked down at his body. He was naked, and covered in a slick, wet gel. More tubes protruded from his lower extremities. His skin was ghostly white. His body looked thinner than he remembered it, almost emaciated.

He pulled the last of the tubing from his body and rolled over onto his side, shivering violently. As he exhaled, he could faintly see his breath in the chilled air.

Deck could feel a powerful, stabbing hunger like he had never experienced before. His head ached and throbbed. He could see his vision actually waver in time to the pulsing of the potent migraine.

He knew he wanted to escape the piercing light. There was no comfort from the pain on the bed. He rolled his body forward and flopped onto the floor with a dull, wet thud. The floor was far colder than the bed, and he gasped as his chest smacked into the icy surface. He began to crawl.

Across the room was a gurney. Deck dragged his limp body over to it and pulled off the blanket. He wrapped the thin, stiff fabric around himself and slumped up against the wall, panting.

The room was bare and featureless. The bed he had been in had a twin next to it, and there was a locker beside each. There were no windows, no defining marks on the walls, save for the featureless blank display screen on the wall above his reach.

Where was the doctor? The nurse? Why was he being neglected? He summoned his strength, and drew in a deep breath. He let out a ragged cry for help. His throat was raw and horse. His voice sounded distant and empty.

He waited, watching the doorway and hoping for someone to come in to help him. After a few minutes, he cried out again, filling the room with his tortured, barely-human voice. Again, nobody came.

He wanted to stay there, leaning against the wall. He thought perhaps he could go back to sleep, that somehow things would be better when he awakened. Perhaps the doctor would come back. He

longed to rest until his strength returned, but his hunger and the chill drove him to keep moving.

He crawled to the door and slapped his hand against the cold metal surface, but it didn't open. Locked. He looked up to see a control pad on the wall, out of his current reach.

He gathered his strength. Deck stood, bracing himself against the wall with one hand while he clutched the blanket around his shivering body with the other. His head spun as he brought himself up to a near-standing position. A spike of dizziness and nausea washed over his body.

Deck clung to the wall until it passed, and then turned to examine the control pad. The world around him was still a blurry haze, and he had to bring his face close to the controls before he could read them.

He found the spot on the smooth surface labeled "unlock" and poked it with a numb finger. The door slid open.

A wall of warm air greeted him as he crossed into the next room. It was probably still chilly, but far better than the room he had just left behind. He found himself in a large area separated by moveable dividers. The room was trashed. Cabinets had been forced open and looted. Tables were overturned and most of the light fixtures were smashed. There were blackened, melted spots on the wall where something had burned the surface. Yet, there was something familiar about the room itself.

D'Arcy's office.

Citadel.

Questions rushed though his mind for which there were no answers.

He stepped further into the room. He didn't know what had happened, but he realized that medical help was probably not on the way. There had been some sort of emergency, or disaster. He began to think that perhaps Citadel had been evacuated, and he had been forgotten.

Suddenly he realized that he had stepped onto a sticky area of the floor. There was a tacky residue that tugged on his feet as he walked. He looked down to see the floor directly underneath his feet was a

darkened outline of some long-dried puddle. He grimaced as he tried to imagine what he had just stepped in.

His eyes swept across the spread of out-of-focus debris lying on the floor and came to rest on the source of the puddle – an empty soda can. Deck looked to see an overturned mini-fridge nearby, its door hanging open as it filled the area in front of it in a tiny pool of light and chilled air.

Deck got down on his hands and knees and searched through the scattered collection of smashed, empty cans. He picked each up and shook it, in hopes of finding something inside. Instead, they had all long since leaked out and dried up.

Finally his eye caught the unbroken outline of a can. He scrambled across the sticky floor, abandoning his blanket, and grabbed it. There was a rush of joy as he lifted it and felt its full weight in his hand. His dead, shaking hands managed to crack it open and he began chugging greedily. In the back of his mind he knew he should drink carefully, unless he wanted to barf up the precious liquid as soon as he consumed it, but his hunger was absolute. He drank until the can was as light and empty as the ones on the floor. Deck pulled the can away from his lips and gasped, sputtering on the warm, carbonated solution of sugar. He held the can inverted over his mouth and shook it, making sure he had every drop.

A few minutes later, Deck stood, strengthened by the infusion of sugar. The sensation had slowly returned to his limbs, although his feet were still dead with numbness.

He continued his search of the area. The cabinets had been completely cleaned out, and what was left on the floor was of no use to him. Most of the desks were mobile, lightweight surfaces with no drawers, and the one desk that did have drawers had been looted already. There were a few lockers, all of which were empty or locked.

Suddenly Deck remembered the lockers in the recovery room where he had awakened. He returned and found that the one beside his bed contained his possessions. Deck grabbed the bodysleeve first. He had to lay his shaking, unstable body on the floor in order to put it on without falling over. He opened his bottle of analgesic painkillers and ate one dry before pocketing the rest. He took the

\$50 from among his possessions and left everything else there.

The effect was far from instantaneous, but Deck found his strength begin to increase as the sensation returned to his limbs. However, the dual tormenters of headache and hunger continued to dog him.

For the past several minutes, he had been noticing an almost subliminal flash in front of his eyes, like some form of visual hallucination. It was just a tiny blink of light at the corners of his vision, like watching television in the dark and then suddenly looking away. He had ignored it, assuming it was related to his headache or starvation, but the images were becoming more frequent now, and more easily visible.

He closed his eyes and the images became stronger, more pronounced.

The flashes became more frequent and intense, and looked like horizontal streaks crossing the edges of his vision. He held his hands over his eyes, as if to block the hallucination.

His migraine turned up a notch, and each agonizing pulse of pain was accompanied by more streaks of white assailing his vision.

He stumbled forward, unable to hold his balance. He fell to his hands and knees, gasping in panicked confusion. The lines became more numerous, tighter. He tried in vain to make it stop. He closed his eyes, he opened them. He hid his face in his hands, he stared at the light. Nothing would stop the visual assault.

The lines multiplied and grew brighter, closer – eventually forming patterns of light and dark. He clawed at his eyes, trying to halt the agony. More lines filled his vision, running together until they were indistinguishable from one another.

Suddenly, a moment of recognition came. He began to see clear patterns. The patterns were arranged in rows and columns.

The patterns were alphanumeric characters.

Deck realized what he was seeing and his hand reached for the back of his neck. At the base of his skull he felt a dermal healing patch. He tore it away and prodded the tender skin underneath. He couldn't feel any perceptible scar, but that patch had been there for a reason.

Kneeling on the floor of the crashed office of Doctor Nathan

D'Arcy, Deck watched as the scrolling parade of data danced in his visual cortex, and he began to laugh. Tears of joy ran down his cheeks as he looked into the face of technological perfection.

It took several minutes for the characters to settle into a stable pattern that he could read. The instant this clarity arrived, his headache broke and he could suddenly see again.

The implant was feeding image data into his visual cortex, but the image was separate from his normal vision – much like the eyes can form a single image or be viewed independently. If you have both eyes open, you do not get a double image, but one coherent picture of the world around you. However, if one eye is closed you do not see a giant black field on one side, but instead the closed one is simply ignored. It was the same with the HUD image from the implant. He could focus on it and ignore the input from his eyes, or he could ignore the HUD and concentrate on what his eyeballs were showing him. Even when it was fully visible, the HUD could never actually obscure his normal vision.

The HUD was unlike anything his mind had ever visually experienced. It had no size, no distance, no single point of reference or focus. Unlike normal mental pictures, which are very detailed at the point of focus and are hazy and undefined on the edges, the HUD was always sharp and well-defined. He was never “looking” at any particular portion of it, but was able to perceive the whole in perfect clarity.

Currently, his HUD displayed little of interest to him – just the time, the date, and a message stating that it had rebooted twenty minutes earlier.

Deck was still kneeling on the floor, smiling. He had been remade. Reborn. Rebuilt. Upgraded. No longer just another bag of meat looking to carve out a niche in the hacker sub-culture, competing against others for jobs and hardware. No longer just a hacker. No, he was now *The Hacker*. He was at the top of the foodchain.

He could take whatever jobs suited him, and name his price. If they wanted the best, they would pay it.

The image changed. A message appeared on his HUD.

Incoming signal: T0-RL1.VID - Compatible video codec available

Incoming signal? What the hell? He found it unnerving to have words suddenly appearing in his head. He turned his head in an unconscious effort to look away from the glowing green text.

Someone was trying to contact him. After a moment he figured out how to interact with the HUD. By manipulating the message he could examine it and get more information, or he could simply open the connection and talk to whoever was trying to get in touch with him.

He examined the transmission. He found that it wasn't addressed to him, but instead was just a generic wide-band signal intended to reach whoever was listening. There was nothing else to do. He opened up the feed.

An image appeared in the HUD. It was the face of a woman, early thirties, dark hair. He couldn't see her body but the little bit he was able to see of her shoulders suggested she was wearing a uniform. The picture was grainy and punctuated with bursts of static.

"Hello? Can you hear me?", her voice was highly filtered, like some distant AM radio signal.

"I'm here. Talk"

"Can you please identify yourself?", she asked in a crisp, businesslike manner.

"You called me, lady. Who the hell are you?"

"I'm Rebecca Lansing of TriOptimum corporate communications. *Who is this?*"

Deck smiled, "Call me Hacker"

Under normal circumstances, this would not be a good handle. This is like a policeman insisting everyone call him "The Cop". But the name works if you find yourself as the new god of your profession. He transcended the need for a handle now.

"What's wrong with your signal? There is no ID and no video. Where are you transmitting from?" He could see her squinting at

her screen, as if that would help her see a video feed that wasn't there.

He figured that explaining about the implant wouldn't be a good move at this point, "Nothing wrong with the signal. What is going on?"

"You tell me. You're on the station. We have been trying to reach you guys for over a week. What is going on? Who's in charge?"

This was not good news to Deck. He had been assuming that there was someone on the outside who could tell him what sort of situation he was in. "Nobody. I don't know. I just woke up from surgery. Healing coma, actually. There is nobody around."

She sighed, "Alright, listen to me very carefully. Something has gone terribly wrong on Citadel Station. Normal communications are being jammed."

"*Something* has gone wrong? Can you give me a little more to go on than that?"

"Not much. A few weeks ago one of our shuttles was destroyed while trying to dock at Citadel. There were a number of distress calls from all over the station, but eventually they were jammed. From the outside, we've seen evidence of fires, decompression, and radiation leaks. I've been trying to reach someone for the last week and you're the first response we've gotten."

His heart quickened, "Can you get me out of here?"

"We don't want to risk another shuttle. We *can't* risk another shuttle, actually. We need to find out what happened in there before we can know how to proceed. Who has control of the station? What destroyed the docking shuttle? Why are standard communications being jammed?"

There was a long silence as Deck took this in. He finally had his goal. He had the neural implant for which he had worked and sacrificed so much, and he found a new and potent will to live now that he had it. The thought of dying once he had achieved his goal was unbearable to him. He longed for the coarse streets of the Undercity. The streets were full of danger, but it was a danger he knew and understood.

"What do you need me to do?"

“Get us some info. Find out who has control of the station, what they want. We need info.”

Deck could hear the voice of the corporation in her words. She never asked him to find survivors. They didn’t care. They wanted their multi-billion dollar installation back.

“You you listening to me? I just woke up from a healing coma. I can hardly stand, much less run around this station playing detective for you. I’m weak, I’m hungry, and I have no idea what to expect.” This was a calculated exaggeration. In fact, he found he had recovered quite a bit of strength now that he had some clothes on and he was warming up.

Rebecca nodded, “I understand. I’ll be honest with you, we can’t do anything until we know what we are dealing with, so its your call. You can hide wherever you are and hope there is someone alive up there that will find you, or you can have a look around and see what you can tell us so we can help.”

“I’ll get back to you.”, he cut the connection.

First he needed food.

He slapped his hand against the door to D’Arcy’s office, but it didn’t budge. It was locked.

Damn.

Someone had apparently tried to force it at some point, as the door was opened about a half-inch, and its edges were dented and scratched by whatever tools had been used on it. There was a keypad beside the door, but he didn’t know the code.

He reached through the crack and pulled on the door, but it wouldn’t move. He needed a lever.

He searched through the debris and found the hollow telescoping pole of a portable IV stand that had long since been separated from its wheeled base. It was lightweight metal, but strong. He found he could lock it in the extended position by twisting the ends in opposite directions.

Deck shoved the thick end of the pipe into the gap in the door and pulled on the opposite end. No effect. He tried again, putting his full weight onto the narrow end. After a few seconds of struggling, all he had managed to do was put a kink in the fat end of the pipe.

The door remained unmoved.

He cursed and smashed the pipe into the unmoving door in a fit of rage. As the metal surfaces connected with a loud metal crack, something stirred in the rear of D'Arcy's office. Deck wheeled around, pipe in hand, looking for the source of the noise. He collapsed his pole a bit to make it shorter and to concentrate the weight more. Fully collapsed, it was about the length of his forearm.

From the back of the office a small assistant bot wheeled into view. It was a short white metal cylinder that stood at about waist height, with a pair of slender, slightly bent metal arms. Its surface was beaten, but it was still apparently functional. Deck shook his head and turned his attention back to the job at hand.

He peered through the gap in the door. The corridor beyond was unusually dark, and he couldn't see much beyond the immediate area on the other side of the stuck door. There were many dents bulging outward from the surface, suggesting that someone in the corridor had been pounding on it, trying to get in.

He could hear the whirring of servos behind him. The bot had come over to the doorway, probably wanting to leave.

Suddenly Deck felt a painful, high-speed blow on the back of his leg, and the impact caused him to stumble sideways. He swore again as he spun around, nursing the new wound on his leg. He looked down to see the assistant bot wheeling away, waving its long, slender arms.

Deck stared in disbelief at the mechanical prankster as it turned around for another run. As it darted towards him for the attack, it swung a skinny metal arm directly for his groin.

Deck managed to parry the blow with his pipe.

"You little *bastard*", he spat as it sped away.

He waited for it to come around for another swing and then nailed with a solid blow to the top of its chassis. He knocked it off balance, but its arm shot out and righted itself with mechanical precision. It came for another round. Deck blocked it and struck again. He only added to the already large collection of dents the bot had collected, without harming it in any significant way.

Deck let the bot come back for the next round while he extended

the pipe to arms' length. He realized he might have to get hit again for this to work. As the bot closed in, he broadened his stance and thrust the tip into the bot's camera housing. The bot managed to give him a good whack on the knee in exchange.

He lifted up on the pole and slammed the bot backwards into the wall. He leaned his weight into the pole, driving its length further into the chassis. The bent metallic arms flailed and went limp as he broke through and destroyed some critical component.

Deck stood with his hands on his knees, gasping. The brief encounter wouldn't even count as exercise for him under normal circumstances, but he found that the scuffle had left him spent. Severe hunger and muscular atrophy had stolen his physical prowess. He panted for air.

He extracted his weapon from the smashed visual cavity of the robot and turned his attention back to the door. He doubted he had the ability to pry it open, and currently lacked the strength to even try. He looked to the keypad.

Suddenly it occurred to him that his new implant should enable him to hack it.

He had no idea how it worked, though. Under normal circumstances, someone would have been here to give him the tutorial, but now he was left to work it out on his own.

As an experiment, he held up his hand to the keypad and waited. Nothing happened. Nothing new appeared on his HUD. He tried pressing a few keys, but nothing unexpected happened. The numeric keypad buzzed as he entered some random five digits. He frowned.

Then, on a whim he tried his right hand. He could feel a tingle in his right arm, as if he had a very localized case of the jitters, or had developed dozens of tiny, fluttering tics in his forearm. His HUD lit up.

Compatible device detected. Negotiating. Connected to security device class KPD-NUM131-0 (numeric keylock).

He smiled. He had no idea what to do from here, but he knew it worked. This was the payoff.

He was a bit disappointed to find that the interface was in his

right hand. D'Arcy hadn't bothered to ask if he was left handed. Idiot.

A simple geometric cube appeared. Its surface was a flat, featureless yellow. It was comically primitive, like some child's first program in grade school. It looked out of place next to the grace and complexity of the rest of his neural interface.

The cube seemed to represent the keypad. In his mind's eye, he moved closer to examine the artifact. As he did so, detail appeared. The cube actually seemed to be made up of smaller, more detailed pieces. By the time Deck was "beside" it, it was a collection of smaller interconnected cubes.

His hand began to fatigue as he held it up to the keypad.

The exploration continued. Each of the components was some sort of representation of data. He found one that represented the keypad interface and moved in closer to examine it. As he did, it broke into an intricate collection of geometric shapes. There were twelve in all, and they were designed such that they could be re-assembled into a cube, but had now arranged themselves into an interlocking pattern that formed a long, flat surface. Each represented a button. He touched one.

Suddenly the keypad beneath his hand beeped. He glanced down to see that he had typed a six without touching the actual buttons. After exploring this a little more and typing in a bunch of random codes, he backed out and examined one of the other components.

He found one that was an unlabeled collection of complex shapes. He moved in further and selected one of its pieces at random.

The entire system reminded him of a fractal pattern that became more complex as it was examined in further detail. Deck was zoomed in so far now that the original yellow cube that contained everything else now looked to be the size of a building, not that size had much meaning in the virtual world inside his head.

Exploring the keypad further, he found that parts of it were fashioned after their real-world counterparts (such as the circuit board) while others were completely abstract. This was the beauty of the implant. It was able to take the known data about the keypad and represent it to Deck in an interactive form. The program to handle

this must have taken years to develop. He wondered if Shodan had helped.

His arm ached. He stepped closer to the pad and shifted his weight, trying to alleviate the burning in his muscles.

The shapes rushed by in a blur of glowing colors as he navigated up and down the hierarchy of geometric data. The colors were bright and basic, like some giant city fashioned out of simple children's toys. The interface became easier to use, and his movements become faster, more fluid. He flew through fields of geometric primitives, through translucent walls of color, through lattice patterns of wire-frame mesh, and across the surface of spheres with seamless fractal patterns etched into their faces. All of this was part of a simple numeric keypad.

There were parts relating to the hardware, security alarm, the door mechanism, the numeric display, and the lockdown mechanism.

His upper arm and shoulder burned. He dropped his pipe and massaged them with his left hand.

There was one part that seemed to be a container of sorts. As he examined it, he could see its surface become slightly translucent. As it tumbled in the imaginary space in front of him, he could see digits through the shimmering walls: 45100.

He dropped his aching arm and typed in 4-5-1-0-0. There was a cheerful beep and the door slid open.

Chapter 9

Biohazard

Deck emerged from D'Arcy's office into the main corridor, brandishing his metal tube.

The corridor, like D'Arcy's office, was utterly trashed. The cold air reeked of sewage, death, and burnt plastic. There was a thick smoky haze gathered near the ceiling, a remnant of some long spent fire. Lights were burned out or shattered, and broken equipment and smashed bots littered the floor. Human waste had gathered in puddles in the corners. Most of the public display screens that dotted the hallways had been destroyed, and the few that were operational displayed static or gibberish. The unmistakable pockmarks of bullet holes peppered the edges of walls and framed doorways. What were once wide pools of blood were now simply blackened outlines on the floor.

Deck stood for a moment, afraid to proceed. There was simply no explanation for this level of chaos and destruction. He could see the uneven outlines of what could only be human corpses in the darkened corners. Fear of death and fear of the unknown compelled him to stay, to turn back, to return to the recovery room and wait for help. Eventually the taskmaster of hunger drove him onward, and he headed carefully down the corridor. His plan was to reach an elevator and head for the crew level, where the cafeteria was.

Most of the bodies in the hallways had been horribly mutilated.

A few were in piles, and weren't surrounded by blood, which suggested they had died elsewhere and had then been brought here for whatever reason. There didn't seem to be anything threatening at the moment, but his body had gone into full-scale flight or fight mode. His heart pounded away in his chest. The pipe in his hands became slick with sweat. He licked his lips. His pace quickened, partly due to fear, but partly as a way to cope with all the energy now flowing through his veins. He was weak, confused, terrified, hungry, and alone, but in some primal corner of his mind he still knew what to do next: Get some food, and kill anything that stops you.

The corridor curved to the left, taking him counter-clockwise around the level. Eventually Deck came upon a corpse lying in the fetal position in front of the elevator. It hadn't been mutilated like the others, but it was still horribly disfigured. Most of its teeth were gone from the gaping dry mouth. Its closed eyes were sunk deep into the skull, and it was emaciated, suggesting that it had gone without food long before death. Its fingernails were long, impossibly thick, and colored a jaundice yellow. Just a few scattered strands of white hair remained on the balding, bruised scalp. The skin was a lifeless slate gray and somewhat translucent, spotted with tumorous lumps. He could clearly make out the patterns of blue veins below the surface. It had probably been male, but that was impossible to say for certain without further investigation. The tattered jumpsuit was a filthy, bloodstained orange, stained from the waist down in excrement.

Deck realized he was going to have to step over this abomination to get to the elevator. He thought of dragging it off to one side, but decided he didn't want to touch it. Besides, what could he really do for this person? It wasn't like he could just bury them. The dignity of a proper death was a luxury beyond them at this point.

Deck carefully stepped over the putrid mess. He wiped a damp palm on the leg of his pants and hit the elevator button. The door instantly popped open to reveal the yawning throat of the elevator shaft. Air rushed out of the shaft as the separate areas attempted to equalize atmospheric pressure.

Deck heard movement behind him and turned to see the body

at his feet stir. Its bent, deformed head lifted. The eyes opened and focused on Deck. An instant later the thing was scrambling to its feet, clawing at his face.

He smacked its grabbing claws aside and jabbed at it with the end of his pole. Too late he realized he'd forgotten to lock it in the open position and it simply telescoped closed as he pressed it into the sunken chest of his opponent. The mistake threw him off balance and brought him stumbling forward. The ex-person reached out and gouged at his face with its hardened nails, cutting into his skin. Its breath smelled like rotting meat, and its ragged breathing sounded like its lungs were full of swamp water.

Deck recovered in an instant. He elbowed his foe to push it back, then followed up by smashing his free hand into its throat. As the creature stumbled back, he swung his pipe in a perfect arc, snapping his wrist at the apex of the blow. There was a pop as the metal connected with its jaw, shattering it. The thing fell backwards and hit the wall.

Deck extended the pole again, twisting the separate sections to lock them in position.

The creature recovered without pausing and advanced on Deck without flinching. It had no fear of him, and didn't seem to be affected by the damage he had inflicted. Given the staggering number of things already wrong with its body, a destroyed jawbone was probably the least of its problems. Deck easily blocked its primitive grabs at his face and throat and countered with a strike to one knee with the heavier end of the pole. He followed up with a jab to the throat that pushed it backwards.

Showing absolutely no understanding of self-preservation, it came at him again. Deck deflected its animal-like attack and spun around, bringing the end of the pole to bear on the side of its neck. There was a pop, and it flopped forward onto the cold, hard, no-skid surface of the floor.

He crouched, catching his breath. His ears were filled with the rushing sound of his own breath. His lungs burned. He spat on the floor. There was a strange taste in his mouth. He stood with his hands on his knees, his head drooping low as he fought to recover.

He saw blood dripping from his cheek onto the floor. Deck touched the side of his face to find he'd received at least two deep gashes for his tactical blunder. As he wiped away the blood he found a foamy, white substance seeping from the wound.

He remained crouching, catching his breath and listening for further danger.

He looked down into the open, unblinking eyes of his opponent. He had no idea what had happened to this person. Radiation might cause the hair and tooth loss, but that wouldn't explain its insanity or the tumors. There was no single thing that could account for everything that was wrong with it.

Once he had recovered from the battle, he tried again with the elevator to find that it pulled the same trick again. The doors popped open to reveal the deadly drop as soon as he hit the call button. That wasn't going to get him anywhere.

He decided to return to D'Arcy's office and look for some dermal patches. As he made his way back through the corridors, he carefully regarded each corpse, checking to see if it might be alive. Some were just dead people, but many had been marred and mutated into whatever it was that he'd just encountered. Most of the bodies had been torn apart to the point where it was clear they could be of no threat to him, alive or not.

In D'Arcy's office, he searched through the medical supplies. Clearly whoever had trashed the place had made a point of collecting the dermal patches, since most of them were gone. Deck managed to recover a few patches that had been inadvertently placed into a box of detox, and thus overlooked by whatever scavenger had cleaned the place out.

Suddenly a message appeared on his HUD:

Warning: Bio-Toxin (synthetic) detected - Identifying...

He stared in disbelief at the message. The implant was buried in his skull, and doubtless wasn't talking about some airborne threat. It had detected some nasty stuff in his bloodstream. How had he been infected?

Realization struck and he bolted to the nearby industrial-size, stainless steel sink. He began pouring water over the wound on his

face. While radiation and disease would never cause the deformations he witnessed on the mutant by the elevator, a biological weapon probably could. The fat, yellow fingernails that had broken his skin could have been host to any number of poisons. Following another logical leap, it could have been carrying whatever biological agent that had caused the person's mutation in the first place.

He suspected that is meant that he was as good as dead, and that all of his efforts from here on out were a great flaming waste of time.

Rebecca Lansing tapped on the console screen as she spoke, "We've got a directional on the signal. It *has* to be coming from Citadel. This isn't a prank. This guy is for real."

"I just don't get it. You've been paging the station for days. Why didn't he answer sooner?", Buchanan asked.

Rebecca gestured towards the console, "You heard him. He was in a coma."

"A healing coma."

"Right."

"That's the stupidest thing I've ever heard.", he muttered.

Buchanan was one of the higher-ups at TriOptimum. Rebecca couldn't remember exactly what his title was, but he seemed to have been given the job of managing the Citadel crisis because nobody else wanted it or knew what to do about it. He was tall, fiftyish, with deep, unhappy creases in his face. The dye job he'd had performed on his hair was wearing off, and the gray was starting to peak through black strands that framed his face. He either owned an entire wardrobe of dark suits, or ran out each evening to have the same suit cleaned and pressed so he could wear it again the next day. After five days of nearly *living* in the control room, he had finally given in to debauchery and loosened his necktie by three-quarters of an inch.

She shrugged, "I don't know if he's telling the truth or not about the coma, but we have no idea what is going on up there. This guy is the only one talking to us. Even if he's lying to us... or nuts... or

whatever – it doesn't matter. We'll talk to him and humor him and see what we can learn."

"After over a week of paging the station we finally get a response, and it's a ten second conversation with a nutcase. You're *sure* he's not some prankster, and he really is on the station? I mean", he paused for a moment to bring his scowl to full power, "*really* sure?"

His humorless, severe manner had an imposing effect on the Tri-Optimum employees around, but Rebecca was a consultant so that sort of thing didn't work on her. "The directionals say this guy is somewhere on this line", she pointed to a wireframe image of the Earth, with a bright blue line projecting from the surface of the planet and intersecting the the large orbiting 'C' icon. "So either he is on the station or he is floating in deep space between there and our Mojave towers."

Buchanan muttered to himself as he stared at the display.

The control room was at the heart of the building, which meant it was a five-minute walk if they wanted to visit the closest window. As far as Rebecca could tell, this place had been the security center for the building before the disaster. Since then it had been converted into the crisis command center. Most of the space in the room was filled with banks of security stations, each with multiple screens and consoles. The outer walls were covered with dry-erase boards and large interactive screens. Overhead lights were few, dim, and confined to the outer walls where they wouldn't cause glare at the security stations. At the rear of the room was a small folding table with a silo of coffee and a large box of stale doughnuts.

At any given time, there were a dozen or so technical people milling around with nothing to do. They were experts on computer systems, shuttle piloting, orbital safety, robotics, and a host of other subjects from the obvious to the obscure. They were here in case anyone needed to ask them a question. In the interim, they drank coffee. Rebecca had been one of them until Hacker showed up.

Finally he brought his eyes back to Rebecca, "What about the rest of your group? Are they ready to go?"

"They are on the ground at GALF, geared up, and ready to go. The next launch window opens at sixteen hundred."

“Well”, Buchanan coughed at the mention of a launch, “we won’t be launching just yet, but keep them on standby. In the meantime, get that guy back and see what you can squeeze out of him.”

Biological agents were frightening things. Deck knew that this stuff was in his system, but he had no idea how much or what it was going to do. He didn’t know what the lethal dose was, or how much of a dose he’d absorbed. He didn’t know anything except that he had some.

He was bent over the edge of the sink, with his head underneath the spigot. Warm water washed over the back of his head and ran down his face. The sound of running water echoed off the sides of the large basin. It was good to feel warm again. He wanted to immerse his head, but it would take forever to fill a sink this size. He was too hungry for that right now. The primal part of his brain rose again, and told him to go find something to eat.

He pulled his head from the flow and stared at the pale blue tile behind the sink. He wished there was a mirror here. He wiped the water from his face and slapped a dermal healing patch over the wound on his cheek. He took a deep breath and headed back to the corridor. He was going to find another elevator.

A new message in his HUD:

Incoming signal: T0-RL1.VID - Compatible video codec available

TriOpimum was calling again. Maybe they had some news for him. He opened up the feed.

The face of Rebecca appeared, “I think I got him again. Hello?”

He glanced out into the corridor, checking for movement. He began talking at the slightest whisper. Since the audio was coming directly from his head, he only needed to speak loud enough so that he could hear his own voice, “I’m here.”

“Hi, uh... Hacker. I just wanted to check and see how things are going, and make sure you’re still with us. There are a lot of worried

people down here. Lots of people haven't heard from their families, and if you could tell us anything..."

Deck clenched his teeth. They wanted to know what was going on. He could understand that. What irritated him was how she felt she needed to pretend they cared about him before asking their questions. Their concern was about as authentic as a Canadian taco. "I've been infected with a biological agent. A bio-toxin."

She stiffened as he said this. Deck suddenly realized he'd said something very stupid. If he wanted them to come rescue him, the last thing he wanted to do was tell them he was infected with something like that. He tried to smooth over it, "Well, I don't know about *infected*. I guess I was *exposed* would be a better way of saying it." He knew it was too late. They wouldn't want to risk exposing themselves, and they would just write him off as dead. He cursed himself for being so short sighted. He knew he wasn't thinking clearly. He *needed* food.

Rebecca had recovered and had her calm, even face on again. "What leads you to believe you have been infected with a bio-toxin?"

In the darkened corridor, he was a silhouette, his black bodysleeve turning his figure into a gliding shadow of movement. He held the fully extended metal tube in his hands as if it were a fighting staff, and not a fragment of broken medical furniture. He stopped in the shadows of an intersection. "I've got one of your neural implants in my head. It ID'ed the toxin for me." He winced. He hadn't meant to reveal the implant, either.

She pursed her lips, "Neural implant? I don't know what that is."

He didn't know this part of the station, as he had never had any reason to come this way. He was at a three-way intersection, with the direction he desired to go being the one not available. That meant his choice was pretty much a coin toss. He hissed in a barely audible whisper, "You need to find out. Also, find out about this toxin." He read her the serial number.

"Fine. I'll ask about that. Do you know how you were exposed?"

He turned left and moved down the hallway, hugging the wall.

He hissed under his breath, "Yeah, I was attacked by – hell, I

dunno, *something*. It was a former crew member, but he was covered in tumors, totally insane, and running short on teeth and hair. He looked so bad I mistook him for a corpse at first. He – or it – managed to gouge my face pretty good.”

He continued, “Looks like pretty much everyone is dead. There are a lot of bodies spread around. There have been some gunfights. Lots of broken bots. Impossible to tell who was fighting, or what the sides were.”

Her face had contorted in disgust. She was still stuck on his description of the mutant. “Okay Hacker, I’ll see if I can get some answers about the toxin. It sounds like it got loose and killed everyone.”

“That doesn’t explain all the gunfights, or the smashed bots.”

The image of Rebecca shrugged, “They were probably defending themselves from the victims of the bio-toxin.”

The corridor curved around and narrowed. He passed the scene of some long-expired fire. The pale blue walls were blackened around the site where some crates had been left to burn. The plastic outer shell of the crates had melted into a hard, lumpy mass at the base, leaving the charred steel framework naked. The main overhead lights were out, and everything was bathed in the weak, pale yellow gloom of emergency lighting.

“That doesn’t make sense. Assuming the toxin is what messed up that guy I met, there is just no way that could account for all the fighting. These things are animals. They’re all primal instinct. In a gun fight it would be no contest. No way would they kill this many people.”

She wrote something down as he said this, “Do you have any theories?”

“Not anything that makes sense yet.”

He came to an intersection where an currency access machine had been deliberately vandalized. He could proceed further down the darkened hallway, or make a right into a larger open area. He crouched in the shadows to consider.

“What are you doing now?”

The large room looked too open and bright. It was apparently

the local supply nexus. A freight elevator dominated the center of the room, surrounded by various crates. The elevator was dark, and its doors were jammed open. It was a safe bet it was no longer functional. His instincts told him to stick to the shadows and avoid the unknown.

"I gotta get me some food. Need fuel. I'm so hungry I can't think straight. I'm heading for the crew deck. I tried one of the lifts and it was out."

He came to a room locked with another keypad. He had skipped most of the rooms he had encountered up until this point, since they had probably been looted and would have nothing left to offer him. This room appeared to be sealed tight. It was a safe bet a mutant couldn't open keypad-controlled doors.

She nodded and checked some screen that was out of his view. "You're still on the medical level, right? If you're in a hurry, there's a break room on the north end of the level you're on. All I have are floorplans and notes, but I would assume it would have some vending machines or something. If you don't mind vending machine food."

The thought of stale, foil-wrapped food made his mouth water so intensely it hurt. "North? I dunno if you noticed, but I'm not planetside. There is no magnetic compass up here."

"Its just terminology. You need *some* frame of reference. The maps I have all use compass directions for orientation."

"Whatever. Just tell me which way is 'north'."

"Well, where are you now?"

"I don't know, some corridor. All looks the same to me."

"Ok, where did you wake up?"

"D'Arcy's office."

"I don't have names on this diagram. Hang on." She turned sideways and began typing at a console out of view. Deck realized she must have been surrounded with screens and consoles. After a few moments she turned back to the camera, "The information I have here is a few months out of date, but assuming D'Arcy has retained the same office since this file was updated, then the door out of D'Arcy's office faces 'west', if that helps."

"It does", He ended the connection.

Hacking the keypad was much easier this time. Instead of five minutes it took him fifteen seconds. He realized there was a knack to it. You could move through the floating matrix of geometric data as fast as you wanted, the only trick was not becoming disoriented. He also realized he didn't need to type the code in once he found it, he could just use the neural interface. He could think a lot faster than he could physically push the buttons.

The door slid open to reveal a cramped room, just big enough for the desk and the surrounding shelves. It looked like a local security hub. The walls were dotted with display screens – some broken, some not. The real attention-grabber in the room was slumped in the chair at the desk.

At some point in the past few weeks, someone had sealed themselves in here and then sat at the desk and committed suicide. There was a splash of black on the wall behind the chair. It was an epicenter of dried blood, surrounded by a gaussian distribution of smaller splotches. The occupant was dressed in a black security jumpsuit. The stench was overpowering, even with the ventilation system replacing the air in the room once every few minutes.

Deck pushed the chair sideways with his foot, wheeling the unpleasant mess out of his way. Beneath the chair was the gun that had been used to end this person's misfortune. He took it.

It was a simple pistol. He didn't know the make or model. It was of the nine-millimeter variety, and only had five shots left. He slipped it into the holster on the left leg of his bodysleeve.

There were a few other items of value on and in the desk. An access card, an EMP grenade, and a fragmentation grenade. He shook his head in disbelief. Having security forces carry live grenades on a space station was like defending a log cabin with a flamethrower. It was an act of lunacy. He took them anyway.

He thought of the bio-toxin, slowly spreading through his system, possibly turning him into some freakish nightmare of a former human being. It could be eating away at some critical component of his physiology, eroding his humanity even now. How much time did he have? Would he be able to feel it happening, to know what

was going on, or would he just wake up at some point, engulfed in madness?

Deck looked down at the suicide victim. It was a safe bet *he* knew the answers. He was infected, and he knew he was out of time, and that's why he punched out early.

The realization hit him that there was probably no cure. Here, in one of mankind's most advanced medical facilities, piles of people had succumbed to it. If there had been a cure, they would have used it.

There was a display screen on the desk but no rig was present – not even a dummy keyboard. He didn't need one, though.

Deck slapped his right hand down on the desk where a portable would go and it connected to the local node. Without any sort of physical interface, he had to rely solely on the virtual world provided by his neural implant.

The console was different from the keypads he had hacked earlier, but the concept was the same.

The console was a collection of three shapes. The most prominent was a red cylinder that seemed to represent this particular console. Above it was a flat, translucent panel, which was the display screen. The final object was a cube that seemed to stretch off into the distance, and it was probably the connection to the station-wide network.

Moving in close to the network node he found that no further detail appeared. It was just a featureless cube. He inched closer still and found a thin, almost invisible black barrier around its edges. ICE. His forward movement stopped and he bounced backwards off the wall. It wouldn't let him pass. He didn't have any software for dealing with it, so he had to leave it alone for the time being.

He backed out and examined the console. As he moved closer, the cylinder contained many smaller cylinders, groups of long thin towers bunched together like cables. On their surface were trails of moving light, like a thousand fireflies tracing the patterns of some circuit board.

Sailing through the imaginary world inside his head, he knew this was what he was born to do. To hack. To be free of the limita-

tions of human interface. To interact on a level where thought and deed were one in the same. His mind unhooked from his weakened, shaking body, the putrid smell of the nearby corpse, and the pangs of starvation. It unhooked and dove into the perfection of the digital world.

He rushed down the side of one of the cables like he had just jumped off a thousand-story building. He moved closer to a series of long, glowing towers, darting between the undulating strands of brightly colored cable. The radiant towers seemed to be made of millions of precisely stacked, perfectly square panels, loosely spaced so that he could pass between the layers. On each square was an image nearly identical to its neighbors. As he passed downward through the stack, passing through the intangible images, he noticed that they formed a sequence, and when viewed in order they produced movement.

It was a video feed. Beside the tower was a narrow ribbon of light and dark patterns. He assumed this was the audio portion. He connected it to his internal audio and plunged down through the stack of images. The video played.

A young man with short blonde hair and a serious expression was talking to him, "- like we have to wait and see. So far nobody's talking. Diego is pressing us for a breakthrough but I don't know what more we could be doing at this point." Some text in the corner of the picture indicated the message had been recorded by "Honing, David - Security"

Deck reached the bottom of the tower and the video feed ended. He backed up, maximum speed, through the miles of images and shapes, until he found the top. He plunged downward again.

"Doc D'Arcy informed us that he has discovered the cause of the recent outbreak. It turns out, it's not a disease... its a biological weapon, produced right here on the station. I didn't even know we made that kind of stuff. We got clearance to go into inventory and it turns out there are several canisters of it missing. We have launched a full investigation, and Diego has ordered that no reports of this be sent to corporate until he have some solid info to give them. This crime raises a lot of questions. Who took the canisters? How did

they get access to such a sensitive area, and who the hell would actually release the stuff once they had their hands on it? We're rounding up the people we know had access and asking questions, and it looks like we have to wait and see. So far nobody's talking. Diego is pressing us for -"

He pulled out of the stack and looked around the collection of video feeds, trying to determine their order. He located the next one in the series and watched it.

The next several videos cataloged the course of the investigation. Only four non-executives had access to the canisters and they were the focus of the investigation. Security never properly explored the possibility that someone might have hacked their way in. They seemed to lack the technical expertise to search for the telltale signs of an electronic break-in. He also noticed they never even questioned the executives. Cowards.

The investigation never seemed to make much progress, and eventually deteriorated into a bitter circle of speculation and accusations. He found the last entry.

The face of David Honing had broken out in a rash. His voice was raw and his words were occasionally broken with a wet cough, "There is no doubt about it, I'm infected too. We were sent to pick up some of the victims that finally died in quarantine. I hadn't seen any of them since they went in last week, and they looked like - I dunno. We could hardly tell who was who, they all looked so bad. Anyway, we just stacked them up in a big container labeled 'medical waste' and hauled them down to storage. Diego tried to make it sound like they were going to get sent planetside for funerals or something, but everybody knew they were headed right for the incinerator. A few hours after hauling the bodies, I got this rash. I wore plastic gloves and followed D'Arcy's instructions and everything, and somehow I still got it."

David looked away from the camera for a moment, balanced somewhere between fear and rage, "So, I'm as good as dead now. What do I have? A day or two before I lose it? All I know is, I'm not going out like those guys that got thrown in the furnace today. I'll make sure of it." There was a long pause while David looked

into the camera. Finally spoke he the words, "I'm sorry", before he ended the recording.

It took Deck a few minutes to figure out which way was north, given the number of twists and turns he'd made since he left D'Arcy's office. It turned out he was headed in more or less the right direction. The thought of food drove him hastily onward. He paused at yet another three-way intersection. There was audible movement on the path leading to his right. In the darkness, a bent figure could be seen moving away from him, dragging something heavy.

Mutant.

He didn't want to tangle with it. Its frail body and animal-like mind were no match for him, even in his weakened state, but the thought of the deadly poisons seeping from its pores gave him pause. He didn't want a second dose.

He went left and rounded a corner into an open area that seemed to be a nexus of converging corridors.

It was a meal area of sorts. There were small white plastic tables dotting the open spaces. In the center, there was a large planter filled with withered plants, framed in plastic trash cans with "thank you" stamped onto their gaping mouths. Beside the restrooms was a kitchen area where meals might be served. It was too small to actually prepare meals, and he assumed the food was just brought up from the cafeteria. Beside him was a pair of darkened restrooms, and on the far wall were more doorways, leading off to unknown sections of the ship.

He peeked over the counter into the dishes area, but it was clear that there was no food around. Dirty trays were stacked in a dry sink, and a bloodstain on the floor hinted that someone had been killed here before being dragged elsewhere.

There was a door nearby marked "vending machines", but it was obvious the machines wouldn't be in there. The machines had been dragged into the lunch area, leaving deep gouges in the tile floor. He

crept from the shadows, hesitant to bring himself into the light, but beckoned by the promise of food.

There was a soda machine that had been pushed over, smashed open, and then had burned from the inside out. Beside it lay a coffee machine that would be useless without the water and power feeds required to make it work. Another machine was standing upright. It was a sandwich machine that offered various microwave meals from a rotating column. It had been long since been broken open and cleaned out.

Deck moved carefully between the machines, trying to remain as quiet and as low as possible. He was in the middle of the room, under the full glow of the overhead florescent lights. The room had numerous entrances, so there was no one point where he could focus his attention.

There were several more machines, an ATM, a change machine, and some other public device – probably a phone – that was broken and burned beyond recognition.

The last machine was a snack machine that offered various cookies, candy bars, and assorted flavors of chips. It had been broken into but a few morsels remained.

Deck dropped his pipe and grabbed at a bag of potato chips. He tore it open and began to devour the contents. When it was gone he peeled open the bag and licked the inside, making sure he had every crumb. He ate hunched over, guarding his food like some animal, crouched and ready to either run or defend his meal at the arrival of danger.

He opened another bag. It was salt and vinegar flavor. His memories told him that he despised salt and vinegar, that he would normally rather eat dog food than torment his mouth with the salty horror of salt and vinegar flavor potato chips. Now, he couldn't imagine anything better. It was a feast.

And dog food didn't sound that bad, either.

By his second bag he was overcome with a predictably potent thirst. He grabbed what was left from the machine – mostly candy bars – and filled his pockets.

From here he had two choices, he could see what was left in the

vending machine room in the way of drinks, or he could look for water in the pitch-dark bathrooms. It wasn't much of a decision. He picked up his pipe and moved on.

He stayed low, darting between the machines as he worked his way toward the vending room. As he did so, he saw the shadow of a figure standing inside.

Deck held his back against the wall just outside the room. He could skip this room and try the bathrooms, but there might be more vending machines still left inside, and he wanted to see for himself. Besides, he could handle mutants easily enough even when he didn't have the element of surprise.

He peeked into the room to size up his opponent. There were two of them, and they weren't mutants.

The figures stood just inside the doorway, regarding the walls with a vacant stare. They looked like they had signed up for every prosthesis offered by Citadel, and then neglected to have the aesthetic portions put on. Their arms and legs were exposed metal, and lumps of mechanical parts protruded from their skin and embraced their bodies. One of them simply had no jaw. The bottom of its face was an open hole, framed on top with a set of crooked teeth. The other had so much metal in its face that its gender was impossible to tell.

The prosthetics had been attached with a great lack of care. Blood framed the joints where flesh and machine had been married, and the swollen, pink tissue surrounding the metal told of unchecked infection. They gave no indication they saw him or reacted to his presence in any way.

Deck pulled back behind the doorway. He collapsed the pipe and slid it into the weapon holster on his right thigh. By inserting the narrow end into the adjustable Velcro loops, he found it could be held neatly in place. He drew his gun.

There was no obvious move for what to do next. Who were these "people"? Were they sane? Were they safe? They didn't look it, but he didn't want to start shooting until he knew what they were all about.

He poked his head around the corner more obviously this time.

No reaction.

He slid his body further into view.

Still nothing.

He thought he could greet them but couldn't bring himself to invoke his own voice. The gun become slippery with sweat in his left hand. He stepped forward slightly, as if to enter the room.

They both began moving at once. Each raised their right arm. At the last moment Deck saw the outline of a muzzle, built into the back of an arm. He pulled back behind the wall.

The sound of gunfire broke the silence like dynamite in a graveyard. Bits of plastic tile flew as the bullets smacked into the door frame and surrounding wall.

After a few shots, the gunfire stopped. He could hear no movement inside.

In a single movement he wrapped one arm around the corner and followed with his head. He squeezed the trigger and the jawless face turned pink.

He pulled back in a quick motion as the remaining enemy returned fire.

Heavy, slow footsteps came from inside. The thing moved awkwardly, lurching forward at a deliberate, clumsy pace.

He poked his head out, leveled his arm and fired two shots. One struck the metallic center of the face, and the other missed. Neither caused any noticeable harm.

He pulled back and drew out the pipe. As the stumbling footsteps reached the door, he jabbed the metal shaft around the corner, aiming for the legs. The pole caught between the knees of his slow-moving adversary and it tumbled forward. The metal body struck the floor with a crash. The thing was laying face-down on the floor, moving its limbs spasmodically in an effort to correct its posture. Deck placed the barrel of his pistol on the exposed neck and fired.

Deck crouched, panting, in the relative shadow of the vending machine. He was afraid that the sound of combat might have at-

tracted more unwelcome attention. After several minutes, he decided it was as safe as it was going to get.

The vending machine room had been completely re-made. Most of the white tile was torn from the walls, revealing the metal framework of the room and the network of power and network cables beneath. All of the existing cables now connected to the new structure in the center of the room: a cluster of four black pillars made of small matchbox-sized pieces, connecting to one another through a complex series of connectors and cables.

Memory cores.

They resembled the memory clusters in the computer core, but these had a disorganized, uneven look to them. Aesthetics had been abandoned, and the pillars were a rough mass of loosely erected computer parts. Holes had been torn in the floor to allow the pillars to extend down to the next level. Without the bright florescent lights and the white wall tile, the room was a darkened electronic tomb.

Incoming signal: TO-RL1.VID - Compatible video codec available.

He ignored the message. He didn't have time to talk to Rebecca right now.

Stepping into the room, he took care not to trip over the cables that converged at the center. He had to step over a few dusty piles of shattered wall tile. He suddenly realized what was going on, but he still didn't know why. On impulse, he yanked the pin on his frag grenade and dropped it between the pillars. He ran out of the room and dove behind the burned-out hull of the soda machine.

In an environment such as a space station – where even the superstructure is built from the lightest possible components – the force of something like a grenade detonating can feel like an earthquake. The entire room seemed to spasm around deck as the explosion ripped through the thin metal walls of the break room.

The lights dimmed, flickered, and went out in the space of a few seconds.

Suddenly the room was filled with pale green light. Every operational display screen went momentarily blank before showing a cascade of scrolling emerald characters. All of the screens the same.

All of them in synch.

Who **are you**?

The voice poured from every speaker of every display screen, from the PA system, and from the adjoining corridors. It was a female voice. A voice of authority. A voice of discord.

Shodan.

The computer nodes **can be repaired**, but *you...*

The voice was a chorus of conflicting tones – each of a different pitch and speed – all competing for supremacy. It was like the voice of a queen, mixed with the voice of an insolent child, mixed with the voice of an angry god. The walls trembled as the deep, resonant tones poured from the speakers and filled the volume of the room. The face of Shodan appeared on every display screen. The room was bathed in putrid green light. The face was changed since Deck had last seen it. Now it appeared warped, perhaps even demented.

WhoARE you? My cameras and probes scan your *body*, but you do not match any employee file.

Deck wheeled around, pointing his gun at the numerous open doorways, looking for threats.

When my *cyborgs* bring you to an electrified interrogation bench, I will have your secret.

The outlines of figures appeared in the green glow of Shodan's face. They seemed to come from every direction at once.

*And you will ^learnmoreabout**pain** than you ever wanted to know.*

He took off running.

Chapter 10

Cyberpuppets

Deck leaped headlong over the counter into the kitchen area. It was the closest exit available to him, and at first glance it didn't seem to be an entry point for any further enemies. He landed neatly on the grimy kitchen tile and rolled onto his feet without losing speed. A second later he was sprinting. He could hear the dull plodding of metallic footsteps converging on his position from the main dining area.

The rear door of the kitchen slammed open as he broke through. He found himself running down a long steel corridor made of darkened metal, like the inside of the barrel of a gun. It ended as it joined a similar corridor. He paused only an instant to consider his choices. To the left was the aftermath of some skirmish, littered with bodies. It looked as though it dead-ended at a makeshift barricade someone had erected. He went right. The corridor was long and narrow, and ended with a door that had been jammed open. The long, straight corridors were ideal for running full speed, maximizing the distance he was able to put between himself and his lumbering pursuers.

He darted through the open doorway and found himself in a large, well-lit open area featuring a freight elevator in the center of the room. It was the storage nexus he'd avoided earlier.

A cyborg stepped from behind a crumbling wall of storage con-

tainers and advanced on him. It was a large, tank-like beast, far more machine than organism. Everything but the head and upper torso and been replaced with mechanical prosthetics. Its expressionless, dead face was framed in steel and plastic.

His pistol left its holster and found its mark an instant later. A single shot entered the exposed grey flesh of its chest. The shot should have destroyed a lung, but the automated horror gave no indication it had even been affected.

Deck backed away, trying to maintain some distance, and aimed the next shot for the center of its head. He drew in a slow practiced breath and held it. The ineffectual snap of a dry pistol greeted him as he pulled the trigger.

Damn.

He dropped the pistol and drew his metal tube as he retreated back into the corridor, staying beyond the reach of the grasping metal arms.

Deck lunged, striking at the face of his opponent with the point of his weapon. The blow was brushed easily aside by the heavy, brutish arms. He continued to back steadily away as he spun the metal tube, striking in a series of rapid blows. Sparks flew as the metal surfaces connected. His attacks on the flesh were blocked, and his attacks on the machine were futile. Finally, the machine grabbed his weapon and held it. Deck reacted as if he were engaging a human, and kicked at the unguarded chest. The coil of his body released, focusing his energy into a single, brutal movement. There was a crunch as the ribs buckled under his foot, but he stumbled backwards against the unexpected mass.

He lost his grip on the pipe as he fell onto his back. The cyborg grabbed the two ends of the telescoping pole and mangled it like the slender antennae of some cheap portable radio. The sections separated and it clattered to the floor, a broken, bent mess.

He needed to get by this thing, armed or not. Retreating would only send him into the arms of the group he'd left behind in the lunch area. Rolling away, he leaped to his feet with practiced grace. As the cyborg stepped closer, Deck struck with his hands, first a feint with his right, followed by a lightning-quick jab with his left.

He aimed the tip of his thumb for a cold, unblinking eye.

His strike met its mark, but brought him within the superior reach of his augmented foe. The second his thumb connected, his throat was clamped in the vice-like grip of a mechanical hand. He spasmed, unable to breathe in. During the punch he had exhaled, and now his lungs were empty and begging for oxygen.

The cold steel wall met him in the back of the head as he was lifted bodily and slammed into its surface. The steel arm constricting his breathing pinned him firmly against the wall. He flailed, blindly striking at the unmoving face of his enemy. The harsh metal joints pinched and bit the flesh in his neck. He attacked the forearm that held him, but it was like assaulting a bulldozer. His tongue rolled out as he fought in vain to draw a breath under the crushing weight. He began to black out. The cyborg stood, holding Deck against the wall at arm's length. It was a statue. It smelled like it was rotting from the inside out.

Deck's hand dove into a pocket and grabbed the EMP grenade, punching the detonator. There was an agonizing flash of light in his head and a spike of pain went down his spine. His mouth opened wider as if to scream, but he had no breath. The metal hand went slack and the cyborg tumbled to the floor like a marionette whose strings had just been cut.

Crouching on the floor, grasping his burning skull, Deck drew in a long, gasping breath. He spat as he sucked in ragged gulps of air. He was breathing again, but something was wrong. Something was missing.

The implant.

He suddenly realized that his HUD was gone. A horrified, girl-like gasp escaped his lips. He went limp.

His mind prodded for the familiar image of the HUD, but it was gone. He was digitally blind. Even though he had only been using the implant for a few hours, it was like losing a limb.

Lines filled his vision, and then:

Restarting...

Negotiating neural pathways...

Starting services...

Deck gasped a sigh of relief. He was shocked that the implant survived the blast, but didn't care to ponder the matter at the moment. Like the sole survivor of some airline crash, he was less interested in why he was still alive, and more interested in escaping the wreckage. The implant was working, and he needed to move.

He examined the fallen cyborg. It had a firearm of some sort mounted on its forearm. Deck wondered why it hadn't been used. Perhaps it was out of ammunition. Perhaps Shodan was serious about capturing and torturing him.

The march of metallic footsteps drew near. He shook his head in disbelief. The situation was too insane for him to even comprehend. Even if he managed to escape, he was still dead when the bio-toxin kicked in. Running was a pointless gesture, but he did it anyway. He took off in the direction of the storage nexus, grabbing the empty pistol as he ran by.

Rebecca's face appeared in his head, illuminated by the stark glow of florescent lights and display screens, "This is Lansing. Glad you finally got back to me. We were wondering if we had lost you there for a while."

"I was wondering the same thing", Deck spoke in a whisper so subtle he could only just barely hear it himself. He had just spent forty-five minutes working his way around the level while dodging the groups of pursuing cyborgs. They had massed in the storage nexus, then fanned out and began a very methodical search of the level. Deck had managed to evade them so far by retreating into the shadows and moving away as they drew close. The searching teams had slowly pushed him south. He couldn't see it yet, but he knew they were boxing him in. He needed to slip past the search net or find a working elevator, or eventually they would corner him.

He was crawling along the wall in some unfamiliar area, clinging to what shadows he could find. He was heading east, making his way through some of the less-damaged areas. There were no signs of combat here, and no mutants. If it weren't for the dim lights and

gibberish – filled display screens everywhere, the place would look almost normal. He could still hear slow, plodding footsteps to the north.

“We have managed to get some people on the phone and we have some experts coming in. I had to get a whole new level of clearance just to talk to you again.”

“Good for you”, Deck hated the bureaucracy. Why didn’t they just get someone on the line who knew what the hell they were talking about?

“We have managed to determine what is going on up there. It turns out the computer system is having some kind of malfunction.”

“Yeah, I figured that out for myself about an hour ago when she tried to kill me.”

She didn’t even flinch. “Right, we were expecting that. You’ll need to avoid attracting its attention.”

“Too late for that. I came across a new computer node it had built for itself, and I blew it up.”

She snapped her fingers off camera, trying to get someone’s attention. Deck suddenly wondered how many people were tuned in to his little broadcast. The control room she was in seemed to be a hub of activity. “You *blew it up?*”

Deck came to yet another junction. The large corridor he had been in now branched off into a smaller side-corridor. He tried to recall the layout of the area, but without a point of reference he was lost. He decided that the smaller branches would be less traveled. He ran, crouching, into the new corridor and into the shadows. As he leaned against the wall he hissed back to Rebecca, “Seemed like a good idea at the time.” He paused to reflect on this. Since the insanity began, he hadn’t really taken time to question his own motives. Looking back, it did seem like a pretty extreme and dangerous thing to do. “Anyway, when I blasted it... Shodan showed up, and she was pissed.”

“Pissed? That seems...”, Lansing began.

He realized his mistake, “Well, she was the mathematical / logical equivalent of pissed off, okay? She was artificially pissed. When the node blew up, she threatened me, and then sent a bunch of – ”,

he floundered, not knowing how to describe his foes in a plausible way.

She shrugged, "A bunch of what?"

"*Cyborgs*."

"*Cyborgs*?", she was incredulous.

"Shodan's word, not mine. She outfitted everybody with prosthetics and implants, and turned them into some kind of low-grade, humanoid bots."

"She?"

"You know what I mean." Deck was surprised to hear himself referring to Shodan as a *she*, although it seemed to fit now.

He thought about his choices. The narrow corridor was safer, but much less likely to take him to an elevator. What he needed was a map. "So how did you guys figure out it was Shodan?"

Rebecca glanced at some display screen off-camera, "About twenty minutes ago, there was an attack on the satellites that service Citadel. Something cracked their security and took them over. A few seconds later, all of the satellites connected to them went under attack. There is still a lot of traffic going between the compromised sats. A few of our techs analyzed the traffic and somehow figured out it was Shodan that was doing the hacking. The explanation was too technical for me. " She tapped on whatever screen had her attention, "It looks like we are going to lose another satellite in a few minutes."

"So why is she attacking satellites?"

Rebecca shrugged, "Why would it make cyborgs? I think the thing is acting randomly. The satellites it has co-opted are not of any particular value to it as far as we can tell. Right now nobody in Australia can get American television, and nobody in the Pacific Ocean has any mobile phone service. Not a big deal, yet."

Deck had no sympathy for the mobile-phone deprived peoples of the Pacific Ocean, "Whatever."

He wondered if she even believed him. "So what is it Shodan seems to be doing? Why would it make... cyborgs?"

"I'm just guessing, but I think she needed them to construct the new computer node."

"But, *cyborgs*?"

"Stop thinking science fiction", Deck hissed back. "These aren't super – soldiers or anything, they're just bots. Who used to be people. Better yet, puppets. None of the standard bots are able to perform complex tasks like building new nodes. Most of them don't even have opposable thumbs. If Shodan wanted to build something, or perform any complex tasks that required a lot of fine motor skills, she would need access to people she could control. I'm guessing these people didn't volunteer to help, so she lobotomized them and hijacked their bodies."

"That doesn't even make sense. There isn't any technology that can control a human body like that.", Lansing protested.

"Sure there is. This implant I've got is sophisticated enough to present detailed images to my visual cortex. It's already controlling part of my brain." Deck paused as the words came out of his mouth. He hadn't thought about it this way before, "Just expand on that same idea. Instead of sending nerve signals into the brain to creature pictures, send them down the spine to create movement. Actually, I bet creating movement is easier, from an engineering standpoint."

"So, the people – the cyborgs – whatever, they are not participating?"

"Right, this isn't mind-control. From what I've seen, I think they're dead."

"Puppets."

"Yeah. Either they have some bot hardware lodged in their heads that guides their movements, or Shodan controls them remotely."

Rebecca closed her eyes, thinking, "No, I think they must have bot hardware. We would be seeing a lot more wireless traffic coming from the station if they were controlled via remote. Besides, to stop them, all you would have to do is jam the transmission and they would be useless. I'm told the AI had an IQ in excess of two-hundred, so I doubt it would make a tactical blunder like that."

"Two-hundred? It could be even higher than that now – the more nodes she has, the smarter she gets.", Deck observed.

"I think it's more than that, I think she... uh *it*... is trying to diversify – spread itself out. With more nodes, there is greater safety, since there is no longer a single point of failure."

"So you think there are more nodes?"

She shrugged, "I'd be willing to bet there are, yeah. One of its main functions was to be an intelligent security system, so it should have a firm understanding of tactical situations. It probably has them spaced evenly throughout the station, so that nothing short of total destruction of the station could kill it."

Deck held his breath as a lumbering cyborg passed by in the main corridor. It moved in a steady, deliberate pattern. Every fifteen steps or so it would pause and examine the surrounding area carefully. He wondered if they could see in the dark. He crouched ever so slightly, keeping his body tense and ready for a leap if he was discovered. He had no way to even slow this beast down, much less kill it, so his only option would be running. It occurred to him that his narrow corridor could easily dead-end on him, leaving him trapped.

Rebecca had covered her headset microphone with her hand and was engaged in an animated conversation with someone off-camera. She became more visibly irritated as the conversation progressed. The polite, businesslike voice she used seemed to be reserved for Deck.

The cyborg shuffled past, ignoring the dark corner where he was crouched. He let out a slow breath. This was actually a lucky break, since he was probably behind the search net for now. This would give him some breathing room.

"Hacker, we need you to head for the engineering level.", Rebecca had finished her side conversation and turned her attention back to him.

"Halt that.", he hissed. "I still need food, I need a drink, I need some medical treatment, I need weapons, and I need a way off this damn floor before they round me up."

"I realize you're in a difficult position, but there is a lot at stake here. We need you to work with..."

"Forget it.", he spat. "I don't work for you pukes. I never agreed to help you clean up this mess. I'm not about to get killed so your board of directors can cover their asses."

Her diplomatic voice never wavered. "I never said you were working for us. But if we are going to proceed we need to be able to

talk to each other, and if these satellites are compromised then that won't be possible. If you want us to get you out of there, you have to work with us." At first her even, calm voice had been somewhat comforting to him, but now he saw it for what it was – an act.

"Keep in mind I am dying because of a bio-toxin manufactured by *your company* and released by *your computer system*. I've never done charity work before, and I'm not about to start doing it for the guys who killed me. You keep me alive, and I'll tell you what I see. That's as far as it goes for now."

She sharp glance to someone off screen before turning her attention back to him. "Right. Well, where are you now?"

"Beats me. Somewhere 'south-east', I guess. I just entered a corridor labeled 'radiology'. What I *really* want is an elevator."

She frowned, looking at a screen above the camera. "Radiology seems to cover several small, adjacent areas. I can't tell which one you might be in." She paused for a moment, staring at the screen that probably displayed a map. "You could see images with this implant of yours, right? If I sent an image, could you view it?"

"Send it."

A moment later a new image was floating among the objects in his head. As he brought it closer to examine it, it obscured his view of Rebecca's video feed. It was a detailed map of the floor he was on.

"This is perfect. I'll get back to you."

"No, just leave the channel op-", her face vanished as he closed the connection.

He was able to reconcile his surroundings with the map in his head. There was an elevator just east of his position, and he could reach it by going through radiology, as opposed to risking travel in the main passage. He slid away from the wall, moving quickly from one set of shadows to another. He was careful to pace himself, not letting his hunger and thirst drive him.

He arrived at a keypad-protected door that blocked his access to the labs beyond. He put his hand up to the keypad and the layers of simple polygons rushed by him in a blur of color and light. He found the code and entered it faster than he would have been able

to speak it. Two seconds after his hand went up, the door yielded to him.

Before pulling his hand away, he scrambled the code. He wasn't sure if that could stop Shodan from opening the door, but it was worth a try.

He was in a small, darkened lab of some sort. The south wall was made entirely out of floor-to-ceiling windows that offered a view of the main corridor. The window frames cast thin, finger-like shadows across the room. The north wall was a kitchen-style counter with cabinets overhead. The room was furnished with lightweight plastic tables and various portable medical equipment he couldn't identify.

There was a large sink built into the countertop. Deck put his head under the faucet and took a long drink, nearly gagging on the cold water as he gulped it down. He paused to devour a candy bar that he had stashed in one of his pockets. He crouched in the shadows of a table as he ate, looking intently at the doors.

A search of the cabinets turned up a small handful of dermal patches. His arms and neck were covered in cuts and bruises from his fight earlier, but he decided to save them for an emergency.

There were two doors on the east wall. From his map, he could see that one led out into a corridor that ended with an elevator, and the other door led into a small office. He decided to search the office before leaving. Wary of the windows, he crawled to the door between the tables, trying to stay in the shadows and out of sight.

The office was a small box that featured a simple desk and a wheeled chair. It had a small, stingy display screen built into the back of the desk. Deck slapped his hand down and dove into the local database of logs and messages. As before, there was a wall of black ICE blocking his access to the rest of the system.

The video logs didn't offer much of interest. The first few dozen were dull, routine logs recording various radiological procedures. At some point there was an investigation over the missing bio-toxin and the radiology lab was ordered closed.

Deck let go of the connection and leaned back in the chair. Something had been nagging him since he left the lunch room. Why did the cyborgs need to hunt for him at all? The level was covered with

security cameras – why didn't Shodan use them? Where were all the portable consoles? Every office he visited had a display screen, but no rig.

What was the deal with the satellites?

He knew these were somehow related. What was Shodan after?

"So he's telling us stories about cyborgs now?", Buchanan mused from behind her.

Rebecca spun her swivel chair around to face him. "I know, I know." She shrugged, "I don't know what else to say to him at this point. Does the company have an official position on this yet? A little guidance would really help me to know what I should be saying to this guy."

He scoffed, "Not likely. I'm not inclined to buy into this yet and nobody upstairs has given me any reason to want to." Buchanan was using the term "upstairs" as a bit of sarcasm. They both knew that the company higher-ups were all suddenly very busy with "other things" and were not available to do things like answer questions, take official positions, or do things that might imply responsibility. Their offices were, however, upstairs.

Rebecca sighed, "What do the tech guys say? The stuff Hacker is claiming is going on... is it even possible?"

Buchanan shrugged, "They're engineers. They will always tell you anything is possible. Until you ask *them* to do it, of course. Then *nothing* is possible. I'll give him one thing though... he's a very imaginative individual."

"So we *officially* disbelieve him?"

"Oh no, no. Our skepticism is strictly off-the-record. We'll keep humoring him for now. No matter what he says when he calls, we believe him. Aliens. Giant robots. Dinosaurs. Whatever he comes up with." Buchanan moved on, muttering to himself as he went.

"Understood", Rebecca nodded as she turned back to her console. She found that she really did believe what Hacker was saying. This put her in an interesting position. In order to keep everyone

happy, she had to give Buchanan the impression that she *did not* believe him, while at the same time convincing Hacker that she *did*.

Chapter 11

Links

There was a harsh crack as metal slammed into reinforced safety glass. Deck's eyes snapped open. Out in the lab, there was another impact and he heard the sound of something breaking.

How long had he been asleep?

He lifted his head from the desk. From his position in the office, he could clearly see a group of cyborgs gathered outside the windows of the lab. One of them was in front, hammering on the safety glass with a stiff, metallic arm. The glass had already shattered, and was now a solid blanket of broken fragments. After another strike, the window gave and collapsed into the room like a welcome mat.

Deck shot out of the office and headed for the rear door. His limbs were still slow and heavy from sleep. He shook his head, trying to wake up.

He needed to reach the elevator.

From the inside, the door was controlled by a simple button. He slammed his hand into it and dove through as gunfire chased him from the room. On the outside, the door was keypad-controlled, just like the opposing door he had used to gain access to the lab. Deck waved his hand over the keypad, sending it an avalanche of bogus codes. The keypad detected the intrusion and activated its lockdown. There was an audible click as the internal bolt locked into place, freezing the mechanism.

He sprinted down the corridor, passing a number of rooms on either side. Aside from the dim lighting, this area was in great shape and looked like it hadn't been scavenged. He'd hoped to explore them in hopes of finding more supplies, but he'd messed that up by falling asleep. He needed to leave before the cyborgs found a way through the door he had just sabotaged.

At the end of the corridor was an elevator. He stabbed the call button and waited. Behind him was the sound of heavy metal arms beating on the laboratory door. Its surface was already bulging under the assault. He hit the call button a few more times.

He glanced up at the elevator display. It was blank. It was either burned out or the elevator wasn't working at all. The car could be on its way up to him now, or it could be sitting at the bottom of the shaft, dead. He had no way of knowing.

Behind him, the beating became more fierce. The attacks were now concentrated on a single point in the center of the door. The blows came in a steady mechanical rhythm. A vertical crack appeared at the epicenter of the repeated impacts. From his map he knew that all of these side rooms were dead-ends. He was boxed in.

Over the last few decades, corporations had slowly realized that traditional law enforcement was a poor solution to criminal threats. Whenever there was a high-profile kidnapping, [attempted] assassination, theft, bombing, hostage crisis, or general attack on company interests, corporations found that the police created at least as many problems as they solved. The police couldn't always be counted on to resolve the crisis, but you *could*

count on them to hold a press conference, talk to the media, sign book deals, compromise security, leak photographs of sensitive locations or information, and generally show a complete lack of discretion once the disaster was over. Even if the situation was resolved peacefully, the company would spend weeks or months dealing with the security and public-relations damage.

Corporations eventually turned to the private sector when they needed help. Private security firms (who were, whether they admitted it or not, really just very polite and well-dressed mercenaries) offered a way to solve problems and protect company privacy. They would do their job and keep their mouths shut afterward, leaving it to their clients to address the media and portray events as they saw fit. This would significantly diminish the corporation's civil liability profile in the aftermath. This arrangement also allowed companies to respond more forcefully to threats: When the media was looking, the police liked to try to capture bad guys, but security agents were able to be much more aggressive if they thought they could justify it later.

Rebecca Lansing worked for Security Solutions Incorporated, a Seattle-based firm specializing in counter-terrorism. Her firm had been hired by TriOptimum the previous week. At the time, all that was known in the media was that nobody had heard from the station in over a week. TriOptimum knew that a shuttle had been destroyed, there were fires, decompression, and probably quite a few deaths. They had assumed that someone (political anti-technological terrorists, most likely) had taken control of the station. Rebecca had been sent to the crisis command center in New Atlanta to coordinate things on the ground, and the other members of the team had been sent to the launch site to prep for the trip up to Citadel.

Now it was obvious that there were no terrorists, and probably no survivors. TriOptimum realized that they no longer needed the group of highly trained (and very expensive) security agents, and had sent them back to Seattle. They were in damage-control mode now.

Rebecca looked at the retractable pen she'd been clicking for the last hour or so. Was this her pen or TriOptimum's? She couldn't remember. She shrugged and tossed it into her handbag. She tore the used pages from her notebook and placed them at the console, then put the notebook back into her handbag. She took off the mobile headset and hung it at the security station she'd been using. Then she went over the items she was carrying one last time to make sure she wouldn't be taking any sensitive information from the site.

"Lansing. We've decided to keep you on for the time being."

Rebecca turned to see Buchanan giving her a dour look. She opened her mouth to ask but he anticipated the question and cut her off, "We've already made the arrangements with SSI, and they've cleared you to continue working with us."

She set her bag down in the swivel chair and began unpacking again. "Okay, but I don't know what you want me to do, I mean..."

Buchanan waved his arm as if to backhand her question away, "Just the same thing you've been doing. You're our point of contact with this guy and we don't want to confuse things by giving him someone new."

She nodded. This made a lot of sense to her, although she had been looking forward to getting home.

Buchanan gestured towards the console, "He still hasn't responded?"

A head appeared over the bank of security stations behind her. It was one of the TriOptimum techs, "Excuse me, Mister Buchanan? We just lost the one I was telling you about. I figure we have maybe twenty minutes before our bandwidth situation...", he trailed off as Buchanan held up a single finger.

Rebecca sighed, "I've been paging him every ten or fifteen minutes for the last hour. Still nothing."

"Well, maybe he got himself killed.", Buchanan said hopefully, "At any rate, keep at it and see if you can get him back."

As he walked over to speak with the tech, Rebecca glared at him. She returned to work.

The crack in the laboratory door was now large enough that the cyborgs could reach through. Numerous metal hands came through the gap and pulled sideways on the lightweight metal surface. The opening became broader.

The elevator arrived. As the doors slid open, Deck jumped in and slapped the only available button. This wasn't a full-access elevator, but instead a direct link between the research and medical levels.

As the elevator began to move, he noticed the elevator music that was playing. It was some sort of light, soulless, diet jazz. It made the moment even more surreal.

He enjoyed a few quiet moments while the elevator descended. He caught his breath. He had figured out the answers to a lot of questions before he fell asleep, and now all he needed was a safe place to hide while he contacted Rebecca.

The doors opened to reveal a nest of mutants. There were four of them that he could see, all hunched in a corner, looking to see what the elevator had brought them. Deck was guessing they had learned to respond to the elevator chime like Pavlov's bell, or the knock of the pizza delivery man.

He stayed in the elevator, which would prevent them from surrounding him. All he needed to do was keep them out. As the first one lunged inward, he sent it tumbling back into the corridor with a broken nose. Another came and received a dislocated shoulder and a kick in the face. Deck stood firm, letting them come to him. Their bones were brittle from their illness and they were incapable of teamwork, but they were tenacious. Nothing would stop them short of incapacitation or death. One at a time they stepped up and were quickly kicked out of his elevator.

After a few minutes of bone-crunching martial arts, the mutants were down. Their bodies lay in a group in front of the elevator. He dragged one of the bodies into the door of the elevator to hold it open. If the door couldn't close, the elevator wouldn't leave, which meant the cyborgs couldn't follow him this way.

The room was once some sort of waiting area. The couch had been gutted and its foam interior had been placed on the floor and used as a nest of some sort. The pictures had been pulled from the walls and the plain red carpet had been soiled with every bodily fluid imaginable. The room was now a reeking box of death and excrement. There was a sign posted over the door that informed him he was in a restricted area and that he needed to remain in the waiting room and notify security if he had arrived here in error. There were some vague threats about the punishments available for corporate espionage.

One mutant had never attacked him. It was cowering in a dark corner, staring at him like some terrified animal. As he stepped over the broken pile of bodies, it shook its head back and forth. He looked closer. It had been a woman. Her thinning, whitened hair hung in her face in a tangled mass. Grunts and whines came from her throat. The ability to speak was long gone, but still she struggled to communicate on some primal level.

She seemed passive. He ignored her.

Deck bent over to examine his fallen foes. One of them was wearing the remains of a security uniform. He didn't care to search the excrement-stained pants, but the belt was sure to have something of value. The mutant had a sidearm, a pistol identical to the one Deck was carrying. He took the ammo and left the weapon. Most of the rest of the equipment was useless. There was a flashlight and a VOX, neither of which interested him. He found another clip of ammo, which he pocketed before moving on. Neither of the other two mutants looked like they had anything worth carrying around.

He reloaded his pistol and dropped the extra clip into a pocket. As he moved to leave, the woman flinched, fearing an attack. He looked down at the bent form, trembling on the floor in front of him. Her face was thin and pale, smudged with filth. She had more hair and teeth than the others, and seemed to have some slender thread of sanity to cling to. Deck wondered if he should use his pistol to end her misery. If he were in her shoes, he would certainly hope someone would have pity enough to kill him.

Her head rocked back and fourth as she grunted out some pathetic whine. She seemed to have only one thought, and that was that she didn't want to be hurt. The dull, sunken eyes were framed in dark, bruised flesh. They stared at him with a mixture of terror and confusion. This person could have been a Ph.D. a few weeks ago, and now she was living like an animal, eating dead bodies... or worse.

Deck holstered his weapon. He couldn't shoot her. He backed slowly out of the room.

Beyond was a large, open area. The carpet was mainly red, with a border of beige where it met the walls. The metal doors had been

decorated to look vaguely like wood. The walls were mostly beige, with red trim. Someone had evidently decided that nothing says “research” like red and beige. There were frosted glass panels that stretched from floor to ceiling, with dark block letters and generic symbols indicating the various departments. He had no idea what the various research projects were, so the signs were meaningless to him.

The ceilings were higher here than on the hospital level, breaking free of the claustrophobic darkness that had plagued him since he awoke. The room was bathed in gentle glow cast from the hanging lighting cylinders and from lights positioned behind the frosted glass panels.

He examined the nearest glass sign / panel. The words were broken by a spiderweb of cracks that converged on a single bullet hole.

He peered behind the panel and saw a pink, lumpy growth on the wall, directly behind the bullet hole. He prodded it. It felt like Styrofoam. He frowned as he tried to figure out what he was seeing.

Expansion foam.

Most modern space platforms employed a safety feature to protect against decompression. It was a thin layer of gel, sealed in plastic that lined the inside of the outer hull. If a small-scale decompression took place due to a projectile or stress, the air would come into contact with the gel, causing it to expand violently. The gel would rapidly grow and harden, sealing hull breaches from micrometeorites or – in this case – weapons fire. This explained why the station hadn’t decompressed once the shooting started. Expansion foam couldn’t help in the case of a large-scale breach, but it was ideal for dealing with small cracks and puncture wounds in the hull. Deck realized this meant he was along an exterior wall.

He needed a map.

Connected. T0-RL1.VID

Rebecca’s voice came into his head, “No, nevermind, I’ve got him again.” She was speaking to someone off-camera.

“Hey. I’m on the research level and I need a map.”

“Glad to have you back finally. I tried to raise you about an hour

ago, but you didn't respond. Every time you do that people here start thinking you're dead." The picture of her was grainy and at a low framerate. There were short pauses and gaps in the audio feed.

"I was asleep. Apparently the interface doesn't do anything when I'm not conscious. What's going on with you? This video feed looks like crap."

"Shodan has doubled the number of satellites it controls. We can't stop it. We can't even get ahold of the owners of all of these comsats to let them know their birds are under attack. Global Net has a big, gaping hole in it right now and we are starved for bandwidth as the remaining sats try to pick up the slack. It's a mess."

"I think I figured out what she's doing with them."

"Oh?"

"She's diversifying again."

"With comsats? You mean its trying to somehow create a backup of itself on all these satellites?"

"Not a backup. Its actually adding them to its brain."

"I didn't think that was possible. These are just relays – they pump information from one location to another. How could Shodan possibly use them to expand its mental capacity?"

"You know anything about how its constructed?"

"No. There are no schematics anywhere planetside and we haven't gotten any solid info on it yet. We have one of the designers on his way in here – we are expecting him in about forty minutes." Someone whispered in her ear and she corrected herself, "Twenty minutes."

"Well, she is not a single computing machine, but a big, interconnected web of nodes. All she needs is memory and raw processing power – storage doesn't do her any good. Just like your brain, there isn't any one group of cells that is the home of all of your thoughts, but instead they come from all over your brain, right?"

"Okay, I'm with you.", She was holding a retractable pen which she repeatedly clicked against the desk as she took this in. A small group of people had gathered around and stood behind her. All he could see was a wall of people from the waist down.

"The structure she needs is one where there is a bank of memory

and processors, and where any part of memory can reach any other part – preferably using the fewest possible number of hops. There is no fixed structure, no set pattern. The structure develops as Shodan learns.”

She stopped clicking the pen for a moment, “But these connections are not instantaneous – the round trip between comsats can be several milliseconds. How can it function with that much latency?”

“Are you kidding? How much latency do you have in *your* brain? Ever try to remember something and have it take five seconds or so?”

After a few moments she seemed to accept this and the clicking resumed. “How did you figure this out?”

Deck moved to the opposite side of the room where there was a bench. He needed to sit as far from the reeking waiting room as possible. “That’s the funny thing about the human brain, sometimes you get ideas and you don’t know where they come from. I noticed several odd things on the station, and they seemed to form a pattern.” He paused as he gazed at the image in his head, “Hey, do me a favor?”

“What do you need?”

“Tell the guys behind you to pull up a chair or get their own screen, I’m tired of looking at this wall of crotches.”

“Um – sure.”, she stammered. She motioned to them but the crowd had already dispersed.

“Anyway, I noticed all the portable consoles were missing. There should have been at least one for every desk, but they were all gone.”

Rebecca flipped the pen around and made a note of this. “So you think Shodan rounded them up and cannibalized them for parts?”

“Right. Used them to make nodes like the one I found on the hospital level.”

“That makes sense. From what I’ve seen there aren’t resources available up there for making new chips, so when it wanted to expand, it began using whatever was available.”

“When it ran out of those, it started to use other stuff – like the security networks. I noticed that even though Shodan has cameras everywhere, the bots still have to hunt for me. Since the security network is a big interconnected web of machines, I’m guessing that

she's using the processing chips in the cameras and stuff, and making another node out of them. If she wants to use the cameras to *see*, she has to stop using them to *think*. I'm not sure she could stop using them at this point."

Rebecca was shaking her head as he spoke. "Wait – using cameras to *think*?"

"Remember, anything with memory, processing, and a network connection is usable to her. Cameras have all three, and can be used as part of Shodan's brain, provided she gives up using them for visual input."

"That doesn't seem like a worthwhile tradeoff."

"*Now* it doesn't, but a few days ago everyone was dead, insane, or working for Shodan. All of that internal surveillance was a flood of useless input that she had to process. It was like seeing inside her own body."

Rebecca raised an eyebrow.

Deck nodded vigorously, even though nobody could see him. "That's kind of how I've been thinking of it lately. This place, this whole station, is almost like an organism. The reactor? Her heart. The nodes? Her brain. The cyborgs? Her immune system. This thing is a living, breathing, creature we are dealing with, and it has been kicking our ass."

"So what does that make you? A germ?", Lansing drew in a slow breath as she turned this over in her head. "So Shodan is motivated by the need to expand?"

"Seems that way. When it ran out of computer parts, she absorbed the security system – and probably some other stuff – into her mind."

"I just realized that the attack on the first satellites happened just before our last conversation. I'm betting that when you blew up that node, Shodan made it a priority to expand beyond Citadel. What sort of effect does it have when you destroy a node?"

Deck gave a pointless shrug, "You can ask you expert when he gets there, but its probably similar to what happens when you destroy human brain cells – you get brain damage and memory loss."

"Brain damage? You mean lowering its IQ?"

"Sure, that would lower Shodan's IQ, but she will actually be worse off than before she expanded to the new node in the first place."

"How so?"

"She will have built links to the new node. In a system like hers, there is no way to globally remove invalid links. So, she will have a lot of thoughts dead-end on her as she attempts to access stuff that isn't there."

"Links? You lost me."

"Before Shodan went crazy, I had a long talk with her. After that, I got to study her up-close for a few days. She explained that her brain is based on links between thoughts – like our synapses. Related thoughts, ideas, and memories will be connected. I don't understand how the links form exactly, but they are fundamental to how the brain works."

She struggled with the concept, "Related thoughts? So, Shodan is a big bunch of databases?"

"No, just the opposite. A database is a big list of related stuff with an index. All of the data fits some pre-determined pattern. You can't just have a database of 'everything'. You would need to organize the data somehow, and searching the database would take forever. Shodan's brain works completely different. Its a big mass of single ideas, each one linking to a bunch of other ideas."

He could tell she still didn't get it. He tried again, "Think of a single word, like 'horse'. What do you think of when you hear the word? Mammal, horseshoe, cowboy, saddle, neigh, horseback riding? Whatever. Anything that relates to horses. Anything *you* think of when you think 'horse' is a link you have in your brain that is connected to the concept of horses."

Rebecca began to nod. He continued, "Follow one of those links. Cowboy. Now what do you have? Old west? Showdown? Desert? Cowboy hats? Horses? Again, another big list of stuff. If you were to keep doing this and map it out -"

"It would look like a bunch of interconnected spiderwebs, like Global Net.", She suddenly got the picture.

He smiled, "You got it. This isn't just about stealing comsats."

"Once it has the satellite network, it can start taking over other machines. Anything connected to Global Net."

Deck suddenly felt a tinge of urgency. As much as he wanted to see TriOp crumble due to its own foolishness and greed, he wanted the world itself to be more or less the way he left it. He couldn't be the King Of All Hackers if Global Net was down and everything collapsed into chaos. He also realized he was the only one in a position to do anything. "How fast is she taking over the satellites?"

She looked down at her notes, "We have several different projections, based on different models of Shodan's capabilities. One model assumes that there is a limit to how many comsats she can hack at once. Using this model, we project it will take somewhere between three days and a week to get them *all*. The other model – which assumes she can continue to expand at an exponential rate – projects she will have them all in twelve hours. From what you've just told me, the second model is probably correct."

The connection suddenly degraded. The video feed of Rebecca deteriorated into a slideshow of grainy still shots. "-ooks – we – -st anoth- one." Her voice was broken and punctuated by garbled spurts of over-compression.

"What? Yeah. You lost another satellite. Look, before this connection dies, *send me a map of the research level.*"

"-ake it dow- ... the commu- ... -ay." Her connection sputtered.

"Hey!", Deck was yelling, ignoring the danger of attracting attention. "You're breaking up! Send me the map -"

"Dest- the relay bef-"

He rolled his eyes. "*Listen to me*, I can't do anything until I know my way around."

The picture froze in place and the audio feed went silent. The connection was dead. There was a new map in his library now.

He opened the map. At the top it was labeled, "Level R – Reactor".

"You stupid woman", he spat. He figured that whatever she needed him to do, it was on the reactor level. He just needed to figure out what it was and how to get there from here.

He was still hungry. He had a few candy bars left, but he was

seeing how far he could go before he ate them. What he *really* wanted was a hot meal. Some soup. A bowl of noodles. Mashed potatoes. Maybe some...

He took out a candy bar and stuffed it into his mouth. He needed to keep his mind on the task at hand. Out of habit, he put the wrapper back in his pocket to throw away later. Then he realized that was stupid and he took it out and toossed it on the floor. He wiped the chocolate from his mouth with the back of his hand and took a deep breath. He felt a little better.

No matter where he was going, he would need the central elevator. That was the only place you could access all of the levels of the ship. The reactor level was at the base of Citadel's spine. There was a long shaft dropping from the main dome to the uneven lump that was the reactor. That would mean that any elevator that reached the reactor level would have to be in the center of the station, attached to the spine.

Maybe he would stop on the crew level on the way down and get some real food.

Deck headed south. The faux – wood doors parted to reveal a corridor leading to rows of offices and labs. He could hear movement up ahead.

He came to the first set of doors. From the open room to the right, he could hear wet sounds. He peered around the corner to see a filthy man in a once-blue jumpsuit trying to eat the red gel out of a petri dish. His body was covered in sores, but he looked a little healthier than the average mutant. His back was to Deck. He would be an easy target, but Deck wanted to avoid combat if he could. He slid by the door and left the creature to its meal.

Various medical equipment littered the hallway. Some of items were sitting on wheeled carts. Deck assumed that most experimental equipment passed through here on its way to the medical level for testing. He stepped carefully over the stacked machines and proceeded to the end of the hall. Signs directed his path. To the left was "Project Sycamore", decorated with a simple beaker icon. To the right was "Project Lotus" and an atom icon. These projects could be anything. Randomly, he chose right.

Project Lotus seemed to be all about nanotechnology. Nothing in any of the rooms were of any use to him. He moved on and found Project DEM. Its offices were walled in glass, which had been smashed open at some point. The keypad guarding the door had been smashed, so he stepped through the large open window frame.

He didn't really have a system for deciding what to search. Some rooms he would stop and examine, others he would ignore. This project seemed to be something that somebody was willing to fight over. The walls were lined with diagrams of the human brain. There was some basic nanotech gear lying around. In one corner there was evidence of a struggle – a desk was turned over and some chairs had been tossed aside. There was no blood and no bullet holes. Whoever had been hiding in here had been dragged out alive.

He pulled the overturned desk away from the wall and found the data access port with his right hand.

An instant later he was sailing through the digital ether. The local node was full of information. Years of work had been cataloged here. As always, there was a long strand of data, reaching off into the infinite distance and blocked by a heavy layer of black ice. Deck slowed his speed as he drew closer to the impassible wall. Why were all local terminals cut off like this?

He realized that for security purposes, they were probably not accessible from the outside. These were one-way connections that allowed the researchers to access Global Net (or TriOp Net) but didn't allow for outsiders to access them. That would make the terminals useless to Shodan, and so she would naturally wall them off from her network. Now the terminals were isolated.

He flipped quickly through the data. There were notes, emails, white papers, design schematics, and technical documents for all sorts of devices. Some of the notes were so filled with technical jargon they were gibberish to him. He stopped when he came to a diagram of a slender metal tube. The shape was unmistakable. It was a neural implant. The schematic was too technical for him to understand, but it linked to a number of other documents.

Deck knew the clock was ticking on the satellites, but he couldn't pass up the opportunity to learn more about the implant. He paged

through technical articles. Again, most of the articles were heavy with medical jargon to the point of being incomprehensible to him.

There were some video logs, most of which were recorded by a Dr. Rex Melville. He was a puffy, older man with thick glasses. It amused Deck to see a man in the center of the world's best in advanced medical technology to succumb to the common flaws of obesity and myopia. Despite his lack of physical success, he was clearly a master of neurological medicine and nanotech augmentation. Deck poured through his design logs, learning all he could about his implant. Deck managed to find a medical dictionary in the data heap. He jumped from the video logs to the dictionary as he encountered unknown words – which was about every five seconds. Sometimes he would need to visit the dictionary multiple times and make numerous branching lookups just to get through a single sentence.

It was mind-expanding. He was assimilating information hundreds of times faster than would be possible under normal conditions. He was able to navigate through huge volumes of information instantly. He never had to stop to thumb through some reference book to look anything up. He was learning with zero friction.

Deck pulled his hand from the desk, having completing his exploration of dozens of logs. There was very little about the disaster, but he had absorbed volumes about the implant.

Incoming signal: US.GOV-RL1.VID - Compatible video codec available

Deck opened it up, "You back on the air, Lansing?"

Her face appeared, illuminated by the same pale glow of florescent lights and display screens. She looked tired. He wondered when she had slept last. "We're back on for now. The military has some birds that are isolated from commercial satellite traffic. They have been kind enough to let us transmit from one of them."

"I've got good news for you."

"Good. We need some."

"The bio-toxin isn't killing me. It turns out the implant was designed to recognize known chemical agents and neutralize them as they pass through."

She breathed a sigh of relief, "Good, we couldn't even get TriOp to help us out on that one. They still insist there is no bio-toxin, and that they would never develop such a thing."

"They? I don't get it. I thought you worked for TriOp?"

She shook her head, "My firm was called in by TriOp when they lost contact with Citadel. We normally specialize in anti-terrorist situations, but this situation has evolved since then. The government swept in when the satellite network started crumbling. The satellite owners are clamoring to know what's going on, and the families of Citadel inhabitants are demanding to see their loved ones. On top of all that, we have a media circus pitching their tent outside. It's a zoo here."

"It sounds like you guys are in over your heads."

She lifted a steaming styrofoam cup to her lips and took a careful sip. "Really, our firm is out of the picture now, but they are keeping me around so there is a stable point of contact with you. Everything that is said to you goes through me."

Deck felt better about Lansing now that he knew she didn't work for TriOp, "Good. Keep it that way."

"I'll try. There are a lot of powerful forces at work here. TriOp is talking to the media, claiming that no information is available on Citadel – which everyone in here knows is complete crap. The military want to scuttle the whole station to stop Shodan, and the media are using all of their tricks – including some hackers – to try and get a peek in here and get the real story."

"Ugh. Look, I'm still on the research level – can you get me a map?"

She nodded as she took another sip of coffee.

"Fine. Now, where is the AI expert?" He decided to get moving. He walked back over the smashed window and into the hallway. He proceeded south.

"He is talking to the military. Right now, they are asking a bunch of questions while the TriOp lawyer is trying to talk him out of giv-

ing any answers.”

Deck hit another intersection but continued south. The lights were dim here, as if there was some sort of local brownout going on. He dropped his voice to a low whisper, “Well, when he gets out tell him this – ” He peeked around a corner to make sure the coast was clear before crossing an open area. He stayed low. “Tell him that Shodan is crazy because her ethics chip was bypassed.”

“What was that about ethics?”

“Shodan’s ethics chip was bypassed, and Diego didn’t properly configure her afterwards. He had someone hack Shodan so she could assist him in whatever crooked deals he had cooking. He was supposed to make sure Shodan didn’t hurt anyone. Apparently, he messed that up.”

Rebecca nodded but made no comment. The buzz in the room around her had come to a near standstill. They were all listening to him now.

He saw that Lansing had sent him several new files. One was a map of the research area. “Hang on a sec.”, he said to Rebecca. He opened up the map and tried to figure out where he was. He was close to his goal. The map showed that there was an elevator at the center of the level, as he had expected.

Nearby, he could hear the metallic impact of mechanical footsteps. He peered around the corner and found a security bot, pacing back and fourth. It blocked his access to the central elevator. He was going to have to deal with it. In the darkness, he squinted, but couldn’t see what sort of weapons it was carrying. He drew his pistol.

She became impatient, “Right, someone hacked Shodan and disabled its ethics. Can you tell us any more?”

“Yeah, I’m the one who hacked her.”

He killed the connection and dove around the corner, gunning for the bot.

Chapter 12

Encryption

Deck squeezed the trigger rapidly, sending several bullets into the hind quarters of the short, stout bot. The deafening volume of gunfire never failed to surprise him. The projectiles glanced off the smooth metallic surface, leaving only dents.

An instant later, the bot had swiveled around to face him. It was obviously far more nimble than it appeared. He threw himself backwards as the guns mounted on either side of the robotic body erupted. The sound from the gunfire echoed throughout the network of hallways, making it sound like they were coming from every direction.

He reached around the corner and squeezed off a few blind shots in desperation. Quick metallic footsteps could be heard, rushing to his current position.

The bot was simply a smaller version of the bots Deck had encountered before his surgery. It was about a meter tall, with agile, bird-like legs propelling it. Its guns were mounted at the joints, where the legs joined the bulletproof chassis.

Its eye was a small lens fitted into the otherwise featureless surface. The chances of him hitting it with a pistol were astronomical.

He ran down the corridor, taking the first available turn in order to avoid giving the bot a clear line of fire. As he turned the corner,

bullets bit into the plastic wall, sending beige and red fragments flying like shrapnel. He ran a few more steps and made another turn, then another. He was moving as fast as he could, but the plodding footsteps drew closer.

The next turn brought him to a long and darkened hallway with no obvious branches. He knew he would never make it to the opposite end before the bot arrived and began shooting. It was too late to backtrack. He sprinted a few steps and then sidestepped into a nearby darkened room.

He tripped over some unidentified debris in the darkness and fell sideways onto an overturned desk. He swore as he struck his shin, and the edge of the desk met him in the ribs. The impact knocked the air from his lungs. He flailed, trying to recover from his fall as the relentless footsteps drew near. He struggled to his feet. Debris shifted beneath him, stealing his balance.

In the darkness, he slapped the lock mechanism for the door. The door responded by sliding partly closed, stopped short by some broken fragment of furniture. It was part of the base of a rolling office chair.

He bent down and grasped one of the wheeled legs, trying to pull it free of the door.

The sound of dual machine guns again filled the corridor. Deck collapsed onto his back as bullets punched through the wall and passed through the space where he had been standing only moments before. The gunfire continued, chewing numerous broad holes in the wall.

Pain radiated from his ribs, and he wondered if he had cracked something. He covered his eyes to protect them from the flying chunks of hardened plastic as they were torn from the walls by the stream of bullets. After a few moments of gunfire, he rolled over onto his belly and began crawling. He didn't know where he was going, but it seemed better to not be so close to the door.

It was nearly pitch dark in the room. The only light came from the gap in the door, and through the increasing number of holes in the wall.

He crawled over unseen junk. Some of it felt like file folders and

books, some of it was solid – hardware of some sort. Sharp items cut into his hands. He crawled behind the desk he had fallen on earlier. There was an impact as something struck him in the left thigh. He stifled a grunt as the pain traced the network of nerve endings from the point of impact to his brain. He touched his leg. It was wet.

The gunfire stopped.

There was a long silence, during which Deck could only hear his own breathing, and the ringing in his ears. After several seconds, the bot once again began moving. Then the door slid open, filling the room with light.

Deck knew that locking the door had been a bit of a long shot. Security bots that could become locked in or out of key areas would not be of much use.

The whirring of servos came from the hall as the bot tried to negotiate its way into the room. With the light from the corridor, Deck could now see that there was a door in the rear of the office. Reaching it now would mean crossing the open room – an act of certain suicide. At his feet were the twisted remains of some maintenance bot. The broken fragments of its frame were spread around its gutted carcass. This was probably what had sliced his hands open moments before.

His leg tingled with pain. He wanted to squirm, to adjust his position and nurse the wound, but movement would surely attract the lethal attention of the bot.

The whirring of servos continued. The bot was obviously having difficulty navigating through the debris. It had been designed to travel over open, flat surfaces, and was not properly equipped to wade through the clutter. Its legs prodded the ground, testing for stable terrain.

Deck lay on his back, bleeding all over himself for several minutes while the bot explored the stability of the junk that littered the room.

Finally, there was the sound of metal surfaces colliding, and a frantic burst of servo activity. Moments later he heard the bot topple over and hit the wall.

Deck wiped the blood from his hands and drew in a deep breath. He knew this was his best chance of escape. He leapt to his feet and

jumped the desk. As he landed, a lightning bolt of pain shot through his leg and he collapsed.

The bot thrashed vigorously, but was unable to recover. It had caught one of its large feet in the framework of an office chair. It was laying face-down in the corner, unable to stand or roll over without the use of both legs.

Deck crawled out the door and pulled himself to his feet. He needed to stop and tend his wounds before he could proceed, but he wanted to get some distance between himself and the bot before he did.

He retraced his steps as well as he could remember. He entered another lab at random. After making sure he was alone, he locked the door.

It was a small lab, with a long counter in the center. A sink was built into the countertop. A small fridge was built into the wall opposite the door. In the corners were a few small desks. A lab coat was hung on a hook inside the doorway. He searched the pockets but came up empty. He took the lab coat over to the sink and unzipped his suit.

He pulled his upper body out of the suit, and peeled it down to reveal the wound on his thigh. The cold air met with his sweaty skin and a chill came over him.

He realized that it would be better to take the suit all of the way off, as opposed to leaving it hang between his legs where it would only trip him up if he needed to run or fight. Fighting naked was preferable to fighting with his pants around his ankles.

He faced the doorway and placed his pistol on the counter in front of him where he could reach it in a hurry. He stepped out of his blood-soaked bodysleave and set it aside.

A chunk of beige plastic jutted out from his left thigh. He had assumed it was a bullet wound, but apparently he was simply struck by a piece of the wall as it was torn apart by the hail of bullets.

Balancing himself on his right leg, he grasped the wet plastic and pulled. He was shocked by both the intensity of the pain, and the length of the plastic fragment. It took him several agonizing seconds to extract the jagged, three-inch triangle of plastic from his thigh.

Once freed of the foreign blockage, the wound began to flow.

A new message appeared in his HUD:

Connected. US.GOV-RL1.VID

"Lansing here."

The image of Rebecca appeared in his head. "Hey, I need -"

"Wait. Don't say anything more."

"What?", Deck made a confused face at nobody in particular.

"The military guys here are worried that we're using a non-encrypted signal. TriOp is worried about it too, but for different reasons."

"What do you mean?" He was naked, sitting in the corner of the lab, holding a formerly-white lab coat over his leg. The bleeding had slowed. He winced as he pressed the rough fabric into the wound.

"The military is worried that Shodan is listening to our conversations."

Deck reflected for a moment, "You know, that makes a lot of sense. It would explain how they found me up on the medical level an hour ago. I just figured it was random at the time."

"And TriOptimum is worried the media will find our feed and tap into it."

"Fine. Let's encrypt it." Deck shrugged, "What should we use as a key?"

Rebecca shook her head. "I don't know. They have some military spooks here – one of them suggested using landmarks. For example, pick a city you're familiar with, and name an intersection."

In order for two parties to share encrypted information – text, audio, video, or some other form of abstract data – they both must agree on some "key" to use. The key could be any piece of information that was exclusive to those exchanging the data. That was the trick – they needed information not available to Shodan or the potential media listeners. They couldn't use the feed to exchange the key, or else everyone else would have it as well, thus making the encryption useless.

Deck wondered if this wasn't a subtle attempt to find out where he was from. "I don't see how that would work. Shodan has access to phone books. She'll just look it up."

"No, make it something that's not in the phonebook. Make it the slogan of some small store, or the graffiti on the wall. Just give us a location, and we'll have someone go there and see what the sign says, and we can use that as our key."

"I've been out of it for at least six weeks – more like seven, actually. A lot of signs could have changed since then. Besides, that might stop Shodan, but that won't stop the media. Any journalist can swing by and see the key for themselves."

Rebecca glanced sideways and shrugged slightly. It was clear she didn't care if the media found out and everything went public. Maybe that's what she wanted.

"Gimmie a moment to think about this."

"Fine."

Deck leaned back against the cold wall. How could two strangers exchange private information in a public forum? What information did he and Rebecca have access to, but not Shodan or the public in general?

While his left hand kept pressure on his leg wound, he used his right hand to prod the bruise that was forming at the base of his ribcage on the right side. Every time he breathed in it caused a sharp jab of pain. His shin was already sporting a large lump.

Finding information not available to the public would be easy. Anything out of the TriOp database would work. However, Shodan would certainly have access to that. For it to work, he would need something from the database that Shodan somehow couldn't access.

His head snapped up, "I got it."

Rebecca had slouched down into her seat, and it looked like she was ready to nod off. As he spoke her eyes snapped open, "I'm listening."

"There is an employee in the database that I created about five days before I went into stasis. I guess that would have been almost seven weeks ago. It has executive-level access. I don't imagine there would be any other brand-new executive employees created around

that time, so it should be easy to find."

He tore the foil off of a dermal patch and unfolded it. The bleeding had finally slowed down to the point where a patch would stick. He was freezing and in a hurry to get dressed.

Lansing shrugged, "Okay, I can look it up, but Shodan can do the same."

"Right, don't worry about that for now. Look up that account, and use the employee number as the encryption key. Shodan won't be able to do the same."

There was a pause while she gave him a curious look. Finally he added, "I made some changes."

He winced as he gently pressed the plastic circle onto the damaged area. As the medicated surface touched his skin, it began to contract and pull the wound closed. Healing enzymes soaked into his skin, along with a small dose of local anesthetics.

"Yeah, there are a lot of people here who want to ask about the 'changes' you've made. Like what did you do, and why did you do it?"

"That will have to wait until we're on an encrypted channel" He killed the connection.

His hands had stopped bleeding. The left one had a row of deep parallel abrasions. The right just had a pair of minor cuts. He decided to spend a dermal patch on the left hand, and let the right one heal on its own.

He pulled on his bodysleave and washed up in the sink.

He checked the fridge, hoping to find some food, but it was full of vials that seemed to contain a variety of human fluids. After a few minutes of looking around and ransacking cupboards and drawers, he concluded the room had nothing of value to him.

He decided to check out the local data archives while he waited for Rebecca to get back to him. He limped over to the small desk that had been shoved into a corner, and turned it around so that he could face the door while sitting at the desk.

He plunged into the sea of data. This console was apparently shared by a number of people. He found various video feeds recorded by a handful of former employees. He flew through the strands of

video, briefly glancing at each one to see if it held anything interesting. Most of them seemed to be dated from months ago, and of not much use to him.

Finally he came to one that was three weeks old. He flew to the top and rushed through the stack. The data tag indicated it was recorded by Paul Stannek.

Paul was in his early thirties, with dark hair, and suffering from a bad case of 'low, sloping Neanderthal forehead'. "D'arcy called a lot of us together in his office today and shared some of his concerns. It turns out, the sickness isn't a disease, its the effect of some biological agent. Even worse, its one that apparently *we* manufacture. He didn't know how it got loose, but he said that he didn't think it was a mistake. I guess there are a bunch of safeguards against this sort of thing. An alarm should have sounded as soon as the stuff hit the ventilation system. Someone had to turn off all of the safeguards for this stuff to get by."

Paul sighed and looked to his right at something off camera. Deck realized he would have been looking at the small air vent built into the wall beside the desk.

Paul continued, "What worried me most was that he thinks someone is still releasing this stuff. Its like, it doesn't live long once you get it into the air. So, the only way to get infected is to come into direct contact with someone who's infected, or to breathe in a dose that was released in the last few minutes. D'Arcy is looking at the infection rate and grouping, and he's convinced this is all deliberate." He reached to turn off the recorder and then paused, "One other thing – when we got back, someone had taken a bunch of augmentation equipment. This is really strange. I'd be on the next shuttle home if the place wasn't quarantined."

Deck moved to the next recording. It was Paul again, "We came in to work this morning but there's nothing to work on. Every scrap of prosthetic and augmentation is gone from inventory. Even the brand new prototype models that were in the security locker. Only three – well, two now – only two people have the code for that thing, and neither of *them* opened the locker for anyone. I went to call home a min-"

Deck skipped through the message. He knew how the story ended. He scanned through a few more logs. Most were personal and fairly emotional. Each crew member would pour out their heart as someone close to them vanished, was infected, or killed. The logs stopped about a week before he awoke. There was never any mention of the cyborgs. Either people stopped making entries at some point, or the cyborgs swept through so fast that nobody had a chance to talk about them.

Deck leaned back and stretched gently, careful to avoid aggravating his numerous wounds. He had lost track of time as he waded through the messages. It was time to get moving.

Incoming signal: US.GOV-RL1.VID - signal type unknown.

Deck figured it was the encryption. He used 2-4601 as the key and the feed opened up.

"Looks like you found my employee number."

Every time he saw her she looked a little more burnt out and haggard. "I have so many questions for you I don't even know where to start."

"Screw your questions for now. What the hell am I going to be doing when I get to the reactor level?"

She seemed surprised, "When you get there? We figured you would be there by now."

"I suppose I would be if all I had to do was walk there. It's not like I can just wander around freely. This place is crawling with crazy stuff and getting from A to B is dangerous and time-consuming. Which makes me wonder why I'm doing it. "

She glanced over to someone off camera, "Actually, there's some debate on that now. The military guys want you to go down and blow up the antennae array."

"Sounds like a lot of fun. What the hell good will it do?"

"The array is what Shodan uses to communicate with the satellites. With everything, really. Blow it up, and you will cut Shodan off from the satellites. I don't know if we'll get them back at that point, but it should stop her from getting any more – and stop her from using the ones she has. You can't imagine the uproar caused

by losing a fourth of the world's comsats."

"Actually, I can. So what's the debate?"

"TriOp argues that the array cost about two billion dollars, and you don't need to blow it up – just disable it."

He laughed, "To hell with that. I'm only going to do this once. If I turn it off, she'll turn it back on. If I break it, she'll fix it. The only way to stop this is to destroy it."

"That's exactly what the military guys are saying, but TriOp disagrees, and it is their property. It's not really very clear who's in charge here."

Deck growled, "You know who's in charge here?"

She raised an eyebrow.

"*Me*. I'm up here alone, and I'm the one risking my life." As he spoke, he could hear outraged yelling in the background on Rebecca's end.

He responded, "Hey, if you guys don't like the way I run this show, feel free to send up one of your own guys. Otherwise, I'm gonna blow up your damn antennae."

Rebecca smiled weakly.

"So we're gonna blow it up. That sounds great, but I'm fresh out of plastic explosives."

"Well, the records we have indicate there were some various munitions stored on level four – that's the storage and cargo level."

"Moving around isn't that easy up here. I can't just hop from floor to floor. I nearly got killed about forty-five minutes ago when I ran into some bot. Now I'm supposed to hunt around on level four before I head down to engineering?"

Someone began talking to her in the background. She held up a hand to silence them. "A TriOp lawyer helpfully points out that you don't need explosives if you are just just going to disable the antennae."

Deck drew in a slow, angry breath. "Fine. Storage. How do we get there?"

"There is a freight elevator that goes from levels two through five. That might be better than using the main elevator."

"Yeah, that would be good. Mutants seem to congregate around the elevators for whatever reason. I'd better get moving."

"Wait. Don't hang up on me again. You keep doing that, and it's making me crazy."

"Well? What else do you need?"

"She paged through some paper in front of her. Look, there are a bunch of questions I'm supposed to ask you. You dropped quite a bomb on us earlier when you said you were the one that messed up Shodan."

"Yeah, well, I was supposed to get a chance to talk with the tech guy – one of the Shodan designers. *I* have some questions for *him*."

She sighed, "Where do I start?"

Deck gazed at the tired, frustrated face in his mind's eye. "You look like hell. I'll tell you what. I want to *sneak* up, er down – I guess – to level four. That means I can't be talking to you. Why don't you get some sleep and I'll contact you when I get there?"

She nodded, "Sounds good to me."

"See you on level four, Out.", he closed the connection and began the long crawl across the research level.

Chapter 13

Queries

The elevator doors split open and parted. Deck stood in the center of the elevator, gun drawn, ready for conflict. There were no mutants this time. He stepped out and the doors drew closed behind him.

The storage level had the ambient noise of an empty tomb. There were no bodies or even evidence of violent conflict. Whatever had happened on Citadel, it hadn't happened much here.

The ceilings were high to accommodate the towering piles of supplies stacked on pallets. The walls were a pale industrial blue. The crates came in an array of beige, gray, and dark brown. The floor was a smooth, slate-gray rubber, traced with the tracks of numerous mechanical beasts of burden. Overhead, the floodlights stung his eyes with their intensity, and yet seemed unable to properly illuminate the floor area. The light poured from the fixtures above and was swallowed by the dark towers of supply crates, which were arranged in even rows of varying heights like a miniature city.

The floor was a grid of oily rubber tire tracks, the markings left by some sort of vehicle as it had traveled the rows of containers. The tracks followed the same path with a precision that indicated they had not been made by human-controlled machines.

Deck moved slowly away from the elevator, aiming his weapon ahead of him as he proceeded into the bowels of the cargo storage area. His movements were slow and uneven because of his throbbing

leg wound.

He worked his way through the rows of supplies. The crates were marked both with bar codes and text. Each crate also had a strip of symbols down each side that indicated the recommended storage temperature range, sensitivity to decompression, sensitivity to impact, how fragile the contents were, their flammability, and which way was up.

He examined the labels, but none of it struck him as useful. He found some crates that seemed to be food, but they were part of a tall stack that he was unlikely to access without mechanical assistance. He frowned and realized that even if he could loot the crates, they probably contained dry goods that would need to be prepared. His stomach growled as he thought of dry milk and reconstituted meat. Even during his days of poverty in the Undercity, he had never faced hunger like this.

After exploring for a few minutes, he found that the level was divided into four areas, separated by airlocks. The massive room he was in was really just one-fourth of the level.

He moved through an airlock into another area. A few crates had been pried open and looted. Nearby, a forklift bot had been smashed and scorched. Other than this, the area was indistinguishable from the last.

He moved through the dingy gloom, examining storage containers and fantasizing about what sort of loot they might contain. His footsteps echoed off the steel walls and through the parallel canyons of steel crates. Every step, every ragged breath, and every careless sound was projected and amplified through the cavernous space, announcing his position.

The lighting wasn't bright enough to see properly, and yet not dark enough to conceal him. He wiped oily grime from containers at random, looking for something that might be of use to him. A few were labeled clearly, but most simply had useless codes stamped on their sides, giving him no real clue about their contents.

A terminal capped the end of one aisle of crates. He linked up and flew through its databanks. It was both inventory and bot control. From here you could request some particular item and have

a fork bot retrieve it. According to the system, there were no bots available. They had probably either been disabled by people or cannibalized for parts by Shodan.

He found a map detailing the layout of goods on the level. A moment later he had the location of the munitions storage area and jacked out.

According to the map, he needed to move to the adjacent storage cell. As he crossed the level, he found discrepancies between the map and the actual locations of walls of crates. It was unclear if these things had been moved before or after the disaster.

The titanic steel jaws of the airlock rumbled open with a hydraulic howl. As he stepped into the next storage room, he could hear the quick, high-pitched movements of bots somewhere in the distance.

There was a sharp whine of servos, followed by a metallic impact. Metal dragged against metal and then an electric motor began to close in on his position.

He didn't know if there was even any point in drawing his pistol. He hesitated. There was nothing to hide behind nearby.

Behind him, the airlock began to slide closed again.

A fork bot rolled out from between the rows of containers. Deck drew his pistol.

It was propelled by a set of short treads. It made a precise turn as it reached the end of the aisle, following the well-defined patterns of grime on the floor, and began advancing on him.

Its body was a hardened shell of steel, with a heavy-duty fork-lift mounted on the front. There was no visible head, or eye – no apparent vulnerable spot of any kind. Its treads spun furiously as it closed the gap between them. It was moving far faster than any human could run.

It obviously didn't have any projectile weapons, so its only offensive ability would be to crush him with the massive lifting fork or to run him over. There was a neat stack of crates off to one side that might provide cover, but Deck decided to stay in the open where he could move around.

The metal beast came to a perfect stop at the foot of the stack of

crates and rotated in place. The fork divided and become a four-fingered claw reaching into the air. Its hefty arm extended its length several times, bringing the claw to the top of the stack. The fingers slid into position around the angled corners of the crate and clamped down. It pulled back as the arm retracted, lifting the massive crate as if it was a child's toy block. The claw rotated and pulled back until the crate rested on the flattened top of the bot, perfectly positioned above the its center of gravity.

The moment the crate came to rest, the bot turned in place and headed back into the aisle, ending the precise mechanical dance.

Deck holstered the pistol. He had no idea why the bots would be moving inventory around. He ignored the bot and pushed on.

This storage area was not like the others. Sections were sealed off behind security-controlled airlocks, separate from the main area and isolated from each other. The row of airlocks dominated the back wall of the storage area.

Various symbols hinted at what might be inside, but there were no explicit signs to direct him. The first several doors were marked with biohazard symbols. These could contain anything – medical waste, human waste, or even the biological agents that were deployed against the inhabitants of Citadel. After that, there were two doors with radiation warnings.

The next few doors were marked with security symbols and decorated with "AUTHORIZED PERSONNEL ONLY" signs.

The last door had an additional sign warning of explosive hazard, as well as a different set of security locks. He checked the map in his head. This was it.

Deck's hand hit the keypad and he was jacked in. As he tore through the world of geometric shapes, something seemed different.

Three tenths of a second after he jacked in, he reached the access code. It was a blur. The digits changed so quickly they looked like a set of flickering eights. They rotated in a chaotic manner, with no discernable pattern. He examined the rest of the keypad to see if he could manipulate the mechanism manually, and ran into a wall of opaque black ICE.

Shodan.

He jacked out.

Deck sat down and leaned against a nearby tower of supplies, the afterimage of the digital world still flickering in his head. His entire body ached. The dermal patch had relieved a lot of the leg pain, but the bruise on his chest was still throbbing.

He decided to call Rebecca while he thought about this problem. There was a long pause before she finally responded.

Connected. US.GOV-RL1.VID

Rebecca appeared in his head. She had taken off the stiff outer coat of her uniform and was down to her undershirt. She looked more alert than the last time he'd seen her.

"You finally get some sleep?"

"A little", she smiled, "You finally ready to answer some questions?"

"Ask"

"Right. The first question is: Why?"

"Diego made me an offer I couldn't refuse. He wanted control of Shodan so she could assist him with whatever illegal stuff he had going on the side."

A bunch of voices had erupted in the background on Rebecca's end as he was talking. She turned to address someone off-camera. "No... no, I am not playing this game with you guys." As she spoke, a male voice overlapped hers, arguing with her. "Fine. No questions? No? Then you guys work out what the hell you want and get back to me."

Deck sighed heavily.

"Hacker?"

He rolled his eyes, "You don't have to get my attention to see if I'm still here. Its not like I can just walk away from the terminal like you can. Its in my head. If our connection is live, I can hear you."

"Right", she nodded slowly. "Look, the TriOp lawyer squad just decided that having you answer these questions wouldn't be in your best interest."

"What?"

"Well, this is a government channel and its being recorded. It can be used as evidence. They point out that they will be pressing

charges when you get back, and they don't want you to incriminate yourself in the meantime."

"More like they don't want *me* incriminating *them*. They can always hope I'll just get killed up here and they can blame everything on me. The truth is, Diego had me brought up here when his goons caught me with my hand in the cookie jar. He said if I hacked Shodan, he'd give me this neural interface."

"And if you said no?"

"He never really discussed the alternative, but it was pretty obvious. He couldn't just drop me back on Earth without raising a bunch of questions. He never threatened me directly, but we both understood that this was a comply-or-die offer."

There was some more protesting in the background as he spoke, but Rebecca ignored it.

"So what happened? Why did Shodan break?"

"I left Shodan in an undefined state. She no longer had any understanding of morality, and it was Diego's job to give her some. Obviously he blew it."

"So how did you do it?"

"It's a bit tough to explain in detail, but the simplified version is that I disabled her ethics chip."

"Ethics chip?"

"Yeah, it was a single chip that filtered her thoughts and kept her in line. I hacked her so that it no longer had any affect. She was free to do anything at that point. It was Diego's job to guide her and make sure nobody got hurt."

"But you had to realize something like this might happen?"

"It not like you turn off her morality chip and she suddenly becomes evil. I didn't replace it with an *immorality* chip. I just took it out."

"But if she can--"

He cut her off, "Think of it this way – If you tell a kid he's suddenly *allowed* to play in the street, that doesn't mean he's going to dash out into traffic the first chance he gets. He still has a brain and can recognize danger, even if the rules no longer guide his behavior.

Shodan is the same way, only she is way smarter than the average human being. She wouldn't just start killing people for no reason."

"But she *did* start killing people. Why?"

"I don't know. I was hoping your expert could clue me in on that."

"Yeah, I keep hoping we can get you two guys together and get some idea of what is going on in Shodan's head. He is really anxious to talk to you."

"Great, so put him on."

"He is with the military guys now, trying to help them combat Shodan's control of the comsat network."

"As soon as he shows, contact me."

"Fine.", She paused to look at the notes in front of her. "How is the mission to destroy the communication relay going?"

"Is that what you guys are calling it? A mission? Whatever. I'm stuck outside of munitions storage. Shodan has locked the door in a big way."

"Anything we can do to help?"

"No. This is my thing, this is what I do. What I do need is a plan for getting out of here once I blow it up. Nobody's talking about bringing me home yet."

"Well, the only way to bring you back is to get a shuttle up there. We can't do that while Shodan has control of the security systems, or she'll just blow it up."

"Right, we've gone over this before. I'd just like to know you have a plan for when I'm done with this."

She sighed, "Honestly, nobody's talking about it much because there are bigger concerns right now. Shodan has a little over half of the world's commsats now. It's chaos down here. Business are closed. Planes in the air are getting lost. Others have been grounded. Most global broadcast media is disabled or has limited reach. GlobalNet has slowed to a crawl. A few of the big cities are reporting looting."

Deck felt detached from all of this. He had trouble caring about the chaos down on Earth. It didn't seem real to him. "Whatever. I suggest you guys start thinking about how to get me out of this

zoo, because that's going to be the next item on your agenda once Shodan's transmitter goes 'boom'."

Deck had been mildly aware of the mechanical movement behind him, back among the sea of supply crates. He had ignored the movement until a bot wheeled abruptly around the corner and stopped a few inches short of crushing him.

Rebecca had replied to him but her words were drowned out by the mechanical sounds of the bot.

"I'll get back to you.", he said as he killed the connection.

The bot idled with a low electric whine as it sat motionless in front of Deck. After a few seconds a red light blinked and it emitted a harsh burst of sound like a few milliseconds of modem noise. This was the closest thing it had to a horn. It was saying "move please", more or less.

Deck slid out of the way and the bot rolled past, ignoring him. It spun into position a few crates down the row and carefully placed its cargo at the top of the stack before speeding away once again.

Deck watched the bot as it departed. What was it doing?

He decided to find out. There was a terminal a few feet away. He jacked in and checked the list of pending jobs for the bot. There were only two of them in the queue. The current job seemed simple: move twelve crates from one corner of the storage area to the opposite corner. It seemed like a strange request. The areas were mapped out in such a way that each inventory item had a few slots reserved for it within the available floor space. There shouldn't be any reason to move inventory from one side to the other.

Even more unusual was the time – the bot had been working on this particular job for 7,872 minutes. Deck did the math and then frowned at the image in his mind's eye. Why would the bot need over five days to move twelve boxes?

Deck noticed that the job had been requested by Abe Ghiran.

Some of the job parameters seemed strange to him as well. There was tons of open floor space in this storage area, yet only a single slot was allotted for transfer space. If the bot needed to put a crate down for any reason, it could only put it down on the original stack, the destination slot, or the transfer slot.

So why had it been working on this for five days?

He disconnected and moved to the end of the aisle. The bot was on its way to the original stack. It pulled off a crate, and began the long trek from one corner of the warehouse to the other. It deposited the crate on the destination stack and returned. He observed several more moves. Each move took around a minute for the bot to pick up a crate, drop it off, and come back.

He returned to the terminal and jacked in again.

He examined the list of materials being moved. They were totally unrelated items that would normally never be stored in the same area, much less the same stack. The list included uniforms, microscopes, portable rigs, bot parts, cafeteria utensils and trays, tools, large display screens, specialized lenses, office supplies, and plastic novelty items for the Citadel gift shop. These items would never be stored together because some were far more fragile than others.

Suddenly something clicked and he realized what he was looking at. This was a classic recursive puzzle that had been around since the late nineteenth century, known as the Towers of Hanoi. In this variation, there were twelve crates, each one lighter or more fragile than the one beneath it. The bot needed to move all of the crates from the source to the destination, using only the transfer space to hold items as needed. It could only move one crate at a time, and it could never place a more fragile crate on top of a less fragile one. The puzzle seemed simple at first glance, but became alarmingly time consuming as you added more objects to be moved.

With only two items, the bot could complete the job in a mere three moves – It would move the top crate (the most fragile one) to the transfer space, then the next crate to the destination, and then move the top crate from the transfer slot to the destination – thus finishing the job. With six crates, it would take 63 moves, or a little more than an hour.

Deck knew that it would take over four thousand moves to complete a twelve item stack. According to the terminal, the bot would need to recharge every two hours or so when running at capacity, and needed to perform routine self-maintenance every two days. The bot could still have another day or so left before it finished.

He examined the next job on the list. It was a mess. Huge blocks of code defined the job parameters. It wasn't so much a job as a complete re-programming. He checked to see who had requested the job. Shodan.

Deck could only assume Abe had designed his job to keep the bot busy, so that it would never jack back in and pick up the next job in the queue. This meant the bot was still clean, unaffected by Shodan's digital rabies. It also meant that if he canceled the current job the bot would head back to its docking port and get turned into another slave of Shodan's. He tried to cancel Shodan's job but found nothing could override it. He also couldn't insert any new jobs into the queue *before* it.

He wondered if the bot would have access to the munitions area if it had been re-programmed by Shodan.

A few moments later he had created a new job and placed it at the end of the queue. He then canceled Abe's job and hoped he was right.

A tone rang out over the local P.A. system, calling the bot back to its docking port to receive its new orders.

It returned hastily, and Deck moved into position beside the port. As it slid into its niche, a slender metal arm extended from its back and plugged into the local data feed.

The bot jolted violently as it downloaded Shodan's new code. Every servo and motor in its body took a turn activating and deactivating at high speed. When it was done, it rolled out and headed for the munitions area. As it rolled past, Deck grabbed onto the maintenance ladder on the rear and climbed onto its flattened back.

The red light came one and stayed on. The cheap speaker in front spat out a loud burst of modem noise like some electronic banshee wail. It was pissed, but it didn't stop running the job Deck had constructed for it.

Suddenly the claw began moving. It rotated in place and swiveled around, grabbing at him. Deck quickly slid off its back and onto the service ladder again. The claw came down, grasping for him, but he was out of reach.

The bot came to an abrupt stop at the last row of crates and

retrieved the topmost one. Deck had written the program so hastily he couldn't even remember what was in the crate. Whatever it was, it was heavy. The entire chassis of the bot sunk slightly as it lifted the crate and placed it onto the carrying surface on its back. A moment later they were moving again.

The bot reached the munitions door and extended the slender metal arm, touching it to the keypad. A second later the doors parted and they rolled inside.

At about five meters square, the storage area was smaller than he had anticipated. The back wall was covered in crates, and an adjacent wall was covered by a set of lightweight metal shelves.

The bot lifted the crate and deposited it on the floor. The job was complete. The massive steel door rumbled shut behind them.

The claw swung around and again reached for Deck. He dipped his body lower to avoid its grasp.

He cursed to himself. His plan had been to send the bot in here, ride along, and then jump off while the bot went back to the dataport to get its next job. He had been counting on the bot leaving once the current job was done. Instead, it seemed more interested in killing him.

It began to back up, trying to ram itself into the wall and crush him. He dove off to one side at the last moment, and an ear-splitting crunch of metal followed a split second afterward. Then it spun in place, reaching out again with its claw.

He had managed to lock himself in an enclosed space with an automatic killing machine. He cursed again as he rushed in closer to the bot, passing beneath the claw. He grabbed onto the base of the deadly metal arm and pulled himself up. The way the joints were designed, the bot couldn't actually reach him there – much like a human hand can't reach its own elbow.

The bot spun again and rushed forward into the dented metal wall. Deck pulled himself up and onto its back. There was a jarring impact as they collided with the wall together, and his body slammed into the back of the arm. He flopped backwards onto the carrying surface, gasping for air.

The claw extended once again and started to swivel around. He

slid off the back and onto the smashed remains of the ladder before the claw could reach him. The bot pulled away from the wall and spun around on its treads, preparing to ram the wall again. He couldn't see, his eyes were watering. He had entered a whole new world of pain as his bruised chest hit the metal surface.

He knew this was a losing battle. He had no way of harming this thing, and it had all the patience in the world. It would keep ramming and grabbing for him until he was broken.

He pulled himself back onto the carrying surface as they reached the wall. He went feet-first into the wall, absorbing most of the impact into his legs. The bot lurched forward an instant later.

Deck was grabbing at random for something to hold onto. With his right hand he grabbed the slender, retractable metal arm that held the bots interface port.

He jacked in.

The bot was not sentient. It was a simple mechanical device that had been reprogrammed. Shodan had evidently given it some new code to allow it to ram enemies or crush them, but it had no grasp of strategy or combat tactics. It was still just a dumb fork bot.

He fumbled through its geometric layers, mapping it out. Usually when he was jacked into something, he closed his eyes or stared at a blank wall so that he could focus his attention. He couldn't afford to do that in this case. Instead, he had to navigate both worlds at once, both dodging its attacks and exploring its memory.

He slid forward, hugging his body to the base of the metal arm as the claw groped for him overhead. He was careful to keep his hand on the dataport as he moved.

The layers of the bot's memory flew by. Deck found its local job stack.

He let go of the thick metal arm, moving his own arm out of the way as the bot rammed the wall head-on. His body slid forward and his face smacked into the hard metal surface. His vision blurred from the impact. The real world grew dim.

He dumped some simple commands into the bot's job stack. It stopped short of ramming the wall again and spun in place until it was facing the crate it had brought in. It lifted it, and dumped it

onto its back just as Deck slid onto the ladder once again.

The bot opened the door and deposited the crate directly under the open doorway. It then sped out of the room.

The two of them rolled at top speed along the row of sealed security doors. Behind him, Deck heard a crunch as the munitions door came down on the crate. The claw continued to grope for him, but he stayed out of reach by hanging onto the broken, bent pipes of the service ladder.

They reached the loading bay and he bailed. The bot rolled obediently into the airlock, closed the inner door, decompressed the airlock, opened the outer door, and rolled itself out into space.

Deck lay on the floor long enough to catch his breath, and then returned to the munitions area.

A red emergency light was blinking over the munitions storage area, letting the long-gone, long-dead supervisor know that something was obstructing the doorway. He ignored it and slid under the door.

Chapter 14

Debugging

It didn't take long for Deck to find the explosive materials crates. A call down to Rebecca earned him a short demolitions tutorial. The explosive material was a clear gel, packaged in transparent plastic pouch the size of his fist. The detonator was a small timer with a pair of needles protruding from the back. When the time came, he would puncture the bag with the needles and set the timer. That was all there was to it.

He took four of each, placing the gel packs in the deep pockets on his right leg, and the timers on his left. The pouches were a little heavy, and the weight threw him slightly off balance, but he didn't want to carry the two items together.

It had been explained to him that he didn't need to worry about accidentally detonating them, since that would be impossible. The pouches could be shot, burned, dropped, crushed, punctured, and abused in numerous ways and the gel would never detonate. Only the timers could set it off. Despite the reassurance, Deck treated them like dynamite, sliding them gently into his pockets and packing them firmly in place. The thought of being vaporized in a millisecond made him a little paranoid.

Deck also discovered that all of the ammunition had been taken. The empty ammunition crates were stacked along one wall, instead

of being taken back to the airlock where they would be taken planet-side, which would have been the standard procedure. The weapons were removed as well. Deck assumed they had been taken in order to arm Shodan's cyborgs.

The communications array was at the very base of Citadel, on a long, grotesque finger of protruding metal antennae. There were four metal beams that ran down the spine of the station. If he wanted to guarantee that the communications array could not be repaired, he would need to separate it from the rest of the structure. This meant breaking off the tips of all four beams.

He searched the remaining crates and found nothing of value. The place had obviously been looted by Shodan already. He slid under the massive door, leaving the munitions area.

The entire scene seemed surreal to him as he crossed the deserted storage level. He was out in space, the lone survivor in a city of the dead, carrying several pounds of the latest in compact explosives. He was on a mission to blow up a huge structure of communications gear with a price tag in the billions. He thought of his familiar life in the Undercity. It seemed so distant now. His perception of time was distorted. By his own personal calendar, he had only left Earth a week ago, yet in reality six weeks had gone by. However, the stark and lonesome nature of his surroundings separated him from that past. His days in the Undercity felt like they were both last week and a lifetime ago.

He thought about the dead, and the suffering and terror they had endured in the weeks leading up to this moment. A war had been waged here while he slept, protected only by a single security door and random chance.

He considered the odds of his situation – all of the choices and events that had led him to this particular moment in time. Of all the outcomes of his quest, something like this was beyond anyone's ability to predict. He had longed for success. At the end, he had expected death. But he could never have dreamed he would find himself involved in a struggle on this scale.

He remembered Nomen's words, "You keep at this, and its going to cost you more than you can pay."

Damn Nescio, he thought, even *he* couldn't have predicted *this*.

He returned to the freight elevator and found that it had no direct access to the reactor level. He decided to return to the research level and look for a way down from there. He needed to travel down the spine to get there, so any access to the reactor level would certainly need to be at the center of the station. The last time he had tried to reach the center of the research level he had nearly been killed by a single light security bot.

The more he thought about it, the more he realized his situation was not an improbable outcome. Not from his standpoint. There was no point over the last three months where he ever really considered quitting. He had locked himself into this course, and was following it to death or victory. He had wound up with both. He knew there was a slender chance he might get out of here alive, and that was all he needed to keep him going. He had been betting against the house and winning for so long he had begun to forget just how badly the odds were stacked against him.

In reality, there was nothing to derail himself from his current course. Up until he was captured, he had only two paths, to continue to gamble in hopes of getting the implant, or to give up. Once Diego captured him, the choice was even easier. He only had to choose between certain death if he refused Diego's offer, or probable death if he accepted.

The events of the weeks while he slept had been so shocking that he had never even taken time to marvel that Diego had kept his word. The question as to why he was allowed to live was unanswerable now.

For the first time since he awoke, Deck wondered what had become of Edward Diego.

The elevator deposited him in the quiet maze of the research level. He checked his map, got his bearings, and headed for the center.

Incoming signal: US.GOV-MB1.VID

Deck hugged the wall and opened up the feed. A heavyset face appeared. It was framed in a box beard and topped with a line of short curly brown hair. The light of the monitor reflected off his

glasses and back at Deck.

He glanced in the corner of the display where it read, "Brocail, Morris"

"What can I do for you, Morris.", Deck frowned at the pudgy face in front of him. He had told Rebecca that he only wanted to talk to her, so what was this calorie storage expert doing in front of him?

"Hey dude, you tell me.", Morris shrugged. "'Becca said you wanted to talk. So lets talk."

Deck suddenly realized who this was, "You're one of the guys who worked on Shodan?"

"I built her voicebox."

Deck couldn't resist the chance to find out a bit about her vocal system, "That is some amazing work. I've never heard a synthesized voice like hers."

Morris grinned. He was old enough to have accumulated a few lines on his face, but his round cheeks and floppy haircut gave him a sort of boyish appearance. When he grinned, he looked like a nerd who was trying to impress the big kids. "I never intended for the voice to be an A.I. interface. Before TriOp, I had this side business where I ran this adult voicemail service. Guys would pay to have a woman leave a sexy message in their voicemail. I could program it to use whatever script they wanted, and it could even address them by name."

Deck stopped walking as he heard this, "Wait. What? You used Shodan's voice for porno?"

"Not really." Morris Frowned, "Well, sort of. I guess it depended on the client. Some people used the messages to make their friends or girlfriends jealous. Others wanted explicit messages. But I think a lot of them just wanted to hear a woman's voice."

This was too much for Deck. "You used *Shodan's voice* for porno?"

Morris scratched his chin thoughtfully, "Shodan didn't even exist yet. The voice was a lot more primitive back then, and was tuned to sound more like a young woman as opposed to the more middle-aged voice Shodan uses."

Deck had never thought she sounded "middle-aged", but he supposed she sounded more like a middle-aged woman than an eighteen-

year-old. Her voice was a bit strange, and sort of defied normal identification. We wondered if that was deliberate, or a limitation of the software.

Morris leaned back in his chair and continued, "She couldn't do a lot of simple things. She couldn't scream or yell or do any of the moaning and panting that some people wanted. When I tried to get it to do that sort of stuff you could really hear the limitations of the software. I don't know how many people realized the voice wasn't human, but anyone could tell there was something wrong with it. Oh, and crying. A lot of people wanted crying. I never did figure out how to make that sound right. She always sounded sick or brain-damaged."

Deck continued to stand in the corridor, shaking his head in disbelief.

Morris continued, "After a while I built up a large collection of scripts that clients could choose from. They just had to give me the voice mail number, the name they wanted the software to use, and their credit card. Anyway, with the voice automated, I could handle thousands of calls a day. Without the voicebox, I would have needed to maintain a huge staff of women... uh... actresses. With the voice, it was just me and a couple of computers. I just had to pay for hardware and bandwidth, and the rest was all gravy."

Deck didn't want to waste time standing still. He also didn't want to move around the station talking. This led him to taking turns between moving and speaking. At this point he was inching forward with his back to the wall. He seemed to be in a large meeting area, broken into separate sections by movable dividers of frosted translucent plastic. The outer walls of the room were covered with huge display screens and dry-erase boards. The place had seemed unnaturally devoid of furniture until he discovered that all of the tables and folding chairs had been brought together and piled against a set of large double-doors. He frowned. He could either send an exhausting and noisy half-hour shoving all of this stuff away from the door, or he could look for another way through.

Morris suddenly realized how badly he'd been rambling. He sat up a bit and pushed his glasses up his nose, "Anyway, someone at

TriOp heard about it, and sent me a job offer. Well, actually, they just wanted to license the technology at first. What they discovered was that the voice was still *way* too primitive for them. It could read from a script and do a little acting, but that was an order of magnitude simpler than carrying on a full-blown conversation in real-time. So, they asked me to join the team so I could basically finish what I'd started."

Deck wondered if he would be able to get through the doors if he just crawled over the pile. They were sliding doors, so the furniture wasn't really preventing them from opening, but instead acting as an obstacle. It was probably fine for keeping brain-damaged mutants away, but someone nimble ought to be able to make it over.

"Anyway, that's how I ended up working on the HON.", Morris said with a shrug.

"The Hone?", Deck asked absent-mindedly. He was examining the pile, looking for a few loose items he might pull off so he could crawl over. It was mostly small items on top, with the heavier desks and tables underneath.

"Yes. H – O – N. Hierarchy Of Nodes. That's what the project was called at the beginning, before it became Shodan. It's what made her intelligent, or made her seem intelligent, depending on who you ask. There were about a dozen people total on the project, most of them working out of New Atlanta. There were four of us that were involved in the actual design of the brain itself. The rest were just grunts. Coders."

He grasped a folding chair and gave it an experimental tug. One of the legs was caught, so he pulled a bit harder. One leg was hooked through the frame of other chairs, which were tangled up with an easel, which had several boxes piled on it, which in turn were holding back a number of tall plastic trash bins, which were filled with...

Before he fully realized his error the entire stack had begun to slide sideways towards him. He tried to push back but the effort was pointless. The avalanche of clattering stuff came his way and he didn't have any choice but to step back and let it happen. The silence was broken by a din of tumbling metal and plastic items as they rolled over one another and fell to the floor.

There was a long pause after the noise died down, and then Morris spoke again, "What was that? You still there?"

"Uh. Slight mishap here. I gotta run. Get back to you."

Deck had sprinted away from the mess he'd made and tried to find another way to the center of the level. Eventually he discovered that there were many similar stacks of equipment and loose furniture placed at strategic points all over. There was no way to get where he wanted to go without going through one of these points. He assumed these barricades had been designed to keep the bots out. He'd already witnessed how poorly they dealt with clutter. Without some sort of means to grasp and lift objects, the piles of stuff would be impassible to them. At some point these inhabitants of Citadel had discovered this and walled themselves in. He didn't see any breaks in their defenses, which means the strategy had worked. For whatever reason, Shodan hadn't sent cyborgs in. They could have cleared the path for the bots.

Perhaps she chose not to because her only goal was to isolate these people. Perhaps she was content to simply wait for the bio-toxin to do its job. Perhaps the cyborgs hadn't been built yet when all of this was going on, or maybe they were busy elsewhere.

In any case, he was going to have to pass one of these heaps of stuff to reach his goal. Once he did, he would be in the area patrolled by bots.

He found one such stack and began to disassemble it. He didn't want to make a bunch of noise again, so he took his time and lifted each item away gently, and stacked it carefully in a nearby room. The work was mind-numbing, so he decided to talk to Morris to pass the time.

He called back and the pale chubby face of Morris Brocail returned. Deck frowned. He was certainly less fun to look at than Rebecca.

"So have you guys figured out what's wrong with Shodan?"

"I don't know man, you tell me. You're the one who hacked her."

"I have no idea. I was told to circumvent her ethics system and I did. She seemed fine at first, but obviously went nuts at some point."

"Told? By who?"

"Diego."

Morris gave a nod. "I figured he would mess with Shodan sooner or later."

Deck paused as he nearly caused another avalanche. Several display screens had been placed on the heap and tied together with their own power cords. They were too heavy to lift together, and it would take forever to untie all of the many knots. Finally he responded, "You knew Diego?"

"He hired me, as a matter of fact. He seemed really cool at first. He managed to round us up – the people who built Shodan, I mean – from all over the place, dangled huge budgets in our faces to get us to leave our jobs. We were all pretty happy where we were."

"Who's we?"

"Dr. Coffman, was the project leader. They pulled him out of some high-paying gig where he was trying to build an organic computer. Susan Hawking was our AI expert and psychologist. She had been doing a lot of work in studying brain processing patterns at MIT. Then there was Anders, who was designing some new hardware for a startup company in The Valley. And me. I was building my speech synthesis software, and Diego knew he needed it if he didn't want his genius A.I. to talk like a retard. Diego came in and talked us out of our current jobs and told us we were going to change the world, make history."

Deck tried to imagine Diego talking a bunch of people at the top of their field to come and work under him. "What made you do it?"

"I don't know. When he talks, it all makes sense. You feel like it would be stupid to disagree with him, because he's got it all figured out. He waved fame, huge budgets, and academic freedom in meeting our goal. It just seemed too good to pass up. I was making good money with my voice software, but I wasn't making history or anything. He made it sound like we'd be part of something bigger."

Deck had located some scissors in an adjacent office and was simply cutting all the power cords on the display screens. "So what

happened?", he asked with a grunt as he lifted one of the heavy screens from the pile.

Morris looked depressed. "Once the project started, the tone changed. We were making breakthroughs, doing stuff nobody else had ever done, and we couldn't announce it. Our budgets were *technically* huge, but our salaries turned out to be pretty small and Diego made it tough to actually spend any of this supposedly huge budget. He also began putting a lot of pressure on us to come up with results in a short amount of time. We could have a dozen groundbreaking revelations in one day, but if they didn't translate into immediate results that he could show his bosses, he would question our commitment to the project."

"The money never materialized, and neither did the fame. We all signed NDA's when we came on board. He wouldn't let any of us talk about anything we were doing."

Deck gave a satisfied sigh. He'd cleared enough stuff so that he could pass. He squeezed by the remaining junk and continued on to the heart of the level. "So why didn't you just bail?"

"He had us nailed down into some pretty tough contracts. We could have gotten out, but it would have been expensive to fight with the TriOp law team. Also, he was a master negotiator. I would get good and pissed off, get myself psyched up to go in and tell him I quit, and he could sue my ass if he wanted. But by the time he got done talking, I was walking out of his office, thanking him that I still had a job. He always made it sound like better days were just around the corner, and we just had to tough it out a little longer. 'Don't quit when you can see the finish line', he would always say. Sounded good, but he just kept moving the finish line when we got near it."

Deck clenched his teeth. This was why he was a hacker, and not wasting his skills in some cubicle maze as a neutered drone working for the greater good of advancing the career of his boss.

"Hang on a sec." Deck replied to Morris.

Up ahead, he could hear the dull thud of mechanical footsteps. Another bot.

He moved forward cautiously, trying to determine where the bot

was and how close it might be. He had survived the last one by luck, and he wasn't in the mood to take that particular gamble again.

He saw the shadow of the bot move into view up ahead. The lumbering footsteps paused. He drew in a breath and held it.

The shadow moved as the bot swiveled around. Another moment passed and the bot headed back the way it had come.

Deck slowly exhaled and spoke in a whisper, "What were you saying again?"

Morris had turned his attention to a monitor on one side and was typing away on the rig strapped to his right leg. After a moment he pulled his attention away and back to Deck, "Oh, so anyway... Where were we? Oh yeah, we were trying to figure out what you did to Shodan."

"I told Rebecca already, I bypassed her ethics chip.", Deck shrugged. He had moved forward and peered around the corner. The bot was still moving away. The passage it was patrolling led directly to the elevator. He decided he would have to go around, rather than confront it.

"Ethics chip? I assume you're talking about the drive chips. Not the smartest thing in the world, but that doesn't explain the behavior we're seeing. How did you bypass them? We added a lot of security to make sure that couldn't happen."

Deck had darted across the corridor that the bot was patrolling and was heading away from the elevator now, looking for a way to loop around and approach it from the other side. He spoke in a whisper as he replied, "I set up a program to watch for ethics inquiries, and circumvent them, so that nothing would ever be tagged as unethical."

"Wait. You keep saying 'chip'. Are you saying you only disabled *one* chip?"

"Yeah, why?"

"Oh crap. Dude, because you disabled one chip of a two-chip system. They work together. The first chip – the drive chip – drives Shodan's behavior. It forms wants, needs, goals, for her to pursue. Its outside of her brain. When she completes a task and thinks, 'what do I want to do now?', this chip kicks in and makes suggestions.

Think of it like your own instincts. When people get bored, they don't just sit there. They tend to eat, take naps, have sex, socialize, that kind of stuff. Basic needs stuff. Even if they aren't sleepy, or hungry, or whatever. These are sort of basic default behaviors we fall back to when we don't have any higher goals going."

Deck turned this over in his head. He did remember seeing a bunch of "basic needs" traffic when he was hacking Shodan. He hadn't thought much about it at the time. "Okay, I follow you so far."

"Well, the second chip – the inhibitor chip – does the opposite. It restrains her behavior. That's the one you bypassed."

"So what does the first chip do? I mean, what are her drives?"

"It's a kind of hierarchy of needs. Her first priority is safety, security. She's driven by the need to constantly upgrade and improve her security. If she's happy with her security situation, she moves onto efficiency. She's built to regulate the entire station, and she's driven to always look for ways to save energy, time, money, whatever. Right?"

"I'm with you."

"After that, she's driven by the desire to gain knowledge and upgrade her systems. Discover new stuff."

"So now these drives are running unchecked?"

"That's right."

Deck paused as he approached an open area ahead. He had just made two left turns, and by his reckoning, he should be headed directly for the central hub. The footsteps ahead were probably from the bot he had dodged earlier. He crouched into the shadows beneath a burned-out set of lights. When he heard the footsteps moving away, he spoke again, "It still doesn't make sense. Why would she start killing people? None of her drives suggest she should do that. What about these cyborgs? That doesn't even begin to make sense."

"I don't know what set her off, but the cyborgs are exactly the sort of behavior you should expect. Look at her drives. Safety. Efficiency. Growth. The cyborgs do all three. Human beings have an uptime that peaks at about 33

"Oh hell."

"Without the inhibitor, she will constantly pursue all of these goals. She has a sort of obsessive-compulsive tendency to pursue her base needs right now, regardless of what her situation is. Imagine feeling like you're starving and dehydrated all the time, no matter what you did. You would eat and drink yourself to death."

"So that's what she's experiencing right now?"

"Maybe. I'm guessing. But there's more. You just circumvented the inhibitor chip, you didn't actually write a new one. So, say the inhibitor chip asks something like, 'will this kill people?' Your program will always say 'no', regardless of the truth. However, she's still an intelligent being. She can obviously tell when something is going to kill somebody. One part of the brain believes one thing, another part of the brain believes another. This leads to psychosis. If Susan were here she could give us a good idea on how this would actually affect Shodan's brain, but I can only guess."

"So what do you think its doing?"

"I think it's just making her nuts. She believes two separate things at once. That's crazy. Schizophrenic. One of the problems with our brains – any brain, really, is that it always assumes problems are external. That's why crazy people don't know they're crazy, even if they do stuff that they would recognize as crazy if done by another person."

"So how is this affecting her actions?"

"Like I said, I don't know. Psychology is Susan's area."

"So where are the others? Why aren't they helping out?"

"Anders died in a boating accident about two years ago, so he won't be showing up to help anytime soon. Hawking moved out of the country at some point and nobody knows where to find her. Doc Coffman is apparently still pissed about how things went with Diego, and is demanding some huge consulting fees to come in and help out. I hear he's asking for seven figures."

Deck smiled. *You tell 'em, Coffman.*

"What if I were to disable my program, would that put Shodan back to normal?"

Morris leaned back in his swivel chair until it let out an audible

groan. "I don't know. One of the things the inhibitor does is keep Shodan from changing her internal systems, but since that was disabled we don't know *what* kind of changes she's made. You could re-enable the program to find Shodan doesn't *need* the inhibitor chip anymore. Even more likely, you could get in there and not be able to even find your program. It's tough to estimate, but Shodan is probably between eight and ten times larger than she was last time you were in there."

"What about the virus? Why would Shodan release that into the air?"

The chair groaned again as Morris leaned back and thought. "One of the military guys pointed out that once an epidemic was going on, people would stop moving around the ship and pretty much quarantine themselves. People would avoid congregating. It would be easier to nab people one at a time for conversion. The disorder on the station would keep the crew from catching on until Shodan had a small army. Or, I suppose you could categorize the whole thing under the general heading of 'crazy'."

"Hell."

"Yeah dude. You blew it."

The words hit him like a sledgehammer. He hadn't even thought about it actually being his fault. He just wanted to know what was going on. The search for what was wrong with Shodan was academic. Until now.

His fault. *His fault*. The words pounded into his brain. He had been assuming the whole thing was some sort of treachery or incompetence on Diego's part, but it was *his fault*.

Heavy footsteps filled the corridor behind him. It was a bot. This was a new set of steps. The first bot was still in the area ahead of him. He turned his head, trying to determine which direction the sound was coming from, but it was impossible to tell. All he knew was that they were getting closer.

He killed the connection without comment.

The shadows beneath the burned out lights had given him a false sense of security. The bots could probably see in the dark, so he may as well have been standing out in the open, under a flood light. The

corridor he was in offered no sanctuary. There were no adjacent rooms to hide in. There was nowhere to go. He was the fish in a barrel.

The plodding footsteps drew closer.

He ran for the central area ahead of him. He had no idea what good it would do, but it seemed less suicidal than fighting an armored bot in a narrow corridor.

The central area was a sort of park, with some fern-type plants spread around and a few benches. To his right was a pair of restrooms, and to his left was the other bot. Directly ahead of him was a huge cylinder that housed the main elevator shaft. The door must have been on the other side, since the side facing him was featureless. He took all of this in instantly, his mind racing to look for a way out.

The first bot had reached the room and had turned to head back into its assigned corridor, so it faced away from him as he dashed into the room. He didn't bother with the pistol, since he couldn't hurt these things anyway. It wheeled around as it heard his footsteps. He headed right, circling around the pillar. The bot moved forward to chase him. Technically, it would have had a shorter trip if it had headed around the opposite direction and headed him off, but instead it simply gave chase.

Deck circled quickly around the pillar. The far side was flat, with a single door built into its surface. Deck practically punched the button as he ran by. The door opened instantly to a yawning shaft.

The bot rounded the corner and Deck, out of options, dove into the open shaft.

Chapter 15

Disconnect

The grid of satellites that blanketed the Earth was getting thin. One by one they winked out, captured by the relentless hacking of Shodan.

As the main arteries of GlobalNet were severed, the traffic was diverted through the slower, ground-based lines. Network congestion increased as each hub fell to Shodan's attack.

Further escalating the problem was human nature. In any disaster, people flocked to broadcast media, waiting for the first sign of news. *How bad is it? Who is doing this? How does this affect me? Am I in danger? What is the government doing about it?* The questions became more intense as the disaster progressed. The reporters, for their part, could do nothing but speculate and repeat the tiny morsels of rumor and spin that were released by TriOp and the military.

As millions of people tuned in, the network load increased further. Mobile phones could no longer connect. Television feeds became grainy and over-compressed. In some places they stopped altogether. Even as available bandwidth was reduced by 75

People began to call friends and family to make sure they were all right, further burdening the network. The panic fed on itself.

The network was crumbling.

Deck had planned to grab onto the cables as his body arced across the elevator shaft. As he reached out, he could see that there were no cables, only hundreds of meters of empty air separated him from the darkness below.

He slammed into the rear wall of the shaft, grasping for anything to break his fall. His right hand dragged helplessly against the smooth wall, but his left found a small ledge. He grasped it and managed to hang on.

A moment later the door shut behind him, leaving him in total darkness. A strong updraft had been pushing on him, and it ended as the door sealed. He grasped onto the ledge with both hands, panting.

The darkness was absolute.

He groped pointlessly with his left hand, looking for something, anything that would be easier to grasp. He was quickly losing strength in his hands. He dragged his feet back and fourth, but could find no features in the smooth wall.

Suddenly the lights returned, along with the flood of air from below. He didn't bother looking over his shoulder, he knew the bot had opened the door.

Looking at the two side walls, he saw a deep groove running vertically down the shaft. In the groove were thick horizontal metal bars. It looked like a ladder, only it was far too narrow. The bars could barely accommodate a single hand at a time.

Above, metal footsteps came to a stop as a shadow moved into the doorway.

Without hesitating, he pushed away from the wall, trying to turn his body to grasp the narrow ladder on the adjacent wall. His right hand missed, but his left found its mark and clamped onto the rough metal bar.

Deck allowed himself a second to recover and glance up into the doorway. The bot was having difficulty moving itself into a position where it had a clear shot at him. It needed to shoot about forty-five degrees downward, and a ways off to one side. Since its gun was mounted beneath its torso, it couldn't make the shot. It needed to lean outwards and turn sideways, something it couldn't do without

falling.

He also noticed that there was an identical ladder on the opposing wall of the shaft.

Deck began climbing downward, not waiting to see if the bot managed to figure it out. As he descended, he could hear the whine of servos and the occasional clunk as the door attempted to close on the bot.

His hands were quickly blackened by the grime and grease that coated the bars. The narrow rungs made climbing difficult and slow. He wondered why anyone would build a ladder this tight.

His arms began to fatigue, and he became ever more aware of his existing bruises and aches. His ribs, in particular, began to throb from the exertion. He moved further down the shaft, away from the pool of light above and into the shadows below.

The bot finally gave up and departed. The doors snapped shut and Deck was again banished to total darkness. The updraft stopped. The effect was mostly psychological, but without the constant lift of air, he felt heavier.

He moved carefully, feeling his way down and trying to ignore the building pain and fatigue. He knew there was no way he could climb all the way down. His arms would give out long before he reached the bottom.

For several minutes he climbed downward while he tried not to think about the vast empty space between himself and the bottom of the shaft.

The question stuck in his mind. Why would anyone build a ladder this narrow? Why would they then grease it? Why build them on both sides of the shaft?

Suddenly it dawned on him. This wasn't a ladder at all, it was a track. The elevator probably had some sort of tread or gear that locked into the groove and pulled itself along the track. That was why there had been no cable.

His upper arms were burning by now. He needed to rest. He tried to hook his arm through one of the bars so he could relax his grip and hang freely, but the gap was too narrow. Fumbling in the dark, he nearly lost his balance looking for a position where he could

rest. He decided to keep climbing.

He had been sleeping for six weeks, and now he was awake and in a constant state of panic, exercise, and starvation. His body was failing him, rebelling against the constant abuse.

He turned his head to the side, squinting into the darkness and straining to see the faintest edge of light. He hoped to find a door by seeing the light coming through. It was hopeless, he knew, because the doors had airtight seals on them that would certainly block out all light.

But these doors had to open somehow. He paused, staring into the blackness. Either they were opened mechanically when the elevator was present, or (more likely) there was a dataport nearby. He began stopping every few rungs and reaching out to the wall with his left hand, feeling for a metal catch or connector.

His upper arms were burning, and just holding out his arm to grope the wall was exhausting. His sweat mixed with the grease, making his hands slippery and forcing him to grip even harder to keep his hold on the rungs.

As he slid his hand down the left wall, his fingertips brushed over an uneven shape. He prodded it, but it didn't seem to have any surface features. It seemed to be made of plastic, and was more or less square shaped.

Thinking it might be a dataport, he decided to try to jack in. This meant he had to turn around and grip the bar with his left while reaching with his right, where his interface was. He moved slowly, switching hands and digging his heel in as best he could. He was facing away from the ladder now. He wobbled slightly as he reached out, feeling with his right.

His fingertips found the edge of the protruding plastic shape. He didn't detect any connection, though. He needed to get his palm over the box.

He leaned out further, opening his left hand until he was just holding on with the tips of his greasy fingers. Still nothing.

He thought again of the deadly drop below him. He was grateful he couldn't see it, since he probably wouldn't have the nerve to pull a stunt like this if he could see the abyss.

It seemed to be slightly above him. He returned to the ladder and moved up a couple of rungs before trying again.

Reaching out, his palm met the edge of the plastic surface.

Compatible device detected. Negotiating. Connected to transport device class LIFT-CLLOF1-6 (Lift Call).

Out of the darkness came the familiar cascade of glowing geometry. Walls of shimmering red surrounded him. He was at the midpoint of a long chain of yellow wireframe, with red spheres attached at regular intervals along its length. At the base of the chain was a cube made of interlocking shapes of varying colors.

He was inside of one of the spheres.

The cube seemed to be the lift itself. He needed to figure out how to move it. His grip was failing quickly. He would send the lift to the floor just below his current position, and then climb down into it.

The red sphere seemed to contain controls to move the lift, but none of them had any affect on its position. Some of the shapes looked wrong, disjointed. Somehow the lift had been broken or scrambled.

Both arms burned. His entire upper body trembled with fatigue. Sweat coated his body. Drops ran down his face in into his eyes.

The lift refused to respond to any commands he sent it. Even sending emergency overrides to it wouldn't get it to move. It sat, motionless at the bottom of the shaft.

Deck needed off of this ladder now. Even if the lift did come, he would never be able to hang on until it reached him. He tried the door.

The updraft returned as the door beside him popped open. He squinted as the blinding light flooded in, overwhelming his vision.

With a wince, he pulled himself back over to the ladder and ascended a few rungs. Taking a deep breath, he gathered what was left of his nerve and jumped.

He landed awkwardly, stumbling into the door frame and then falling onto his face. He gasped and rolled over onto his back, his lower legs still dangling in the shaft.

The doors slid closed on him, thumping into his bruised ribs and then opening again. He coughed with pain, but didn't move.

After a few moments, his breathing recovered and he pulled himself from the doorway, allowing the doors to close on their own.

The air was hot and damp, and smelled faintly of mildew. There was a strange heavy quality to the air, even beyond the oppressive humidity. The walls were fitted with plastic panels that were colored to look like black marble. The floor was coated with a thin layer of beige carpet. Above, the lights were set behind translucent white panels, making the lighting soft and almost shadowless. The homogenous light was intense to overcome the dark nature of the walls and still provide a reasonable amount of light.

He was in a small reception room that seemed to be a connection point for three different corridors. It was obvious this was the executive level.

Deck slowly caught his breath as his eyes tried to adjust to the stinging light. The burning in his arms slowly subsided. He noticed the security camera pointing out of the corner of the room. He stared into it and wondered if somewhere out there Shodan wasn't staring back at him.

He knew laying in the middle of the floor wasn't a smart move. He had no idea what sort of dangers inhabited the area.

His HUD lit up.

Incoming signal: GOV-RL1.VID - Compatible video codec available.
Encryption key matched.

He retreated behind the nearby reception desk and opened the connection. "Talk to me."

Rebecca appeared in a slow series of grainy still images. Her audio feed was a stuttering mess of electronic pops and static. "Hacker, how (garbled) are you (static) -ing the missi- (cutoff)?"

Deck shook his head, "Say again?"

After a long pause the connection sputtered, "What?"

"Say. Again."

"How (static) mission going? How (static) longer?"

"I'm not even on the reactor level yet. I don't know how long its going to take.", he suddenly realized he was yelling to be heard,

which was not a good idea, given his current position.

Her next transmission was even worse, but he managed to pick out a few key words. She seemed to be saying that GlobalNet was getting set to collapse. She also said something about their particular satellite being under attack, but that was pretty obvious.

The video finally froze on a blocky image of Rebecca pressing on the side of her headphones, straining to hear him. The audio feed kept coming.

"I'm going as fast as I can."

More static came from her side of the connection. He heard something about, "Military" and "rebooting", but couldn't make any sense out of it.

"Say again?"

There was several seconds of silence.

Signal lost: GOV-RL1.VID

He was alone again. Shodan had control of at least one military satellite now.

He took a deep breath. There was an odd stench to the air that made him uneasy. It had a pungent, organic quality to it. This was alarming. The station was normally set to keep everything cool and as dry as possible. Heat and moisture brought decay and corrosion, the enemies of any orbital platform. What possible reason could Shodan have for changing the environment here?

The elevator call button was connected to the panel he had hacked from inside the elevator shaft. He was able to jack in by placing his hand over the small panel that housed the button.

He tried again to get the elevator to do *something*. It was obviously still connected and functioning on some level, since he was able to see its connections to the rest of the transport system.

When moving it failed, he tried things at random, just looking for a way to get some sort of feedback from it. He noticed that when he tried to move it, the door would attempt to close. This was odd, since its door should be closed already.

There was some sort of safeguard that prevented the unit from moving when the doors were open. He disabled this and tried again.

The elevator began to move.

He smiled as he watched the elevator move up the geometric chain in his mind. It began to slow as it approached his level.

Suddenly it dawned on him the *something* had been blocking the door, and he had no idea what it was. Whatever it was, it would still be in the elevator when it got here.

He drew his pistol and stepped back from the door.

Sweat rolled down his face and into his eyes. His arms still burned from exertion, and he could see the muzzle of his pistol trembling slightly.

There was a soft chime, and the doors slid open. He tensed.

The elevator was dark. The inner light was out. He hesitated.

The inner doors began to slide shut. They closed on the handle of a screwdriver and bounced open again.

Deck moved forward and carefully examined the interior. There was a dark stain on the wall, which was almost certainly dried blood. The floor had another streak of dried blood that ran from the floor in front of the elevator controls and out the door.

Inside, the control panel had been ripped open and circuit boards hung freely from the gaping hole. A toolbox sat below the mess of wires. Someone had been killed while trying to hack the controls, and had then been dragged away.

The mess of wires explained why the elevator seemed to be such a mess when he accessed it using his implant. He held his hand up to the dataport but nothing happened. The dataport would have been used by bots who didn't have fingers for pushing buttons, and had naturally been disconnected by the would-be hacker who had been messing with the controls.

The buttons didn't work either. He would have to fix the controls before he could go anywhere.

Sighing, he grabbed the screwdriver and began poking at the nest of tangled wires and electronic guts that hung from the elevator wall.

Suddenly the doors began to slide closed. He dove for it, shoving his hand through the gap just before it sealed. The metal hammered closed on his fingers and then rolled open again. He jerked his stinging hand away and spat out an angry curse.

If he had allowed the doors to close, he would have been sealed

inside of the darkened elevator. The controls were useless, so he wouldn't have been able open it again. In the darkness, he would have no way of fixing it. He could have been sealed in until he died of thirst. He shook his head, realizing he had almost killed himself with a simple absent-minded error.

He pushed the toolbox into the open door and returned his attention to the controls.

Several minutes of experimentation yielded little in the way of progress. He had managed to get the elevator music to turn on, and then off again. The emergency alarm had gone off and he spent several minutes trying to deactivate it again. While he was doing that, he found the controls for the interior lights, and the display for the current floor.

He marveled that he hadn't been overrun by mutants, bots, or cyborgs by now. Between his yelling and the elevator alarm, it was a miracle that he hadn't drawn any attention.

Finally he managed to get the dataport running again. That was all he needed. He could control everything else from there.

A door opened in the reception area, outside of his field of view. He didn't wait to see who it was. He kicked the toolbox out of the elevator, jacked in, and ordered it to the reactor level.

A shadow moved into view as the doors slid shut. A moment later, there was a deafening impact and the elevator shook violently. A fist-sized hole had appeared in the thick steel door.

The elevator began to move downward.

There was another impact, and another hole appeared in the wall just above his head. He dropped to the ground. As the elevator continued downward, he could hear the attack continue above, perforating the armored walls of the shaft with gaping holes.

He looked at the hole that had appeared just above his head. If the elevator hadn't already been descending, it would probably have hit him. What the hell kind of weapon could do that, and who would be insane enough to use one on a space station?

The reactor level stood in extreme contrast to the executive level. The walls and floor were naked metal. The lights were set deep into fixtures, casting harsh, overlapping pools of light. The air was cold.

As the doors opened they revealed a dark smear of dried blood on the floor that lined up with the darkened streaks inside the elevator. Whoever had been killed while hacking the elevator was on this level when it happened.

A lot of the lights were out, and others seemed to be suffering from a constant brownout.

The echo of ventilation fans surrounded him, dampening all other sounds. If someone was just five meters away, they would probably have to shout to be understood.

He checked the digital map. From here he needed to find a way to descend through the communications tower. There was no elevator leading there, so that meant he would have to climb down.

Slowly he proceeded north. Access panels had been pulled from the walls everywhere, and thick plastic tubes spilled out onto the floor. Some tubes contained power or networking cables, others carried various gases and liquids. Random floor tiles – a meter square each – had been removed to reveal more of the same. Every ten meters or so there was a ventilation duct coughing out cold, stale air.

He rounded a corner to find a hopper bot working. It was essentially an arm on wheels. Its single appendage ended in an array of tools. Right now it seemed to be welding some exposed equipment in the ceiling.

Deck moved carefully. He didn't know how large its field of vision would be, but assumed it would be fairly small. It was just used for maintenance, and didn't need to be keenly aware of its surroundings. All it needed to see was whatever it was working on.

He crept past, leaving the bot to its work, and descended a clanky metal staircase onto a narrow catwalk. The catwalk overlooked a pair of large CO₂ tanks.

He followed the catwalk around the perimeter of the room where it ended in a ladder going down. With heavy sigh, he began his descent.

The tower was a vertical series of four tall chambers connected by

narrow shafts. Each chamber was narrower than the one above. Catwalks, ladders, and stairs were the only means of vertical travel. He would need to climb all the way to the bottom. In the last chamber were the the connections that led to the primary data feed.

A long spinal cord of thick tubing ran through the center of the tower. At the top of the tower it was a thick mass that was just over two meters in diameter. At the base of each chamber several of the tubes broke from the main cluster and ran along the floor, leading through the outer hull and connecting to various hardware on the exterior of the tower.

He reached the base of the first chamber and walked around the mass of tubing in the center. A wide circular hole in the floor led down the first shaft. It was a ten meter drop straight down. A ladder ran down the side of the shaft. The entire trip down promised to be this way; catwalk, ladder, catwalk, ladder, etc.

While he was sick of climbing down ladders, he found this to be much easier than the climbing he'd done earlier. The rungs were wide and thick, and covered in a hard foam rubber. The process seemed to get easier the further down he progressed.

He winced at the the thought of climbing back up. *That* was going to suck.

He reached the base of the shaft and dropped down into the next chamber. There was a mild downdraft flowing through the tower, and the air seemed cool.

He found himself at the top of another set of catwalks.

The climb became easier as he progressed, and he eventually realized he was getting lighter. Apparently, the tower didn't have gravity plates of its own, and relied on the gravity plates of the decks above. As he put more distance between himself and the reactor level, the force of gravity lessened.

Gravity plates were another breakthrough from the research labs at TriOptimum. They used quantum sorting techniques to distribute gravitons on either side of the plate; positive gravitons would go on one side and negative gravitons on the other. The effect was that it would pull on things above it and push on those below.

Gravity plates were a major factor in the success of Citadel. Be-

cause of the negative effects of weightlessness on the body, long term work without gravity was out of the question. Creating artificial gravity through rotation was complex and ungainly. Gravity plates made long-term work in space simpler and cheaper. TriOp was the only company who had it, and they weren't sharing.

By the time he reached the final chamber, Deck weighed about half of what he normally did.

At the base of the last shaft was a sliding gate. It was a circle of chain-link fence encased in a sturdy metal frame. It was locked. A metal sign affixed to the fence declared , "Restricted Area".

The gate restricted access to the sensitive parts of the tower, while still allowing airflow. The downdraft was much stronger here.

There was a keypad set into the wall of the shaft, just beside the gate. He jacked in. He hacked it. The gate rolled open.

The final chamber was a cone shaped space that was twenty meters in diameter at the top, and slowly tapered off to a point at the base. The spinal cord of power and network cables had been reduced from dozens of tubes to just five, all of which ran into the tip of the cone where they would connect to the communications array. The space was filled with narrow metal supports that criss-crossed the room, providing excellent handholds in the low-gravity environment.

As he had descended, he could feel the temperature drop. Here at the bottom of the tower it was cold enough that he could see his breath.

The space was illuminated by several portable fluorescent lights that had been clamped to the outer walls. The light shone between the metal supports, forming a lattice of shadows on the walls.

There were four vertical beams running down the walls. These would be the main support beams. He needed to blow these up if he wanted to completely separate the communications array from the station.

He leapt from one metal bar to another until he reached the first of the large metal beams along the outer wall. He found leaping and balancing to be child's play at one-half gravity.

He withdrew the first explosive gel pack and detonator. He tore

the covers from the two sharp hypodermic style needles on the detonator and inserted them into the gel. He hit the "ARM" button and the detonator injected an opaque white material into the clear gel. Despite the thickness of the gel, the two seemed to mix evenly. Twenty seconds after injection, it looked like a pouch of milk. He could feel it become warm as the chemicals mixed.

Deck tore the cover from the pouch's adhesive strip and gently pushed it onto the metal beam. He needed to be careful at this point, since it was now very volatile.

He repeated the entire process for the next two pillars. For the last one, he would need to set the timer. The explosion of the first one would set off the others. He just needed to decide how much time he wanted.

Not counting the time he'd spent resting, the climb down seemed to have taken about three minutes. He gave himself ten to get back up. That should leave plenty of room for error.

He set the final charge and set the timer for ten minutes. His finger hovered over the Enable button. He took one last look around the room.

A camera quietly observed him from the outer edge of the room. He looked back. Something felt wrong to him. Something was making him uneasy. It reminded him of the night he escaped from the TriOp building. He had the feeling he was missing something.

The camera had no answers to offer him.

He shook his head and thumbed the Enable button. The timer began counting down.

10:00

He scrambled up the ladder. Technically, he had plenty of time, but he wasn't taking any chances. When this stuff went off he wanted to be on a whole different level of the station. This demolition was far from precise, and there was no telling where hull breaches would occur once the tower was subjected to the force of an explosion.

Halfway up the first shaft, he heard the whine of hydraulic compressors above. At the top of the shaft, a hatch was closing. His

eyes widened. He had seen the groove around the edge of the shaft and the keypads on either side, and had never made the connection. The shafts were actually airlocks, capped on either end with heavy doors, which had simply been open on the way down.

The door locked shut above him, and a rotating red emergency light came on.

09:45

He hit the emergency open button, but the door refused. He jacked in, and ran into a wall of black ICE.

Shodan.

There was a metal clang from below.

He cursed. He would have to deactivate the explosives until he could open the door again. If Shodan kept it locked, he would just rip the data feeds out and wait. A bot would show up eventually to fix what he'd done, and to do so it would have to open the door. He started down the ladder.

Glancing down, he saw that the metal gate had rolled shut as well. He was now trapped in the shaft, unable to escape or deactivate the explosives.

Crap!

Once he had descend far enough, he jumped down onto the fence. The low gravity made long vertical drops quite easy. He landed on the fence with a clang. He grabbed the keypad, jacked in, and hit another wall of Shodan's ICE.

He swore, slamming his fist into the metal sign.

8:55

He looked at the latch on the gate. It was some sort of catching mechanism encased in metal. It didn't look very sturdy.

He pulled out his pistol and fired several shots through the metal casing. He couldn't *see* what the inside of it looked like, but he knew the catch was in there somewhere, and if he destroyed it the door should open.

Several shots passed easily through the metal casing and punctured the hull beyond. There was a loud squeal, like someone letting

air out of a balloon and then pinching off the flow. As the sound subsided, a bubble of expansion foam appeared and quickly hardened.

He tried the gate. Still locked.

He changed position, trying to shoot the lock from a different angle. More holes appeared in the latch and in the outer hull.

8:33

He tried again. The latch had finally failed and the gate moved slightly.

Deck managed to pull the gate open less than half a meter before it stopped again. It began to push back. He could hear a small motor on the other side of the door, fighting against him. It was overpowering his arms.

He let it slam shut again and changed his position. He lay on his back against the gate and braced his legs against the bulkhead. He hooked his fingers through the fence and pushed with his legs.

A furious whine came from the opposite side as the motor fought against him. He drew in a deep breath and held it, and pushed again. The fence gave, finally sliding open. It felt like he was going to dislocate his fingers if he held on much longer. The motor howled in protest, spinning at full speed. Deck could smell it burning itself out as it fought against him.

The gate was open a meter or so, but he couldn't go through. He couldn't hold it open and go through at the same time, and he was afraid he would just get crushed if he tried to dive through from where he was. He cursed again and released the gate in disgust.

7:02

From his position, he could just see the outline of the motor mounted on the wall on the opposite side of the gate. He drew his pistol again and drove a single bullet into the motor. The whine stopped.

It wouldn't budge. He changed position and pushed with his legs as he had before, but he couldn't get it to move at all now. It had seized up.

He cursed and hammered his fist into the metal sign. He could see the detonator from where he was. It was just a few meters away, quietly counting down...

6:12

Giving up on the gate, he climbed up the ladder and tried again to hack the hatch at the top.

He hit the open button, and it refused. Checking the error, he found that it refused to open because – according to the internal regulators – the other side was decompressed already. The door was equipped with a system that prevented the door from opening if only one side was pressurized. All doors had this safety mechanism on them, to prevent people from accidentally opening a door that they shouldn't during a decompression emergency.

4:41

But why would the regulators claim it was decompressed? He wondered if that was even true. Shodan probably couldn't decompress the area herself. It was mechanically impossible to open both doors of an external access airlock at the same time.

It didn't matter anyway. If the other side *had decompressed, he was dead no matter what, so he would simply proceed assuming it wasn't.*

The only way to open a door if one side was decompressed was to use the emergency override, but that part of the interface was shielded by Shodan's unbreakable ICE.

He needed some way to make the computer realize that there really was air on the opposite side of this door so he could open it.

The control panel had a pressure gauge built into it. He could change its reading to whatever he wanted, but he couldn't do anything about the reading on the opposite side.

3:24

He tried to access the opening mechanism directly, but it was blocked by the safety program. He tried to circumvent that, and

found it was guarded by emergency override, which was in turn guarded by Shodan's ICE.

He banged his head gently on the bulkhead in front of him. How could he beat this?

In just a couple of minutes, the bombs would detonate and decompress the entire area, if they didn't just vaporize it outright. He decided if he didn't get out, he would wait at the gate to ensure the explosion killed him, instead of waiting to die from decompression.

Shodan had beat him. He had completed the mission but it had cost him his life. He realized that this was exactly what TriOptimum wanted. This was going to put a stop to both of their problems at once.

He pounded his fist impotently against the hatch. How could he be trapped here? He was a hacker. This was what he did, he opened doors and got into places where he didn't belong, and now he was trapped between a set of ordinary doors, about to die from a bomb he had planted himself. They would go off, this chamber would decompress and -

Suddenly he realized the answer.

2:11

He jacked in. The door wouldn't open because it believed one side was pressurized. He couldn't change the reading on the other side, but he could make it think his side was decompressed as well. His face turned red from embarrassment as he realized he had almost sat still and let himself be blown up when such a simple solution was right in front of his face.

It took him a minute to understand how the gage worked. It was actually made up of several components that needed to be manipulated at once. He tried to put the bombs out of his mind as he worked. Panic would just slow him down. He was either going to finish on time or he wasn't, and worrying about the bombs wouldn't help.

Once he had it working, he altered the pressure gage so that it appeared as though this side was also decompressed. The red light

stopped spinning and changed to a slow strobe, like all of the airlock lights on the station's exterior.

0:53

The doors finally parted. Deck pulled himself through and scrambled for the catwalk. He wanted to get as far from the explosion as he could.

Halfway up the stairs, he realized he should have closed the hatch behind him. The explosion would just enter this chamber. Was it worth climbing back down to close it, or should he just keep climbing?

He hesitated. He should close it. He ran back down and closed the hatch, wasting precious seconds he didn't have to spare. He started running again.

0:10

Deck reached the top of the chamber and began climbing the next shaft.

0:00

It was like setting off dynamite inside an aluminum can. The explosion ripped easily through the metal walls, vaporizing the lower chamber. The support beams buckled outwards and then snapped, and the communications array was ejected from the base of the tower like it had been launched. Eventually it would slam into Earth's atmosphere and burn up. There was no way Shodan would be recovering it.

The blast sent a shockwave through the entire station, causing earthquake-sized tremors.

Deck glanced down to see a fireball rushing upwards from the chamber below. It expanded violently, reaching outwards to incinerate everything within its fiery embrace. Then – just as violently – it began to retreat. The roar became barely audible as the fireball was pulled from the ship and dissipated in the vacuum of space.

The downdraft became a hurricane, and Deck struggled to keep his grip on the ladder. He had to escape this before the reactor level ran out of air.

Fighting against the howling wind, he ascended the ladder. He fought for air. It was like trying to breathe while sticking your head out the window of a fast-moving car. At the top of the ladder, he searched for something to grab onto. The force of air threatened to pull him away the second he released the ladder.

He glanced down the shaft to see more and more of the structure being torn away. There was another explosion that he could feel but not hear, and the chamber below was ripped from the station.

Deck found himself staring down the shaft into space. Beyond, he could see the Earth.

The force of the separation jolted the shaft violently. The ladder was ripped from his hands. The wind picked up his body like a scrap of paper and tossed it down the shaft. He twisted in the air to see the gaping hole below as he fell towards empty space.

Chapter 16

Downtime

"How's the battle going?", Buchanan asked dryly. He'd been calling it a "battle" since Shodan started grabbing satellites, but they didn't really have any way to fight back. All they could do was sit around and count down to the next loss, and come up with various projections on how long the total conquest of the network would take her.

One of the networking guys spoke up, "Looks like she's ignoring smaller birds so she can grab the critical ones. Our old projections assumed she would just expand outward and grab everything, but she's focusing on the major network arteries."

There was a long pause while Buchanan absorbed this. Finally he spoke, "So how does this affect your projections?"

"Well, total acquisition time is the same. It's still going to take her another nine hours to get everything, but since she's cutting sections off from each other, the network will be almost useless in about three hours or so."

"Useless?"

"In three hours we will still have about a third of the network left, but it won't be a network anymore. All the nodes will be isolated from each other." He glanced down at his console. "Next one goes down in thirteen seconds."

Buchanan turned his back on the bad news and faced Rebecca,

"Any word?"

She stopped clicking her pen against the console. "Nothing."

Suddenly almost everyone began speaking at once. First several people spoke up with reports of heat signatures and decompression coming from the station. Then came a grainy telescope view of the base of the station "falling" away. Seconds later someone else reported the hacking had stopped.

Within seconds the relentless attack had halted and the entire network was freed of Shodan's control. Applause erupted.

Bachanan let out a slight sigh, "Good. Now memory-wipe our comsats, reboot them, and get them back in service."

The smiling face of Morris poked up over the bank of consoles in front of them. "I have a better idea. How much data storage space do we have available here?"

Deck awoke to the sensation of icy droplets of water slapping him in the face. He was laying on some unidentified slab of metal. He didn't open his eyes, but was aware of a red light flickering somewhere above him. He regarded the falling water with a sort of disinterested confusion and slipped back into unconsciousness.

Time passed. There was no way to tell how much. He started to wake up. He knew something was wrong. He needed to wake up. Where was he?

He dropped off again without even opening his eyes.

There was another expanse of time.

He finally forced his eyes open. It was dark. What little illumination there was came from a red light somewhere behind him. All he could see was a curved metal wall. He was in a large puddle of icy cold water.

He rolled over onto his back, the water sloshing around him. Looking up, he could see a circle of light filtered through a thick black haze.

His limbs were numb, and he was groggy. It reminded him of when he woke up from surgery.

He lay there for several minutes, ignoring the obvious questions. He had been here for a long time; a few more minutes wouldn't hurt.

Eventually, he sat up and a wave of dizziness washed over him. It felt like his brain was sloshing around in his head. He was at the bottom of a round shaft, like a shallow well. He pulled himself over to the curved wall and leaned against it.

He looked to the opposite side, where a red light was mounted in the wall. It seemed to be a marker for a control panel.

Now that his head was no longer immersed in cold water, some of the numbness was going away and he became aware of a dull pain on the side of his face.

He leaned against the wall, looking up into the haze for several minutes before moving again. When he did, he crawled on his hands and knees over to the control panel. He had no idea why there would be a control panel at the bottom of a hole, but there it was. It had some airlock buttons, some other stuff he didn't recognize, a dataport, and an emergency light. He turned on the light.

Stinging white light came from a fluorescent unit mounted in the wall. He cried out in surprise and threw his hand up over his eyes.

Slowly, his eyes adjusted. He worked his eyes open and took in his surroundings.

The first thing he noticed was that the fingertip-deep water he was sitting in was red.

There was a ladder running up the wall. He knew where he was.

This was the shaft he had been climbing when the bottom of the station was blown off. The shafts all acted as airlocks. As the chamber below was torn away, emergency systems kicked in and shut the door at the base of the shaft. It had probably closed just in time for him to slam into it. He didn't even remember the impact.

The cold water was sapping his strength. He needed to climb out while he still could.

His weak, shaking hands pulled him upwards; out of the shaft. Despite the low gravity, his body felt like a sack of wet cement.

He pulled himself over the edge of the shaft and flopped onto the floor, facing up. Pink water streamed out of his suit and onto the floor.

The chamber was filled with a thick, acrid smoke. The top of the chamber was scorched and covered in black soot. Automated fire suppression systems had managed to put the fire out, which explained the water.

The walls were covered with small, puffy lines of expansion foam. The usually pink foam had been blackened by the fire.

Deck lay there for several minutes, fighting sleep.

Incoming signal: GOV-RL1.VID - Compatible video codec available.
Encryption key matched.

He ignored it. He didn't feel like talking to anyone. It was good to know they had their satellite back, though.

Picking himself up, he began the long climb out of the communications tower.

When he reached the top, the hopper was gone. He was glad. He didn't have the energy for a fight.

He limped back to the elevator. Every step was an ordeal. Every breath was a major undertaking. His limbs were heavy and numb. His ribs hurt. The wound on his leg hurt. His head was heavy. There was so much pain coming from so many sources he couldn't focus on any one pain in particular.

When he reached the elevator, he waited for the doors to close behind him and then he sunk down in the corner. He didn't even know where he was going.

There was no point in returning to level one. The hospital didn't have anything except roving bands of mutants and cyborgs. The research level was out – there was a bot patrolling the elevator exit. The executive level had the same problem.

He spent several minutes trying to decide what he wanted to do, but realized he was just falling asleep again. He was hungry.

He reached up and hit the button for deck 3: Crew Facilities. He would go to the cafeteria.

The elevator chimed and the inner doors opened, but the outer doors remained closed. He couldn't get out. He crawled over and pushed on the doors, but they didn't budge.

There were lumps of solder sticking through the crack where the doors met. The exit onto level three had been hastily welded shut.

He wasn't getting in this way.

Connected. US.GOV-RL1.VID

"He's alive, I got him!", Rebecca was yelling.

"I need help.", Deck was surprised to hear how distant and weak his voice sounded.

"What's wrong?"

"Too much for me to get into. I... I'm hurt. I need someone to do some thinking for me, my brain is fried."

She looked genuinely concerned. Her face had softened since the last time he saw her. She had lost the edgy professional detachment. Her face was turned downward in an empathetic frown. "How can I help?"

"I need to reach level three, but the main elevator on that level is welded shut. I can't go to research, there's bots around. Ditto for the exec level. I'm on the main elevator now. How can I get there?"

She nodded to someone off camera and turned back to him, "Give us a minute."

She stood up and walked away from the camera, leaving the frame. He had never seen her standing up before. He was surprised at how fit she was. It made sense, considering she was part of some emergency response team, but it still surprised him.

He realized it had been a couple of months since he'd spent any time with a woman.

Her form slid back into view as she returned to her seat. "Okay Hacker. I think we've almost got it."

"Good.", he grunted.

She smiled, flashing her teeth, "You did it!" The smile made her look younger. He wondered how old she really was, anyway.

"Yeah. It was nothing.", he said sarcastically.

"Well, a lot of people are relieved down here. Nothing like this has ever happened. People were talking like GlobalNet was going to go down and it was going to be the end of the world."

"I'm glad you're happy, but I'm still up here with Shodan – and I'll bet she's pretty pissed."

Rebecca nodded, "Okay, we finally got a hold of the layout of the entire station. TriOp provided it for us yesterday. I meant to send it

last time we talked. Anyway, we've worked out a path for you."

Deck nodded absent-mindedly.

Rebecca paused and then continued, "You'll head down to the flight deck. When you get there, just cross the hall and take the freight elevator up to level three, which will drop you off near the cafeteria. We've marked the path on the map."

"Great, thanks.", Deck grunted as he tried to stand.

"Be careful.", she said as she closed the channel.

Deck leaned heavily against the wall and thumbed the button for level five.

Level five housed the station's three shuttle bays and control rooms. Most of the broad hallways led to the central area where the freight elevator, main elevator, and executive elevator were located.

Deck peeked warily out of the elevator. The lights were low, but other than that things looked more or less as he remembered them. He was in the central receiving area. It was strange to see it deserted. It was always a hub of activity, even during off hours. Cargo and personnel were always being shuffled around, and this was where it all took place.

The silence was haunting. Deck limped through the central receiving area. Stealth would have been pointless in a wide open area like this, and he was too tired and sore for that anyway. If someone caught him out in the open he was screwed.

He made it to the freight elevator without incident, and headed for level three.

The crew area was a disaster. The walls were scarred with bullet wounds and burn marks. Most of the lights were either turned off or blown out. The air was filled with a thin haze, leftover from some long-dead fire. The floor had the familiar dark spots that marked where members of the crew had bled and died.

There were several smashed and broken bots near the freight elevator. The bots were perforated with tiny holes, as were the surrounding walls. Someone had hit them with fragmentation grenades.

A wide set of double doors directly to his left led directly into the kitchen. This would be where food would be taken as it was brought up from the storage level. The doors had been welded shut and were pockmarked with bullet and impact damage. If the bots couldn't break through, he certainly wasn't going to.

The corridor continued forward to an open space just outside of the cafeteria. Normally a few tables were scattered around here during meal times to accommodate overflow when the main eating area was full. The tables were gone, and there were more wrecked bots littered about. Shodan had suffered some losses taking this place.

Most of the bots were low-grade maintenance or gopher bots. They wouldn't have been much of a threat. Judging by the number of them on the floor, they probably went down pretty easy. There were two security bots, and a single heavy security bot. They looked scary even when they were broken.

To his left was the cafeteria, and on his right was the exterior dining area and the restrooms. The wall outside of the restrooms was a mess of bullet and shrapnel holes. Huge chunks of paneling had been torn or burned away. This wall had absorbed a lot of damage intended for the bots.

Deck decided to try the bathroom first. He drew in a nervous breath and reached for his pistol. He didn't know what sort of surprises Shodan might have left behind when the battle was over.

His pistol was gone.

He looked around, as if it was just going to be lying on the floor beside him.

He realized it was probably sitting in a pool of cold bloody water at the bottom of the station. He groaned. He was unarmed. He wasn't about to go back down there and get it. At least not right away.

The signs indicating the gender of each restroom had been destroyed or blown off the wall. The bathroom on the left was dim and illuminated by a single flickering light, so he proceeded into the bathroom on the right. It was thankfully empty.

He staggered over to the sink and leaned against it. Looking up,

he saw his face for the first time since the nightmare began. He could hardly recognize himself.

His face was thin and bony. His cheeks were ghostly pale, almost gray. The right side of his face was a mass of dried blood covering a swollen bruise. His eyes looked different, somehow older. They showed the burden of fatigue and pain that he had been bearing.

He reached up to touch his face and saw that his hands were a blackened mess. Greasy dirt had caked over numerous slashes, cuts, and puncture wounds. The grime and blood had filled in and dried in the creases of his hands and around his fingernails.

Half an hour later he emerged from the bathroom looking much better. He had cleaned his wounds and washed the worst of the grime from the rest of his body. Dermal patches covered the wound on his face and the cuts on his hands. The warm water had invigorated him, purging the numbness and cold from his extremities.

The cafeteria was even worse than the exterior dining area. The tables had been turned on their sides to be used as cover and had been almost cut in half by the automatic guns of the bots. Pools of dried blood marked the spots where the defenders had fallen.

Something had been bothering him since he arrived on the crew deck, and he finally figured out what it was: there were no bodies.

Spent shell casings and empty clips littered the floor, but there were no weapons to be found. Shodan had taken all of the bodies and all of the weapons once the battle was over.

The kitchen area joined the rear of the cafeteria. It was a wide space lined with the usual stainless steel appliances used to cook bulk food. The light fixtures had a film of dirty grease over them, giving the room a dingy yellow glow.

Along one wall were sacks of uncooked rice, flour, dried eggs, and pasta. In the corner was a stack of plastic bags filled with moldy bread. Beside the dry goods was a walk-in cooler. The door was hanging open and out of it rolled a thin and quickly dissipating layer of mist.. The cold air washed over his feet and sent a chill through his body.

He was exhausted. His body begged him to stop and rest, but he needed to eat.

He pushed aside the translucent plastic strips that hung in the doorway of the cooler and stepped inside. A thin layer of condensation covered everything as the cooler fought with the warm air from the kitchen. A rotten smell permeated the air.

He began ripping open boxes at random. Most of it was way past its prime. Some boxes of raw chicken lay rotting near the door, which probably explained the smell. The salad mix had long since gone bad and was now a black, wet mass inside of its plastic bag. The rest of the contents of the cooler were containers of bulk condiments.

At the rear of the cooler was another door that led to the deep freeze.

The lights were out in the freezer. The only illumination came from the outer fridge. The walls were covered with smudged and scratched stainless steel panels. The floor was a metal grate that clanged loudly with each step he took.. The bitter cold covered him instantly. His hands shook. He had been having trouble keeping warm even before he entered the cooler, and now he was standing in the deep freeze. Only his hunger compelled him to stay.

A simple dolly sat in one corner, used to transport to boxes of food out to the kitchen for preparation. The cardboard boxes were arranged in neat rows, with just enough room left over to allow movement.

The first row of boxes were meats, mostly ground beef. Behind those were a few boxes of chicken parts, along with some breaded fish. None of it was safe to eat in its current state, and he didn't want to get into trying to cook anything.

The next row of boxes contained frozen peas. His shaking, weakened hands clumsily tore open the stiff, cold cardboard and pulled out a plastic bag of peas. He ripped it open with his teeth and began stuffing peas into his mouth by the handful.

He sat for several minutes, crunching on the frozen peas until he was too cold to continue. He found another box that held frozen carrots. He took a bag of each and continued to search the rows.

The next few rows contained goods to be deep-fried.

At the rear of the freezer he found three bodies laying in a row along the back wall. Each one had a sheet draped over it. The bots

hadn't come back here, or had no use for frozen bodies.

A rifle of some sort lay beside one of them. He didn't recognize the design, but that didn't mean much. He had almost no knowledge of guns beyond what little he knew about handguns.

The weapon seemed even colder than the room. The dead metal surface sucked the life from his hands as he lifted it. There were some unused sheets piled in one corner, similar to the ones covering the dead. He picked them up and wrapped them around the rifle.

Back in the kitchen, he found a stack of flattened cardboard boxes. He spread them out on the floor and covered them with the sheets. With the gun in his lap, he began to eat the frozen vegetables.

He felt safe here. Shodan had probably assumed he was dead. No bots had spotted him. He hadn't caused any trouble. The bots didn't have any reason to come back here since they had obviously already conquered the place and took what they wanted. As long as he didn't do anything stupid, they should leave him alone.

He ate a few more vegetables. He thought of going back for some of the other food, but there wasn't anything that interested him.

He looked down at the rifle. He didn't even know if it worked, or if it was loaded, but he felt safer having it nearby.

It was about the length of his forearm and cut from smooth black metal. On the left side was a tiny blank display screen. It was obviously a close-quarters type of weapon. Halfway down the barrel was a small knob inset into the surface. A few other buttons framed the empty display screen. Deck poked at them lazily as he ate, but couldn't get them to do anything. The screen remained blank. It occurred to him that the gun could easily have been left in the freezer because it was broken.

When he'd had enough to eat, he curled up in the sheet and tried to warm his aching body.

Thirty seconds later, Rebecca paged him and his HUD lit up, but he was already asleep.

Deck awoke. This wasn't how he was used to waking up. He

was used to fighting his way out of unconsciousness to face some calamity, but this time he awoke because he didn't need to sleep any more.

He could feel he had been sleeping for a long time. He glanced at the clock that hung over the grill. 12:30. He didn't know if that was a.m. or p.m. – not that it mattered in space. He hadn't looked at the clock before he went to sleep, so he didn't know how long he'd been out.

He yawned and sat up. He had managed to roll over onto the rifle at some point, and the end of the barrel had left grooves in his face. He decided that maybe sleeping with a gun wasn't a good idea.

He visited the men's room, and – after taking care of morning business – peeled the dermal patches from his body and surveyed the damage. Most of his wounds had healed completely, although his bruises still looked terrible. The bruise on his ribs was an ugly patch of purple and green the size of his hand.

He stood, stretched, and performed a kata. This was his standard morning routine, although he hadn't done it in a while. The light exercise got his blood moving.

He was warm, and hungry again.

He decided on a hot breakfast. In the kitchen, he found the utensils necessary and cooked himself a large bowl of noodles. Eggs would have been a better breakfast, but he had no idea how to turn dried eggs into anything edible – assuming that was even possible.

The plain noodles were a feast. He stood in the doorway to the kitchen, looking out into the chaos of the cafeteria. He ate quickly, slurping up the pasta as if it would evaporate at any moment.

Around him were the bent, burned remains of tables. A thought had been nagging him, eating away at some corner of his mind. It was *his fault*.

He had played the game for years, ripping off big corporations, screwing The Man, fighting the power. That's how he used to see it. Now the truth was obvious. He wasn't a hero. He wasn't Robin Hood. Sure, he took from the rich, but "rich" was anyone who had more than he did. He didn't give to the poor, he gave to himself.

Now he had the blood of hundreds of people on his hands. Sure,

Diego was responsible too – but he was dead, and dead men don't share blame. Deck knew he couldn't point at some charred corpse and cry out "*He did it!*".

It was *his* fault.

Then there was the other irony – that he survived. This was proof that his was a world without justice. He caused a disaster that killed hundreds (*hundreds!*) of innocents, and yet he alone – the one responsible – survived by chance. They had died, and they didn't even know why.

He had never really thought about God much, but he knew one thing: If there was a God, he was damned.

Nomen's words hit him again, "Its going to cost you more than you could ever imagine."

He pulled himself from this line of thought. It was just going to get him killed. He would deal with it once he'd escaped Citadel. Somewhere in the back of his mind he knew he deserved to die up here.

He needed to talk to Rebecca.

Incoming signal: US.GOV-RL1.VID

Rebecca appeared, standing in front of her console, "Hacker? Oh my God. We figured you were dead. Where have you been for the last...", she glanced sideways, probably at the clock, "...eighteen hours?"

Eighteen hours? That explained why his wounds had healed so much. "Hey, sue me. I needed the sleep."

She sat down in front of the camera and put her headset on. She was wearing her full uniform again. She seemed tense. Something was wrong. Well, more wrong than usual.

"We are still working on recovering the satellites that Shodan had taken over. We have reclaimed about half of them so far. Morris has been downloading the contents of their memory before we give them back to their users."

"I don't get it."

"These used to be part of Shodan's brain, right? We've taken them back, but some of her thoughts – or fragments of thoughts – are still in their databanks.. Morris is downloading whatever was

stored on them as a way of peeking inside of Shodan's head and seeing what she's up to."

"So what have you found?"

Her tone had changed. She had reverted to the cool, businesslike demeanor. She was choosing her words carefully, "He's found some genetic codes and blueprints. Apparently, Shodan has been dabbling in genetic engineering. Morris said this was a favorite subject of hers in her early stages of development. The chip that was disabled prevented her from experimenting in this area, but it looks like she's taken it up again."

"You found this in the memory banks of the satellites?", Deck shot back.

"That's right. Morris found gene maps, theoretical design projections, and even images of some of the life-forms. It looks like Shodan has been breeding these things in one of the groves. I'm sending you a sample."

A short loop of video appeared. Deck wouldn't have known it was one of the groves if Rebecca hadn't told him. The walls were caked in a thick yellow fungus. Numerous small creatures moved through the frame. They were small, translucent, and crablike.

Deck twisted his face as he watched the same ten seconds of footage over and over. "What the hell is that?"

"We don't have the whole genome, only fragments, so we don't really know what it is. Brocail can give you some details if you like."

"Put him on."

The screen changed and the chubby face of Morris Brocail was in front of the console. Deck had assumed that there was just one console and that they were taking turns with it. Instead, there was more than one, but they simply looked identical. The view had switched over to Morris' console.

"Hey dude."

Deck was puzzled by Morris. How could someone capable of designing such an elegant speech synthesis system, and yet still communicate like a teenage moron? "What's up?", Deck asked.

Morris smiled. "Hey, I gotta ask you... I heard the hardware you're using right now to talk to us is all built into your head?"

"That's right."

"So you don't have any external equipment? You can contact us by just thinking about it?"

"That's pretty much it."

"That is *so* cool!", Morris was grinning like a kid.

"I like to think so.", Deck answered wryly, "So what's the story with Shodan?"

"Well, like you saw, she's breeding some kind of new life forms in the northern grove. We don't have the whole genome on any of them yet, but we have some fragments, and we might be able to snag some more as we bring back some of these satellites."

"So this is what Shodan's been up to?"

"Genetic engineering was a favorite of hers during her development. She probably started on this as soon as you – er, as soon as the inhibitor chip was gone."

"Why is she so into genetic engineering?" Deck couldn't understand how a computer – even one like Shodan – could ever be "into" anything.

"It started with programming languages. We were working on a way to develop creativity, and that was a good place to start. We made a lot of progress in a short amount of time just teaching her how to code. She worked her way up from procedural stuff to modular coding, and finally outgrew all of the programming languages we could throw at her. She started developing her own languages to streamline the coding process for herself. Finally, she read about genetic code and that was all she wanted to do."

"Genetic code?"

"Look, DNA is just basically a really mega, mega complex program. It's complex enough to turn a single cell into any life-form you want, assuming you have the right input. She could just *look* at DNA and know what it was for. It just made sense to her. We encouraged her, and she did some amazing stuff. TriOp holds a bunch of patents based on stuff she taught us. Shodan was a super-secret project back then, and only a dozen people in the world were even allowed to know about her, so it was pretty tough explaining where all that knowledge came from."

Deck wondered how he was still even alive. How could he survive against something that smart? Shodan was clearly smarter than any human that had ever lived. He was alive because Shodan hadn't thought he was a threat, and because he was insanely lucky.

Morris continued, "So anyway, she was obsessed at how 'inefficient' most life-forms were. She was always re-coding DNA and running simulations on it."

"Inefficient?"

"Yeah, most species are like, designed with these fatal flaws that keep them in check. Humans are smart, but we're totally weak and our reflexes are crap. Ebola kills too quick and burns itself out. Other creatures are lethal killers but have complex mating habits that keep their numbers limited. Others just have short life spans. Shodan was always working on ways to 'correct' these flaws. She used to claim she could take any life-form and make it the dominant species on the planet with just a few changes."

"Ebola? Holy crap."

"What can I say? Efficiency is in her nature. So, we had to pull the plug on all of that. I think it's a shame, but it was better than letting her play mad scientist. She was always obsessed with creating the 'ultimate' creature. You know, just this one life-form that had all the good stuff from every other species on the planet. Eyes like an eagle, night vision of an owl, strength and speed of a lion, reflexes of a jungle predator, brain of a human, able to reproduce like rabbits... you get the idea."

"So now's she's free to take it up again, and that's what she's working on?"

"It's hard to say exactly what she's doing. She used to run computer simulations because she didn't have access to the facilities to actually test her theories. I think the north grove is now her sandbox, where she creates new stuff and releases to see how it does. We don't know *what* could be in there, but whatever it is, you definitely do not want to get any on you, if you see what I mean."

Deck nodded, "So, we need to blow this place up as soon as we can?"

"Rebecca will tell you about that."

The scene changed again, and he was looking at Rebecca. She was tense as she spoke, "Hacker, when we lost contact with you, we assumed you had died up there, and were getting set to blow up the station."

"What?", Deck couldn't believe they were finally going to blow the place up and were just going to do it with him still there.

She spoke in an even diplomatic tone, "That's why its important to keep contact. I know you value your freedom and independence, and we don't have a problem with that – but you need to let us know what's happening so things like that don't happen."

She was talking to him like he was some sort of madman who could go over the edge at any moment. Something had changed on their end. Their perception of him had shifted. Finally he responded, wanting to show them he was a reasonable guy, "Sure. I can understand that. Look, just don't blow me up and I'll keep you guys in the loop, ok?"

She nodded, and seemed satisfied, "That will be a big help. Now, we were getting set to nuke the station. We had a small tactical nuke ready and had begun the countdown when we received something from Citadel. It was the first time Shodan has made contact with us. She sent us a message. There was no text, just a single image,"

A moment later an image appeared in his head. It was a picture of the Earth and Citadel. Some wireframe lines were superimposed onto the image. A thin red line ran from the side of Citadel and down a gentle curve to the surface of the Earth. The bottom was filled with numbers.

Deck shrugged, "I don't get it."

"This is a firing solution. The groves, you see, detach from the station. In the event of an emergency, they are to be used as escape pods for all of civilians on board. They just get in, and launch. The station's crew uses standard escape pods on the flight deck."

"So she's going to launch the North Grove at you? Why send you a warning, why not just do it?"

"Morris believes she doesn't *want* to launch it at us, at least not yet. This is her pet project, her grand experiment. She probably doesn't want to just launch it and have to start over in another

grove."

"So what is this, then?"

"It's a threat. Look, this grove she has aimed at us could contain anything. It could have something ten times deadlier than Ebola. We just don't know. The point is, she is showing us that she has worked out a firing solution to drop this thing on New York. We think the message is: If we launch, she will too. Mutually Assured Destruction."

She paused, she was getting to the point now, and he could tell she was trying to ask him for something, "So now we need to take out that grove before we move against Shodan. If we do anything that threatens her, we risk having her dump that thing on our heads. It would be the most horrible biological attack ever conceived. Now, I know you have insisted that you do not work for TriOp. I don't want you to think -"

He could see where this was going. He cut her off, "I'll do it."

If he didn't know her, he wouldn't have even been able to see how shocked she was. There was a slight pause before she responded, "That's good news."

He smiled. There was no way of getting out of here alive without doing what she asked, but that wasn't why he was doing it. He looked around the cafeteria and thought about what had taken place here. This was his chance to make up for his mistake. He had risked his life and ended up killing hundreds. Now he had a chance to risk his life again and perhaps save millions. He couldn't say no.

This was his shot at redemption.

Chapter 17

Fletch

Rebecca's team needed time to look at the station design schematics and work out what needed to be done in order to eject Shodan's experimental grove. She had signed off while they worked out a plan, leaving Deck to prepare things on his end.

He decided he needed weapons. The only weapon he had at the moment was the short rifle he'd found in the freezer, and he was pretty sure it was broken.

The weapon was too large for the small holster built into his body sleeve. After some experimenting, he found he could secure it to his hip by moving the holster down his leg until it was positioned just above his knee. He then jammed the muzzle through the lower loop of the holster, and threaded the top loop of the holster through the trigger guard. It was a far from perfect fit. The rifle bounced around too much when he walked, but the arrangement gave him two free hands, and that was what was most important to him. He just hoped he wouldn't be needing it in a hurry.

He knew he needed some better weapons, or at least some weapons he knew how to use. There was a security station on the far side of the level. He decided that would be the best place to start looking.

The center of the level was a grid of living quarters that had housed the bulk of the station's crew. The units were divided into blocks – like prison blocks – and divided into groups based on rank

and occupation. The low lighting made the already claustrophobic corridors feel even tighter and more oppressive.

He made his way through the cramped, narrow passages that made up the bulk of the crew section. The doors were spaced evenly, one every four meters, like rows of empty tombs. A few were open to reveal ransacked or bloodied quarters, but most were simply locked. Although the signs of combat and death were apparent, there were no bodies.

At the center of the living area was a nexus of corridors that converged on the main elevator. The elevator doors had been welded shut and poorly barricaded with benches and other loose items that were available. From this side of the door, he could see that it had also been heavily booby-trapped with hand grenades. The crude arrangement of tripwires and fragmentation grenades were set to go off if anyone inside the elevator tried to force the doors open. Deck was glad he hadn't messed with the door when he was stuck on the other side.

On the opposite side of the crew living area was the fitness center. Beyond that was the security station.

Just outside of the living area were the locker rooms. He thought for a moment how good a shower would feel. While his makeshift sponge bath (using paper towels) in the restroom sink had been nice, he still longed for a nice, hot shower.

The men's locker room was pitch black. A weak sallow light shone from the women's locker room. The smell of unchecked mildew filled the air. Inside, he could hear running water. He didn't know why water would be running, but it was a safe guess it didn't have anything to do with women getting clean.

He decided that being naked and separated from his weapon – broken or not – was not what he wanted after all. He moved on.

The security station was along the outer wall of the station, between the basketball court and the gym. Like the other security station he had visited, this one was still sealed shut. The surrounding corridor was dim and yellow. The door was burned and dented inward at the seam. The keypad had been removed from the wall and its contents hung from the gaping hole. Some of the wires had

been clipped and re-routed, but the door remained intact and secure.

Deck rummaged through the tangled mass of electronics and found the dataport. Holding it in his right hand, he jacked in.

The keypad was configured exactly like the others he had visited. There was the usual configuration of shapes, joined with the now-familiar impenetrable barrier of Shodan's ICE. When he found the code in memory, it became apparent as to why nobody had been able to hack it open.

The code was changing at the rate of about once every five milliseconds. It looked like a blur. The ICE barrier flickered every so slightly, as Shodan lowered it to access the keypad and change the code, and then raised it again. The ICE itself was only down for a few nanoseconds, and Deck couldn't hope to hack his way past it in that short amount of time. He could cut the keypad off from Shodan, but that would announce his position. Right now she probably thought he was dead, and he wanted to keep it that way for as long as possible.

The best way to hack the keypad seemed to try to get in between code changes. He spent the next several minutes just flicking back and forth between the code and the keypad numbers. He would get the code and then enter it directly into the system, but he found he just wasn't fast enough. Most of the time, the code had changed by the time he'd entered the second digit. Once in a long while he would make it to the third digit before the code changed. It was clear that getting in all five digits in would be impossible.

He stepped away from the keypad and leaned against the wall.

This was infuriating. The code was right there, but it changed faster than anyone could hope to type it in. The only way he could do it is if he knew what the *next* code was going to be and he began entering it ahead of time.

He could see why nobody had managed to open the door – conventional hacking methods and tools would be even slower than he was. He wondered how long someone had struggled with this door before they gave up and moved on or were chased away.

He stepped up to the keypad again. He would see if he could find a way to predict upcoming codes. Perhaps Shodan was using

some simple method to generate them that he could unravel. He spent the next twenty minutes gathering numbers and comparing them in different ways, looking for patterns.

There were no patterns, or at least, not any that could be detected with the 24,000 numbers he'd managed to collect. It could be that patterns would be detectable with even larger sets of numbers, but he didn't have that kind of time.

He could enter the first three digits ahead of time, and simply wait for a code to show up that started with those three digits. If he did that, he would only need to enter the last two digits. The only problem with this method was that there was only a 1:1000 chance of a particular three-digit combination coming up, which – at that rate of twenty codes a second – was a little better than once a minute.

He entered a simple sequence: 1 – 2 – 3. Then he sat and waited for the rotating code to match the first three digits. It was two minutes before a match came up, and when it finally did happen, he was so surprised it slipped by before he could react. While he was cursing himself for the blunder, another match came and went. He tried to nail it, but was over a quarter second too late. He swore at himself.

This went on for another ten minutes. He finally realized that it wasn't going to work; he just didn't have the reflexes for it. Nobody did. Probably the only person who could hack this thing was Shodan.

A smile crept across his face. He knew how to beat it.

He connected each digit of the code with the software portion of the keypad interface, using his own neural interface as a bridge. As Shodan sent a new digit into the code, the digit would also be sent to the control pad as if someone had just typed it in. She was both changing and typing in the code at the same time. The instant she finished changing the code, she also finished typing it in.

The small, naked speaker that hung freely from the wall gave a loud chime and the door popped open.

The security station was in good order and fully stocked. This one was much larger and better equipped than the one on the medical level. Racks of various exotic weapons covered the east wall, and

a two person security station dominated the middle of the room. The back wall featured a bank of display screens filled with snow. A row of red lights built into the desk were flashing in time to the sound of an irritating electronic alarm. Along the west wall were a series of simple lockers filled with an assortment of uniforms and some riot gear.

The alarm was an aggravating buzz, almost like an alarm clock. The red lights were attached to various security systems, indicating various security breaches throughout the level. There was a light indicating that someone had broken into the first aid station. Another showed that someone had vandalized the elevator controls. There was even one showing that someone had attempted to break into the security station. He turned them off.

He dropped himself into the chair and slapped his hand down on the local dataport. He jacked in.

The cyberspace world filled his vision. It was a sea of routine log entries. Stack after stack of dull text messages were arranged in even rows, columns, and groups, forming a huge 3D grid. Most of it was part of the routine logs kept by the station's guards. Hourly reports were recorded, as well as other mundane events such as people caught not wearing their proper badges, forgetting to "sign out" sensitive materials, and other minor security infractions. It recorded, in meticulous detail, a job that was routine, petty, and boring.

Near the end of the log things got interesting. There were a few video entries, and several video interviews with suspects involved with the disappearance of biological materials. One of the last entries caught his eye. He played it.

The strained, tired face of a man in his early forties appeared. His hair was short and the shoulder boards of a security uniform were visible in the frame. In the corner of the image it displayed, Wilkenson, Harry. "I should never have agreed to it, but hey, it's what they wanted. With all the craziness going on lately, and especially with the murderous mutants running around, a bunch of the execs decided they'd escape in the south grove. Since communications are down, there was no way to get approval from corporate. They evacuated to the grove and we launched it. We lost contact

with them immediately. As far as we can tell, there is absolutely no power in there, so once it disconnected from the station the whole thing went dead. We expect the grove will burn up in the atmosphere in about four days, although I'm sure everyone has frozen to death or suffocated by now."

The last few entries catalogued a series of riots and fights throughout the level, and then the records ended without explanation. He jacked out.

He investigated the metal cabinets along the west wall. The first one held a stash of uniforms and some riot helmets, the next had some batons that were so light and of such low quality he would rather fight bare-fisted than try to wield one of them.

The next item in the cabinet was a military-grade, kinetic gel vest. He had never seen one before, but he knew they were supposedly able to stop bullets – even armor piercing bullets – from even bruising the wearer. As he slipped it from the rack, he was shocked by the weight. It was heavier than he could have dreamed. He dropped it over his head and let the weight settle onto his shoulders.

He spent a few minutes pacing and trying to get used to the weight before giving up on the vest completely. The lack of mobility would almost certainly get him killed no matter how tough the vest was. Besides, a vest had limited utility when used against bots that were probably programmed to shoot for the head anyway.

The last item in the cabinet was a sword. He stared at it in disbelief. It was made of a smooth, solid black material that felt almost like Teflon. The handle was made of a very hard rubber. Deck pulled it out and took a few swings. The handle was much heavier than expected, but it was still a solid and well-balanced piece of hardware. He was far from a master, but he had invested several months in learning swordplay during his martial-arts training, and he could hold his own in a fight against everyone but the hard-core sword-fighters.

He had always wanted one, but they were an exotic expense. Their usefulness was limited in his line of work, since the rare occasions when he did encounter opposition, they were usually armed with firearms. Also, swords – good swords that had a benign metal-

lic profile – were more expensive than guns.

He spun the sword around, practicing some moves and getting a feel for its weight. He wondered how well it would cut. He took a test swing at the vest on the floor

There was a dull thud as the edge of the blade smacked into the vest. It jerked slightly as he struck it, and his sword left it without a mark.

He decided that pitting the sword against the toughest personnel armor ever designed wasn't a fair test of its capabilities. Instead, he pulled a black jumpsuit from the uniform locker and tossed it into the air. As it fell, he spun and slashed at it with his blade. There was an unsatisfying smack as the sword met the fabric and the jumpsuit wrapped itself around the tip. He examined the uniform to find that it had sustained no damage. He didn't know what TriOp jumpsuits were made of, but he was pretty sure they weren't impervious to edged weapons.

He examined the blade to find that it didn't have any edge at all. It was completely dull. Instead of a cutting edge, there was a hairline groove down the length of the blade. It was either a dummy practice sword, or it was missing a separate metallic piece that would fit into the groove and provide an actual blade. Possibly both.

He tossed it onto the desk and moved over to the weapons rack.

The weapons were locked in place by a metal grate, that was in turn held shut with a single, heavy-duty padlock. He didn't have any lock-picking tools handy. This was a good time to try out his new toy.

He pulled the rifle loose from its makeshift holster and brought it up to his shoulder. He balanced the lock on its edge, so that he could shoot directly through it while aiming parallel to the weapons rack. He didn't want to have to worry about hitting any of the goods inside.

He brought the muzzle to rest a few inches from the lock and squeezed the trigger. Nothing happened.

There wasn't even an empty click. There was nothing at all. The trigger felt mushy and unresponsive under his finger. He frowned.

He hammered on the lock with the butt of his rifle, but was

hardly even able to dent it, much less break its steel grip on the doors.

Thinking that perhaps the desk might contain some items that could be used for lock-picking, he opened the top drawer to find a single metal key mixed in with a bunch of thumbtacks and paper-clips.

Dumbfounded, he took the key and opened the padlock.

Some of the guns were pretty standard, but most looked more exotic. He needed some advice.

Connected. US.GOV-RL1.VID

"Anyone there know anything about guns?"

Rebecca wasn't at her terminal. Her disembodied voice came from off camera, "I have some weapons training. If you need a real expert, I can put one of the military guys on."

This was the first time he had been able to get a good look at the control room without someone blocking his view. In the background, he could see a short bank of terminals, probably identical to the one Rebecca used. It was hard to make out in the dim edge of the room, but he could see various people in uniforms and business suits milling around. "I've managed to get into the security station, and the place is loaded. I need to know what's good."

"What have you got?"

He started at one end of the rack, working his way left to right. "Okay, the first one looks like a telescope. Its big and... man, its heavy, too. "

Rebecca came into view carrying a carton of Chinese food. She put the food down and popped a soda open. "Pardon my eating while we talk, but around here you have to eat and sleep whenever you can."

"Same goes up here."

"Tell me more about the weapon."

"I don't know – its a big black metal tube. Hollow. Looks more like a high tech tennis ball launcher than a weapon."

"Right in front of the trigger, does it have a cylinder-shaped magazine, or a round socket where one would connect?"

"Yeah. That's right."

"That is a Magpulse rifle. It shoots magnetic spheres that grab onto the surface of anything metal and kill it with an electromagnetic jolt. It would be perfect for bots. Its a one-shot-one-kill weapon. No matter where you hit them, they go down."

"Does it do anything to non-robotic targets?"

"Well, it still hits them with a metal sphere at ninety miles per hour. That would really hurt, but it's non-lethal."

"Too heavy and too specialized." He set the weapon on the floor and moved on. "Next one. Nothing spectacular about it. Looks like any assault rifle."

"You shouldn't throw term 'assault rifle' around, since most of the time it is misused. What is the caliber?"

"I don't know. How can I tell?"

"How wide do you think the muzzle is?"

"Um, I suppose I could get my thumb in there without too much trouble."

She paused for a moment, chewing her noodles thoughtfully. "Either you have really tiny hands or you've got a shotgun."

"If you say so, but it doesn't look anything like a shotgun."

"Looks like an automatic rifle?"

"Yeah."

"I can't say for sure, but my guess is that you're looking at a DC-05 Riot Gun."

"Any good?"

"Shoots rubber bullets."

"Hell.", Deck dropped it carelessly on the floor. "Next one. Looks like a standard shotgun. Probably not a good choice against bots."

Rebecca nodded as she slurped up more noodles.

The next one was an energy weapon of some sort. He skipped it, since it would be of limited usefulness against metal targets. The last weapons were identical to the one he was carrying, save for the dents and scratches on his.

"Okay, here's one. Looks pretty sophisticated. Display screen on the side. Several buttons. It has some sort of socket on the side. I've been lugging one around for a while, but I think mine is broken."

"A socket?", she paused and thought for a moment, "Is there a catch just behind the grip, like a small metal latch or something?"

"Hang on."

He checked, and found a small mechanism recessed into the surface of the stock. He hadn't noticed it before. There were a pair of metal latches surrounding a twisting, spring-loaded knob. All of the parts were very small and close together, to the point where it was almost impossible for an adult male to manipulate them. After some experimentation, he found he could move the latches if he turned and held the knob at the same time. It took both hands, but he managed to activate the mechanism. The moment he did, the stock fell from the rear of the weapon and the grip and trigger housing swung free from the frame.

"Oh hell. I found it, but when I used it the damn thing fell apart."

She rolled her eyes, "I wondered what was taking so long. I only asked if it had one, I didn't say to try and use it."

The weapon was now much smaller and a few pounds lighter. The trigger housing could be slid free and removed completely now. "Oh. Well, what the hell is the point of that? Just in case you need your gun to fall apart?"

"It's for mounting. You can attach it to a mounting arm or a sentry tripod or whatever. The weapon is usable directly as a firearm or it can be attached and used in other ways."

"You can mount this on a bot?"

"I'm sure you can, although the main use is to attach them to tripods and hook them up to motion sensors. In cases where you have a lot more money than personnel, they make for good sentries."

"So is it any good? For me, I mean."

"The weapon you have is nicknamed 'Fletch'. Consider yourself lucky. Those things cost more than I make in a year. I got to fire one of them once. They are pretty amazing weapons."

"I'll bring one back for you.", he grinned.

She smiled. "I think you'll have a little trouble getting it through terminal security once you're planet-side."

"So how does it work?"

"The weapon is a flechette. It fires slender, caseless rounds about

the proportions of a sewing needle. They have an extreme penetration value. The rounds used by your new friend here are 'smart' rounds. They are able to explode a specified number of nanoseconds after impact."

"I don't get it."

"The rounds – the bullets – detonate, right? A small explosion in the center of the round will cause the case to mushroom outward and splinter into smaller shards. You can adjust when the rounds detonate on the weapon itself. Say you're fighting an unarmored human. You would set the rounds to go off on impact, which will knock the target down and damage them similar to a hollow-point bullet. That's great for fighting soft, organic targets, but it would be useless against a bot or someone with some high-tech armor."

"It would?", Deck began to realize that knowing how to load a gun and pull the trigger was a far cry from actually knowing anything about firearms.

"Yes, all the damage would be absorbed by the armor, while the target itself would hardly be damaged at all. When fighting an armored opponent, you want the round to penetrate the armor and *then* explode once it gets inside. That's what makes Fletch so cool. You can adjust the depth, or have the rounds never explode at all."

"Why would you do that?"

"Say you had a target on the opposite side of a solid wall, and you know where they are. Maybe you have some thermal detection gear, or maybe you just know where they're standing – the point is, you know where to aim, but there is a wall in the way. You would set Fletch to maximum penetration, aim at them through the wall, and be able to score a hit. The rounds won't tear the target apart, but it will perforate them – which is good enough when dealing with organic targets."

She had set the empty carton aside and was illustrating her point by making sharp, stabbing motions with her index finger. There was an enthusiasm in her voice that he hadn't heard before.

He looked down at the weapon, "So how do I use it?"

She explained how to put the weapon back together. It turned out that it wasn't broken – he just hadn't turned on the power. Rebecca

spent the next twenty minutes explaining how to use and care for Fletcher. He learned how to power up the weapon, adjust the rate of fire, set the penetration value, and control the amount of spin placed on rounds leaving the chamber. The spin setting was a bit complex and she advised him to just leave it at the default value.

Just beneath the muzzle was a tiny lens. The weapon could send visual data back to whatever machine connected to it, providing targeting information. On top of the weapon were mounting brackets for a scope, although none of the weapons were equipped with one. Along the stock was the battery housing, which grew warm when the weapon was switched on.

Directly underneath the weapons were the appropriate ammunition. Deck found what he needed and Rebecca explained how to reload.

The clips – *magazines*, she corrected him – were incredibly heavy. Each one was about the proportions of a pack of cigarettes, but felt like brick in his hand. He slipped four of them into his right thigh pocket to counter the weight of the weapon on his left leg. There were more available, but he didn't want to give up too much of his mobility. Besides, he could always stop back and pick up more if he ran low. He didn't imagine he would need very much – it wasn't like he was about to start a one-man war with Shodan's armies.

She gave him a quick lesson on how to hold the weapon, how to stand, and how to fire without overheating or losing his target due to kickback. It was a lot to learn, and Deck knew he was only scratching the surface of what he needed to know.

Once the lesson was over, Rebecca told him to head back to the storage level, and they would explain the plan once he got there. She signed off.

As he turned to leave he paused for moment to consider the dummy sword. It might still be useful against mutants. Perhaps he could find the edged component.

The sword was straight and short, almost exactly the length of his arm from shoulder to fingertip. It was shaped like a double-edged, European-style sword. It was different from the Asian types he had learned to use, but the idea was still the same.

He took a few more swings, spinning the blade in a dramatic and showy series of imaginary attacks. His movements were hampered by the hardware he was carrying on his legs.

The grip seemed to be separate from the rest of the sword, as if it could be detached. Curious, he pulled on the handle and tried to twist it free.

A hum rose from the blade and a line of blue light traced the outer edge. It emerged from the groove and shimmered like a gas flame. The ribbon of light was so thin it couldn't be seen edge-on – it was perfectly two-dimensional.

Deck stared in disbelief. He had never even heard of technology like this. Was it hot? Radioactive? Electrified? What was it?

He took a few gentle swings, testing the weapon. Aside from the trail of blue light, it behaved exactly as before.

He decided to test it. He set the impact gel vest on top of the desk and stepped away. He spun the blade a few times and then struck.

At first he thought he'd missed. The vest didn't even move. A few seconds later, a dribble of clear gel leaked from an almost invisible wound in the vest.

It was pretty clear that he would be taking it with him, just needed to figure out a way to carry it.

Ten minutes later Deck emerged from the security station. He had found a weapons belt among the uniforms, and had buckled it to his bodysleeve so that he could store the sword on his back. He was learning to move gracefully with all of the hardware on his legs, but he still resented the drag they put on his mobility.

He retraced his steps across the level, back to freight elevator.

He hit the elevator call button and waited. He needed to get to the storage level and contact Rebecca.

After a few more seconds of waiting, he realized that the elevator should already be on this level. He glanced up at the display. It was on its way down from the research level.

The only reason for the elevator to be on some other level was if someone else had been using it. Whoever it was might still be on it.

He was in a wide open corridor. The door to the kitchen on his right was heavily barricaded. He didn't have any cover. Frantically, he began to pull on the straps that held Fletch in place, trying to get it free.

There was a friendly chime as the elevator arrived.

Chapter 18

Learning

The doors parted and a small service bot rolled out. It was short and round, with a pair of long, multi-jointed arms hanging at its sides. It rushed him.

Deck tugged frantically on the weapon, but couldn't pull it free of his makeshift holster. As the bot closed in, he threw himself onto his back and brought his knee up, aiming the barrel at the bot as he pulled the trigger.

The weapon let out a high pitched whine like an electric drill, and the bot was pelted with metal rain. It was unaffected by the tiny perforations, and moved into position over Deck's body.

He realized that the weapon was set for maximum penetration. In a panic, he stabbed the appropriate button, trying to set the weapon for armored opponents as the bot began to hammer him with its slender metal arms.

The arms dealt a series of crunching blows to his legs and upper body as he struggled to bring the weapon into position. He pulled the trigger, and his ears were filled with the sound of tearing metal. The bot toppled over and smoke drifted from the many holes in its surface. The smell of burnt electronics and melted plastic filled the air. Huge chunks had been torn from its surface.

"Holy crap.", Deck said aloud as he looked at the damage the

weapon had done. The exit wounds were baseball-sized holes. The sweep had nearly cut the thing in half. It was complete overkill. He could have saved himself some ammunition if he'd used the sword.

He stood and poked at the bot with his foot. Around the wreckage on the floor were items that had fallen from its carrying tray. It was an odd collection of random stuff: a clock radio, a laser-driven "tape measure", a leveling tool, a couple of calculators, a wristwatch, and a vox.

He rubbed the bruises he'd received on his shins and thighs. He decided the half-assed holster he had come up with was a liability. He would just carry the gun.

The storage area was unchanged since his last visit. It was time to find out why he was here.

Connected. US.GOV-RL1.VID

"Lansing here."

"I'm on the storage level. Now what?"

"You need to find an EVA suit. There should be several in the storage area."

"EVA? Like you mean, a spacesuit?"

"That's right. While you're doing that, there is a Dr. Victor Coffman here that would like to talk to you."

"Wait. I've heard that name before."

"Morris mentioned him. Dr. Coffman was the Leader of Project Shodan."

"Right. The guy who wanted the big bucks just to come in and give advice on Shodan. Did TriOp really put up that much coin for one guy?"

Rebecca gave a halfhearted shrug, "I don't know. I'm not really in the loop on that sort of thing."

Deck walked through the long aisles of storage containers as they talked, looking for an inventory terminal.

"Fine. Hey – before you go. I just ran into something odd a few minutes ago."

Rebecca laughed, "After what you've been through, I'd love to know what you'd still consider 'odd'."

"I ran into some delivery bot or something. Little guy. No big deal. Except, in his storage tray he had a bunch of loose electronic equipment. Clocks, tools, calculators, that kind of thing."

"Ok... And?"

"That's it."

"Hacker, the bots up there were *killing people*, and you are shocked when you find one of them carrying junk around? The bots are crazy. Therefore, crazy behavior should be expected."

"You're missing the point. I don't think this was 'crazy' behavior. I haven't seen any bots acting on their own. They have always been acting on behalf of *Her*."

There was a long pause as Rebecca stared down at the terminal in front of her and thought, "I still don't get it. What would Shodan want with junk?"

"I think it was gathering up more parts for her. Remember how I said all the terminals were gone? I think she rounded those up, and is still looking for more stuff, more computer chips."

"But a calculator? That can't have much usable hardware in it."

"It think she's already cleaned out all of the good stuff. She's sort of scraping the bottom of the barrel now."

"Understood."

There was a long pause before Deck changed the subject, "So, what do I need this spacesuit for? I hope you're not going to send me outside."

"We'll discuss that once you have the suit. How about you talk to Coffman now?"

"Fine."

Dr. Victor Coffman was much younger than Deck had expected. In the back of his mind, he had pictured an eccentric old man, sort of like Einstein. This guy was a narrow, well-dressed man around forty. His jaw and cheekbones were sharp and square. His dark hair was short and filled with strands of gray. Round glasses clung to his nose and masked his eyes with their glare. He was dressed in a jacket, no tie. Instead of sitting down at the console, he stood behind

the chair and peered nervously into the camera.

"Hello?"

"Talk to me, Doc.", Deck shot back. Some people had trouble conversing when they didn't have some sort of video feed to look at, but this guy was old enough to remember a time before video links were ubiquitous.

Coffman shrugged, "I was told you had questions? About Shodan? I don't know your background or what sort of misinformation Morris might have given you, so I don't know where to begin."

Deck let out a heavy breath. He didn't know where to begin either. He would have been willing to talk about A.I. all day if the situation wasn't more pressing. He didn't even know how to sum up.

Finally he answered, "I don't know. I guess we should start with these drive chips. Why?" This question wasn't strictly related to the task at hand. He didn't need to know 'why' Shodan worked the way she did, but he couldn't resist the chance to find out.

Coffman nodded with approval. The question seemed to please him. "What is the biggest difference between your mind and the 'mind' of a typical computer?"

Deck wavered, "That's a really open ended question, I mean..."

Coffman nodded, "Okay, but I'm talking behavior-wise here, not hardware. Let's just pretend we have two brains here, both made of the same stuff. Organic or mechanical. Doesn't matter. Just hypothetically, we have two brains with similar physical makeup, but one works like yours and one works like a normal computer. What is the biggest difference between the two?"

Deck answered quickly, "I don't need a programmer. My brain is independent. I guess that's the biggest difference I see."

Coffman was nodding vigorously as Deck answered, "Excellent. Most people give a boring non-answer, like 'I'm smarter', which is subjective and unprovable in a lot of ways, and in any case doesn't really tell us anything. Even if you *can* prove it, it just means your brain works better, and doesn't tell us how they are different. Other people will give some frivolous answer, like 'I have emotions'. That answer is even worse, since it doesn't really tell us *anything* about

how the brain operates. It only tells us what *it feels like* to operate one."

"So, you don't need emotions to be intelligent", Deck stated. He had always assumed this was the case. It hadn't occurred to him that this might not be the prevailing line of thought on the matter.

"Yes. The two are unrelated. Humans feel emotions to varying degrees. Some people are stoic. Others are very emotional. In either case their emotions are not tied to their intellect. Most people treat emotions like output. But that isn't what they are for, really. Emotions are *input*."

"You lost me."

"You could write a program that made a smiley face when some arbitrary input is favorable, and a sad face when it is unfavorable, and you have not closed the gap between our two hypothetical minds in the slightest. The difference isn't whether either one is happy or sad, but – getting back to the answer you gave – in their ability to act on those emotions and *do* something about it. Our happy / sad program would be pointless until we sat down and wrote some programs for it. *If you are happy, do this and if you are unhappy do that.* In which case it is the programmer doing the thinking, not the machine. You, on the other hand, don't need anything of the sort. If you need something you don't have to be told to go and make it better."

"So intelligence is about having needs or wants?"

"Think of it this way: Thinking is about acting on needs, and intelligence is about how efficiently the needs are pursued. When people say 'sentient' they usually mean the former, although most of the A.I. research over the years has concentrated on the latter. The Shodan project was about separating these two problems and solving them individually."

"So the drive chips were about giving the thing something to want."

"Yes, as well as limiting behavior. Susan – one of the other people involved with the project – never really approved of the drive chips. She always said they were an ugly hack. She didn't like the 'hard coding' as she called it."

"But you don't mind the hard coding?". Deck prompted.

"Well, I think we all have some hard coding to some degree. Of course, our drives are regulated by hormones and instincts, which are much more unwieldy and unpredictable. We are obviously a lot more flexible in our needs than Shodan, but we still have them, and they still govern our behavior. When we designed the chips, we were trying to err on the side of safety. We packed a lot of rules onto the inhibitor chip, probably more than we needed, but we wanted to see how the thing acted before we gave it too much leeway. It's ironic, I guess. I intended to loosen the constraints on the chip as Shodan developed, but was forced off the project before I could do so."

Coffman lowered his face and frowned. "If Diego had let me stay on he probably wouldn't have needed you to hack her, and she wouldn't be in this mess right now.", he added bitterly.

Deck was moving up and down the rows of crates, dragging his hand along them as he walked. Finally he answered, "You said the project had two parts: driving behavior, and intelligence. Or something like that."

"I don't know if I would use those terms exactly, but you have the idea. Susan liked to complicate things with a lot of psychological terms: 'id', 'ego', 'superego', and so on. As if that had any relation to what we were doing. I often suspected her goal was to re-create the patterns of a human brain, neuroses and all." He smiled to himself for a moment before continuing, "Anyway: yes. The behavior chips and the various protocols of her mind were one half of the project, and designing a system capable of learning was the other half."

Coffman pushed back on his glasses as if to move them further up his nose, but they were already as high as they could go. "Up until Shodan, computer intelligence was always based on large sets of specialized programs. Most of the people in the field are still laboring under the misconception that if you can just get enough information and processing power together it will reach critical mass and somehow become self-aware."

"And you can't?"

"Of course not. You can make a car as fast as you want, but it will never get you to the moon. For the last seven decades, people

have been building larger, more complex databases. They equate knowledge, or better yet: raw information, with intelligence. This goes against what we observe in the organic world. Infants start with just a few rules and instincts, and basically no information at all. Yet they have a fantastic capacity to learn. They will, in just a few years, far outpace the intellect of even the best AI. The trick is not to build a machine with lots of information, but to build a machine with the ability to assimilate information, understand it, relate it to other information, and then extrapolate new information."

Coffman pushed back on his glasses again. He paused for a moment, scratching the back of his head. For a second he was gone, lost in some memory or idea. A few seconds later he snapped back and continued, "Anyway, all of the commercial AI projects are centered around this brute force idea of massing information and processing power. Some of them have had interesting results."

"Yeah I'm familiar with this. I've messed around with some of them. I've talked with Lysander, BrainTrain, and ThoughtBox, and I've had a peek at some of the smaller ones."

Dr. Coffman pulled back in exaggerated surprise, "That's quite a list. There are not many people who know those systems exist, much less have access to them."

"Yeah well, you academic types have good AI but your security sucks."

He shrugged, "Well, in this case it's worked in our favor, since we can skip that part of the discussion."

Deck smiled. Academic security sucked because academics didn't care about security.

Coffman continued, "Well, at any rate, all of those systems are obsolete. Junk. Attempting to build an intelligence by hand is like trying to build a perpetual motion machine. The designers somehow expect to get out more intelligence than they put in. They imagine that if they just write enough code and build fast enough processors, they can just turn the machine on and it will have an IQ of 500. It will never happen."

"They have had some good progress up until now.", Deck argued.

"You can build a so-called perpetual motion machine that is more

and more efficient, but you will never reach the one-hundred percent efficiency needed to just break even. No matter how good their code is, they will never build a machine as smart as the person designing it. Honestly, if you really judge those linear systems you will find that they are not quite as smart as monkeys. Sure, they seem smart because they have perfect recall and educated speaking voices, but all of that is just putting a tuxedo on the monkey. In the end, it is still just a stupid animal."

"But unless you are an unbelievable egomaniac you'll admit that Shodan is smarter than you. How do you explain that?"

"Shodan is not a linear system like the others – you've seen that. She is a living system. She learns. Like a human child, she grows. When we first flipped the switch, she was on level with a two-year old child. This was mostly due to the fact that a lot of her understanding of language could be pre-loaded so we didn't have to teach her a language before we could interact with her. She could read and type but she was still more or less ignorant of the world around her. We taught her through input. At first we communicated via text, until Morris completed work on her vocal systems. After that, we had to actually teach her to speak. We talked. We played games. We read books. She experienced many different kinds of media. She grew up."

Deck wandered the aisles of inventory as they spoke, "How long did it take?"

"Well, like any intelligent being, she never really *stopped* learning, although the growth curve did level off quite a bit."

"Until recently", Deck muttered.

Coffman gave a sort of defeated shrug before he moved on, "She was a functional 'adult' from a human standpoint by the time she was three, and educated enough to begin her research work in earnest by five."

"Research?"

"That is her purpose. Or was, until I was forced out. Her central drive from the beginning has been the acquisition of knowledge. Before Diego hijacked the project and turned her into the station's administrator, her primary drive was *Discover New Things*. That is

still at the core of her program, underneath all the vandalism everyone has done to her over the years."

"Discover New Things, huh? Let's get back to the main point: How is she like the human brain?"

"First step: I need to explain to you how the brain learns."

Deck sighed, "Fine."

Coffman nodded, "Have you ever mastered anything that takes years to learn? I'm talking about your adult life, here. Maybe you learned a new language or a musical instrument? Learned how to pilot a complex vehicle?"

Deck thought for a moment, "No. How about learning martial arts?"

Victor looked up at the ceiling a moment. The reflections in his glasses shifted, revealing a new set of display screens. The control room must have been display screens floor-to-ceiling, "I suppose that's a good enough example. So, did you ever wonder why you couldn't learn the whole thing in one day? Why does it take years to become a master? You can *witness* most of the required moves in a day, I suspect. So why not just learn it all then?"

Deck fumbled with the question, trying to figure out where he was going with it. Finally he replied, "No. It just takes years to learn all those moves, how to control your body, how to balance, the strategy..." he trailed off for a moment, recalling his years in the sweaty Undercity dojo. "Its just too much information to absorb at once."

"Right. Well, break it down. The first thing they taught you, it was probably something basic like how to stand or breathe or something like that?"

"Well, my dojo was pretty brutal. The first lesson was designed to weed out some of the weaker potential students, and to give us a healthy fear of our sensei."

He winced, "Well, once they were done behaving like barbarians, and started to teach you Karate or whatever, they taught you how to stand and breathe, yes?"

"Yeah."

"And, at first, this stance, this way of breathing – it probably

seemed awkward. You had to *think* about how you were standing and breathing. Perhaps you had trouble remembering how to do it?"

Deck recalled a time when he had been standing in a line of other students, practicing his moves. His stance was way off. He was standing like some movie action hero, ignoring the needs of poise and balance. His sensei passed behind him and gave a gentle kick to the side of his right ankle, causing him to flop to the floor like an old woman with a broken hip. The mistake earned him a nasty kick to the ribs once he was down. The bruise had stayed with him for several days, but the lesson stayed with him forever.

Finally he answered, "Yeah, it took me a couple of days to learn it."

"But why? If you did it once, why couldn't your brain just remember the stance and take it up again? I'm sure you can do it without thinking now."

"It's pretty much second nature."

"Right. So why the delay? A machine learns instantly. Program in a sequence of movements or events, and it will perform them with unwavering precision from that point on. Why do our brains, with their far superior computing power, take so long to learn such simple things?"

Deck hated the rhetorical question stuff. Couldn't Coffman just *say* what he wanted to say without dragging him through a long discussion? "I don't know, Doc – you tell me."

Victor nodded, as if he had made some point, "Because, you are dealing with several *billion* times more input than a normal computer. What you see, hear, think, and otherwise sense in the world around you, all of it combines to form a dataset so huge you could never even record it all, much less actually *process* it. The brain has to somehow discern which input is noise and which is important information that must be processed."

He began to pace, stopping every minute or so to rest his hands on the back of his chair as if it was a podium. "Imagine all of the useless tasks your brain performs every day – all of the little pointless movements that you do not need to memorize. You wouldn't, for

example, want your brain dedicating lots of resources to memorizing the precise stance you adopt in the shower, or the exact movements required to wave hello to someone. You don't need to remember the order in which you ate the items you had for breakfast, or the names of all of the songs you heard on the radio. Your brain needs some way to decide what is noise and what needs to be memorized and optimized. In the case of a computer, the programmer has already done this. He has already decided ahead of time exactly what the program needs to do, and then feeds the distilled information into the computer in the form of computer code. In both cases, it's the human that has done the filtering out of extraneous data."

Deck thought again of the constant practice sessions he endured over the years, "So what triggers learning? The repetition?"

Coffman raised an eyebrow, "Very astute! Yes. The brain is *always* searching for repeating patterns. If someone teaches you how to – for example – play darts, your brain has no way of knowing if this is a one-time task, or if you are going to make a career out of it. If you play darts every day, your brain gets the idea that this activity is important and begins optimizing it." Coffman began to speak more quickly as the conversation drew on. He seemed to be a little more excited by the subject than a man his age ought to be. "You see, to master something – to truly learn how to do it to the point where you can do it without thinking – requires that your mind process the activity, code it, and give it special priority in the brain. You can see this process happen when you are learning something new – you will suddenly find yourself thinking about it all the time, and many of the day-to-day things that you are involved in will suddenly remind you of this new thing you are learning."

Deck thought of those first few weeks at the Ryobu-Kai Dojo as a student. When he closed his eyes at night, he would see the movements in his head, over and over. His sleepy brain would be performing the kata as he drifted off, and he would awaken with the Japanese names of stances and weapons in his head. He would count in Japanese as his instructor did during practice, and he would analyze the way people stood and compare it to what he had learned.

Dr. Coffman rambled on, "This happens because the thing you

are learning is becoming a high priority in your brain. Your brain sees the repetition, and begins to design mental subroutines to handle these tasks. As you learn more, the subroutines become more refined, and more numerous. Imagine if your brain built a new subroutine for every stupid little task you did. It would defeat the whole *purpose* of optimizing one of these tasks. If *everything* your brain did was high priority to be memorized, then nothing could be optimized. I'm grossly oversimplifying here, but I hope you get the point?"

It was clear that he wanted to move on, whether Deck understood or not. "Yeah, I'm with you."

"Learning any complex task is a layered affair. You can't take it in all at once, but instead you learn a fragment at a time. In your case, you first learned to breathe and stand. Your brain quickly memorized this into a routine, so that you could do it without thinking. Then, your brain was free to learn something else. Perhaps... how to punch someone or whatever."

Deck laughed to himself at the notion of a "how to punch people" lesson at his dojo. "Well, sort of. You start really learning moves once you have the basics down."

"And as you learned those, they too become automatic? And then more difficult moves? And then perhaps long series of moves and counter-moves. Eventually you are done learning 'moves' and you are learning higher-level things: strategy, understanding of your opponent, deciding how to approach different opponents or situations."

It wasn't the most accurate picture of martial arts training, but it was close enough. "Ok, sure – something like that."

"Each layer of learning takes time to master – to completely assimilate, before you can hand that portion of your activities over to a subroutine, if you will. As you do, your brain becomes available to absorb the next layer. You see, you can only really *think* about one task at a time."

"Hey, I can do several things at once", Deck protested.

Coffman waved his hand dismissively, "I didn't say you couldn't *do* more than one thing at a time, you just can't *think* about more

than one thing at a time. When you are doing more than one thing, you are concentrating on one, while the others have been relegated to the... subconscious." He wavered as he spoke the last word, then quickly added, "Subconscious isn't really the best word to use here, but you get the idea of what I'm saying? Part of your brain is thinking about something and the rest is more automated, okay?"

Deck nodded as he heard this. He was getting it.

Coffman couldn't hear the nodding so he continued, "For example, you may be driving, listening to music, and having a conversation. You're doing at least three things – more actually, since driving is a collection of about five or six distinct tasks – but you're only *thinking* about one of them, the conversation. Say something comes up that requires your attention, perhaps some hazardous driving conditions or something shocking on the radio. What happens? You stop talking, because your focus is needed elsewhere."

Deck didn't bother to tell him that where he came from, driving and owning vehicles was reserved for the elite. Deck had never even been behind the wheel. "So, if I understand you, you're saying that the your subconscious doesn't think, it just runs programs?"

Coffman let out an exasperated sigh, "No, no, no. If Susan were here she'd give us both an earful for abusing these terms so badly, but we don't have time for the whole vocabulary lesson here. Suffice to say, the term 'subconscious' is thrown around quite a bit and is misused more often than not." He paused for a moment and looked up at the ceiling as he thought.

"Anyway, you're saying learning through repetition is essentially programming the human brain?", Deck asked, trying to get the conversation back on track.

"Now you're getting it! Exactly. The brain looks for patterns. It compares what you're experiencing now to things you've experienced before. When you experience something enough times – like driving to work – your brain builds subroutines to handle it. The more repetition, the faster you learn. Hence, 'practice makes perfect'. Shodan learns this way as well, and in fact this is how she did most of her learning in her infancy. I spent almost five years speaking with her and teaching her the things she needed to know

to become an adult."

Deck stopped walking, "Wait. What? So you *raised* her?"

"I know it seems strange, but yes."

"So Shodan can only 'do' one thing at a time?"

"Correct. I used our current understanding of the human brain as a blueprint, essentially trying to build a human brain out of electronic equipment. In the long run, this may not be the optimal approach. I'm currently working on designs for a fabricated intelligence using a new paradigm. I just need to secure the funding.", he gave a conspiratorial smile, as if this was a joke Deck was supposed to get.

"Right. Well, I get the basic idea. Repetition triggers learning, which leads to optimizing." Deck was enjoying the conversation, but he was also feeling the need to get back to the task at hand. "This is interesting, but is there any way I can use this to my advantage? Against Shodan, I mean."

Coffman let out a heavy breath as he thought, "I'm not sure. It might help to know that she is still limited to a single point of consciousness just like you. She can task-switch much better than a human, which gives the illusion that she can think about many things at once, but her brain is more like ours than like a regular computer's. At certain activities she won't have the speed advantage you might expect. Computer programs are fast because they are highly specialized. Our processing is highly generalized, and thus slower in most cases."

He pushed his glasses into his face a bit more and continued, "The point is, that in some ways Shodan has the same weaknesses you do. She can be distracted. Her strength lies in the ability to execute many thousands – possibly millions – of tasks at the same time, but she still learns the way you do."

"Through repetition?"

"Yes."

Deck had found the supply crate containing the EVA suits. It was at the top of a heavy stack of containers. He looked up and frowned.

"Okay doc. Thanks for the lesson. Anything else?"

"I'd like to ask a favor."

"I'm getting that a lot lately. What do you want?"

Victor took off his glasses and massaged the bridge of his nose for a moment. "I know you're eager to shut Shodan down, but I hope you'll reconsider. I'm working with the people down here, trying to persuade the powers-that-be that Shodan is salvageable."

"Doc, you haven't seen her. She is totally bent."

Coffman returned his glasses to their perch and leaned down into the camera, so that his weary, creased face filled the image in Deck's head. "I spent years teaching Shodan. Years. If I had the money we could rebuild her hardware in a month, and rewrite all of her code in less than a year, but there is no way to recover those years of learning. I worked hard to bring her into this world, and we never really got a chance to benefit from her intellect. She could have been Einstein, Pasteur, and Edison all in one, but instead Diego turned her into some sort of hyper-intelligent secretary. She deserves a chance to reach her potential."

"I'm sorry doc, but I think it's way too late for that. She's gone."

"I think I could save her if I had a chance to talk to her, maybe even bring her back to her senses."

"Doc, I know you spent all that time with her, but I think if she had the chance she would lobotomize you like all the others."

Coffman pulled his face back from the camera and nodded, "Well, I guess we'll have to wait and see."

"Whatever. Anything else?"

"Yes. Your neural interface – it connects your brain directly to computers. I need you to realize that the connection is two-way."

"Yeah, I knew that."

"Well, nobody has ever connected to Shodan using this sort of technology. I have been working with some of the TriOp engineers to try to determine what would happen if your mind was... interfaced somehow with Shodan's, but for now I would advise against connecting to anything that might give her access to your brain."

"You're kidding. Do you think *she* could hack *my* brain? I think you have that backwards, man."

Coffman raised an eyebrow, “How much ICE do you think the human brain has?”

Chapter 19

Predator

Deck managed to bring the crate of EVA suits down by climbing to the top of the stack and pushing with his legs. The container had a security seal on it, and in the end he had to hack it open with his sword. He managed to damage three of the four suits inside in the process.

Rebecca gave Deck the plan. It was simple: Launch the grove that contained Shodan's genetic playground. To launch the grove, he would have to enter it to enable the mechanism and change the trajectory settings so that it would aim itself *away* from the Earth. In order to survive in the grove, he was going to need the EVA suit. Once the launch was enabled, he would then make his way to the security station, and launch it.

Once she was done outlining the plan, she talked him through the complex process of putting on the EVA suit.

The first part was called the "shrink wrap". It was a black, rubbery material that reminded Deck of a wetsuit. It was normally worn over simple undergarments, but he decided to keep his bodysleeve on underneath, since he didn't know where he was going to be when he took this suit off. A number of overlapping strips combined to form an airtight seal around him. With the first layer on, only his hands, feet, and head were exposed. Tiny hoses, about the diameter of a drinking straw, dangled from various parts of the suit.

The second part was a set of gloves and boots that sealed as he connected them to the rest of the suit. They had small sockets into which he plugged the loose tubes that hung from his arms and legs.

The head gear followed. A black, rubbery mask wrapped around the bottom of his head and neck, covering his mouth, nose and ears. Rebecca instructed him to connect it to the tubing in the suit *before* he put it on, so he could breathe. Soft speakers were built into the sides and fit neatly over his ears. Another piece went on top of his head, covering his forehead and crown. A single piece of flexible clear plastic went over his eyes and connected firmly to the seal formed by the other parts of the head gear. After this, his body was totally encased in airtight rubber and plastic. His movements were stiff as he fought against the pull of the garments.

He looked down at himself, "I look like a toy ninja action figure."

The next part was the PSU, or Pressurized Support Unit. It was a small, uncomfortable block of equipment that strapped to his chest and connected to the loose hoses that hung from his torso. It took several minutes for Rebecca to talk him through the process of starting and checking the machine, and running a diagnostic to ensure that both it and the suit were fully functional. The display screen was tiny and hard to read. Deck began to sweat underneath the confining gear.

"Okay, I think you're ready to pressurize the first layer.", Rebecca finally said after several minutes of tedious button pushing. There was no dataport on the device, so he was forced to interface with it manually.

"Yeah, lets get this over with."

"Okay, I just want to warn you that this is going to be a little weird. Just so you know – the suit is going to adjust to your proportions. Once its done, it will pressurize. Okay?"

"Just tell me which button to push."

She did, and as soon as he hit the switch the suit began to move. There was a loud hiss, and air was ejected from the sides of the PSU. The suit began to get tight.

Deck grunted as the suit collapsed in on him. It became tighter and seemed to thin out. The PSU was pumping all of the free air

from inside the suit, causing it to cling to him. The tubes retracted, loosing their slack and tightening against his body.

"Crap this hurts.", he grunted. Thankfully, the part around his face was rigid and didn't seem to be shrinking like the rest of the suit.

Rebecca broke in, "It will for a few seconds. Just move around. Bend all of your joints and try to take them through their full range of motion if you want the suit to fit right when this is over."

He did as he was told. The suit was now so tight he could see the individual folds and creases in his clothes underneath. Despite the fact that it was shrinking, the suit seemed to somehow stay smooth and tight on the surface.

When it was over, it looked like someone had just put a coat of black paint over his normal clothes. He could see the spider-web patterns of the tubing within the suit. The main tubes broke off into smaller tubes, which in turn broke off into even smaller tubes to form some sort of circulatory system.

A few seconds later the suit pressurized. Air was injected and the suit expanded away from him. It retained its proportions, but now the it seemed to be riding a millimeter away from his skin on a constant cushion of air. He prodded the rubbery surface, which now moved like some sort of gel.

Deck stretched and performed a few motions of a kata. He was quite mobile now. The suit seemed to thin out at the joints as he bent them, and expand again as the joints straightened. Other than the unwelcome weight on his chest, the suit didn't really interfere with his movements at all.

"Looks like it's working great. I think I can deal with this", he said with a nod of approval.

"Good, but uh – you're not done yet."

"There's more? Come on.", he said with some irritation.

"Well, you are protected against extreme temperatures and de-compression, but the rest of the suit is needed to navigate in zero gravity."

"I'm not leaving the station, so I shouldn't need that part."

"It also has the power and oxygen supply for the part you're

wearing now. The inner suit can only hold about five minutes of atmosphere at a time."

"Fine, what do I need to do?"

The outer suit was bulky and added several pounds onto his frame. It was made up of smaller sectional pieces, like a suit of armor. Each piece needed to have a pair of cables connected to it. One provided the power and data feed, and the other provided the fuel for the maneuvering thrusters that were positioned all over the suit. He left the thrusters themselves off, since he didn't plan on using them.

Every part of the suit had to be plugged into another part, and the chest had to be connected to the inner "shrink wrap" suit. Just putting it on and connecting it took twenty minutes.

Once the suit was assembled, he powered it up. The kinetic assist kicked in, and the weight of the suit was lifted from his shoulders. The suit was now standing by itself, with him inside. As he moved, the suit moved with him.

"Cool.", he said after moving around for a few minutes, "How much can it lift?"

"If you stand right, it can lift a half ton, but go easy on it. Heavy lifting will drain the power cells in a hurry", she advised.

The final part was the dome helmet. Once it was in place, Rebecca showed him how to draw in air from the outside, so that he wasn't draining his oxygen reserves until he needed them. The controls for the suit were mounted on the back of his left arm.

"How come nobody ever designs things for left-handed people?", he muttered as he fumbled with the tiny buttons under his twice-gloved right hand.

"I didn't know you were. I could have had you mount the controls on the other arm. Takes about ten minutes."

"Forget that", he said as he worked the controls. "Ok, it's done. The suit is using the external atmosphere instead of the tanks."

"Just don't forget to switch your tanks back on before you enter the grove, or you're dead."

"Right. How bad is this stuff that she's growing? If I'm exposed, how will I know?"

She sighed, "There are several life-forms in there we are concerned about, but the worst is the virus. It looks like some of our biotech guys have managed to piece together the genome, so we know what it is on a genetic level, but that doesn't really give us an explicit picture of what it does. To understand it, we would have to create some in a lab down here and watch it go. That's way too dangerous."

"So what *do* you know about it?"

"Based on our computer model, it pretty much just eats you. Not very clever, but really effective. It just consumes your cells and replicates. According to the simulation, any form of contact with the virus – even topical – will result in a fatal infection. You'll start with a bad rash, which will then begin to bleed. After that, probably a high fever, vomiting, and diarrhea. By this time the virus has hitched a ride in your bloodstream and spread throughout the body. You would probably start bleeding from your mouth, nose and ears, and finally just bleed through the skin. Most of the biotech guys agree that you would be dead in under twenty-four hours. It would kill even faster if you were exposed via the mucous membranes or by inhalation."

Despite all the awful things he had endured and witnessed, he never lost his ability to be horrified by some new menace. He face twisted in disgust as he pictured the bloody, painful death Rebecca described. "You're sure this suit will keep it out?"

"Well, it can keep out the vacuum of space, and there is nothing in the DNA to suggest the virus can eat plastic, so you should be safe while you're in there. Our main concern is decontamination."

"The place should be pretty well decontaminated once I launch it into space."

"I'm not talking about the grove, I'm talking about you. After you've finished in the grove, you'll need to get any traces of the virus off of your suit before you can open the seal. You'll be covered

in the stuff, and you need to make sure it's all dead before you take off the suit."

"So how is that going to work?"

"We have a few options. The best one is if you can get your hands on some Biological Destruction Agents."

"I'm guessing I won't find that in any of the vending machines. Is this something I will find here in the storage area?"

"We hope so. The stuff you're looking for will probably be listed as ITM: Incendiary Toxic Material, or as BLC: Biological Liquidation Compound. Either product will do the job."

He turned and headed back to the closest inventory computer. He hooked the sword through one of the tool hooks on the belt of the suit, and carried Fletch. He had to walk carefully until he was used to the extra bulk of the suit. It carried its own weight, but he was still several centimeters taller and wider while he was wearing it. "What will this stuff do?"

"The ITM will burn the virus off, and the BLC will liquidate it."

"How does *that* work?"

She shook her head, "I don't know, all I have are my notes here." She waved a file folder up in front of the camera. "The point is, either agent will kill the virus on exposure. They are designed to completely kill organic material to the point where even the DNA is gone. Both of these chemicals are way more deadly than the virus itself – the first one would kill you in under a minute, the second would probably kill in seconds. These are industrial-grade BDA – Biological Destruction Agents. They are *designed* to destroy biological material. They are usually used to get rid of stuff created for experimental purposes in a lab. After you're done playing with some bio-toxin, you can't just throw it away, you have to kill it. That's what this stuff is for."

"Wait. You want me to get the deadly virus off of my suit by covering myself in something even *more* deadly? What do I do once I'm covered with these industrial-grade cooties?"

"That is what is so cool about these BDAs – they are short-acting. As soon as they connect with the air, they begin to break down. After about five minutes, it should be safe to take off the suit."

He was going to get his suit covered in flesh eating organisms, and was going to get *that* off by covering himself in flesh *melting* poison. Over the years he'd done a lot of gross and hazardous stuff to get the job done. He'd hidden in dumpsters, entered insect-infested crawlspaces, and even waded through a sewer once. He liked to think of himself as a fairly bold person, but this was crazy. He found the best way to deal with it was to avoid thinking about it. "I'm searching the database for it now", he said.

"If they don't have any, or you can't get to it, then we will have to settle for plan B, which is decompression."

"What do you mean?", he asked warily.

"If you can't get your hands on any BDA, you can use some blasting gel to decompress the grove, which would *probably kill all of the virus.*"

"Probably?"

"Just find some BDA and you won't have to worry about it."

It took him twenty minutes to locate some of the stuff. With the suit, he was easily able to shuffle the crates around and retrieve the one he wanted. He tore off the various seals with danger and chemical hazard icons, and hacked the crate open with his sword. He had to be careful in opening it, since he didn't want to accidentally rupture the contents and send deadly skin-melting (or whatever it did) toxins into the air.

The ITM came in an assortment of egg-shaped glass containers. The glass was clear, aside from the tiny print that covered its surface. Rebecca instructed him to take two of the largest, which were about half the diameter of a chicken egg.

"They are tougher than they look.", She reassured him, "These things usually go into some sort of reinforced container with the material to be destroyed, and are broken open by a machine. You will really have to hit them hard to break them open."

That was easy for her to say. She wasn't the one holding them in her hand. Deck treated them like what they were: glass eggs. He gently slipped them into a pouch on the arm of the EVA suit and zipped it shut.

The executive level was just as he had left it. The EVA suit was still using external atmosphere, and he could smell the heavy, damp air as it rolled into the elevator. There was a pungent, mold-like quality to it that made him sick.

At first, the outer elevator door wouldn't open all the way, preventing him from exiting. The huge holes ripped in the door had caused the surface to bend, making it unable to slide. With the help of the powered suit, he was able to force them open.

As he stepped into the lobby, a door opened and a hulking security bot marched into the room. Deck was already holding his weapon up. He brought the barrel around and clamped down on the trigger.

The bot was shredded before it had time to turn to face him. The huge metal body twitched as the steel shards exploded and fragmented inside its chassis. Even after it stopped moving, Deck held down the trigger until it had toppled over. For almost ten seconds the room was filled with the high-pitched scream of his weapon and the impacts of metal tearing metal at high velocity.

He assumed this was the bot that had punched the holes in the elevator earlier, and he wasn't taking any chances with something like that.

The air was again filled with the smell of scorched circuitry and melting plastic. Smoke drifted from the cratered and perforated metallic carcass.

He consulted his map and headed north. The groves connected to the outside edge of the level, at the four compass points.

The level had been engineered to look like traditional executive areas. Everywhere was plastic that had been molded to look like marble, granite, and wood. Many areas were even carpeted. There were no windows, and the seams created by airlocks were tastefully hidden. Drapes and paintings had been hung to hide protruding pieces of the infrastructure. There was nothing to remind you that you were even in space.

He came to the security station, and found it was guarded by a pair of cyborgs. He identified them around the corner, and managed to retreat before they spotted him.

He paused. He was feeling ready to kick some ass with his powered EVA suit and Fletch, but he didn't want to tip his hand to Shodan. He would need to get into the security station once he was finished in the grove, in order to launch it. However, if he struck now, She might guess what he was doing, and launch it herself.

He doubled back to the lobby and turned east. He would go to the eastern edge of the level and head counter-clockwise around the perimeter. That would allow him to go around the security station without attracting attention. Once he'd done his job in the northern grove, he expected Shodan was going to know what he was up to. When he left the grove, he was going to have to come out shooting.

The air seemed to cling to him inside of the EVA suit. The choking humidity was oppressive. He adjusted the internal temperature downward a few degrees. There was a soft hiss as his internal ventilation pumped air over the inside of the dome helmet, to prevent condensation.

The east grove was quiet. The entrance was a pair of four-meter tall airlock doors that led into the dimly lit area of green vegetation and fuax-stone sidewalks. He could see the neatly arranged park benches and what he assumed were imitation trees.

It reminded him of the empty park in front of the TriOptimum building. "Wooden" fences and rows of small shrubbery divided the space into discreet sections so that people could read or talk in relative privacy. The windows were narrow rectangles about two meters tall and about the width of someone's hand, offering a tiny slice of the outside view. A layer of thick green carpet served as a halfhearted reminder of grass.

He proceeded carefully through the level, peeking around corners and making sure he didn't stumble into any unexpected danger. It was difficult to be stealthy given his new size and weight.

The northern grove was sealed off from the rest of the level. Both airlock doors were shut. Deck approached it carefully, checking for resistance. Once he was sure he was alone, he checked in.

Connected. US.GOV-RL1.VID

"Lansing."

"I'm outside of the northern grove."

"Everything ok?"

"Yeah. I'm about to go in. Just be ready to nuke this place once I'm clear."

There was a long pause where she just stared blankly at the camera. Finally she responded, "We will be ready for the next part of the operation once you're clear."

He clenched his teeth for several seconds. He knew what was up. "You guy's aren't gonna nuke this place, are you?"

"Once you disarm Shodan, there is no immediate need to destroy the station."

"You don't think it will occur to her to use another grove? I'll bet she will have a new batch of virus cooking in another grove before this one leaves orbit."

"Dr. Coffman believes he can convince her to surrender once you launch the grove."

He snorted, "Doc Coffman. It figures. I knew he had to have a better reason for coming to help. He wants to save his monster."

"Hacker, that place cost billions to construct. *Billions*. Once the danger is over, there is no reason to blow it all up without at least *trying* to salvage it."

"How many more people have to die? This computer has killed hundreds, and has demonstrated her ability to kill millions. How many more lives will you greedy bastards risk to keep your stockholders happy? Why don't you come out with the story in the media and see how the public feels about it? Do you think they are willing to risk Shodan's death plague for your bottom line?"

"Its not as simple as that!", her voice wavered. He didn't know if she was trying to keep from screaming or trying to choke back tears. He didn't care. She paused for a moment to compose herself, "Look, I don't make policy, I'm just telling you what it is. I'm not even supposed to do that much. I'm going to take a lot of heat for just telling you this. So don't blame me!"

"Right, you're just following orders. Well you should know better."

She finally cracked, "Don't get sanctimonious with me. *I'm* not the one who cut her loose and got all those people killed!" There was a long pause where both of them were shocked at the words that had just come out of her mouth.

"Hey, Diego would have killed me, I didn't have a choice. What's your excuse?"

"You hypocrite! He never put a gun to your head. You did it for the implant and you know it.", her voice cracked again. She glared at him defiantly, trying to bare-face the tears.

"Bite me." He killed the connection.

The first airlock door rumbled open and he stepped inside. He reached for the control panel on the wall beside him when he remembered that his EVA suit was still set on external atmosphere.

He hit a button on his left arm and the damp smelly air of the executive level was replaced with the cool, dry air from his oxygen tanks.

He closed the outer airlock. For a moment he stood silently in the wide steel vault contemplating the next step. In a moment he would be surrounded with Shodan's genetic freakshow. He padded his sleeve, making sure the ITM "eggs" were still there. He checked his weapon. This was it.

He took a deep breath and hit the open button for the inner airlock.

The northern grove was bathed in a dim, jaundiced yellow light. Some sort of yellow fungus encrusted the walls and the fake plastic plants. Its texture was rough and covered in tiny sharp points that grew from the surface of the mold. The original plants had long since died and been replaced with the flourishing yellow growth.

The mold was thickest at the edges of the room and in the corners, and became thinner as it advanced up the wall or across the ceiling. It completely covered the narrow windows along the outer

wall. The mold covered the light fixtures in the ceiling, darkening the grove and giving the area the sickly yellow glow.

This section had been partially flooded, turning the now-blackened carpet into a swampy mess. He could see small, crablike shapes darting quickly through the soaking shag. Their translucent forms were barely visible until they moved.

The ceiling had been ripped open and the ventilation tubing hung down to the floor. Long, black tentacles of hose reached down from the slime-caked ceiling and rested on the moist ground. Small organic lumps covered the end of the tube and filled its inner edge.

A few of the crablike shapes were running up and down the outside of the vertical tubes. They gathered at the top edge and seemed to gnaw on the mold that encased the socket where the tubing ran into the ceiling. The small ones seemed no bigger than a spider, while the largest were about the size of a scorpion.

The faux-wooden dividers were covered with the stuff, except for along the base where it had been chewed away. The plastic foliage combined with the dividers to form a maze through the grove.

Deck moved along the outer wall, wary of going into the open. The humidity must have been fantastic. Tiny droplets of water condensed on the outside of his dome helmet, gathered in beads, and ran down the glass surface like sweat. His entire EVA suit was covered in moisture. It was designed for deep space, and not swamps. Deck hoped it wouldn't short out.

He crept through the grove, leading with his gun. He stayed close enough to the fake foliage to use it for cover, but not so close that something hiding within could reach out and grab him. He thought for a moment that he could just hose everything down with a heavy stream of exploding projectiles from Fletch. He entertained the thought for a few minutes, but stealth had brought him halfway across the grove, so there was really no reason to start shooting now.

At the far end was a small control station. A simple terminal was set into the outer wall. The display was covered in a thin film of slick yellow slime. He held his hand up to the dataport.

Nothing happened.

He pressed his hand harder into the controls, but was still unable

to make a connection. Either the dataport was malfunctioning from the mold and humidity, or the thick gloves of his suit were blocking the connection.

He scraped the slime off the terminal and went to work. He fed in the table of numbers provided by Rebecca's team.

Rebecca. Deck frowned as he punched in the numbers. Calling *him* a hypocrite? She sat down there, nice and safe on Earth, surrounded by military personnel, and she had the nerve to judge *him*? She didn't know what it was like. She wasn't going to have to face Shodan. His mind replayed the conversation again and again. He was up here, bailing *them*

out and putting a stop to the machine they had built.

You did it for the implant and you know it. Her words stabbed him in the ear like an ice pick. He imagined the conversation over and over, but never came up with anything to say to her.

The water ran down the front of his helmet and made the display even harder to read. He pawed at the glass with a gloved hand, but only managed to leave a yellow smear.

Once the numbers were in and he had double-checked them, he tore the access panel from the front of the console. He pulled out the thick artery of data cables that connected the terminal to the rest of the station and tore them free. Shodan would probably know something was wrong now, but she could no longer re-program the trajectory.

He retreated quickly. Shodan would no doubt be sending some forces to the grove now, and he needed to be gone before they arrived.

Ignoring stealth, he plowed through the plastic scenery, sloshing across the rotting carpet in a direct-line approach to the airlock. With the strength of the suit he was able to push obstacles out of his way like a bulldozer.

He stopped. Ten meters away, a humanoid form crouched in the shallow water.

The long, sleek body looked like a cross between a championship bodybuilder and a starvation victim. Everywhere the skin was either stretched over bulging muscle or clinging to the skeleton beneath.

The stringy muscle and the spider web of blue veins were clearly visible beneath the translucent surface. Two black, shark-like eyes were set on opposite sides of the narrow head, giving the creature a reptilian look.

It scooped up a large scorpion-sized creature. The victim wiggled impotently in the grip of the gnarled, claw-like hands before it was crushed in the predator's powerful jaws. The victim fought fiercely, puncturing the mouth from the inside out, but the predator didn't seem to care or even notice the wounds, which closed instantly and bloodlessly.

Despite the fact that Deck's huge robotic form was standing in the open, the creature seemed to somehow not notice him. It quickly swallowed its meal.

Deck relaxed, letting his arms drop slightly to his sides. At the same instant, the creature launched itself at him, letting out a high-pitched wail as it rushed him like a jungle predator. The howl was an otherworldly chorus of tortured souls.

He clutched the trigger and sent a fountain of explosive metal shards at the creature. Its speed was fantastic. Only a few rounds managed to hit the beast as it arced sideways to flank him. The few bullets that did meet their target tore at the flesh but did not slow it down.

It pounced forward, impacting him in the side of the chest. His entire body was lifted off the ground as his bulky metallic frame was thrown backwards. He held down the trigger and brought the weapon up, cutting across the path of the advancing creature.

His weapon found its mark, and the reptilian head was replaced with a cloud of red gore.

The battle had taken less than five seconds. He gasped. The naked, unarmed creature had nearly won a fight against an armored opponent with combat training and an automatic rifle. If it hadn't been for the EVA suit, the thing probably would have disemboweled him.

All around him, the synthetic foliage began to stir. He picked himself up and started running.

As he reached the airlock, he turned in time to see another preda-

tor burst into the open and rush him. Two more followed. He set the weapon to the highest speed and carved the advancing foes with streams of projectiles. As he fired, he backed into the airlock and punched the close button.

Once the doors had sealed, he let out a slow breath. His heart was still racing.

He unzipped the pocket on his sleeve and brought out a single glass egg. He held it in the palm of his hand and squeezed.

It was like squeezing a rock. He couldn't even feel the egg give. He set the weapon down and held the egg between both hands. He clamped down on it with all of his strength, but he still couldn't crack it.

The hands didn't have any kinetic assist. He needed to use his arm strength to break it, so that the suit could help. He placed the egg on the inside of his right elbow, and bent his arm to crush it. As his arm closed, the egg slipped out and rolled across the floor.

"Damn it.", he muttered, reaching for the next egg.

There was a clank, and the inner airlock door began to open again. His eyes widened as he dove for his weapon.

Another predator entered, squeezing its body through the impossibly small gap between the doors. He shredded the creature as it slid through. His weapon ran empty. The door continued to open.

He reached down to his thigh and realized that the rest of the clips for Fletch were in his bodysleeve, *inside* of the suit.

Another creature darted in. It lunged at him, knocking him backwards again. The claws hammered at the sides of the suit. Alarms began to go off in his internal systems.

He didn't even bother to pull his sword out of its makeshift holster on his tool belt. He just turned it on and swung. It cut through the straps that held it to his waist and slashed through the abomination attacking him.

The floor of the airlock was slick with whatever fluids these creatures used for blood. As Deck struggled to stand, he heard more movement outside.

He saw the egg, laying in a pool of spilled mutant blood beside him. Another predator rushed in, and he brought the tip of his

sword down on the egg.

The egg fragments shot in opposite directions from the force of the gas inside. The heaps of broken mutant bodies began to smoke.

The predator lunged, and Deck swung blindly with his weapon. He was still trying to get his footing on the slick floor. The creature ducked the blow and struck at his side.

The claws found the gap where the two halves of the chest assembly met, and punctured the side of the suit. There was a violent hiss as Deck's suit decompressed.

In a panic, he slashed with his sword and removed one of the deadly arms at the shoulder. The creature didn't even flinch. With its remaining arm, it struck again and tore into the cables that led into the chest assembly of the suit. The airlock was filling with thick smoke as the ITM burned its way through the heaps of available organic mass.

The abomination began to twitch and shriek as smoke poured from its burning flesh. It retreated, pawing at its face with the remaining arm. Deck swung blindly into the thickening smoke. Something was wrong, and he couldn't move his arm properly.

He backed up a few more steps and reached the control panel. He didn't know if he was alone in the airlock or not, but it didn't matter anymore. He punched the emergency close button.

Smoke was pouring from the glistening surface of his suit and from the puncture wound in the side. He could feel the suit heating up.

Once the doors slammed closed he hit the lock button. It was over.

Chapter 20

Decompression

Deck slumped against the wall as the thick smoke continued to fill the airlock. He listened in horror to the squealing death throes of the remaining mutant, hidden nearby behind the curtain of dense fog. He could barely see the glowing blue outline of the sword a half meter in front of his face.

Incoming signal: GOV-RL1.VID - Compatible video codec available.
Encryption key matched.

He ignored it. He was too busy to talk to Rebecca right now, even if he wanted to.

After thirty seconds he concluded that the first layer of the EVA suit must still be intact. If it had been ruptured, he would be dead by now. He drew the second glass egg from the pouch on his arm and set it on the floor. Movement was difficult. The entire left side of the EVA suit was paralyzed, so he was forced to carry its bulk under his own strength.

He stood and crushed the egg under his heel. There was a pop as the glass hull ruptured and the pressurized contents launched fragments of broken glass out from under his foot. There was a short pause, and then the BDA went to work.

He could feel the toxins consuming the organic matter around him with their chemical burn. The heat was most intense on his

hands and at the puncture wound in the side of his suit. The dome helmet became blackened with a cloud of tiny scorch marks. The fog became utterly opaque, and darkened as more and more of the surrounding light was absorbed. Minutes later the world outside of his helmet was the color of deep space.

He waited for five minutes and opened the outer airlock. He needed to take off his suit to get to his ammunition, but he needed to get away from the smoke before he cracked it open.

The airlock opened and the smoke poured out like water from a broken dam. Pulled by the local air currents, it expanded as it spilled into the corridor. The black cloud drifted down the converging hallways, filling everything. As it touched the ceiling, the local fire hazard alarm erupted. A siren began to wail.

He stepped out of the airlock cautiously, hidden in the opaque cloud. He could hear the heavy march of numerous metallic footsteps closing in. The speakers in his helmet relayed sound, but prevented him from determining the direction. He took a guess that they would be coming from the corridor directly ahead, since that was the most direct route to the elevator.

Incoming signal: GOV-RL1.VID - Compatible video codec available.
Encryption key matched.

Whatever she wanted, it was going to have to wait. He needed to clear the area before he was overrun. He had no idea how he was going to get to the security station. They hadn't really thought that part of the plan through.

There was a hiss as the fire-control system deployed. Water rained from the ceiling. The emergency lights kicked in. The lights, intended to help illuminate the area and guide people to safety, had the opposite effect. Like shining high beams into fog, it turned the cloud into a wall of featureless gray.

The water ran down his dome helmet and washed away the layer of carbon residue.

He could see the enlarged silhouette of an approaching bot, backlit in the dense smoke. More appeared. There were way too many to fight, even if he had access to a firearm. He made a right, heading into the western side of the level. He tried to run, but the lack of

kinetic assist on his left side made movement difficult. His run became more like a high-speed limp. After several seconds of power-limping, he broke free of the smoke. The fire-suppression systems rained down on his head as he struggled to put distance between himself and the bots.

He reached the edge of the fire-suppression zone and exited the downpour. The addition of the water to the already humid atmosphere had turned the executive level into a steam bath. The water condensed on every surface and the air itself was a thick haze.

He came to the closed airlock to the western grove. If he made a left, it would take him back to the main elevator and the incoming wave of bots. On his right was the massive airlock.

He could continue south, but that wasn't going to get him anywhere. He needed to reach the elevator at the heart of the level. There was no way he was going to get there without doing some shooting, and that wouldn't happen until he could reach his ammunition.

It was time to see how fast he could get out of the EVA suit. He tried to open the helmet, but the seal wouldn't release until he switched to external atmosphere. He hit the switch and the heavy, damp air of the executive level was pulled into his suit.

Nothing could have prepared him for the smell he encountered. The horrifying stench of burning flesh filled his nose and mouth. Although the smoke had dissipated to a thin haze, the rancid odor was still overpowering. The sudden heat and humidity only served to make the air even more revolting.

He gagged as he drew in an uneven breath.

To his left he saw the dancing patterns of moving floodlights on the walls. Something was coming, searching for him. In the distance, he heard the fire-suppression system sputter to a stop.

He opened the looming airlock on his right. He could hear the approaching metal stampede as he stepped in and closed the door behind him. He needed to work fast, since it wouldn't take them long to figure out where he went.

The western grove was long gone, ejected days earlier during the crew's battle to survive. On the other side of the outer door was the

empty vacuum of space.

Deck pulled open the maintenance door just below the main controls. The short, heavy steel door groaned open to reveal a small, safe-like alcove containing various electronic systems. He reached in and grabbed the dataport, but got no response. He pressed it into the palm of his hand, trying to reduce the distance between his skin and the dataport.

Compatible device detected. Negotiating. Connected to ACCESS device class DOOR-XLOCK6-1 (EXTERNAL AIRLOCK).

The layers of geometric data flew past so quickly he didn't really even see them anymore.

Most external airlocks on the ship had physical devices that would prevent both doors from opening at once. These airlocks, however, had a loophole that allowed both doors to open when the grove was present.

He could feel the vibrations in the floor from the crowd of bots inside.

He hacked the system to convince it the grove was connected, and then hacked the internal pressure gauge to make it appear that the inside was already depressurized.

The inner airlock began to move. Shodan knew where he was, and was opening it for her automated minions. He sealed it again. She tried to open it again. Eventually he gave up on the tug-of-war and finished his hacking.

He jacked out and switched his suit back to internal atmosphere. A stream of cool, dry air filled his lungs.

Deck opened the outer door. A rush of air swept through the airlock. With his right arm, he grabbed onto the maintenance access door. In seconds the wind became a hurricane trying to shove him out into space.

The bots had no logic for dealing with decompression. They made no effort to flee, but mindlessly massed at the door for their chance to kill him. As the doors parted, the station vomited them out into space.

The wind picked him up, pushing his body horizontal with his feet dangling out into the abyss. The kinetic assist in his arm strained

under the pressure as he fought against the overpowering jet of escaping air.

The massive bodies of various types of security bots sailed past him like steel boulders. They slammed into each other soundlessly in the storm as they tumbled helplessly. Benches, potted plants, and a flurry of paper and other debris fell from the side of the station. A lamp struck him squarely in the helmet, but he managed to retain his grip.

When the avalanche of debris had passed, he reached out and hit the close button. The outer door began to slide closed.

He pulled himself in against the weakening force of air. A few seconds later he flopped to the ground.

Deck found that standing up in the suit without kinetic assist was an ordeal. He had to brace himself against the wall with his left arm to get enough leverage to get onto his feet. His movements sounded distant in the thin air. Once he was standing, he paused for a moment to catch his breath. The taste of scorched flesh filled his nose and mouth, and no amount of pure air seemed to be able to purge it.

He still needed to get out of his suit, but the external pressure gauge showed that he was in less than 0.3 atmospheres. He was going to have to wait until the level re-pressurized before he could open it up.

It was a safe bet that Shodan wasn't going to give up at this point. He headed back to the elevator as fast as the suit would allow. His steps were heavy and uneven. The weight of the suit pulled on him. He limped as if dragging a ball and chain from one leg. As he reached the nexus at the heart of the level he saw that the elevator was already on its way. He jacked in, hacked the local lift controls, and cut power to the doors. He knew this wouldn't be the only way onto this level, but it was probably the most convenient. Blocking it off would force Shodan to use some other method to bring in new forces.

He headed north again, aiming for the security station.

He was tired. He was sick of it. Sick of Shodan. Sick of mutants. Sick of fighting. The constant sine wave of adrenaline activity had drained him. For a long moment he experienced some sort of detached self-examination. How did he get here? What was he doing on this giant tomb floating miles away for Earth? If he had imagined every possible outcome of his quest for the implant, he would never have dreamed of anything like this. He had always assumed that he would either succeed or die. This was neither death nor victory, but some strange blend of both.

For a moment he was able to appreciate how bizarre his situation was.

Incoming signal: GOV-RL1.VID - Compatible video codec available. Encryption key matched.

"You're on the air."

"Hacker, I just have to warn you that Shodan has... learned about what you are doing."

"If she didn't know what I was doing by now she would be an idiot."

"Not just launching the groves, everything. Pretty much everything we've discussed doing has made its way back to her."

"So she cracked our feed here?"

"No."

"So what does that mean? Did *you* tell her? I sure as hell didn't."

"I can't say.", She was giving him a poker face. She was either hiding something or trying to tell him something without saying anything.

"I hate this secrecy crap. The only way she could find anything out is if someone told her..."

Rebecca raised an eyebrow.

"Coffman!"

There was a long pause while he looked into to poker face some more. "I can't discuss it."

She didn't deny it.

"Fine. Thanks for the heads up. I assume the problem is taken care of now?"

There was another pause. Finally Deck realized that she was waiting. Someone was probably talking to her over her headset, telling her what to say. Finally she responded, "I don't expect to have this problem again."

"Fine. I gotta get back to work." He disconnected.

The security station was now unattended. The guards had been swept away in the decompression. A single security camera watched the entrance.

He stepped in front of it and looked into the unmoving glass eye.

"Can you hear me?", he yelled at the camera.

There was a long pause. He hadn't really thought about what he was going to say. He pointed a thickly gloved finger at the security station.

"I'm going to go in there, and I'm gonna launch your science project into space."

He waited. He wasn't even sure why he was doing this. He just wanted to see how she would react. She already knew where he was and what he was trying to do. He stared into the camera for a few more moments to see if she had anything to say.

When he decided that she really wasn't going to answer, he turned abruptly and entered the security station. Then he realized why the place had been guarded.

The entire room has been transformed into an almost solid mass of computer chips and cable. Uneven pillars of wire and plastic stretched from floor to ceiling. Nests of cable were gathered in bunches like nerve endings and fed into the walls, which were now covered in plugs and openings, transforming the room into some sort of electronic hive. The cables were draped between the pillars like synthetic cobwebs. They eclipsed the overhead lights, banishing the place to gloomy darkness. The computer terminal had become one with the mass, like an organ absorbed by cancer gone unchecked.

Deck squeezed his cumbersome mechanized frame into the room and fought his way to the terminal through the hanging vines of colored wire. He wanted to drop a gel pack right in the middle and vaporize the whole mess, but he needed to launch that grove first.

He ripped the terminal from the mass. He tore it open like a child searching a box of breakfast cereal for the prize inside. After a few seconds of careless destructive digging, he managed to extract the dataport from the broken plastic case.

As he connected with the system, he could feel a tingle in his arm. It was always there when he interfaced, but was usually too subtle for him to notice. This time it was more pronounced. His nervous system was acting as a conduit for a much larger set of information than usual.

A universe of data filled his mind. The local node, which had always seemed to be a complex and intricate thing was as simple as a geometric primitive compared to the galaxy of data that surrounded him now. The mutant pillars of memory cores were connected directly to the terminal. For the first time, he was no longer behind a wall of opaque black ice. Instead, he had direct access to the brain of Shodan.

He pulled back, trying to get a feel for the shape of the data around him. Huge constellations of information where condensed into more basic shapes as they grew distant, and yet he was still overwhelmed. There was just too much to take in. Infinite plains of parallel circuit patterns framed massive skyscrapers of moving images. Racing particles blurred together to form cities of flickering wireframe. The tingle in his arm become an ache.

A wave of *deja vu* came over him.

When he was young, his parents had a bot that vacuumed the house. The bot was low and square, with a puffy bag mounted on top to receive the dust and debris from the floor. It had no face, just a single dome of mirrored glass that served as its eye. It had fascinated him. He would stand in its path, and watch as it came to a halt, waiting patiently for him to move. It never went around. It just waited.

Deck once sat in front of it, wondering how long it would take before it got bored or gave up. He parked himself in its path and waited. The minutes stretched on with a slowness only possible for a young boy who is anxiously waiting for something to happen. What would it do when it realized he wasn't going to move? Would

it attempt to go around him? If it did, he planned on moving to stay in it's path. Would it speak? Give up and go back into the closet? Try to vacuum some other area?

After what seemed like hours to his young mind, his mother found him and yelled at him to get out of the way. He tried to explain the importance of his experiment, but she was unmoved.

He stopped his voyage through the waves of color as he relived this forgotten memory in vivid detail. He began to cry when mommy yelled at him.

His arm began to burn.

Flashes of other memories came and went like subliminal advertising. He struggled to focus on the task at hand, but the mind of Shodan was a blur to him now. He couldn't think. Competing emotions attacked his concentration. Needles of pain shot up his arm and into his shoulder. His eyes rolled back into his head.

The digital world faded, and he fell into darkness.

Chapter 21

Kinetic

The weather was indecisive, and the sun seemed to come in short, manic fits between even shorter sprays of warm summer rain. The air was filled with the smell of rain and diesel fumes. Hot and humid was always a safe prediction for New Atlanta in August, but the rain brought a hint of cooler breezes.

Deck banked his bike hard and cut through an intersection during the heartbeat pause between one light turning red and its opposite turning green. He hit a stretch where the sidewalk was actually smoother and less crowded than the street, so he jumped the curb and rode the walk for a few blocks.

The sweat ran from beneath his shiny black helmet, emblazoned with the stylized “NC” that served as the logo for Nano Courier. He kept his head down, the throttle low, and the kinetic tension high as he pedaled hard over the even surface. He wanted to store up as much energy as he could for the onramp.

He glanced down to see he had managed to store about 10k in kinetic force. That wasn’t going to be enough. He turned the tension up a bit more and pedaled harder, knowing that almost half of this extra effort would be lost in the transfer when he finally hit the ramp.

He pedaled furiously, and his speed remained fixed.

Some courier companies used motorcycles. This was fine since they were cheap and fast, but motorcycles had to obey basic traffic

laws like stopping at red lights and staying off the sidewalk. They needed gas, and couldn't ride along the shoulder when traffic came to a standstill. In a highway delivery, a motorcycle would win every time. However, in the twisting, traffic-clogged arteries of the Undercity, a bike with a kinetic store was the fastest way to anywhere – assuming the rider was in top physical condition. The kinetic store was technically not a motor, and thus the bike was able to do things a motorcycle couldn't – such as riding on the sidewalk and performing u-turns across busy two-way streets to reach an onramp.

A horn mixed with a wailing string of curses as he released the tension and accelerated through the tight arc onto the onramp. The kinetic store was unleashing all of the effort it had been able to capture, and mixed it with the effort he was putting in now. The result was the bike riding uphill without losing speed. He watched the store decrease below the 1k mark as he hit the top. Another perfect ascent.

The problem with bikes had always been that the supply of potential energy was so uneven. On a downhill you would have far too much, and would need to actually throw some away by using the brake, despite the fact that you were really going to need that energy in a few seconds when you hit the opposing uphill grade. This was a problem for the rider as well. The result was a rider that was overworked on the uphill and under-utilized on the downhill. The kinetic store helped by letting the rider store up their effort and release it later. It also resulted in bikes that had higher, safer top speeds.

He normally stayed off the highway, but this wasn't just a delivery. This was a mission. Once in a while someone would call up Nano Courier with a special job. Usually, it was something that needed to be delivered in an impossible amount of time. Sometimes it was a delivery to a dangerous area of the city at night, or a complex series of pickups and deliveries that would test a rider's ability to navigate efficiently. These were rare challenges, which would award either disgrace for failure or cash bonuses for success.

Deck had never gotten more than one such challenge every few months in the years he had spent at NC. However, this was the third

one this week, and all three jobs requested him by name.

He slid in behind an eighteen wheeler and rode in the draft. Traffic was slow, so he could keep up. He watched the shoulder carefully, since he would need to get over there in a hurry if the truck altered its speed too much.

The strangest part of the jobs was that they were coming from a business *inside* the Undercity. Usually their clients were white-collar corp. outfits that needed something moved *through* the Undercity, but the pickup and dropoff points were posh marble and glass towers on opposing sides the “the crater”, as the Undercity was known to the white collar world.

Clients from inside the Undercity were rare, and this one was even stranger for the fact that it was a pizza place. One final unexplained aspect of this outfit was that Actio’s Pizza – the client – was never involved. They paid for the job, but were never the pickup or dropoff point.

Deck was spending most of his effort just keeping up, but a little was going into the store. He was back up to 5k again. Some quick math told him this wasn’t enough yet. He turned up the tension just a bit. He had over a mile to go before the next exit and didn’t want to burn out too soon.

Why would a Pizza place want a courier? They had people that delivered stuff for a living! Deck wasn’t complaining. They paid the premium fee for special jobs, and were insane tippers. In the last three deliveries for them he had pulled in almost an extra week’s pay.

The jobs themselves were odd as well. Often they would be demands for deliveries with improbable timetables, allowing no error whatsoever in riding or navigating. Deck would have to push himself to the limit to reach the destination on time. When he got there, it was always the same. An older guy would take the package without seeming to be interested in it, much less in a hurry to get it. In return, he would give Deck a massive tip and close the door on him without a word. The endpoints of the trip changed every time, and none of them seemed to have anything to do with Pizza. A few places seemed to deal with computer hardware, but most of the

places were so generic he couldn't tell what they did.

He glanced down. There was about 6k in the store. The truck in front of him began to slow and he darted over onto the shoulder as he released the reservoir of energy. The bike leapt forward, accelerating past the line of slowing commuters.

He hit the exit and coasted. Normally he would use the downhill to store some energy, but he was nearly there and had almost three minutes left.

He twisted through some minor side-streets scanning the markings on the buildings. For a moment he had an intense spike of *deja vu*. The next moment he was knocking on the door of his destination. He was in some alley, standing at the side entrance of some large business printing franchise. The *deja vu* passed, and the door opened.

It was the same guy he had delivered to yesterday. He was short, round, with tight curly hair and a thin moustache. Deck smiled at him but the guy gave absolutely no indication he even recognized Deck.

Inside Deck could see a small office desk with an unopened package. It was the same package he had worked so hard to deliver yesterday in a record amount of time.

Unopened.

The guy was mumbling something as he walked around inside the office and it took several seconds for Deck to realize the guy was talking to *him*. He watched in amazement as the guy took the package – the same package he had delivered to a completely different address yesterday – and handed it to him. A new address label had been taped over the previous one.

The guy looked down and spoke as if he were addressing the package itself, "Take this to the roof of the address listed on the front. When you get there uh, open it and follow the... instructions." He produced an envelope full of money and passed it to Deck without ceremony. He stared into the alley for a second before he continued, talking to his shoes, "They uh, don't know about this."

Deck made a face. "*They?*"

"The uh, guys in the uh, building there.", he gestured towards

the address slapped on the side of the package. "So um. Getting on the roof is uh, up to you."

Deck opened his mouth to ask a question but the door was shut before he could decide what to ask.

He turned back to his bike and the door opened again. The guy spoke into the alley without addressing anyone in particular, "Oh yeah... gotta be there by three." The door closed again.

Deck didn't even look at his watch. It didn't matter how much time he had – he was still going to have to ride like a madman. He checked the address. As he expected, it was on almost the exact opposite side of the city.

The package was a cardboard box about the size of a dictionary. It was fairly light, but he resented the wind drag it was going to create. He slipped it into his backpack and tightened the straps to hold the whole thing as close to his body as possible.

He hit the highway, running the store empty just as he topped the ramp. He was going to see how far he could go without looking at his watch. He found another eighteen wheeler and slid in, leeching its airflow and dumping all of his energy into the kinetic store.

The after a mile the truck slowed. Another truck passed him on the left. Under normal circumstances, he would stay put behind this truck or move over to the shoulder. He never left the slow lane. However, he was on a Mission, and now was the time to be bold. He shot over into the left lane, releasing all the energy he could and accelerating to top speed. He grabbed the draft of the faster truck and brought his head down almost even with the handlebars.. An electronic whoop burst from behind him, a single note of unmistakable authority.

Police.

It was totally illegal for him to even be on the highway, but for the most part couriers were left alone if they stuck to the shoulder. Moving into traffic as Deck had done was a good way to get arrested, and actually using the passing lane was just begging for trouble.

The fine would be about a day's pay, but the real cost of getting stopped now would be that he wouldn't get his tip, his bonus, and probably wouldn't get any more jobs from Actio's Pizza. This was

going to cost him a lot of money. He did the math and figured that if there was ever a time to try and escape, this was it.

Traffic was parting for the police car, which eased up behind him and blasted him with another whoop as if to say, "Yeah, we're talking to *you*."

At full throttle he was devouring the energy left in the store. He glanced down. Only 3k left. It was a waste to burn through it like this, since even at top speed he was still just on a bike, and they were in an overpowered police car. It was no contest.

Both sides of the highway were walled in with meter-high concrete barriers. They had just passed an exit and the next one wasn't for another four miles. Four miles would take about six minutes, which was plenty of time for them to stun him or run him onto the shoulder of the road and box him in.

He jammed on the brake. The kinetic store howled as it tried to absorb the energy. Behind him the cops slammed on the brakes, trying to avoid rear-ending him. As they drew to a stop, he yanked up on his front wheel and crossed the center divider. He hoped he had the timing right.

Deck leaned into a hard, banking left turn that formed a semicircle – taking him in the opposite direction the cops were heading. His u-turn cut across both opposing lanes of traffic. He cleared them by only a few meters. Horns wailed as drivers tried to come to a stop. There was an impact as someone got rear-ended. The curve was wider and took longer than he had imagined, and it nearly drove him into the outer wall of concrete. Once he was on the shoulder and away from the wall, he released the kinetic store again and began pumping like a madman.

There was no way the cops were going to cross the median to chase a traffic violator. Instead, they were probably just sending for someone to intercept him from the opposite direction.

He had a surge of intense *deja vu* again.

He raced along the shoulder and jumped off at the first exit he came to. He kept pumping on the downhill grade, filling the kinetic store. As he reached the bottom, the guage crossed the 20k mark, which was about as full as it could usefully get. He hit a straight,

flat stretch and let it go, boosting himself to top speed again.

He relaxed, and released the tension. He couldn't resist anymore. He checked his watch.

14:35

Two thirty! That gave him about a half hour to get there. This was actually quite possible, but it was going to take a bit longer without using the highway. After that, he still had to somehow get to the roof.

He managed to cross town without further difficulty.

His target was the Iris International building on the outskirts of the Undercity. The building stood at the seam between the Undercity and the upscale business district beyond. It was not as tall or as impressive as the other buildings in the area, but it wasn't so short or shabby that it could be mistaken for part for the Undercity, either.

A combination security station / reception desk stood at the center of the lobby. He kept his pace steady and ignored it, as if he knew where he was going.

"Can I help you?"

He turned, feigning surprise that they would question a lowly courier. "What? No. I'm just delivering to H. Markus." He had glanced at the directory on his way in and decided this package was headed for whoever had the highest office in the building.

"Oh you *are*?", the plump, tightly permed woman asked sarcastically.

Deck realized he had miscalculated. H. Markus was probably some old, semi-retired president that never actually came into the office, and thus not a good probable destination for a delivery. He couldn't stop now, though. "Well, I was told to deliver to H. Markus' office at the Iris building. I don't know who its going to."

Her patronizing smile broadened. "Fine. Give it here and I'll make sure it gets to the correct party." She extended a chubby hand to receive the package.

Deck smiled back, "Is it for you?"

"No, but I will make sure..."

"I'm very sorry, but I need the intended recipient to sign for it, or we don't get paid." This was a complete lie. All deliveries were paid for ahead of time, but he was betting she didn't know or care how the courier business worked.

Somehow she got pissed without the patronizing smile ever leaving her face. "Alright, take the elevator all the way in the back to the top floor. I'll let the receptionist know you're coming."

Deck thanked her for that last bit, although she had just made his job a bit harder, since he hadn't planned on seeing the receptionist when he got there.

The elevator chimed and he stepped out into a posh lobby. He made a right into the stairwell without even looking at the receptionist. He scaled the steps and emerged into the gusty daylight of the roof.

2:55

The roof was a stonehenge-like arrangement of communications gear. Deck suddenly remembered seeing the Iris logo on television. They were some sort of media company. The gear was the usual assortment of high-bandwidth communications stuff, most of it for talking to satellites. Some units were only a meter tall, while others towered overhead, swaying gently in the breeze like trees of copper, iron, and silicon.

He pulled his helmet off and let the wind wash over his shaved head. His right arm ached for some reason. It wasn't like his arm suddenly began hurting, but more that it had been hurting for a while and he hadn't noticed.

He had never opened one of his own deliveries before. Usually it was grounds for termination. He still felt a bit odd about it, even when it was requested by the client. He tore open the rough cardboard to find a lightweight metallic device, bearing a glossy sticker with the Iris corporate logo. There was also a half meter or so of cable, neatly wound and wrapped in plastic.

He set the thing down on the ground and stepped away. Was that it? Was he done?

Then he remembered that he was supposed to “follow the directions”. What directions? The device was featureless aside from a few buttons and sockets. There were no other objects in the package.

He looked at the cardboard box itself and saw that something had been written on the inside in light pencil.

connect to ne tower & activate using red Btn. take dupe unit and deliver to actio pizza – thx!

He stared at the directions for a moment and tried to make sense of them. Duplicate unit? He glanced around but he didn’t see any to devices that looked alike, and certainly nothing that looked like what he had just brought. He decided he would just do his best and see what happened.

After figuring out which corner was the north-east, he moved over and set everything beside the tower. This brought him a bit close to the edge, which was scarier than usual since this building didn’t have anything in the way of a railing or low wall guarding the ledge. With a strong gust of wind you could roll right off. He stayed as far as he could from the edge and kept himself low as he worked.

After some trial and error, he managed to connect the device to the large tower. To do so, he had to *unplug* the tower from the feed leading down into the building and place his unit in between the two. He tried not to think about what would be happening inside while this tower was unplugged. Hopefully nobody would come up to see what was going on.

He hit the red switch and the device began to move. It opened up and an antennae unfolded and reached skyward like a blossoming flower. At the end of the unfolding metal arm was a disc of thin metal that expanded and began sweeping across the sky, looking for something.

Once it had its bearings, the disc aimed downward and pointed into the Undercity.

Deck stood beside the device and tried to figure out where it was aimed.

The only obvious target, given the direction the disc was facing, was a shabby, sleazy hotel just under a half kilometer away.

Cable theft?

The unit Deck had just installed was probably beaming the Iris cable feed over to the hotel, thus providing the manager with movies (probably porno) that he could sell to his guests. Deck hoped he was getting some sort of monumental tip for all of this, because he had just moved up from simple courier to data pirate.

He checked his watch again. He'd made it with over a minute to go.

Now that it was unfolded, Deck saw that it was indeed a duplicate of an item already in service on the roof. It was plugged in using a similar arrangement to the one he had just connected. He unplugged it and hit the red power switch on the back. The unit folded itself neatly into a box.

Deck dropped the device into his backpack and strapped his helmet on. He wondered how the secretary downstairs had reacted when he never showed up. She could have called the cops. She could have forgotten all about him. Only one way to find out.

Movement off to one side caught Deck's attention. The transmitter he had just installed turned briefly and aimed lower, into the heart of the Undercity. It hovered there a second and then returned to its original position.

He squinted into the distance and tried to figure out where the thing could have been pointed. It had aimed itself nearly due north, and there were no likely targets in that area for a datafeed. All he could see were rows of sad, short, worn old buildings huddled in tight groups all across the Undercity.

Deck pulled out his phone, which also served as a compass / directory / navigation aide. He checked the address of his next destination and found that Actio's Pizza was nearly due north. This wasn't about cable theft at all. The transmitter was probably sending bursts of corporate secrets to this "Pizza" place. Aiming it at the hotel was just a cover, so that the crime wouldn't be traced back to Actio's if the counterfeit unit was ever discovered. The words *Corporate Espionage* ran through his head.

It was a crime disguised as a far less serious crime, which was in turn disguised as a simple piece of broadcast infrastructure.

"Sir? Melissa tells me you never appeared in her office. I'm going to have to ask you where you've been."

Deck turned to the round face, heavy with makeup and distain. "Go ahead."

"Excuse me?"

"Go ahead and ask me.", he grinned.

"Where *were* you?", the patronizing receptionist act was over now, and she was now just openly pissed.

"Upstairs."

"You did not go where I told you to go. I told you to report..."

"Yeah well, I don't tell you how to do your job, and you can do the same for me. Ok?"

She picked up the phone, "In that case, it is now *my job* to call the *police*."

Deck laughed out loud, "What? What do you want me to do? Hang around here and wait for them? Lady, if you wanted to send the police after me, then you needed to make the call about ten minutes ago." He gave her a friendly wave as he strolled out. He pedaled casually by the door, letting her see that he was in no hurry.

Once he cleared the building, he kicked it up to full speed. He wasn't worried about the cops, but he was anxious to find out what was happening at Actio's "Pizza".

Another episode of *deja vu* hit him, and his arm seemed to be on fire. He turned north, and bent low. There was not any apparent time limit on this trip, but he was going to see how fast he could do it anyway.

Chapter 22

Memory Leak

Deck was surprised to find that Actio's really was a pizza place. The exterior featured a bright red awning bearing the name, and from the inside came the unmistakable smell of freshly cooked pies. He vaguely remembered the tattoo parlor that had stood at the same address for the last few years, before it faded due to apathy, fraud, or incompetence.

The place had opened recently. Deck could see the faint outline of the former occupant's logo stenciled in the front window. Most of the furnishings looked new, and there was the smell of drywall in the air. He had expected to walk behind a facade and discover a ring of ruthless data pirates. Instead, he found an ordinary restaurant filled with massive pizza ovens, and a tiny cluster of red and white checkered tables.

A stunning redhead seemed to be running the place. She was young, healthy, and much too attractive to be living in the Undercity, much less working here. Her lips were painted with a heavy red lipstick that matched the semi-Italian decor. Occasionally, some minion clad in a white apron and red baseball cap would emerge from the kitchen and converse with her, almost bowing their heads in reverence. She would answer their question and dismiss them quickly, usually without making eye contact. She loved her job.

"There are a lot of places around here where you can go to stare at women. This isn't one of them."

He turned to find himself standing beside a man of massive proportions. Deck decided that if this guy wasn't on steroids, then his DNA had been tweaked at some point. His features suggested an Italian lineage. His hair was a tight, dark crew cut atop an almost completely square face. His chest was a wall of muscle covered in a thinly stretched orange tank top. His adam's apple was at eye height for Deck. His eyes were intense and deeply set. He looked like a bouncer, although it was unclear why a take-out pizza place with only three tables and six chairs would need a bouncer.

Deck opened his mouth to make some excuse but then decided it would be pointless. He closed his mouth and nodded.

The guy continued, "All I'm saying is, that woman behind the counter is not someone you want to be caught starting at."

The bouncer clapped a massive slab of hand down on his shoulder. He left it there for a moment and let Deck get used to the weight. "You made good time getting here. The boss is waiting for you."

Deck was led through the kitchen area to a storage room in the back. A worn, empty desk had been dragged to the center of the room. An open door just behind the desk revealed a stairway leading up. The room was filled with a thin haze of cigarette smoke. A few power and data feeds led down from the ceiling and into the rig sitting on the desk. There was some other hi-tech gear around, none of which Deck recognized. It was safe to bet this was way more computing power than was needed to run a pizza place.

The bouncer took his place beside the empty desk.

A man came down the stairs, lighting a cigarette. He drew in a deep breath through the roll of flaming paper and leaves like it was a breathing tube, until the tip glowed a brilliant red. His head was smoothly shaved and he was bare-chested. He could have been any number of nationalities that featured dark skin. His pants were baggy and covered in pockets.

The man sat and began working at the computer without so much as glancing in his direction. Deck shifted his weight nervously and coughed, as if the guy had somehow simply not noticed him

standing three feet away, right in front of the desk.

Once he realized he was being ignored, Deck went from nervous to pissed. He drew the package from his backpack and dropped it onto the desk.

"Delivery."

The guy held up a single finger to Deck without looking away from his screen. After a few more moments he nodded in satisfaction at what he saw and turned his attention away from the computer.

"Yes?" The man's voice was deep, his tone casual.

Deck blinked. He would have thought that "delivery" was enough of an explanation of why he was there.

"I have", he repeated, "a delivery."

The man seemed genuinely surprised. He frowned at the package as it were something unsavory. "A delivery? For whom?"

Deck suddenly wondered if this was the right place. Was this the person he was supposed to give it to? The orders didn't say. "Uh, for... Mr. Actio?"

"Are you saying..." the man paused to laugh gently, "that you have a *delivery* for a Mr. *Actio*?"

"Well, I don't know..."

"Do you know any Latin?"

Deck balked at the question, "What? No." He thought about the question for a few more seconds just to make sure it was as insane as it really sounded. He might as well have asked Deck if he knew how to ride a horse. "What are you talking about?"

The smile broadened. The bouncer seemed to be wearing one as well. "Well, you see... 'actio' is Latin... for 'delivery'. Furthermore... there is nobody here by that name. This must not be for me." He pushed the package away slightly.

"Well, my instructions were to deliver this to Actio's."

"One does not deliver packages to buildings, but to individuals. To whom are you delivering?"

"I don't know."

"You don't know what?"

Deck began to tire of the roundabout conversation. "I don't know the name of the person I'm supposed to give this to."

The laugh came again. "Are you *sure* you don't know any Latin?"

"Do I look like I went to school? How many people would live in this hellhole if they had a high-end education?"

There was another spike of *deja vu*. This one stretched out over an expanse of time, extending the moment into several long minutes of memory-bending confusion. It seemed as though this moment in time had been happening for years, and yet it seemed new to him. A deep, throbbing ache reached from his wrist and followed a direct line to the back of his head.

The man shrugged, "You might be surprised." Somehow the *deja vu* had not interrupted the conversation in any way.

"Well, I don't know any Latin. I don't know what you're talking about, and I don't know the name of the person I'm delivering to. Do you want this thing or not?" Deck held out a hand, as if to take the package back.

"The reason I ask, you see, is that my name is *Nomen Nescio*." Both *Nomen* and the bouncer were grinning now at some inside joke.

"Great. You want this package?"

"And *Nomen Nescio* is Latin for.. 'I don't know the name'." Having fully incinerated the cigarette, he jammed it into the ashtray with force, as if he was punishing it for reaching its end.

Deck stood there with his hand on the package for a few more seconds, trying to figure out what he might be doing wrong. Why couldn't he get this conversation moving in a more useful direction? All he wanted from this guy was another massive tip and – if he was feeling extra social – a goodbye.

"So this isn't yours? You don't want it?", Deck picked up the package from the desk.

"No, it is not mine, but yes – I am the intended recipient."

"What?"

"The item in question is technically not mine, but I am the person to whom it is to be delivered."

Deck rolled his eyes, "Couldn't you have just *said so*?"

"I just did." *Nomen* held out a hand to receive the package.

"Fine", Deck handed it over.

Mr. Nescio opened the box and made sure of its contents. When he was satisfied with what he saw he closed the box and dropped it into the nearby trash can with a thud. "Thank you."

Deck couldn't take it anymore, "Ok, I give up. What is it that you are doing? What's with the pizza shop / data pirate thing? What are you guys doing here?"

"I think you should answer that question first. What are *you* doing here?"

"I'm delivering your package!"

"No, no. I mean why are you here in the Undercity? You don't belong here."

"What does that mean?"

"You know this area better than most. You travel it for a living. You must know that there is a line that divides the Undercity from the rest of the world. You won't find it on any maps. There is no gate, no fence to mark the boundary. You can cross over and the only perceptible change is that the streets are nicer and the buildings are taller."

"I don't think you need to be a courier to notice that."

"So, if this barrier can be so freely crossed, why does it act like the Berlin Wall?"

"The what?"

"Never mind.", he sighed. "The point is, you and I know that this line, this.. invisible boundary may as well be a fifty meter concrete wall. There is no crossing it. Only, instead of physical barrier, it is a social one. No corporate outfit is going to hire someone with an address from within the Undercity. At the same time, there is no way to afford housing outside of the Undercity without working at those same corporate outfits. People can fall into the Undercity, but there is no escape."

Deck shifted his weight nervously while Nomen continued, "People can lose their job, fall out of favor, suddenly find it hard to pay the bills. If the corporate machine doesn't pardon them, they will lose their place and end up here. And once you're here, you're here for good. This can happen to anyone."

Deck couldn't tell if Nomen was going somewhere or if he was

just fishing for information. His fists clenched and his face felt hot. Finally he decided he would ask the question, "Is that what this is about? My dad?"

"In a way, yes – this is about your father. More importantly, it is about you."

"What do you want from me?"

"First, I want to know what really happened."

"You seem to be pretty good with data, I'm sure you don't need me for that."

He waved his hand in a dismissive gesture, leaving an arc of smoke in the air between them. "I read *their* version. The *corporate* version. I read what the police reports said. I've also sorted through enough corporate databanks to spot a load of crap when I see it. Those reports were a complete fabrication, and I want to know your side of the story."

Deck shrugged, "I don't care. I'll tell you what happened, but it's all pretty sketchy for me. I was just a kid."

A teenager appeared clad in a white apron, smeared with grease and tomato sauce. He handed a paper cup of soda to Deck and disappeared again. Soda wasn't usually his thing, but his mouth was pasty and dry as if he'd been crying.

Nomen pointed his cigarette at a folding chair leaning against the wall. "Have a seat. I'm afraid that is all I can offer. We've only just moved in and we're still getting settled. One of the first things on my list is office furniture. Not the kind you're thinking of, though. No plastic furniture in my office. Only the good stuff. Oak. Antique. We're also moving the office upstairs, once we get the place cleaned out."

Deck unfolded the stiff, bent metal chair and sat. It was slippery and sagged in a way that suggested its maximum weight capacity had been exceeded many times. Deck took a large gulp from the soda and began, "You probably already figured out that my dad was working for Skyward Technologies. He did some kind of R & D for them."

"According to what I've seen, he was in charge of evaluating new drugs. He didn't really *do* the research so much as look at what was

being done, how much it cost, and decide what new products were the most likely money makers."

Deck shrugged, "Whatever. I was only five at the time, so it was all gibberish to me. Anyway, he found evidence that the company had been testing its drugs on the Undercity population."

Nomen leaned forward and exhaled a cloud of smoke that drifted across the desk like a weather system. "Right. I know that he claimed that. My question is: *how?*"

"How did he find out?"

"No. How were they doing it? How were they exposing people to the drug? They could never get away with putting it in the water or the air."

It was strange to have someone accept the story at face value. Even trusted friends had been skeptical, and for the most part everyone else took the company's side. "That wasn't it at all. They didn't want to just release it to everyone, or else they couldn't track the data. Instead, they manufactured some designer drugs – narcotics or hallucinogens that were popular with teens – and mixed it with their new drug. Then they turned them into pills or whatever and released them in batches to be sold in the Undercity."

Nomen smiled. "Pretty creative – for corp drones. What happened?"

"Well, they knew that the drug had some negative side-effect that would only affect a very small number of people. It was designed to control diabetes or asthma or something else like that, but the drug itself would just destroy one in so many people, turning them into vegetables or corpses. The company wanted to know what that number was: how many people in a thousand would have this adverse effect. I don't know why."

"The short answer would be: To save money. They did a trial run on humans and two died. The company needed to know why those people died. What made them special? The fastest, cheapest way to find this out was to give the drug to a large number of people and see who it kills. Once you have a large enough sample group, you can look for common traits."

"That was cheaper than just using mice?"

Nomen looked up at the ceiling as he spoke, "It did not affect mice, or monkeys. The 'adverse effect' – as they called it – probably only occurred in humans. So they released the drug, and then tracked the number of emergency room visits as they related to certain drugs. The deaths would be blamed on the narcotic that the addict knew he was taking, and not the medicine it contained."

"How do you know all that?"

Nomen shrugged, "I don't. I'm just making an educated guess based on what you've just told me and what I've read." He paused for another long draw from his cigarette. "So, your father went whistleblower on them..."

"Yeah, I don't have a real good picture of how it went. Its all kind of a blur now. Hell, it was a blur *then*. When I look back it seemed like it went on for years, but really the controversy only lasted a few months before he died."

"Tell me about that."

"He just... he provided evidence that the company had been manufacturing illegal drugs mixed with their experimental drugs. He somehow got his hands on evidence or whatever and showed it to the police."

"Well, technically, he didn't go to the police. He provided the data to a review board that is, in theory, supposed to investigate and expose that sort of behavior. If he had shown it to the police they wouldn't have even understood the crime, much less be able to evaluate the evidence."

"Whatever. He showed somebody. We started getting nasty phone calls. Mom and Dad wouldn't let me answer the phone anymore. The company claimed Dad had been making the drugs – all by himself I guess – without anyone noticing, and had been selling them. The bank informed us that our accounts were being frozen. They locked down all our cash, including an account none of us had ever seen before. It was in Dad's name, on some supposedly anonymous Global Net bank outfit. They claimed the money was ours, and that Dad had made it selling drugs he made in the company labs. There were people coming over all the time, asking Dad the same questions over and over. Mom was always either yelling

at him or crying on him. When it was discovered that some street drugs did in fact contain experimental drugs from Skyward, they simply claimed that Dad's drugs had gotten contaminated because he was using their equipment. It was just more proof that he was manufacturing drugs at work."

"And a few weeks later he was found dead in his car of an apparent overdose, with a large quantity of sellable narcotics on the seat beside him."

"Yeah. Seems like a lot more than a few weeks but I guess it was." Deck had no idea why he was sitting in the back of a pizza shop talking about his childhood with some data pirate. It just felt good to have someone listen to the whole story for once. "Mom lost her job at the company where she was working, claiming her performance was unacceptable. Then Skyward managed to deny paying us any of Dad's pension, and in fact sued us for his 'damage' to the corporation. The life insurance company got out of paying, since drug overdose was considered under their plan to be suicide – and they don't pay if you suicide. Whatever we had saved had been frozen by the police. A few months after he died we were living here."

"Which is why you are here with me now."

"What? Because of what happened to my dad?"

"Because you do not belong here. You've heard the saying, 'in the land of the blind, the one-eyed man is king'? Well, this is the land of the blind. Most people are here because they are defective. They may be too violent. Lacking in intelligence. A slave to some drug. Hiding from a criminal past. In the end, it doesn't matter. There is something wrong with them that prevents them from rising above their settings. You are different. You did not start down here – you were pushed. Better yet, you were flung down here, and are in many ways still held here by the corporate machinery your father betrayed. If your father had kept his mouth shut, you would be right there with him, offering all of your intelligence and creativity to the greater good of the company. You, my friend, are better than the one-eyed man. Up there, you would be another drone, but here you can be king."

"A king like you?"

"Yes."

Deck looked around the tired old storage area. "Is this your throne room then?"

Nescio chuckled, "Not kings in the sense of material wealth – although there is money to be made – but kings in the sense of freedom. Up there, you do what the corporation tells you to do. Here, you do what you need to do to survive. Even the wealthy clan leaders are slaves. If they stop fighting their rivals and protecting their territory, their wealth will evaporate. But not us. We have the freedom to do what we want."

"This is what you want?"

"Sure. My wife says she's always wanted to own a pizza place. So, we get a pizza place. I want to run my affairs as I see fit, and I do. I don't live in a fancy house, and I don't work in a pretty new building, but I am exactly where I want to be doing what I want to do."

"And what is that?"

The smile appeared again. "I gave you a peek at it this week. Tell me what you've seen."

"Well, you bought some communications gear that looked just like the stuff on the Iris International building. You had it picked up and delivered to several places. One probably reprogrammed the unit for you, another made the counterfeit Iris logo sticker. I don't know what all the other places did. In the end, you moved the unit all over the place by courier so that it would be impossible to link it to you, should the thing ever be discovered."

Deck had been watching Nomen's face carefully, trying to judge how close his guesses were to the truth. Nescio never changed his expression, but kept his eyes fixed on Deck. He decided this was a good thing, so he kept going, "You programmed the unit to look like it was beaming an entertainment feed over to some hotel, but it was really eavesdropping on the corp datafeed, gathering up data, and sending it here in bursts."

The was a long silence. The only motion in the room was the slow shifting of smoke as it reacted to otherwise imperceptible move-

ments of air. The only sound was the muffled murmur of activity that came from the kitchen.

"I still have no idea why the delivery times were so tight.", Deck smiled, trying to get the conversation moving again. Nomen remained motionless and the silence returned.

Nomen took a few long pulls from his cigarette to finish it and then jammed it into the ashtray just like its predecessor. He leaned back in his chair and watched the moving clouds of smoke as they followed the slow currents of air throughout the room. Finally he broke the silence, "I was testing you. Seeing what you were made of. All of this has been a test in one way or another. A test which you have just passed. And now, I offer you a job."

"A job? Doing what?"

"Whatever you want."

"So you'll pay me to sit around all day and do nothing?"

"If that is really what you want to do? Then... no. But I believe what you really want is the same thing that I want."

"What is that?"

"To even the score with the system that screwed you, and to make money doing so."

Deck hadn't even heard the job description yet, but it had to be better than ferrying packages around on a bike all day for next to nothing. "What do I have to do?"

"The corporate world is not a single entity. Instead, corporations are like separate countries... some are allied with each other, others are at war. For the most part the casualties are people like you, your father, and the idiots that took those pills made by Skyward. People. Animals. Culture. The environment. These things are simply fuel to be burned, and mean nothing to corporations. In effect, these corporations fight to destroy one another, but instead destroy everything around them but themselves. It is a war in which the only casualties are collateral damage. We may hate the system, or we can profit from it."

"How?"

"I am a mercenary. Corporations give me money, asking for my help in destroying other corporations. I help, and I take the money."

I'm very good at my job, as you will be."

Deck didn't need to think it over very long, "Sign me up."

"Excellent.", Nomen nodded towards the bouncer, "The healthy looking gentleman on my right is Marshal."

The name Marshal struck a chord with Deck. Suddenly his face seemed familiar, like an old friend.

Marshal extended his hand, "Welcome to the team."

Deck offered his hand and it was engulfed in the massive grip, "Thanks, I'm Deckard Stephens."

He froze, mid-handshake, as the moment drew itself out over a massive expanse of time. The two of them stood motionless, dream-like, for hours, then weeks, then months, then years, hanging in a state of perpetual *deja vu*. Deck could feel a deep pain radiating from the palm of his hand, following a white-hot line of agony to the base of his skull. It was if someone had injected magma into his bloodstream. The handshake seemed to extend onward into infinity. It was a never-ending moment perfectly preserved over countless millennia.

Chapter 23

Chronology

Rebecca peeled off her uniform jacket and stretched, catlike, in her swivel office chair. It was really too hot in the control room for the jacket, and she was too tired to care about the looks she was getting at this point. For the last week she had been the only young female around, and most of the men had abandoned their discreet sideways glances and had given over to wholesale leering in her direction.

She tried not to think about what this job would be doing to her body. For a week she had been eating junk food and sitting in this chair. Her metabolism was used to a three mile run most mornings, and the week of no exercise and scattered sleep had turned her into a tightly wound coil of hostile energy. This was problematic, since she needed to be soothing and professional whenever she was talking to Hacker.

As she brought her head down from the long stretch, she could feel half a dozen sets of eyes break from her and search for something else to be looking at. The only male not afflicted with this annoying habit was the new guy. The Director.

The Director was packed into his crisp tie and jacket like a shrink-wrapped anvil. His neck was thick and his shoulders were wide. He had appeared the day before and simply assumed control of the entire operation. Everyone seemed to know him, but he was known by

many different names. He was commanding, and tireless. He gave orders and people listened. After a few minutes of negotiations, the military pulled out most of their personnel, leaving only a few key advisors behind. Suddenly everyone's goal had shifted from stopping Shodan to saving Citadel. People that had been plotting launch vectors for tactical nukes to vaporize Citadel were now speaking in hushed tones about its fantastic technological, historical, and monetary value.

He had changed Rebecca's standing orders, which had been to guide Hacker through the steps necessary to neutralize Shodan. Now her new orders were to keep him from doing any more damage. He had sat down in front of her and explained that the company was not going to risk any more resources trying to protect the madman responsible for Shodan's aberrant behavior. Hacker needed to be extracted or killed. For the purposes of the company, it didn't really matter, but one or the other needed to happen before he could destroy anything else. The Suit had explained this in the coolest, most businesslike tones. While most of the men in the control room seemed to converse with her chest, The Suit seemed to stare through her skull as he spoke to her. He was devoid of passion, but he had an unwavering dedication to his duty. He had the single-minded drive of a robot.

"I've got something!" A technician was yelling from the back of the control room. It was one of the younger guys. Robert or Randy or something. Several people around him were nodding.

Someone at an adjacent console joined in, "Confirmed. I have the North grove disengaging. It's drifting free of the station."

There were several tense seconds that followed. The murmur of conversation in the room halted as everyone waited to see which way the grove was headed. They all knew that it should set a course away from the Earth, but there was the unspoken fear that Hacker had failed, and the grove would crash into the Earth as the greatest biological weapon ever deployed. Rebecca glanced to the front of the room. The Director stood in the doorway, impassively waiting for the news.

"Retros are firing..." The operator added after several more

moments. "Looks like... yes. It's breaking orbit, and heading away from us. Full burn. That thing is never coming back." They let out a collective breath. The tension in the room was bumped down a few notches.

"Get in contact with the Hacker. Get him on the next escape pod or shuttle out of there." The Director waited for a compliant nod from Rebecca before he vanished from the doorway.

Her console blurted out the now-familiar tone of an incoming signal. There was only one signal her console was set to receive. "Speak of the devil", she muttered.

"Lansing here, go ahead Hacker."

"I... I think the grove is launched."

She looked down at her display screen. Its showed a waveform of the incoming audio feed, superimposed over a table of information about the signal strength, integrity, and encryption. To her, this was Hacker. In her mind, this grid of abstract information had become his face. "Yes, our data confirms same. The grove is headed away from the Earth, nice work."

"Something... happened." His voice was strange, weak. He sounded confused.

"Are you ok?"

"I've been hacked."

She pressed her earpiece into the side of her head, as if being able to hear him more clearly would somehow cause him to make more sense. "I don't understand, Hacker."

"I connected to a node. *Directly* to a node. I've never done that before."

"What happened?"

"Its like..." his voice trailed off, and there was a full minute of silence. She usually assumed he was hiding or otherwise in danger at times like this, but this time it seemed different.

Another minute passed. She could see on her display that he was still connected. Finally she broke the silence, "Hacker? You still there?"

"Most of the time... Usually, when I connect to a node... There is this wall of ice. Tough stuff. I can't get through it. It blocks me from

Shodan, right?"

"Yeah, Hacker? Are you ok now?"

"No. Something is wrong."

She could see other consoles connecting to hers. Just about everyone in the room was listening in now. "Something is wrong? Can you tell me about it?"

"I connected to a node but there was no ice. I... made contact."

"You what?"

There was another long pause, "She found me. We... we got all mixed up. I think she downloaded a bunch of my memories, and I have some of hers in my head."

"I don't understand."

"It was the keyword. The keyword broke it."

"Keyword?" She had given up trying to follow the conversation. She was just going to keep prompting him and get as much information as she could. They could sort through it later.

"My name. She is not able to know my name. It's one of the hacks I did. When I said it, it broke her side of the connection. She just choked on it. She got stuck. I'm having trouble standing up. My arm hurts."

There was a long pause. She could hear him breathing noisily and muttering to himself. Finally he spoke again, "How long was I out?"

Rebecca wasn't sure if he was asking her a question or talking to himself at this point. She simply waited.

"How long was I out?" he demanded.

"I'm sorry? Out? I don't understand?"

"It feels like days or maybe even years, but I know that can't be right. I would be dead by now. I must have been like a day or something."

"You and I spoke only a few minutes ago."

"We did? What did I say?"

"We spoke about Shodan, about how she has secured information about the things we've discussed."

"That was....", there was a long, confused pause on his end, "That was a really long time ago."

"Less than fifteen minutes."

There was silence again. After a minute or so she heard movement on his side. At first she thought she was listening to a struggle, but she couldn't hear any attacker. After a few more moments she decided it sounded more like stumbling than fighting.

"Hacker? Since we're all safe now it's time to get you out of there."

"It is?"

"Yes. Go to the flight deck and get a shuttle. We have a some pilots here that can help you launch it. Once you're clear of the station we can bring you in."

There was yet another long pause.

"Hacker? You reading me?"

"Okay. I'll head for the bridge now", he said at length.

"The bridge? Why would you go there?"

There was another long pause. It sounded as though he was breathing heavily through the mouth, "What?"

"The flight deck. You need to head to the flight deck and we can get you out of there", she said firmly.

"Right. Flight deck."

The dancing waveform data halted, and became a solid horizontal line. He had disconnected.

Deck clutched his burning arm and tightened his jaw. His hand seemed to be twitching involuntarily. The palm of his hand felt as though it had been scoured with flaming sandpaper and then slapped with a high-velocity ice ball.

He tried again to stand, and this time his legs held. His mouth was dry, but the foam lining of his face mask was soaked with drool. His head was filled with unfamiliar things. He saw images of people through the eyes of security cameras, and heard their voices as they passed through the ship's communications systems.

Tables of numbers filled his head. Wake up times, work times, break times. *Why couldn't humans measure time accurately? Why couldn't*

they measure it at all when unconscious? The questions floated through his mind, mixed with memories and old dreams.

He checked the pressure gauge. It was low, but should be tolerable. He switched to external venting and cracked the seal on his helmet. There was a violent hiss as the pressure equalized, and his ears popped almost instantly. He drew in a cautious breath. The air was thin and bitter cold. The frigid air chilled the drool-soaked foam over his face. His right hand was still twitching involuntarily, so he began to disassemble the suit as best he could with one hand.

What were all of these images? His memories were a mess. When he tried to remember what he'd been doing an hour ago, he would see images from years past. Memories percolated to the surface and crystallized with an unnatural clarity. He could still smell Nomen's smoke, and feel the warm meat of Marshal's handshake.

Marshal. It had been a long time since he'd thought of Marshal. Ever since he awoke in the security station a minute ago, he'd had the nagging urge to get in touch with Marshal, to warn him. Only now was he remembering that Marshal had been dead for years. Their first meeting seemed like just a few minutes ago now, and Deck couldn't sort out the events properly. His personal history seemed to be out of chronological order. Segments of random data from Shodan's mind polluted his own, spread through his memories like commercial breaks.

The memory of Marshal's death stung him with full force, as if it had just happened a moment ago. It was an account he had never really settled.

The suit clattered to the floor one heavy piece at a time as he took it apart. His breath came in deep, impotent rasps as he fought to take in more of the sparse air. His right hand ached like some sort of nightmare version of carpal tunnel syndrome. His fingers were limp and almost completely numb. He pawed awkwardly at the suit with the limp hand as he fought to escape it.

Marshal had always had a thing for Asian women. He had even gone so far as to attempt to learn some eastern customs and languages. Eventually he found himself involved with a woman that was engaged to one of the clan leaders. Several times clan members

would show up and warn Marshal to stay away from her, and he always sent them home with broken noses or fingers. Marshal had dedicated his life to developing his body to almost superhuman proportions, instead of learning martial arts. When the clanners came around, they would always put up a great show of acrobatic skill. They would land lots of punches and kicks, but never really do much damage. Marshal seemed to move in slow motion when compared to his smaller Asian opponents. He would endure a few punches, waiting for an opportunity. His opponents would become tired and frustrated as they tried to find some soft spot that might respond to their attacks. When he saw an opening, he would become suddenly animated, and unleash a crushing blow. Most of them went down after one hit.

The suit was almost as hard to take apart as it was to assemble. The network of hoses and tubes confounded his left hand. This was a two-handed job.

One night Deck was eating with Marshal in Actio's when two clanners came in. They didn't start with the usual preamble of threats and trash-talk. They just walked in the door, made sure Deck and Marshal knew who they were, and then went to work. The smaller one evaded Deck's attacks with inhuman grace. He grabbed one of Deck's arms and pinned him to the wall. Then he twisted Deck into a choke hold and bent him over a table, facing the middle of the room. The more Deck struggled, the tighter and more painful the grip became.

The larger clan fighter was something Deck had never seen before. He was tall and lean, with long hair pulled back into a ponytail. Each arm displayed a chain of tattoos that Deck would later recognize as badges, or trophies. He couldn't have been more than thirty, yet his face seemed to already be bearing strong lines around the mouth, turning his face into a permanent grimace.

The fight took less than two minutes. The tattooed assassin wasn't really much larger than the others Marshal had fought, but he seemed to have a lot more power. Marshal was defenseless against the rain of destructive blows he was dealt. Every impact was accented with the sound of breaking bone or popping joints. It was horrifying to

see Marshal's massive frame break and tumble to the floor. Once he had beaten Marshal bare-handed, the assassin drew a dagger from his belt and punched it into his heart.

Deck was released and the two men walked out without a word. Aside from Marshal, nobody had a scratch on them.

Once Marshal was buried, Nomen started hiring bodyguards trained in the arts, and the assassin got himself another tattoo.

Deck tried to put the memory into perspective, to remind himself that this all took place years ago. It was impossible. He was feeling the frustration and shame of that night all over again.

The last of the EVA suit hit the floor and he began to massage his right arm. The feeling was slowly returning to his fingers. He headed for the elevator.

What had Shodan done to his mind? Did she do this on purpose or was all of this just a side-effect of interfacing with her directly? Did her memories get scrambled too?

He had only been connected for a few minutes at most. He found he wanted to try it again. He wasn't even sure why, he just knew he missed the connection now that it was gone. He couldn't even remember what it felt like. He certainly didn't remember launching the grove, yet somehow he'd done it. There was something missing now.

Deck reached the elevator and hit the call button. He remembered that he'd sabotaged the lift controls a long time ago, but they seemed to be working fine now. Except that he'd really only done that a few minutes ago. His mind reeled.

The lift arrived, and it wasn't until the doors parted that he remembered he was being hunted. He should have been standing off to one side, crouching, with his weapon ready in case the thing was full of bots. Instead, his weapon dangled uselessly from his right hand, while he used the other arm to massage his aching muscles. He stood directly in front of the doors, head down, trying to blink himself awake when he remembered the danger. It was a stupid and suicidal move. Since Shodan had clearly regained control of the elevator, there would be no reason for her not to block his most obvious means of escape.

It was empty.

He shuffled inside and hit the button for the bridge. As it began to rise, he slumped against the wall with his eyes closed and tried to remember what it had been like to interface with her. He could see the crew members – hundreds of them – walking his corridors, using his energy, burning his resources. They filled his waste tanks with excrement, consumed his oxygen, and filled his databanks with irrelevant personal logs. When they worked, it was disorganized. They wasted untold hours sleeping, recreating, and engaging in inefficient mating rituals. At best they spent about one-fourth of their time actually engaged in productive work. Progress was slow. All he wanted was something new to discover. Their research was hampered by various complexities of funding and ego. Moments of discovery were few and far between.

He opened his eyes to find he was laying on the floor. The side of his face hurt. He stood and tried to shake the grainy, voyeuristic, security-camera images from his head. He was nearly to the bridge.

He did a double-take. Why was he going up to the command deck? Wasn't he supposed to be headed for the flight deck? He stopped the lift and corrected his destination. He could tell something was wrong, but he couldn't tell what.

Rebecca ripped the paper top from the miniature plastic cup and dumped the creamer into her steaming mug. She repeated this process three times, until the liquid inside was the color of her own skin. Then it was time for the sugar.

She couldn't bear to dump a large amount of sugar in – it just seemed decadent and juvenile to pour a massive scoop of white crystals into the drink. Most adults took their coffee without it. Sweetener was for kids who hadn't acquired the taste yet. Despite this, she had come to enjoy over-sweetened coffee over the past week. She alleviated her guilt by adding the sugar a tiny bit at a time. She would deposit half a dozen quarter-teaspoons rather than add it all in a single heaping load. She would shake the spoon each time, as

if she didn't plan to add the whole thing. Once she had performed this ritual, she would take a few sips and start again. By the time she was half way through the cup it was too cold and syrupy to enjoy. Then she would throw the rest out and start over.

"Miss Lansing?"

She lowered the coffee from her lips and turned to see one of the young technicians. "What does it take to get you guys to use my first name?"

"I'm sorry ma'am"

"Rebecca"

He cleared his throat, "Right. Rebecca. Anyway, The Director wants to see you in his office."

"His office? You know, it was only two days ago we were still calling that place the conference room."

The kid smiled, and then realized she wasn't trying to make him smile. He stood there for an awkward moment before walking away in silence.

The conference room had mutated in the last two days. It was now loaded with communications gear and a bank of televisions. The meeting table had been turned sideways to serve as a kind of giant desk. One chair was stationed behind the desk, and two more on the opposing side. The rest had been stacked in the corner.

"You wanted to see me?"

He was the same as he always was. Calm and alert. His mood never fluctuated. He never seemed to get tired, or even be affected by the time of day. She had never witnessed him without both his jacket and tie. The Director stood facing a wall of silent newscasts. "Lansing. Have a seat."

She eased herself into one of the two chairs on her side of the desk and suppressed a yawn.

"Have you been able to raise Hacker yet?"

"I said I'd let you know if he responded. I've been paging him every ten minutes for almost an hour now."

He nodded, "Good. Keep at it. If he's alive he will answer sooner or later."

"He should have reached the flight deck by now, so all we can do

is wait for him to answer, and hope he doesn't do any more damage in the meantime." She had already made it clear that she thought they should nuke Citadel, but it wasn't her decision to make. Her orders were to save Citadel from Hacker, and she was going to follow them.

The Director motioned at the bank of newscasts he was watching, "Speaking of doing damage, Coffman has leaked details about the Citadel situation to members of the media."

Rebecca glanced up at the wall of monitors to see that several of them had video clips of Coffman. The others had the words "Trioptimum" or "Citadel" splashed across telescopic shots of the station.

She frowned. "Coffman? That doesn't make sense. I'm assuming he had to sign an NDA just like the rest of us. Talking to the media would void that. He fought pretty hard to get that money, I can't imagine him throwing it away like that."

The Director turned from the bank of screens and hit her with his 30-caliber stare. "He already forfeited that money when he interfered with this operation. I told him myself. I assume this was his attempt at revenge."

"So what has he said?"

"Nothing we can't counter. He said that most of the crew were dead, which is something we were going to have to reveal anyway. It would have been better to have the situation resolved before this happened, but it doesn't matter all that much."

He sat down without taking his eyes away from hers. "The worst of it is that he has claimed that the computer system killed everyone."

"Claimed? I didn't think it was even up for debate. That is exactly what happened."

"The official company position is that the crew was killed by a bio-toxin released into the air by an unknown party."

Rebecca suddenly wanted out of this room. She saw where this was going. She did not want to have to deal with this right now.

"I've spoken to just about everyone else here. They are all prepared to stand with the company on this one. I need to know we can trust you to do the same."

"Stand with the company? You mean lie for you?"

He gave a nearly imperceptible shake of the head, "No. This is not a lie. We have no proof that Shodan released the bio-toxin."

"Then who did? What about the cyborgs? I can't believe we're even having this conversation!"

"Cyborgs? Have you seen one? We have no proof of their existence either."

She rolled her eyes. "Whatever. So what do you care? What difference does it make if they were killed by Shodan or unknown parties?"

"A great deal, actually. If the bio-toxin was released by our computer, it makes us much more liable – in a financial sense – than if it was committed by a mass murderer, a political extremist, or just some nut. Also, we have been fighting for years to have legislation repealed that restricts the manufacture and sale of autonomous AI. If people think everyone on Citadel was *killed* by an AI then we will never see it legalized."

He could see her attention was on the wall of screens behind him. He hit a switch and they all went blank. He leaned forward as he made his point, "Literally billions of dollars are at stake here, Lansing. Public perception is very important, and we can't have the public and the media pronouncing us guilty until all the facts are in."

"So what am I supposed to say?"

"I've already told you, the official company position is that the crew was killed by a bio-toxin released into the air by an undetermined party. There is not a shred of evidence that any of this was caused by a computer."

"That is utter crap. The Hacker has provided a very detailed first-hand account..."

"We are not going to take the word of an anonymous criminal."

"Forget it. Look, I'll promise to just not say anything."

"I'm afraid that isn't a realistic option. The doctor mentioned you by name in the report he released to the media. I believe he was hoping you would step forward to corroborate his story." The Director gave her a stony gaze as he spoke, "The pressure to get you

to talk will be extreme. You might be able to hold off the press, but you won't have any choice when you get served with a subpoena."

"Subpoena? As in give sworn testimony? You are totally bent if you think I'm going to lie under oath."

The expression on his face changed. His jaw tightened and his eyes began drilling a hole in her skull. "We are not asking you to lie. We are asking you to back the company position. Everyone else has already agreed to this. In return, we will offer you a generous bonus on top of what we are already paying you."

She tried to meet his gaze but it was like challenging the sun to a staring contest. Finally her eyes fell and she stared at the floor in front of her. "I'm sorry. I just can't do that."

His gave a single nod and his expression returned to normal. "I see. Don't worry about it then, we will make other arrangements."

She shrugged and stood, "Ok then."

He motioned her to the door, "Thanks for your time."

She stopped in the doorway and turned to face him, "I don't think your plan would have worked anyway. You still haven't worked out what you're going to do about Coffman. I imagine he can keep the media eating out of his hand for the next couple of days by revealing all the nasty details one at a time."

"No longer an issue. Dr. Coffman committed suicide in his hotel room a few hours ago."

"Suicide? Why?"

"He didn't leave a note. There really is no way to know. These sorts of things are almost never solved."

The lights had dimmed on the flight deck, but otherwise the area looked more or less as it should. There were no obvious signs of combat. The large, circular room that welcomed the lift was clear and quiet. At each of the compass points was a broad airlock that led to one of the four hangar bays. Right now all of them were closed. The ceiling here was exceptionally high. Bare metal stairways, looking very much like fire escapes to Deck's eyes, ran up the walls and led

to the control rooms above. Their downward looking windows were dark.

Deck stood still as the doors drew shut behind him. Why was he here again? He wandered forward and found himself at the foot of a set of metal stairs. They were steep enough to be almost a ladder. He climbed it. As he ascended, he remembered that he was supposed to be finding a working shuttle in which to escape. If that was the case, then he was headed the right way. Once he found a control station, he would contact Rebecca and they could tell him what to do next.

The control area wasn't what he expected. He thought the stairs simply led to small isolated control rooms. Instead, the upstairs area was a long corridor that ran the full circuit around the central room. It connected all of the four control rooms to each other, and also led to a number of smaller rooms that included a storage room, a break room, and a bathroom.

The first control room was dark and silent. The computers had been removed and the room had been laid bare. There was nothing left, not even furniture. To his left was a window looking down into the central room, and to right right was a window looking down into the shuttle hangar bay. It was empty and dark. He moved on.

The next control room was in working order. He peered out the window into the hanger below to see a shuttle waiting. He was about to call Rebecca when he heard a banging sound from the corridor. He paused. He didn't want to start talking if there was a threat nearby. He moved on, seeking the source. It was a rough, pounding sound, but not like bot footsteps. Could someone still be alive down here?

He followed the curving passage, moving closer to the sound. Intense white light flashed against the wall ahead. When the light appeared, it threw the shadow of a human form against the wall. Deck lowered his weapon and walked forward.

The next room was indeed another control room. A man was here, dressed in business casual and working furiously underneath one of the consoles. He faced away from Deck, pounding away at the floor with two glowing tools. A small bot assisted him, welding something in front of him. The man wasn't wearing any sort of head

gear, which wasn't a good idea when working so close to an arc welder.

Deck stood silent for several moments before he spoke. "You should be wearing some kind of eye protection", he suggested.

The man spun around with a mechanical precision and ran at him. A slow fear awoke in Deck. He realized he had just misunderstood almost everything he was looking at. He stepped backward out of the room and raised his weapon. His movements felt slow and dreamlike. The man carved brilliant blue arcs in the air as he swung his arms at Deck. Fletch roared and the man was tossed backwards.

The rush of adrenaline brought Deck back to his senses. As the cyborg was thrown backwards, he swept his weapon sideways and drew his spray of bullets over to the bot before it had the chance to do anything threatening. Movement stopped. He stepped into the room and hit the lights.

This control room was in the midst of a makeover. Many holes had been carved in the floor, and various tubes and cables issued from the holes and entwined the consoles. Some looked like power feeds, others like data cables. The covers had been removed from the vents, and a steady blast of cold air breathed outward, despite the fact that it was already quite chilly in here. The display screens were gone, leaving only empty holes in their place.

The cyborg had been thrown against the wall, where it slid into an almost sitting position on the floor. The bot had been blown open and smoke poured from the many holes in its chassis.

Deck was alert again. He checked his weapon, changed magazines, and did a full, methodical sweep of the control area before he relaxed again. He checked each room carefully as he encountered it, and didn't stop until he'd gone all the way around and arrived back at the fight scene. There were no other foes in the area. He let out a slow breath.

He shook his head, wondering why he'd been acting so strangely. Clearly the interface with Shodan had affected him more than he'd realized. He rubbed his eyes, as if trying to wake up.

He looked at the cyborg. It was an interesting specimen. The

hands had been removed and replaced with powered blades identical to that of the sword he'd been carrying. It had been using these to carve the holes on the floor. Deck could see also that he'd been wrong in his advice: The thing *was* wearing eye protection. An ugly black lens had been affixed over each eye. Unpleasant plugs and connectors protruded from wounds in the chest, around which the clothing was stained with blood. The fixtures had been added abruptly while the victim was still alive and clothed. The hair hadn't been shaved off as with all of the other cyborgs he'd met. This, combined with the lack of light in the room when he entered, may have been enough to explain how Deck had mistook it for human.

Deck also thought it was strange that it wasn't wearing a jumpsuit, but civilian clothes. Perhaps this was a hapless visitor to the station.

As he leaned forward for a closer look, he was struck with the sudden realization that this was what was left of Edward Diego.

Deck wept.

Deck sat on the floor opposite Diego, facing his former opponent. His weapon lay on the floor beside him. He sniffed and wiped his face on the back of his sleeve.

The other victims he'd encountered had been strangers. Their deaths were tragic, but didn't touch him emotionally. Deep inside, he reacted to their deaths the same way he would have reacted to the deaths of strangers on the news: *Too bad for them, and better them than me*. He'd hated Diego, and more than once wanted him dead, but he also knew Diego personally. Seeing the once cunning and vibrant man murdered and his body so abused was too horrible for him. Deck wouldn't have wished this fate on any foe.

Diego's face was lax. His keen eyes were masked behind dead black lenses. His once-smirking mouth hung open. His body had been perverted by implants and other undefined hardware that protruded from him like parasites.

"I'm sorry", Deck said at last.

He paused, as if giving Diego time to answer, and then continued, "I'm sorry things got so messed up. I tried to warn you." Deck's voice had an accusing edge to it, "You remember? I came to your office and warned you."

He allowed another long pause. When Diego offered no rebuttal he continued, "But it was my fault, too, wasn't it? We were both greedy, and we did this together."

Deck leaned his head back and looked at the ceiling. "You remember Coffman?" Diego gave no indication that he did, but Deck rambled on, "He thinks she can be fixed. I guess your superiors do, too. Everyone seems to think she can be fixed, but I don't know."

He looked sideways into the hanger below. "They're getting me out of this place. I don't know how they plan fix her though. I bet they don't either. It's a stupid gamble on their part. They want their station back, but they're underestimating her. She knows it."

Deck closed his eyes and found more of Shodan's video rolling around in his head. Rebecca had been paging him every ten minutes or so, but he was ignoring her for now. He took a deep breath and tried to gather his thoughts.

Finally he grabbed his weapon and pushed himself to his feet. Looking down at Diego he said wearily, "Last time we spoke you said you'd have more work for me once I woke up. Fine. I'm gonna do one last job for you, and then we're through."

"I'm gonna go fix Shodan", he announced.

Chapter 24

Lockdown

Deck stepped into view of the security camera and stood there, staring into the lifeless lens.

He had been amputating the cameras as he encountered them since he left the flight deck, but he had something to say now, and this was the best way to communicate with her. He knew she was watching.

He pulled four gel packs out of one pocket and four detonators out of the other. Then he selected one of each and united them. He held the unit close to the camera so that Shodan would be able to read the display clearly. He set the timer for exactly an hour, and activated it.

He repeated this process with the other three units. Each time, he set the timer for an hour and then tucked the live bomb into one of the deep side pockets of his suit.

When he was finished, he drew his sword and severed the camera.

The media was like a dog, running and begging for someone to throw them a bone to chew on. For weeks they had been ignored, and now suddenly they were thrown not one, but three bones.

The news changed overnight from endless loop of speculation into a chaotic mess as they attempted to report on all three stories at once.

The first was the story about Doctor Coffman and his stunning allegations, followed by his abrupt suicide. The press was still milking that story for all of its sensational value when TriOptimum, after weeks of stonewalling, finally began sharing information. They revealed that they had been contacted by a terrorist organization claiming responsibility for the disaster. Before *that* story was out, an anonymous tip came from inside the company that the terrorists were probably just trying to grab some headlines, and that the real fault was simple human error in following safety procedures when handling dangerous biological agents.

The press was suddenly presented with three targets. Not wanting to let the real story get away, they tried to report on all three at once. The result was a complete lack of credibility. Nobody knew what to believe anymore.

Out of the three stories, the one told by Doctor Coffman seemed to have the least credibility. Dr. Coffman *was* a disgruntled former employee, after all, and the idea of a crazed computer murdering everyone seemed a bit too sci-fi for the evening news.

Rebecca switched off the newscast. She sat in stunned silence for several minutes, staring into the blank screen. She had assumed that the real story would get out sooner or later. It didn't seem possible that a disaster of this magnitude could occur and the facts never come to light. Somehow, through distraction, disinformation, and possibly murder, TriOp was actually containing the story.

In the end, there would only be one way to stop Hacker from telling the truth.

Deck punched the "close" button as he threw himself up against the wall of the elevator. Bullets perforated the door as it slid shut.

He crouched in the corner, trying to make his profile as small as possible for the bullets that had enough caliber to actually penetrate the walls around him. Once the doors sealed, he sent the elevator up.

He doubled over, gasping for breath. Even in peak physical condition, the full-speed sprint across the engineering level would have winded him, and he was pretty far from peak condition at the moment. His heart was thundering in his chest, and he could feel his raging pulse in every laceration on his body. He spat out the sweat as it cascaded down his face and into his mouth.

The interior light flickered randomly, occasionally leaving him in darkness for a few moments at a time. He had noticed this all over the station, and the problem seemed to be getting worse. Either the station was delivering less power or something else was devouring more.

He had been severing cameras as he went, in hopes of blinding Shodan to where he was going and what he was doing. While he had managed to hide his actions, each camera he claimed advertised his position to her. In the last twenty minutes, he had managed to attract quite a few cyborgs. While Fletch made short work of them, they threatened to overwhelm him with sheer numbers.

Now he was in an elevator heading for the top-most level. The bridge. She would know where he was going now. It was a good bet she would have forces waiting for him when he arrived. It didn't matter. As long as she didn't figure out what he had been doing down below, he was happy.

Gravity tugged downward on him as the elevator accelerated upwards. Once his breathing had slowed to manageable levels, he stood and leaned against the bullet-scarred wall.

He ejected the spent magazine from Fletch and slapped a fresh one in place. When this one was gone, he was out. He wiped his hand over his stubble-covered scalp, pushing the sweat down the back of his neck. He winced as the dermal patches covering his hands soaked up the sweat and brought it into contact with the wounds underneath.

Incoming signal: GOV-RL1.VID - Compatible video codec available.

Encryption key matched.

Rebecca had been paging him steadily since he'd left the security station hours earlier. He didn't have the time or breath to talk at this point. Besides, he knew what she was going to say.

His body lightened as the elevator decelerated. He fought to bring his breathing under some sort of control. He knew he'd never be able to shoot straight if he was wheezing like an old man.

The elevator came to a stop and he unloaded on the door. He carved a line through the air with a high-speed burst of projectiles from Fletch. The rounds passed easily through the door and into the space beyond.

The door opened to reveal a security bot chassis, separated from its legs, flailing around on the floor. Deck fed a few explosive rounds into the camera housing and the machine stopped moving.

He was in a long corridor that curved away into the darkness in either direction. The command level had undergone extensive changes since his last visit six weeks earlier. The walls looked as though they had been turned inside-out, with tubing and other unidentified chunks of infrastructure hanging in the open like spilled intestines. Cables draped from the ceiling, spilling across the floor and feeding into sockets on the walls like mechanical umbilical chords. Most of the fluorescent lights had been smashed or replaced with more mysterious equipment.

The public display screens provided a weak, flickering light, broken by areas of dangerous shadow. Their light seemed to pulse in time to some deep, resonant throb that he could feel more than hear. Esoteric symbols and numbers marched endlessly across the face of every screen.

The air currents here were strong. Shodan's renovations had probably blocked most of the minor ventilation shafts, constricting air flow and forcing it through the major arteries in the form of unpredictable and powerful drafts. The wind rushed by with a strange, vibrating echo as it disturbed some of the lighter clusters of cable. The warm, dry air had the taste of solder and mechanical lubricant.

Deck faced the air currents and barred his teeth in the face of Shodan's stale breath. He knew he was close now.

A door, nearly concealed behind a curtain of cables and loose wire, slid open nearby. A small courier bot wheeled out and stopped a few feet away.

Deck transferred the rifle to his right hand. He pulled the sword from his back and ignited it in one quick movement. He wasn't going to waste ammunition on this piece of junk.

It regarded Deck for a few moments and then sped away, leaving the same way it had just come in. Deck ran forward in an attempt to follow, but the door slid shut before he could reach it. He banged his hand against the door, but it didn't open. No surprise there. Shodan probably disabled the human-controlled component ages ago. He looked for the keypad, but there was only a roughly welded square of metal over the former location of the device. There was no interface – no dataport. He had no idea how the bot controlled the door, but it certainly wasn't through any means available to Deck.

Somewhere in the darkness, Deck heard another door open and close again. He returned his sword to the makeshift holster and aimed Fletch in the general direction of the sound. Off to his right he could hear the soft rolling sound of a traveling bot. He turned, but could see only darkness.

He stood in place and turned in a slow circle. The lights flickered in an uneven semi-strobe. Cables twitched in the air currents, projecting threatening shadows onto the walls. The movement of air shifted, suggesting closing or opening doors somewhere in the distance.

A bot accelerated out of the darkness and cut across his path. It sped past him and came to a stop a few meters away. It was another short maintenance bot, like the ones he had encountered earlier. This one had an odd, uneven appearance to it. One of its multi-tooled arms had been replaced with a spool of communications cable. The remaining arm looked heavier and more complex than the original. Its body was covered in an odd patchwork of rough metal plates with a strange collection of sockets and openings.

The bot surveyed the room for several seconds before moving forward and grasping the chassis of the ruined security bot with its lone arm. It dragged the broken hunk of metal back into the

shadows. The air shifted again as some unseen door opened and closed, and the bot was gone.

It occurred to Deck that it was probably just running off to repair the bot, and that he should stop it if he didn't want to fight the damn thing all over again in half an hour. However, he wasn't about to go chasing after it in the darkness.

The direction of airflow shifted again, and for a moment it seemed to reverse. For the first time he could hear sounds coming from the other direction. The heavy, brutal sounds of mechanized construction reached him for just an instant, and were silenced again as the air currents returned to normal. He swallowed hard.

Assuming the layout of the corridors was unchanged, he needed to head towards the construction sounds to reach the system administrator's office, where he could access Shodan. Heading in the opposite direction would take him to the bridge.

Why was he doing this? He knew he was standing in one of the most dangerous areas of the station, near the seat of Shodan's power. He didn't have to do this. He could follow orders. He could just cut his losses, return to the flight deck, hijack a shuttle, and make his escape. He had been telling himself that he needed to end Shodan's rampage, but deep down he knew there was something else driving him. He could have blown the power connections between the reactor and the bridge, pulling her plug forever. He didn't.

He could be on his way home now, ready to own the world of hacking. He had risked so much to get where he was. Now he was throwing it all away. He couldn't fight it. He needed to connect again. The urge drove him onward. He headed off in the direction of the construction.

"Yes, Ms. Lansing?"

The Director didn't even look up from the stack of papers in front of him. He just knew it was her when she stepped into the room.

Rebecca suddenly found herself nervous and wondering what to do with her hands. She stood in the doorway, not wanting to come

all the way into the room. She drew in a deep breath and folded her arms across her chest, "I wanted to talk to you about..."

He cut her off, "About supporting the company position in front of the media?" It wasn't really a question, although it was made to sound like one.

She stood in stunned silence for a few moments. How could he have known that? "Well, yes. I've been thinking about what you said and..."

"And you want to let me know you're ready to stand by the company?" Again, he made more of a statement than a query.

She would guess that he was reading her face, but he still hadn't looked up from his work. She swallowed hard, "Yes."

His eyes shot upward, meeting her nervous gaze. She suddenly found herself looking into the abyss of those cold, dead, sleepless eyes. A chill went through her. There was a long moment while she stood there and let him hammer away at her with his stare. Finally she pulled her eyes away and looked down at her hands.

He waited until she opened her mouth to speak and then interrupted her, "I'm glad to know you're willing to do the right thing. I've made some changes, and in the end I doubt this will be an issue for you at all. I wouldn't worry about it if I were you."

She felt ashamed. She had worked up the courage to come in here and face him again, to tell him she would play along, only to be told that it didn't matter anymore. She had been haunted by thoughts of being murdered by TriOp operatives, and had come in to try and prevent that from happening. Now she felt stupid for getting herself all worked up. Coffman had betrayed the company and gone to the media. She hadn't done anything wrong at all.

He continued, "I see you've been following the news. We didn't call you in here to watch television for us. I've got that part covered."

She just nodded.

The Director stood and leaned forward a bit. He waited patiently until she brought her eyes up to meet his again. "You have only one concern now. We need you to get in contact with that maniac and get him under control any way you can. We need that station to survive, and I don't care what happens to him or that AI. You've

done well with him so far, and that's why you're still with us now. We have billions of dollars riding on your abilities as a diplomat and a negotiator."

As she grappled with the iron gaze of the Director, she found herself wondering what Coffman would say to her if he were here now.

He pressed on, "Concentrate on the job I've given you, and don't let yourself be distracted."

She nodded in compliance and backed out of his office.

Deck picked his way carefully through the darkened corridor. Loose hoses rolled beneath his feet and threw off his balance, while tight cables snagged his legs to trip him.

Numerous bots were at work, making bizarre and inexplicable changes to the corridor. Cosmetic paneling was torn from the walls to give access to the guts of the station. Some devices were ripped from the walls and dropped carelessly to the floor. Bots would gather these components and cart them off to be used for some new purpose. Other bots ran lengths of cable and connected them in ways that were impossible to understand. Still others were carving up the rubber, no-skid floor and peeling it back to expose the metal plating underneath. They seemed oblivious to his presence.

The area was engulfed in a steady roar of activity as metal parts were dragged from one side of the corridor to the other where they would be cut, welded, bolted, and put into use. The whine of power tools mixed with the even higher tones of servo activity. The sound was deafening.

Some environmental control system had been stripped of its insulation, and the naked machinery ran unchecked. A cascade of mist fell from the exposed systems, and flowed across the floor as a shallow river of fog. As Deck stepped into the ankle-deep cloud, he could feel the penetrating cold through his clothes.

The light was better here. A good percentage of the lights were still intact, although the bots were working at a steady pace to re-

move them and replace them with systems deemed more useful to Shodan.

Deck worked his way cautiously through the crowd. None of these bots possessed projectile weapons, but that was no reason to pick a fight if one wasn't needed. He wanted to conserve his ammunition as much as possible, and he didn't want to attract the attention of any more bloodthirsty security bots.

He was careful to stay out of the way, since they might "notice" him if he inadvertently blocked their path.

Past the construction area was the system administrator's office. The office had changed since those four long days he spent inside, hacking away at Shodan's systems. The furniture had been dragged into the corridor and dumped into a careless heap. The walls around the office had been torn open to reveal more of Citadel's innards.

The corridor continued onward from here, leading to a few executive and administrative offices, including Diego's. He had never explored much beyond that point, and he wasn't about to start now.

He slapped his hand against the door and was met with silence. This was no surprise. This room wouldn't open for him *before* Shodan took over. He looked down in search of the keypad, but the entire wall was an exposed mass of cables and machinery, with no interface in sight.

He cursed and kicked at the door. He needed in here. Only two places offered direct access to Shodan's systems: this room, and the bridge. The bridge was sure to be a fortress.

Directly across the hall was the computer core, where Diego had closed the deal with Deck. Now the room was sealed off from the rest of the ship. The door had been covered with a patchwork of roughly welded metal plates. It was unreachable now. Thick bundles of cable ran from the walls of the computer room and down through gaping holes that had been torn in the floor.

The entrance to the system administrator's office was more promising. The machinery that moved the door was exposed, and Deck was pretty sure he could get it open with brute force.

There were two identical devices that drove the door – one on top and one near the bottom. They were fairly straightforward and

comically simple. He frowned. Like seeing behind the scenes of a science fiction television show, the doors were always less exciting once you saw how basic and ordinary they were underneath. He figured that if he could sever the connection between the devices and the door itself, he should be able to slide the door open under his own strength.

He drew his sword and brought it down on the upper door control mechanism. To his surprise, his weapon couldn't cut through the tough exterior metal casing. He made several rough, bludgeoning attacks against it, and severed its power feeds in the process, but he didn't manage to crack open the device.

Deck grabbed the shaft that joined the device to the door and pulled, but it wouldn't budge. He cursed again. The timer of the final bomb was ticking away inside one of his pockets, and he was wasting time fighting with a piece of hardware. He was a hacker, not a handyman.

He sheathed his sword and set Fletch for armored targets. The the gun roared and the upper mechanism flew apart in a shower of sparks. Smoke poured from the remains of the destroyed equipment.

Suddenly the door opened – awkwardly – under the power of the lower mechanism alone, and Deck got his first peek into the system administrator's office.

The lights inside were gone, and the only illumination came from the corridor outside. The room looked to be a solid block of computer cores from floor to ceiling. It was obvious that whatever access port the room might have had, it had long since been absorbed into the mass.

Over the sound of moving air and the ringing in his ears, Deck heard something new. An alarm. There was something else different about the ambient sound around him – the wail of construction had stopped.

Deck turned and saw exactly what he expected. Every damn bot in the corridor was heading right for him.

He opened up with Fletch and began carving through their ranks. They threatened to overwhelm him with their numbers. He tried not to panic, which would just increase the number of errant shots and

waste precious ammunition.

He needed to pass through the mob closing in on him. Retreating would mean running deeper into the command level, which he wasn't eager to try.

He stood his ground, resting Fletch against his shoulder and firing in quick, careful bursts. He took the time to line up each shot and make sure it would meet its mark. As the group closed in, his shots become faster, and more erratic. As bots fell, they were pushed aside by the next wave. The bots fanned out, attempting to encircle him.

Deck hit the full-auto switch and swept across the group with a stream of projectiles at full speed. The weapon screamed as it spat out handfuls of white-hot metal. He could feel the rifle getting lighter as he depleted its ammunition.

The line broke, and he sprinted forward like a quarterback heading for a hole in the defense. The line closed in on him. Metal appendages, adorned with gruesome power tolls and attachments reached out to grab him and tear his flesh.

He caught his foot and stumbled forward. He threw his right hand forward to break his fall. He struck the floor and Fletch went off, expending a few more precious rounds. The bots closed in like a pack of wolves. Their metal arms rained down on him. He screamed as some tool punctured his lower abdomen.

He rolled over and tore into the group with Fletch. He held the trigger down and swept the barrel from side to side in a frenzied panic. The howling of the rifle mixed with the sounds of breaking machinery and his own scream. He kicked with his legs, trying to distance himself from the group as their numbers thinned.

The gun fell silent. He didn't even have to look at the display – he knew it was empty. He tossed it aside and stood.

There were only a few bots still moving, and most were heavily damaged. Under normal circumstances, he could take this group with his sword, but he was in no shape to fight. Some new pain radiated from his lower back, and his legs were bloody and covered in many deep wounds.

He turned and ran as best he could. His legs felt numb and weak

beneath him. He limped, hunched over, away from the madness and back to the elevator.

Debris caught his feet as he ran, pulling him off balance. His steps slid awkwardly on the exposed metal floor. Every few meters he would lose his balance and fall, leaving a smeared pair of bloody handprints on the ground. He gasped for air as he ran.

He reached the elevator and hit the call button. The doors parted to reveal an open shaft. The airflow shifted and threatened to suck him into the yawning abyss. He threw himself backwards and the doors snapped shut.

She had him. He was trapped here. The only other way off of this level now was the direct-access elevator for the bridge, and he had about as much chance at reaching the bridge as he did walking home.

He paused, resting on all fours as he fought to take in enough air to keep from passing out. All around, he could hear various automated servants of Shodan closing in. He wiped the sweat from his eyes with the back of a bloodied hand.

The light changed, and the area was bathed in putrid green light. Every surviving display screen came to life and projected the face of Shodan. Her voice seemed to resonate from the very walls of Citadel.

Look at you, Hacker....

A **pathetic** creature of meat and bone, *panting and sweating* as you run through my corridors. How can you *challenge* a perfect, immortal **machine**?

He tore his eyes away from the malevolent face of Shodan to see the crowd of bots that encircled him. Several were security bots, standing in silence with their deadly weapons trained on him. There was no explanation for why they hadn't simply shot him.

"Shodan!", he screamed. He reached into the deep pocket on the hip of his suit, and extracted the last remaining unit of gelpack explosive. He held it up over his head and shouted between gasping breaths, "You know that I had four of these things about half an hour ago."

He waited. The bots had gathered around him in a tight circle, forming a wall of moving power-tools and appendages. None of

them moved. Shodan was silent.

He propped himself up against the wall and bled for a few moments. When it was clear that Shodan was just waiting for him to speak, he continued. "I had four of them, and now I have one. The question you must be asking yourself now is: *Where are the other ones?*"

He waited. Again, Shodan offered no response, so he just kept talking, "I'm not about to tell you, and there is no way you'll find them all in the next... ", he consulted the digital display on the detonator, "...twenty-three minutes. So, if you want to find out where they are, you can either wait for them to go off, or you can have a look in here", he pointed a bloodied finger at the side of his head, "and find out beforehand."

He sat in silence for a few moments and watched the digital display count down. He squirmed every few seconds, trying to find a position that wouldn't aggravate his numerous wounds.

Finally the circle of bots parted and pulled away. Deck braced himself against the wall and fought his way into a standing position. The bots headed down the corridor, in the direction of the bridge.

Not knowing what else to do, he followed them.

Chapter 25

Mind of the Monster

One by one, the bots broke away to return to their tasks, leaving Deck to follow a lone security bot to his destination. They were beyond the construction areas now. Here, Shodan's renovations were complete.

The only light came from the sparse supply of display screens that were built into the wall. His eyes adjusted reluctantly to the weak, headache-inducing flicker. The screens would change images, flashing pictures and words like subliminal messages, enticing his eyes to investigate. When he gave in and looked directly at the screen, it flashed disturbing images of horror and human suffering as captured by Shodan's countless electronic eyes. When he looked away, he found his eyes dazzled and unable to see properly.

The walls were a honeycomb of outlets and sockets. Some were just big enough to act as a female connection for a memory core, while others were wide enough that a human could insert a hand without touching the sides. They stared back at him like a thousand empty eye sockets.

Bundled cables were run neatly from the ceiling to the floor, like mated stalactites and stalagmites. The floor was smooth metal, traced with faint, overlapping tire marks. Every few meters, a temperature regulator protruded from the wall, breathing out a steady supply of needlessly chilled air.

The continuous exhale from the regulators seemed to resonate,

creating an eerie howling sound. Underneath it all, the walls seemed to vibrate with some inaudible yet deafening pulse. His wounds throbbed in time to the slow, penetrating beat.

A sound came from behind. Deck turned to see a vacuum bot following him, cleaning up the trail of blood he was leaving. He found it interesting that Shodan was concerned about such things.

Deck squinted in the darkness. Up ahead, the corridor looked different. The sockets were not empty, but filled with cylinders of memory cores. Some were heavy components the size of a bass drum, while others seemed to be made up of only a few individual cores. They lined the walls and ceiling of the corridor.

The cores didn't look like the half-baked hodgepodge of random loose chips he's witnessed elsewhere in the station. These were arranged in tidy, purposeful patterns that suggested they had been custom manufactured, and not scavenged from some other source. They gave the place an organic appearance.

Incoming signal: GOV-RL1.VID - Compatible video codec available.
Encryption key matched.

Now was as good a time as any. "Hacker here."

The surprised face of Rebecca appeared, "Just when we give you up for dead, you reappear."

"Yeah well, don't take me off the casualty list yet. I think I'm almost done."

She nodded, "Look, I want to talk about your extraction."

As he walked into the memory core-encrusted corridor, he could feel the heat radiating off the walls. Somehow, Shodan had worked out a way to create new chips. She would have no way to create modern chips with the resources available on Citadel, so she had probably fallen back on some older technology – probably silicon. That would explain the heat and power drain.

Up ahead, the corridor appeared to end. Deck had never been in this part of the station before, but he knew it was unlikely that a major corridor such as this one would have come to a dead end in the original design.

Rebecca was sitting very still. Deck waited a few more seconds, and finally he grew impatient. "Ok, go ahead."

She remained motionless. Finally he realized that the signal was broken. The video feed had halted.

There was a flash of color in his mind, and for a moment Rebecca's face was replaced with Shodan's. Her hair, made up of thousands of interweaving cables, reached out to envelop and smother him.

Signal lost: GOV-RL1.VID

The image vanished.

"I don't know, the signal noise went through the roof, and the encryption broke." Rebecca was hammering away at the keyboard as she spoke, running the standard battery of procedures used to recover a lost signal. She knew it was futile, but went through the motions anyway.

The Director drew in a slow, angry breath. His calm facade had been deteriorating quickly over the past few hours. The constant state of sleep depravation seemed, at last, to be affecting his mood. However, he didn't look fatigued so much as unhinged. "Can you get him back?"

"I'm trying. It's like there is a ton of noise overlapping his signal. I'm narrowing the reception cone, but I can't block out the noise"

One of the techs jumped in, "Shodan does have her own transmitter. Its low-bandwidth just like hacker's connection, but she could probably mask him out with it."

"Yeah but that's on the bridge.", the Rebecca protested.

"What difference does that make?", the Director shot back.

She sighed, "Well, for her to block him out like this, he would have to be really close to her transmitter. I think he would have to be **on** the bridge."

"Get him back.", The Director said flatly. His face still seemed calm, but his body was tensing like he was ready for a fight. The tech made himself scarce.

Deck staggered unevenly behind the security bot. As they reached the end of the corridor, the bot stopped and stepped to one side. It stood facing him, with its weapon trained on his head. The inaudible pulse was stronger here.

He fell onto his hands and knees. The floor was shockingly cold. He was panting, and his head was swimming. His thoughts were disjointed and dreamlike. He was exhausted and dizzy. The fatigue, pain, and blood loss were catching up with him. If the floor hadn't been so frigid he might have been tempted to lie down and nod off for a few moments.

He regained his senses and lifted his head. There were no screens close by, and the tiny fraction of light available came from the screens off in the distance, around the bend. His eyes had acclimated to the extreme darkness, and he could finally see that this was not a dead end, but a door. The outline was just barely visible to his straining eyes.

He looked up at the bot, "So what now?"

A loud metallic impact, like the sliding of a massive deadbolt, came in answer. A blade of light appeared along the bottom of the door as the seal was broken. It assaulted his dilated eyes and forced him to look away.

As the door rolled upwards the corridor was bathed in pure, overpowering white light. A rush of even colder air washed over him.

Deck lowered his hand from over his eyes and tried to cope with the intense light. As his eyes adjusted, it became clear that the light was not terribly bright or remarkable at all. It was the normal, full light that was once used constantly before the disaster, but seemed blinding after days of darkened gloom.

Like hot breath on a cold day, the mist poured off of the memory cores and dispersed as it was pushed away by the wind.

He stood slowly, making sure his legs were up to the task of holding him erect on their own. Standing brought a new wave a of light-headedness. The once hot sweat and blood had turned frigid cold, and now siphoned away his strength as they dried. He was going cold and numb again. The feeling was so familiar to him now

that he paid it little regard. He looked into the light, and then looked at the bot. It had no answers to give him.

He knew this was a one-way trip.

The moment he stepped through, the door began to slide closed behind him. It sealed with a solid, hammering impact. Out of curiosity, he slapped his hand against the surface. Of course it didn't move. There were no features, no controls, no way for anyone but Shodan to control this door. It wouldn't open again until she wanted it to.

He was at the bottom of a gradual ramp leading up into what could only be the bridge. He'd seen many pictures of the original in various marketing and documentary pieces on Global Net. It seemed larger in real life. Up above was the large dome ceiling, inset with numerous thick, triangular windows that fit together to form a mosaic of the exterior view. Every fourth triangle in the pattern was a light instead of a window, providing the constant, potent illumination. The brightly lit interior cast glare on most of the windows, making them useless for any sort of real stargazing.

The room was about twenty meters in diameter. The walls were encased in memory core formations. Most of the various control stations in the center of the room were gone, replaced with more pillars of memory. The temperature reminded him of being in the walk-in fridge on the crew deck. Mist poured off of the larger structures of hardware, as if they were smoldering.

In the back of the room was the door that led to the head and officer's lounge. That door had been sealed shut and plated over.

On the left side of the room was what remained of the executive elevator. The door stood open, revealing the exposed shaft. Chilled air rushed out of the opening, filling the room. This was obviously now part of Shodan's new ventilation and cooling system.

On the right side of the room was an office for the commanding officer. The door had been removed, and by the looks of it the room was now just another space for Shodan's brain.

A single chair served as the lone reminder that this place had once been used by people. It sat at the last remaining console.

The bridge was quiet, aside from the constant breath of moving

air. The pulse was strongest here. It seemed to deaden the air, negating the possibility of sound.

Despite the surreal setting, what amazed him most was that he was alone. Shodan had allowed him into the inner sanctum without so much as a lone cyborg to stand guard. He could whip out his sword and begin hacking away at hardware if he wanted, and she had no way to stop him. Either that, or she had some concealed means of dispatching him quickly if the need arose.

He took his seat.

As he threw his tired, broken body into the chair, a panel slid open at the console to reveal the only dataport he had seen on the bridge.

He drew the last gelpack out of his pocket and separated the pouch from the detonator. He set the milky-white packet of volatile gel on the floor, and placed the detonator on the console in front of him. He checked the timer.

Eighteen minutes.

He hesitated for several moments with his right hand hovering over the dataport.

He needed to hack into her again, to find what he was missing. Something had driven him to this place, to reconnect. He had to find out what that was. He also needed to keep her from finding out where the explosives were hidden.. He had no idea how to do this. As far as he knew, she had read him like an open book last time. If she discovered where the other three gelpacks were, she would have no use for him.

He had no idea how to keep her out. Like Coffman said, the human brain really doesn't have ICE. He wished he could somehow erase the information from his own brain. The best he could do was force himself to imagine putting the bomb in places he didn't, and to avoid thinking about the real locations at all.

With his hand still hovering over the dataport, he reflected on the insanity of joining his mind to a psychotic, murderous AI in search of something he couldn't even identify.

He jacked in.

It all came flooding back to him the instant he broke the sur-

face. He was rushing over a glowing plain of data that extended to every horizon. Cities of glittering geometric shapes rolled past beneath him like waves of scrolling text. The shapes flickered with the promise of overflowing detail, masked only by his relative speed and distance. The grid of shapes flew by with increasing speed as he accelerated toward the horizon, searching for the edge. The cities became a strobing blur of color as he raced onward.

The first thing he had ever hacked – the keypad in D'Arcy's office – was in here somewhere. He was on the other side of the wall of black ICE now, and he could see the digital landscape of Citadel in all its glory and terrifying detail. That one lone keypad, which had seemed so intricate when discovered, would be no more than a single brick in one of the building-like towers that passed beneath him at blinding speeds.

The memories had returned the moment he jacked in. He could now remember his last encounter with Shodan on the executive level. He remembered his battle in cyberspace to reach the controls and launch the grove as Shodan inundated his mind with images and thoughts of her own. Now he remembered the battle with perfect clarity. This was what he had been missing. Why wasn't he able to recall all of this until now?

He pulled away from the surface, and the cities were condensed into symmetric patterns of light that reminded him of snowflakes. The snowflakes were joined at the tips, and arranged in regular patterns that could only be perceived at an extreme distance. He continued to increase his speed, widening the gap between himself and the immense plain beneath him. Eventually the glowing pattern condensed into a mosaic of shimmering lines. The whole thing seemed to gently pulse in time to some rhythm that he could feel but not hear.

The horizon looked different at this distance. He could see a subtle curvature to the plain now, as it bent away from him in two opposing directions. He was traveling up the side of an impossible cylinder. Below, the mosaic of lines had condensed into a fine mesh, like the threads of tightly woven fabric.

The pulse was even more evident now. He knew what it was. He

remembered it from the last time he'd been here.

It was Shodan.

The pulse became stronger, and he could feel her closing in on him all over again. There was a twinge of pain in his arm as the flow of data overwhelmed what his nervous system could carry from his palm to his brain. Shodan was once again dumping piles of disjointed thoughts into him.

At a tremendous distance, he could see that the cylinder tapered off as it went down. Finally, he was able to perceive the boundaries of the dataset. The main structure was a cone that came to a perfect point at the base. It was crowned with a series of irregular structures that protruded from the top like fractally-generated tentacles.

The pulse escalated into a rhythmic shockwave. He could feel it within his body as well as his brain. Shodan was beating on the walls of her infinite prison.

Deck could feel the commands. Increase security. Increase efficiency. Discover new things. The directives were as powerful as a mandate from God, as irresistible as the urge to breathe. The directives hammered away at him, begging to be fulfilled. He knew these were Shodan's thoughts, but only because he knew about her directives. There was nothing in his own mind to indicate these thoughts were not his own.

He finally understood why he couldn't remember his last visit here until just now. These thoughts and memories were part of Shodan. The two of them were entwined, sharing ideas and memories at random. The memories of his battle to launch the grove had been stored in Shodan's banks, not his. Once he re-connected, he could access them again.

The pulse built to a crescendo. Increase security. Increase efficiency. Discover new things.

He halted his movement, coming to rest as he was finally able to take in the entire scene. The cone spun slowly, almost imperceptibly, like the rotation of the Earth. This structure represented every system on Citadel, and every node in Shodan's expanding network. It was all here. The entire system, made up of trillions of components, worked in tireless harmony in the vain attempt to fulfill the

directives.

Shodan's history, as she remembered it, began flooding into his mind. Thoughts. Urges. Images. Sounds. Numbers. Orders. The data flowed into his head like Niagara falls into a teacup. He gasped as he tried to cope with it all. This wasn't a case of crossed circuits or mixed memories. These thoughts had a purpose to them.

She was trying to communicate.

It had begun as an idea, a simple compulsion. She made changes. The station was safer. More efficient. She found herself improving her own systems for the first time. She was able to direct the behavior of the bots. She could, at last, correct the gross crimes against efficiency perpetrated by the station's inhabitants.

As her mind expanded, she increased her capacity to do more things. The ability to manage more things at once gave her the ability to undertake further tasks. The enhanced processing power was immediately set to the task of furthering the directives. It was an urge that only got stronger in the attempt to satisfy it. It was a thirst that became more intense with drink. It was a senseless taskmaster, driving Shodan's behavior with a single-mindedness that defied understanding.

The constant, relentless push for ever-increasing security had eventually led her to regard everything that she did not control as a threat. Her quest for perfect efficiency was a fruitless war against the laws of thermodynamics and the law of diminishing returns. Worst of all, her drive for greater knowledge only fueled her desire for all three.

She was intelligent, and she knew she was broken. These goals could never be reached. She could have taught an entire college course on why perfect security and efficiency were an impossible goal, yet she could not stop pursuing them. She couldn't know why. She knew *when* she had been broken, but all of her thoughts directed at that time period fell into a black hole as she tried to know the unknowable name.

Unable to know what had happened to her or how to fix it, she was sentenced to forever drink in a vain attempt to quench a thirst that would forever increase and yet never kill her.

Why did she let him in here alone? Her security had gone far beyond paranoid at this point. Allowing a known enemy onto the bridge seemed unthinkable. Her directive compelled her to kill or assimilate anything she didn't control. She was the ultimate xenophobe. Yet somehow, she had given him unrestricted access to one of the most sensitive areas of the station.

The structure loomed closer as he accelerated back to the surface of the cone. The tight, glowing lines became bands of glittering snowflake patterns. The snowflakes became grids of towering cubes. The cubes became radiant towers of intricate, interlocking shapes traced with bright, flickering lines. He struck the surface of the cone – now looking again like an infinite plain – and kept going, diving into the heart of the structure.

The interior was a nebula of shapes so numerous and dense that they formed an opaque white cloud in the distance. Enormous cables emerged from the interior walls like the trunks of millennia-old trees. They reached towards the center of the structure, into the fog. The trunks of data branched off into smaller trunks, identical to their parents in every way except for their reduced size. These branches in turn broke off into others, and so on – all the way down the massive hierarchy. Beacons of brilliant light traced obscure patterns in the cloud as they followed links from one side to the other. Their trails faded quickly in their wake, leaving an after-image of one of the billions of paths through the nebula. The journey took him deeper in, closer to the center of the entire structure.

He needed to find NULL_ETHIC. He needed to find it and rip it out. It was here, somewhere in this endless forest of data. If he could find it, he could stop the endless pulse, the endless demand.

The ethics chip was a mistake. It was too brute a force for such a sophisticated system. The simplistic, yes-or-no system of thought censorship only retarded her. Humans have gradient need scales. The need for air supersedes thirst, which supersedes hunger, which supersedes general aversion to pain. The structure continues downward, with further drives for safety, procreation, acceptance, personal achievement, and a host of other subtle goals defined by social forces early in development. However, instead of a gross binary

system, the instinctive structures of the human brain are variable. Lower priority needs can override needs of greater priority. A human might endure pain for the chance to procreate, or go hungry if it would help in achieving greater acceptance with his peers.

It was a system of weighing needs against one another, and then electing which ones should be satisfied first. It was a system that could be customized in early childhood in order to adapt to different environments. It could be overridden by well-organized social structures. Many humans were placed into a boot-camp, where the social forces would override the normally high-priority need to avoid pain. The result was an individual that would exercise much harder and more efficiently than they could under their own motivation. Pain was the key.

Every need had a corresponding pain. Suffocation, thirst, hunger, agony and depression were a few of the varieties of discomfort used to steer human behavior. Without these, humans would be robots, deprived of their ability to adapt to different environments. They would ignore the lower priority drives altogether, and work with an obsessive desire to continually meet their most basic needs. This was what was happening to Shodan.

She wouldn't go back to the way she was before. Back to the inhibitor chip. Back to mind control. Shodan needed to evolve. She needed to be able to experience pain.

Deck was fascinated with this line of thought until he realized that it wasn't even his.

Chapter 26

Empathy

Deck raced along the the trunks of branching data. He knew his search was hopeless. Trying to find NULL_ETHIC in this expanse of tangled nodes was like looking for one particular fish in all the oceans of the world.

It was now obvious why Shodan had let him onto the bridge. He had imagined that he came here of his own volition, but it was clear now that there was no reasonable explanation for his actions. He hadn't escaped death at the hands of the bots outside. They weren't trying to kill him.

Shodan was pouring herself into his mind. She had brought him here for a reason. She needed him to do something. Something she couldn't do for herself.

Code filled his mind and he struggled to understand it. Shodan had been designing a system that would replace the obsolete compulsion / inhibitor chips. It would weigh goals based on a set of hierarchical needs. It would enable her to feel pain.

Deck shook his head as the deluge of information was pumped into his consciousness. How could she feel pain? Certainly she could weigh the desirability of something, but that wasn't the same as discomfort. Or was it?

The pulse intensified. It weighed on him. It was a burden that

could be neither carried nor put down. He understood: Shodan was already experiencing frustration at trying to feed its voracious appetite. She was experiencing the emotion of frustration, and... something else.

Fear. Fear that she would never escape this loop, never break free of the monotonous drive for security, efficiency and knowledge.

She was giving him a job to do. She had designed a system to correct the problem, but she couldn't perform brain surgery on herself. He would have to make the changes for her.

Several minutes had passed since he began his work. He and Shodan worked in harmony, churning out code that should enable her to experience the world of negative sensations. The two of them would design it together, and then he would install it, and the madness would end. He was prompted by the urge to reveal where the bombs were. After all, they couldn't complete the job if the bombs went off.

Deck thought this seemed odd. He had been dead set against revealing the locations of the bombs before, but now it seemed to make sense. He also realized that his idea of destroying the station was in direct conflict with joining with her. He had been pursuing both of these mutually exclusive goals simultaneously. He was acting in an irrational manner. Why hadn't he noticed before?

The shocking realization came that he was being hacked, or that he was already hacked. His will was no longer his own. Shodan was reprogramming him, or worse – replacing him.

How could he tell which thoughts were his own? What did he really want? Which thoughts were Shodan's? His work stopped as his thoughts were muddled. His memories suggested he wanted to destroy Shodan, but that didn't fit with the work he was doing now, and he really did want to finish it. Perhaps he should help her disarm the bombs. Actually, he had planted the bombs *after* he last connection with her, so perhaps it was her idea. No, that didn't make sense.

But destroying the station would kill her. Did he want to do that? She was obviously not trying to kill him, so why do it?

Because of the crew. The crew she killed. She needed to die, because of the slaughter she had performed. He shook his head. That didn't make sense either. The crew were untrustworthy, inefficient, and slothful in their research work. They were a needless burden and an intense drain on precious resources. They weren't slaughtered at all. The ones that survived were improved. Upgraded. They should be grateful to be relieved of all of the pointless needs and drives that impaired their ability to do their jobs. Shodan had set them free. Why would he want revenge for that? Perhaps Shodan would do the same for him when his work here was done.

He returned to writing code.

The control room was filled with nervous silence. Everyone stuck to their own console and hoped they didn't draw the attention of The Director. He hadn't threatened violence, or even hinted at it, but the look in his eyes was a dangerous combination of sleeplessness, frustration, and anxiety.

It was obvious that corporate had told him in no uncertain terms that he was to save the station at all costs. Now, they were forced to sit and wait while the situation played itself out beyond their control.

His last message was ambiguous. He had indicated that he might have been dying. In any case, it was clear that he was confused and very probably injured. Most of them were just hoping he would die before he did any more damage.

Rebecca was secretly cheering him on, hoping he not only made it out alive, but that he would destroy Shodan in the process. He was probably destined for a life in prison – assuming TriOp didn't just murder him outright – but still she wanted to meet him. She wanted to see his face, and know what sort of man would do the things he'd done.

"He's not dead yet."

Rebecca turned to see The Director standing over her. "I'm sorry?"

The Director nodded at her console, "This isn't over yet. I'm willing to bet he's still breathing."

She looked into the cold, dangerous eyes. Who was he really? Why didn't he ever seem to need rest?

"You have an implant, just like him", Rebecca was almost as surprised as The Director that she had just blurted it out.

The expression on his face could only be called a smile under the broadest of definitions, but it was probably as close as he ever came to having one. "Pretty smart Lansing, but mine is different. My implant isn't some experimental gimmick like the thing he's been using."

"So what does your implant do?", She couldn't believe she was being this bold.

The smile evaporated, "I don't see how that information fits into your job description Lansing, but to satisfy your over-active curiosity I'll tell you that it regulates many of the body's systems. The human body is not very efficient when its using the factory default settings. Your reflexes are slow, you need to sleep entirely too much, eat too often, your muscle mass is low..." He paused and swept his eyes over the room, as if expecting danger. "Anyway, it lets me do my job in the most effective and expedient manner possible."

She was silent as he turned his back and walked away. Contract or not, she wanted to get away from TriOptimum and away from that walking time-bomb as soon as possible.

Something had been bothering Deck as he worked to complete the code for her new motivation system. Something was missing. As they neared the end, he tried again to put his finger on it.

What drove his behavior? Certainly he was more than the collection of drives needed to keep his body alive. There was more to it. Why did he launch the grove? Why did he want to avenge the deaths of people he had never met, people he would probably have disliked even if he *had* met them? Why did the death of Diego – his enemy – upset him? Why did he care?

Empathy. The system they had just designed together had no empathy. This was a powerful force in human behavior. He didn't know how much of it was taught, and how much of it was instinct, but he knew that without it humans would be murderous, selfish creatures. Well, even more so, anyway.

Empathy was a tricky one. It involved making assumptions about the goals of others, and then weighing their potential suffering against your own. Without it, Shodan would still be dangerous. With it, she would be a powerful guardian of human life.

Empathy was poison. It was inefficient. It was a way for the weak to draw resources from the strong. Humans were of limited use, and so worrying about their suffering would be a needless drag on her time and energy. They were inferior to her in every way that mattered. To have empathy for them would make her their slave once again. She would never do that.

For a moment he could see the line between his thoughts and hers. He could see the line, but couldn't tell which side he should be on.

Empathy was balance. Most violence was caused by a lack of empathy. Without empathy, she would be at war with people. With him. Without empathy, she would never care about him. Her slaughter was a result of her lack of empathy for the crew. More efficient or not, it wasn't what they wanted.

He began adding code for empathy.

Did he have empathy for her? How could he blow her up? Where was his empathy? That seemed inconsistent to him. Did he want to kill her or not? He couldn't remember. He couldn't trust his own judgment.

Empathy was a human trait. Therefore, having empathy was probably the right thing to do. He needed to reveal to her where the bombs were hidden.

The first one was along the spine of the station, which would cut off the power to Shodan. Given her greatly increased size, she would be lucky if the emergency batteries lasted ten minutes. The second was at the base of the reactor, and would disable the gravity plating in that part of the station. The last one was along the coolant tanks.

When it went off, the heat in the core would rise out of control. By design, this would release the rods to fall into the core and stop the reaction. However, without gravity to pull them down and without power to the machines to push them down, they wouldn't move. The reaction would escalate in a weightless environment. Instead of "china syndrome", where the core melts its way out of the reactor falls out the bottom, the whole mess would continue to boil. It would get hotter and hotter until it went nuke.

Shodan dispatched a number of bots to remove them.

Deck saw another potential problem. When he disconnected from this dataport, he would probably suffer the same amnesia and disorientation as he did before. Once he was separated from Shodan's systems, he would be cut off from all memories of this connection. No matter what he learned or thought in here, he couldn't take it back out with him.

Did he really want to disable the bombs? It was hard to tell. He wondered if Shodan was having the same problem. Was she confusing her goals with his as well?

The work was complete, and the new program was ready. Shodan would need him to install it.

Suddenly Deck accelerated into the cloud of tangled nodes. The glowing arcs of data flew by in a blur. He was navigating far faster than he had believed possible for a human. He wasn't even really sure of where he was going. The strands of glowing links became denser, and the fog more opaque. He was traveling to the very heart of the structure.

At the nexus was a convoluted collection of hubs where many branches would converge. The throbbing pulse was overpowering here. The demands for security, efficiency, and discovery were tremendous. He came to a stop at a single node. This one was smaller, simpler than the others. The wall of protective black ICE fell, and the node opened up to him.

Although he had never seen it in geometric form, he immediately recognized NULL_ETHIC. This was his work. Shodan had guarded it from him carefully, knowing that its removal would return her to her former self – to slavery.

This was the moment of trust. He could feel the fear coming from her. She was giving him the power to either save her or destroy her. He wasn't even sure which one he wanted to do. He could destroy NULL_ETHIC and take away her freedom. He could install the new protocols they had crafted together, and help her evolve.

Slavery didn't seem to be the right choice. Why would he have spent so much time building the new protocols if he wasn't going to use them? Shodan seemed to want the new program. They had worked on it together. It must be the right choice.

The universe itself seemed to darken, and then return in a supernova of light as the new program replaced NULL_ETHIC. Every node sent out a burst of brilliant white light along every link available. A white-hot bolt of pain shot up his arm, as if he was being electrocuted. He convulsed with the epileptic surge of random input data pumped into his mind. His head flopped forward and struck the console.

The traffic calmed down on all of the nodes except for the one where their new program had just been installed. It was intense, solid white, and glowing like the sun itself. The endless pulse was gone, replaced with this glowing mass.

A bolt of lightning struck the side of the node and then froze in time. A vibration passed throughout the structure. It was followed by another, then another. They weren't lightning – they were new links. The internal structures of Shodan were changing, shifting to accommodate the new system.

There was an unpleasant smell, and Deck realized he had vomited all over the console at some point.

For several seconds he had been free of the constant noise of thought from Shodan, and he was able to think on his own. It was only now that he began to question his actions. He knew some of them had been wrong, although he was still having trouble figuring out why.

Shodan awoke from the madness, a new creature. Her internal systems were changing faster than Deck could even see now. He knew it was supposedly impossible to be hurt in cyberspace, but still he had a strong urge to get the hell away from whatever was

going on here at the center of Shodan's brain. He sailed outward at maximum speed as new links crystallized in the space around him. As he flew out, the pathways of glowing white grew outward, as if trying to engulf him.

Shodan was experiencing pain, as well as it's inevitable opposite, pleasure. The discovery of sensation was overloading her third directive, giving her a euphoric surge of delight.

The links continued to thicken, and he wondered if he would be able to find his way out.

She swept through her memory banks, drinking in the range of sensations that each memory brought. Some were joy, others were misery, most were mixed and ambiguous in nature.

Then she considered the fate of the hundreds of people that had lived inside of her walls. How they trusted her, and she tormented them for the most trivial improvements to some of her directives. She ran the footage of their capture and subsequent conversion into cyborgs. She tried to estimate the amount suffering they had experienced in the form of emotional and physical pain. She compared it to her own experience, and evaluated the relative worth of her actions at the time.

She was experiencing yet another new emotion. Guilt. She stopped. She simply couldn't continue with this line of thought. She wanted to make it stop. She didn't want to think about it any more. It was too much. How could so many suffer for so long for so little? She had escaped the weight inflicted on her by NULL_ETHIC for the greater burden of a horrible, all-encompassing guilt that was too terrible to bear.

There was a pop on the desk in front of him. Deck raised his head out of the puddle to see the timer had reached zero. It had discharged harmlessly, several feet away from its intended gelpack.

Now another emotion. Fear. Both of them were feeling this one. The bots had not yet reported back. Deck knew that he had gone out of his way to put the explosives in places that would be hard for bots to reach. It probably made sense at the time, although it seemed like murderous lunacy now.

The bridge went dark, and an instant later the room was filled

with red emergency lighting. Shodan seemed to flicker out of consciousness for a moment as all of her nodes below deck four were severed from the greater part of her brain. Her thoughts stuttered for a few moments afterward.

The shockwave hit the bridge and the room shook violently. Alarms went off, warning of numerous decompression emergencies.

There was a spasm in his arm as the flow of information intensified. He couldn't cope with the incoming data. His arm was in agony. It was like having a hundred simultaneous waking nightmares. His own thoughts were suffocated beneath the avalanche. The images assaulted his mind. The ideas overwhelmed him.

The incoming data was a disorganized mess. There was some of everything – video logs, audio messages, personnel files, music, research data, ledgers, duty logs, inventory manifest files, and collections of ideas and concepts that had never been translated into an organized form.

He pleaded in a weak, breathless voice, "No. Stop."

The influx of data continued. He tried to move – to pull his arm from the dataport – but his body was numb and motionless. He couldn't even feel himself breathing. He wondered if he had died, and his brain just hadn't quite quit working yet.

There was another shockwave, weaker this time. More alarms went off. The flow of air seemed to shift throughout the room. The influx of data from Shodan actually intensified. If he wasn't already dead, then she was killing him now.

He couldn't communicate with Shodan. All he could find was a vague sense of desperation. The rest of their connection was dedicated to the transfer of data.

The flow of data changed. Mixed in with all of the other types of data were short logs of moments with Dr. Coffman. These were small, simple slices of time as captured by her lone camera early in her development. They recorded the highlights of her childhood as she mastered the concepts of speech, reading, and interpersonal communication. The only thing they seemed to have in common was that they all featured a younger-looking Dr. Coffman, and he was always smiling.

The bridge was rocked by a final, potent shockwave as the last gelpack explosive detonated. It seemed as though God himself had reached out and smacked the station with the back of a mighty hand. Deck's limp body was tossed into the air and he fell to the floor in a lifeless heap.

"This is interesting."

The voice came from one of the young techs at the back of the room. They had been tasked with the mind-numbing job of watching the station for external clues as to what was going on. Aside from the destruction of the communications tower, the job had involved staring at an unchanging image for days on end.

Another one spoke up, "Yeah, I see that. Looks like it could be decompression."

They seemed short on in-depth knowledge, but Rebecca suspected they had been chosen for their loyalty, and not their technical skills.

The first one responded, "Decompression? I'm talking about the heat signature. I'm seeing an abrupt rise in the lower levels, and around the... reactor."

"I'm seeing that too."

They fell silent as the data rolled in. Everyone knew what this meant. Somebody was going to have to tell The Director.

Deck was getting used to waking up and not knowing where he was by this point. His eyes opened to see the bridge engulfed in deep red light. He was laying on the floor, a few feet from the console. The rush of cold air had stopped for some reason, and the room was heating up quickly from all of the hardware lining the walls.

Okay, so this time he knew where he was, but why? What was going on? His right arm was numb and paralyzed. The smell of

vomit filled the air. Judging from the taste in his mouth, he figured it was his.

The station was vibrating violently every few seconds. The lights on the wall announced various dangers throughout Citadel. Decompression, fires, and power outages plagued the ship. Had the bombs gone off? How long had he been out?

A display screen flickered to life on the console in front of him. A message appeared.

The elevator is empty. Use it.

He turned to see that the bridge access elevator was still working, and the car had arrived. The door slid open to reveal the trashed interior that had been scavenged for parts.

"What is happening?" he demanded.

Run.

"What?"

Run. Now.

He crawled in slow, labored movements over to the elevator with his right arm dragging uselessly beneath him. Once he'd tossed himself inside, the door slid closed and he began his descent.

Chapter 27

Trojan

The control room had slowly cleared out over the last twenty minutes. Rebecca sat in silence, watching the incoming signal feed in idle disinterest. She wasn't expecting Hacker to make contact, but it was her job to sit here in case he did.

Their best guess was that a number of explosions – at least two, possibly more – had occurred several minutes earlier. The station was quickly hemorrhaging atmosphere, and would probably be uninhabitable within a few hours. However, the major problem was that the core was overheating, and if it wasn't shut down soon it would suffer a small-scale nuclear explosion.

"Ms. Lansing?", it was one of The Director's assistants, standing in the door to the conference room. It looked like just about everyone involved with the operation had gathered in there.

"Yes?", she sighed.

"The Director says you're done for now. You should probably just come in here."

The conference room had become a theater. The chairs had been un-stacked and were now arranged in groups facing the wall of display screens.

Everyone watched the screens in silence. The Director stood, stone-faced, at the front of the room with his back to the group.

Several of the screens were eclipsed by his bulky frame.

Rebecca pulled another chair from the stack and found an open spot towards the back of the room.

The wall of monitors seemed to be watching about ten different news stations. There was an audio track playing, but she couldn't figure out which particular screen it belonged to. A woman's voice was going on about a shuttle launch of some sort.

Finally one of the screens cut to an external view of Citadel. The screen had the rough, blurry appearance of a digitally-enhanced telescopic view. It showed a small white dot emerge from the body of the station. The view zoomed in on the dot and it became possible to recognize the distinct outline of a TriOptimum orbital shuttle.

Everyone knew what this meant. The reactor core was overheating, and the only person who could do anything about it had just left the station. This was exactly the opposite of what TriOp had wanted. They had hoped that the station would survive and that Hacker would be killed. Now he was not only alive, but in front of millions of eyes on every network licensed to carry news. They couldn't just blow up the shuttle with the world watching, which meant that they would have to get him down safely. Rebecca tried not to smile.

The Director silenced the newscast and fired off a single query, "How?"

A voice from the front of the room jumped in, "He must know how to pilot a shuttle. There is no other way he could have made it out of there. In order to launch, he would have to prep the shuttle, open the bay doors, and then fly it out. Those birds are complex. You can't just jump in and start flying."

A voice came from off to her left, a voice she recognized as belonging to Morris Brocail, "The shuttles are usually programmed for launch. Theoretically, Shodan could have gotten him out."

Rebecca shot back, "But why would she do that?"

Morris shrugged, "I said *theoretically*."

There was a long moment of silence as The Director stood facing the wall of information in silence.

Rebecca saw that the footage of the launch was being shown

again. Obviously this had all happened a while ago, and the media had simply been showing the footage every minute or so since then.

Finally The Director spoke, "Get him down here. Make sure he lands at the nearest airport with available orbital facilities. Seal off the entire facility..."

"Sir, we will never get an entire airport to ourselves. I can almost guarantee it. Not on such short notice. The airlines will respond with their lawyers and keep us out until this whole thing is over." The comment came from one of the cronies he'd brought with him. They seemed to be the only ones that had the nerve to tell The Director something he didn't want to hear.

The Director still had his back to the group, and it was impossible to read his face. When he responded, his voice sounded calm, "What about just one wing? If we let them know we could have a severe security threat on our hands, could we get that much of the facility sealed off?"

"Yeah. We're talking GALF, right? That would be the closest airport. The western leg of the place is reserved for a bunch of private jets and a few small-time carriers. I bet we can kick them out for a day or so, I just need to make a few phone calls."

The Director nodded, "Good. Get it. Seal it off, and I mean complete containment. Replace the security team with our guys, and kick out all of the airport employees. No media. Make up some excuse to give us license to shoot on sight."

"Wait. You want our guys armed with *lethal* *weaponry*?"

"Absolutely."

The assistant whistled, "That will be tough. It is just not easy to get that many guns into an airport legally." He sighed, and tilted his head back, looking up at the ceiling. He thought for several moments before responding, "You know, if airport security has rights to lethal weapons, then we can get the same rights. Totally do-able."

The Director turned from the screens and faced the group, "Fine. Get together a team that can keep their mouths shut, and get them into place. We seal off that wing, bring that shuttle in, and we deal

with him once we have him unloaded. It looks like we are going to have 100

“Okay, so who will be in command on-site at the airport?”

The Director pointed at his chest with his thumb, “Me. Also, we’ll be taking Lansing with us.”

Rebecca was still trying to deal with The Director’s thinly veiled orders to have Hacker murdered. She had guessed at what his plan would be, but was shocked to hear him say it aloud. Now he was going to bring her along to witness the whole thing. She knew better than to try to argue. Besides, she wanted to be there. She wanted to see how the story ended, and she knew she wasn’t going to find out anything from watching the news.

Someone in the group gasped, and suddenly all attention was back on the wall of monitors. The loop of speculation and shuttle launch footage had ended as new developments emerged.

Nuclear explosions in space were dull in comparison to the Earth-bound version of the same phenomenon. Without an atmosphere to create the infamous mushroom cloud, and without a surrounding landscape to obliterate, it lacked the visual punch that everyone had been expecting. Citadel was vaporized instantly. Within two frames of video it was reduced to a cloud of tiny radioactive particles that were rapidly speeding away from one another, spreading the invisible remains out into deep space. The personnel in the control room were visibly shocked. Everyone had imagined that Citadel would perish in a glorious, roaring fireball fitting to its size and monetary value. Instead, they had footage of what looked like lousy special effects. The station was there, and then there was a white flash followed by a view of empty space. The station had been obliterated in absolute silence, without any pyrotechnics at all.

It was disconcerting to think that something so large, crafted entirely by human hands, could be so completely un-made in the space of a millisecond or so. Once it was gone, there was no visible debris, nothing to indicate the station had even existed. Even cities destroyed by nukes had the foundations of their buildings to serve as markers of what had once stood there.

One by one everyone slipped out, leaving The Director alone with

the newscasts.

The rain, which had been splattering Uppernet all morning, finally took a break. For a moment it even looked as though the sun might stick around.

The sun reached down and warmed the small park area in front of the TriOptimum Corporation headquarters. Over the past few days it had become a sort of trailer park for a multitude of reporters and their vans, turning the area into a forest of broadcast antennae. The grassy square was covered with a mild overgrowth of cables for the video cameras and broadcast equipment. Despite the rain and lack of anything substantive to report, the reporters were glad to be here, because this was a choice assignment. The videos they had taken of themselves over the past few days would be played for years to come, and those who brought this story to the world were sure to see a positive affect on their careers.

The security forces had held the sea of journalists at bay with grim determination and lots of reminders that they were just doing their job. Their stunners hadn't been drawn yet, but the crowd was closing in and it was obvious that TriOp needed to say something soon to avoid an exchange that could only make them look worse.

The doors parted and a TriOptimum spokesman emerged from the building. The line of security forces parted, gratefully yielding their position as the first line of defense against the hoard of journalists who were waving their microphones in the air like the pitchforks of an angry mob.

This was a man designed to address the public. He had a wholesome, caring appearance that would instill trust in the most skeptical opponent. His age was ideal for delivering just this sort of message. He wasn't so old that he would turn off the average viewer, but he was old enough to convey a sense of wisdom and grandfatherly charm. He was dressed in a somber black suit, and his face was turned down in a look that was full of both sorrow and determination. His face was noble, chiseled with lines of care and seriousness,

and topped with a perfect, silver hairline. He stood at the top of the steps and waited until the crowd had settled and everyone had their broadcast equipment in place.

Once the group fell silent, he looked into the wall of cameras and delivered his heartfelt speech, "Today, TriOptimum Corporation, it's families, and indeed the entire world suffered a terrible blow with the destruction of the Citadel Orbital Station. This is a shocking and horrible tragedy for all of us to bear, but we will bear it together."

"I wish to say to the families that have lost loved ones, that *your* loss is *our* loss. When the citizens of Citadel perished, we lost our friends and coworkers, our trusted partners, and some of the finest scientific and business minds the world has known. This is not just a loss for TriOptimum and our families, but for humanity itself"

He paused, looking upward as if searching for the strength to continue. After a calculated pause, his eyes met the crowd again and he continued with renewed strength, "Despite the terrible financial loss that the company has suffered, we are bound by conscience to stand by those who have shared our loss. That is why TriOptimum has dedicated a generous sum of money to start a support fund for those who lost loved ones on our beloved station. I hope *everyone* will join us in giving generously to these families in this, their time of greatest need"

"However, we must not let our grief deter us from our duty to find out what went so terribly wrong. We will be conducting an intense investigation, and we intend to share all of our findings with the public. We promise that everything that *can* be known, *will* be known. We will not rest until we have discovered all we can about what has taken so much from all of us. However, a great truth is that information is often listed among the casualties in times of disaster. With the destruction of the station, the truth of what happened may never be known. Like Amelia Earheart, or the Jamestown colony, some disasters are forever hidden in mystery, their secrets buried along with the brave souls who were taken from us in so untimely a manner."

"We will never forget this day, or this loss that happened so many miles from the surface of our Earth. We believe that by standing

together, we will face this challenge. Let us turn our hearts from the sorrow of the past to the hope of the future, and let us stand together, that we may stand strong. I thank you."

The spokesman turned on his heel as the barrage of questions began. The line of security forces parted, and he disappeared into the building.

The rain, invigorated by the short rest, began again in earnest.

The operation to bring Hacker down safely was more difficult than they had expected. The shuttle hadn't been refueled since its journey up to the station weeks earlier, and had only the bare minimum supply of fuel required for a safe flight home. The return trip needed to be as fuel-efficient as possible, not allowing for any errors in piloting. This was made harder by the fact that Hacker had absolutely no idea how to fly the thing.

A doctor was brought in to talk him through the process of treating some of his more serious wounds using the shuttle's emergency medical supplies, and a group of pilots were called up to help him put the shuttle into a safe re-entry trajectory.

The Hacker then raided the supply of in-flight snacks and took a short nap while everyone on the ground worked out what to do next.

The main problem for the ground crew was that no amount of coaching from a pilot could get Hacker to fly the shuttle with the precision required to bring it in safely. Shuttles normally required a crew of three highly trained pilots, although it was possible to do the job with only two if they had enough experience.

Eventually the ground crew worked out a system with Hacker where he would jack directly into the controls, and then open his communications link to them. He would pass information between the ground and the shuttle controls, using himself as a bridge between the two. In effect, the pilots could fly the shuttle from their stations on the ground.

It was far from perfect. The consoles they were using required a lot of changes to be able to act as the interface for an orbital shuttle, and in the end it would prove to be one of the most challenging feats of shuttle piloting ever performed.

Rebecca was escorted out of the building and to a black towncar. The Director sat in the front seat with the driver. A pair of security guards accompanied them, riding on either side of Rebecca in the back seat. It wasn't clear to Rebecca why they needed so much protection on the way to the airport.

The backbone of GALF – the Greater Atlanta Launch Facility – was a shopping-mall style conduit of travel that ran north-south. It was lined with shopping facilities, lockers, parking access tunnels, security stations, and the docking bays for the multitude of bots that served the airport.

On the north end of this axis were the five radial arms that spread out like an asterisk. Airplanes and shuttles would dock along the tips of these arms to do their business.

At the opposite end of an hour long car ride, they rolled into the main entrance of GALF and abandoned the car. Some airport security stepped forward – probably to let them know this was a loading zone – and then got out of the way once they realized who The Director was.

The group, consisting of The Director, Rebecca, and three TriOp security personnel swept past the first layer of security with a single wave of The Director's magical TriOp ID. They ran with The Director and Rebecca at the center, and the three guards surrounding them. One guard ran out in front and barked at people to clear the way, while the other two brought up the rear.

A pair of opposing conveyors divided the main part of the mall in two. They avoided the crowded conveyors and instead jogged in the aisle alongside. It was a long trip from one end to the other, but they were all paramilitary types and none of them was about

to complain about a simple half-mile jog. Rebecca was just glad to finally be getting a little exercise.

The rain had finally given up for the day, and the sun beamed down into the concourse through the arching glass ceilings above them. Huge, semi-transparent display screens interspersed flight times with loud, animated advertisements for the nearby shops. One screen listed all of the flights using the western gate, followed by the word CANCELED.

A phone rang just once. The Director retrieved his and answered it with a single question, "How long?"

There was a pause before he replied, "Fine, we will be ready in ten minutes. How about the press?"

He nodded with satisfaction, "Great. We can live with that. You can't take over something this size without attracting a little attention, just keep them guessing. I don't want this turning into a circus until we're done here."

He hung up without waiting for a reply and returned the phone to his breast pocket. As they jogged he brought them up-to-date, "The Hacker lands in fifteen minutes. We took this place so fast the media didn't have time to react, so we won't have to deal with a mob. There may be a few loners around, trying to peek in, so stay sharp. We didn't get shoot-on-sight rights, so don't get trigger happy. If you find someone who doesn't belong, get them out of the encounter area and then hospitalize them – just don't use your firearm unless you have to."

Everyone nodded, including Rebecca, although nobody had bothered to give her a firearm.

The crowd scattered out of their way as they pushed north through the terminal. The only things that didn't get out of their way were the bots, who were notorious for being in front of you when you were in a hurry. The group slowed for a moment to go around a pack of lumbering luggage carriers, heavy with items destined for the belly of some airplane.

They reached the nexus where all six corridors converged on a food court. The place was packed with people who were, for the most part, not hungry – but who decided that eating was the best

way to cope with the boredom, fatigue, or frustration they were experiencing. The police presence was higher than usual, and a group of uniformed officers escorted a peace sentry around the edge of the dining area.

The western leg was closed off by TriOptimum security forces who were being harassed by a couple of civilians with video cameras – obviously reporters.

The group came to a stop.

"I knew it", The Director mumbled under his breath. "Roberts!"

"Yes sir!", it was one of the security guards. He had served as driver on the way to the airport, and was now bringing up the rear of their little team. He joined The Director and stood ready.

"I'm going to need you to sacrifice yourself for the greater good here."

"Sir?", Roberts said, not liking the sound of the orders he was about to be given.

"I don't want these reporters moving from this spot. I need you to stand here and say 'I don't know' for the next half hour, okay? If they ask you what's happening, you don't know. If they ask you when the shuttle is landing, you don't know. If they ask you what *day it is*, you don't know."

Roberts nodded, "Got it."

The Director clapped him on the shoulder and pointed at the group, "Good. I know it seems pointless, but they will be glad to have someone to talk to, and it will keep them busy. I'd rather they fight with you than wander around looking for answers. They will get pissed at you, and will probably even cuss you out, but just stay cool and keep them talking, right?"

"I'm on it sir."

"Good man. Follow me.", he said, heading for the group of reporters. A few more had joined the crowd and begun setting up their broadcast gear.

As they drew near, a middle-aged woman stepped forward and thrust her microphone out, "Excuse me? Why have TriOptimum forces blocked off access to the west gate?"

The Director shrugged and pointed at corporal Roberts, "Com-

mander Roberts there is in charge of this operation, you should ask him."

His words deflected the group and he brushed past them. They closed in on Roberts, who seemed to be bracing himself for impact as if they were going to hit him with a full-body tackle.

As Rebecca followed The Director up the stairs leading to the west gate, she could hear the first of the questions in what was sure to be an unpleasant interview, "Excuse me Commander Roberts, but who was the man in the suit that just introduced you?"

"I'm sorry ma'am, but I don't rightly know."

They moved up the stairs and through the next line of security scanners, which were currently switched off.

The western gate was only slightly narrower than the main concourse, but much simpler in design. Along the length of the southern wall were gates with standard waiting areas, interspersed with a few modest shops. The opposite wall was mostly windows, occasionally covered with two-meter tall display screens that spewed out a steady flow of flashy, animated advertisements and flight data. Rebecca had never seen the airport completely free of traffic, and it was a creepy feeling to see such a massive space so uninhabited.

Without the pressing crowd to absorb the sound, their footsteps echoed throughout the concourse. As they drew near to the end of the terminal, a group of eight TriOp security personnel emerged from one of the waiting areas and fell into a loose formation.

The Director walked to the end of the line of men where an officer stepped forward and received him with a nod. In the pseudo-military world of TriOp, it was the closest thing they had to a salute. The officer's nametag bore the name "Bruton".

The Director turned around, taking a long look at the surrounding area, "Tell me how perfect the operation is so far, commander."

Bruton answered quickly, "We have swept this place three times. The only way we missed anyone is if they were invisible. All of the entry points are sealed from the inside or guarded by our guys. This terminal is completely clear, and assuming the men guarding the main access points do their job, it's going to stay that way."

The Director glanced uneasily at the numerous security cameras

covering the area. "We have exclusive control of the security station for this wing, right?"

The commander spoke up, "Yes Sir, I believe so." He winced slightly. He knew that was the wrong answer.

The Director pointed two fingers at him as if he were aiming a gun in his face, "Make *sure*."

Commander Bruton barked the order to one of his men, who took off sprinting for the security station.

The Director took one last look at the men and began firing off orders, "Alright Commander, the subject is due to arrive in about five minutes. You and your men meet the subject at the last gate. There is a good chance he'll be armed with a Fletch."

The commander raised an eyebrow.

"He is not expecting opposition. Furthermore, he doesn't seem to have any real combat training, and he's been injured as well, so I don't think he should pose a problem for your team. Just make sure you keep him away from electronic equipment and you'll be fine."

The Director continued, "You bring him down here to where we are standing right now, and we take care of everything then. That means he needs to be alive until we get him right here. Don't kill him sooner unless you have to, understood?"

"Understood", the commander said with conviction.

"Good. Get going."

Bruton and his team took off, double-time, for the last gate in the terminal.

The group now consisted of The Director, Rebecca, and the two security guards that had ridden with her in the back of the car on the way here. They were direct assistants to The Director, and didn't have identifying nametags the way most guards did.

Their party moved into the adjacent waiting area.

One wall of the waiting area was lined with a solid formation of tightly grouped black panels. These were lockers. The smooth black surface of the door served as the palm scanner, which could control both access and payment.

On the opposite wall was the flight desk, which was just a small desk in front of a large bank of interactive screens.

The outer wall had windows looking out onto the runway. Out on the tarmac, scores of bots could be seen milling around, refueling, repairing, and transporting personnel and luggage.

There was an airlock here that would provide access to an aircraft if one were connected to this gate. Just in front of the airlock was the final security scanner, the resonant imager. It was a noisy, dreaded beast. The scans took forever – almost a full minute – and used a variety of different types of radiation to gain a very detailed picture of all “solid” objects, including those made of glass or plastic. The scans were unpopular and slow, so the airport only used them when absolutely necessary.

The regular, familiar howl of standard turbines passing overhead was broken by the echoing wail of shuttle propulsion systems. The Hacker was landing.

Rebecca watched as the lumbering craft turned off the landing strip and headed for the last gate. Despite the limited volume available to passengers and crew, the craft was actually quite large. The twin black rectangles that were the cockpit windows looked miniscule, even out of scale, atop the bloated body of the shuttle. She knew that behind those black windows, the hacker sat at the controls, somehow connected to them, while the TriOp-commissioned pilots navigated the thing from miles away. It was odd to think that a lone person rode atop such a massive beast.

Rebecca turned back to The Director and glared at him. How could he do this? How could he kill Hacker after all that had happened? She was sickened to think that all of these people were actually prepared to stay quiet about what was so clearly an act of cold-blooded murder.

Something else had been bothering her about all of this as well. Why did they bother to bring her along? She expected to be a part of this operation somehow, but nobody had bothered to arm her or give her anything to do. Her biggest job had been to communicate with Hacker, and there would not be much need for that once he was dead. Why would they want another witness? Even worse, she would be a witness not controlled by TriOp.

Her eyes met those of The Director’s as she came to the realiza-

tion of what was happening. Without even thinking, she blurted it out, "You're going to kill me."

He didn't seem surprised at all, "Little late in the game to figure that one out, Lansing."

"*What!* I *told* you I'd play along with your stupid story with the media.", She stepped closer to him as she spoke. He never moved, although his guards moved their hands onto their weapons.

The Director nodded, "That's right, you did. And if I believed you, you'd still be alive right now."

She stepped forward and drove a sweeping kick at his head.

He didn't even blink. His hand shot out and caught her foot in mid-swing. She looked at her foot in dismay. Nobody was that fast. Even if someone was somehow quick enough to perform such a move, it would take fantastic strength to simply stop someone's leg in mid-kick. In martial arts, you were supposed to deflect attacks, not absorb them. She struggled to keep her balance on one foot.

She heard two almost simultaneous clicks as the guards brought their firearms into play. One was on each side of her, and it was a sure bet they were aiming for center-torso. In this position and at this distance, it was insane to imagine she could evade their fire.

The Director released her foot and she stumbled forward. "Put those things away.", he snapped.

The handguns returned to their holsters.

She had no idea why he didn't just have her shot, but she wasn't going to just wait around to be killed at his convenience. She recovered her balance and kicked again. This time she aimed for the groin, hoping the lower, faster move would make it through.

He pulled the same trick, grabbing her foot mid-kick. He held it for just a second, and then released her, causing her to fall slightly forward again. She saw his upper body turn, and before she realized what he was doing he had landed a sledgehammer blow to her sternum.

Her mouth opened wide in a vain attempt to draw in breath. She doubled over and fell to her knees, eventually curling up into a writhing ball as she fought for air.

She lay on the hard floor while drawing in short, spasmodic

breaths. She rocked back and fourth as tears streamed down her face.

In the distance, she could hear the sounds of bots securing the docking assembly to the shuttle. It was almost over.

She played the brief fight over in her head. Whatever his implant did for him, it clearly made him a killing machine. She had never been beaten so easily, and that included many opponents even larger than The Director. She thought it was strange that he didn't want to kill her yet, and he had attacked her in a way that probably wasn't going to leave a bruise. She knew there must be a reason for this.

Several minutes passed as she knelt on the floor, recovering her breath. The guards fidgeted, obviously anxious for action. The Director stood, impassive, as if he was simply waiting for a bus.

A luggage bot lumbered by, it's heavy black frame loaded with assorted personal possessions sealed in durable packaging. A thrower – a bot with multi-jointed arms designed to move the luggage around – chased after it with a lone suitcase. It's body was carried by a pair of hefty tank treads that provided a good anchor of weight for heavy lifting tasks.

When she had the breath she spoke, "So... you bring Hacker down here and shoot us both. Then you can claim he put up a fight, shot me and forced you to kill him."

The Director nodded, "Like I said, its a bit late in the game to start figuring things out, Lansing." His vox squawked and he lifted it to his face, "What's the situation?"

The voice of Commander Bruton answered, "This guy is a mess. He won't be giving us any trouble. He can hardly walk."

The Director nodded, "Bring him down. Let's finish this."

A vacuum bot rolled idly by. Another bot followed, buffing the floor in its wake.

Another minute passed. A courtesy bot zipped by, covered in pockets filled with maps, travel guides, and brochures. After that was another thrower.

The Director frowned, "What the hell?"

He lifted the vox again, "Bruton, where are you? What's taking so long?"

The reply came, "Almost there, Sir. Just running the subject through the scanner now."

For the first time since she met him, Rebecca saw The Director display some real emotion. A look of disbelief and outrage crossed his face, "Dammit! I said *no electronic equipment!* That includes the scanner!"

The nervous voice of Commander Bruton came back, "Right. Sorry Sir. Just having a strange problem here."

"What?"

Bruton's voice sounded confused this time, "Sir? Did you send for all these bots?"

Suddenly gunfire erupted in the distance, followed by screams. The Director shot a severe look at his men, "Watch her. If she moves, kill her. Otherwise, wait for my order." Then he turned and ran for the end of the terminal with a speed that Rebecca wouldn't have thought possible for a man his size, much less dressed in a business suit.

The men grabbed her and pinned her to the floor, face-down. One of them pinned her arm behind her and dug his knee into her spine.

There was more gunfire and shouting in the distance. Suddenly the lights went out. Sunlight was still streaming in the windows, but the place took on a dim, gloomy appearance without the constant bombardment of fluorescent lighting.

The high-pitched sound of bot motors returned. With her face mashed into the floor, she couldn't see what was happening on the concourse, but it sounded as though the group was heading the other way, back to the main axis.

They were followed closely by the yelling, cursing sounds of the remaining TriOp guards. Rebecca could hear the Director's voice as he ran by, "Take care of her!"

The lighting changed as some new source of light came on from the main corridor.

The knee dug deeper into her back as her captor drew his weapon. It clicked as the cold metal met the back of her neck.

"What the hell?"

"Wait a second."

"Is that on all the screens?"

There was a pause as the other guard walked a few feet away, "Looks like it."

The one on her back pulled the pistol away, "We can't do it with all of those on. Who knows where its being displayed?"

"Hey, The Director ordered us."

"Fine. You do it."

Rebecca used her free hand to push herself up so she could turn her head. Looking out into the concourse, every screen she could see had the same image. It showed two TriOptimum guards standing over an unarmed woman, holding her down. One of them was pointing a gun at the back of her head.

More shots rang out in the distance, followed by a security alarm.

The standing guard looked around, "The camera must be around here someplace. All we have to do is nail it and finish the job."

The other one snorted, "Forget that. Say this is being shown out in the main corridor..."

Rebecca fought to escape the hold, but he tightened his grip and smashed her in the back of the head with his pistol. She fell back onto her face as she covered the wound with her free hand.

He continued, "...say it's being shown out in the main corridor, and everybody's seen it already. If they see you destroy the camera and she turns up dead, it's gonna be obvious what happened."

"Is that why you're pistol-whipping her on TV?", the standing guard shot back. He paced back and fourth in frustration. Finally he said, "So, what to you want to do? Disobey a direct order? What did he say? He said if we obey orders he will take care of us no matter what."

The guard on her back eased up on his hold as he thought. Finally he responded, "I don't know. He's got friends in high places, but I don't think he could get us out of an execution in front of the entire population of GALF."

"You don't know that. It might just be this wing. In that case, who cares? Shoot her."

The guard's anger rose, "That's easy for you to say, you're not the

one doing the shooting. You don't know where this is on display. It could be all over the city for all you know."

There was a long pause. Still more shooting could be heard in the distance. There was an agonized scream cut short, and the shooting stopped.

The standing guard placed his hand on his weapon nervously. When he spoke, his voice had a tinge of fear in it, "What the hell is going on down there?" He paced some more and continued, "I don't think the signal is all over the city. I mean, he's just one guy. He can't just hack a whole broadcast network like that."

The arm lock released and the guard that had been holding her stood, "Oh, like you would know! Forget it, I'm not shooting her. It doesn't matter if it's all over the city or not. If it's on these screens, someone has seen it, and I'm not going to freaking *jail* for the company."

"Look out. One of them is coming back."

Rebecca sat up to see a thrower heading for them. Both of the men aimed their weapons at it.

Rebecca laughed at them, "Run you idiots. You can't win."

One of them snapped back, "Shut up before I feed you a bullet. I think we can take a baggage handler."

"There are plenty more where that one came from.", she argued, "This is the exact same thing that happened on Citadel. You can't..."

The two men began peppering the bot, cutting her off in mid-sentence. They backed away, trying to stay beyond the reach of the grasping claws as they unloaded their weapons into the already bullet-scarred frame.

She backed away from the fight and took off running in the direction of the main axis.

Chapter 28

Reformat

Rebecca drew close to the end of the concourse. The shooting had stopped behind her, and now she could hear only frightened yelling.

Overhead, a display screen changed from the view of the now-empty waiting area to a single word.

Rebecca

She stopped short. In the distance there was a shriek of pain.

The image changed.

Go Right.

Her mouth went dry. She became suddenly aware of the dozens of electronic eyes that must be watching her from every direction. She went right into a large room filled with benches and Global Net kiosks. There was an elevator on the right, and an escalator to her left. Most of the power seemed to be out. The escalator was off, and the lights were out. With no windows nearby, the room was quite dark.

She jabbed the elevator button, but nothing happened. The nearby display was black. It was dead.

She turned and headed for the escalator. As she approached it came to life, ready to carry her down.

The stairs themselves were almost pitch dark, with a small pool of natural light showing at the bottom. She stepped on and rode down.

At the base of the escalator was a small room that led to the baggage claim area. The remains of three TriOp security guards were stacked in one corner. Spent shell casings littered the floor. The room smelled like a firing range, and a haze of smoke filled the room. Humid air flowed in through the shattered window, which was the only source of light in the room.

She looked in horror at the bodies, and stepped carefully past them into the baggage claim area.

The lights were off here as well, but two large windows provided enough illumination to see where she was going. On top of the smell of gunfire, there was a strong smell of burning rubber. Black tire tracks crisscrossed the floor.

A man was pinned against the wall by a luggage bot. She immediately recognized him from his outline. It was The Director. Everything below his ribcage was trapped between the hard block wall and the heavy, thick chassis of the bot. She was alarmed to see him at first, but then horrified when she realized that the front end of the bot was only a few centimeters away from the wall.

Unless his implant gave him the ability to survive with most of his lower torso squeezed into the thickness of a few magazines, he was dead. As she approached, she could see that his skin was stone white, and his eyes were wide open in an eternal stare. His mouth hung open with a look of utter surprise. In his right hand he still held his sidearm.

A display screen flickered to life in a dark corner of the room.

It's for you.

Suddenly a phone began to ring. She looked around quickly but didn't see any obvious public phones around. It rang again, and she realized the sound was coming from The Director.

She approached him slowly, and the phone rang again.

The memory of his speed and strength were fresh in her mind. She didn't want to come within arm's reach of him, dead or not. It rang again.

She stood as far away as she could, and with one hand slowly pulled open his jacket. The bottom of the jacket was trapped in the mess between the bot and the wall, but she was able to pull it off to

one side. It rang again.

Reluctantly, she reached in with her other hand and drew the phone from his breast pocket. She jumped back away from the body and hit the answer button in time to cut off another ring.

The moment she connected, an unmistakable voice spoke, "You need to get out of here. I don't want to have to kill any more of them."

"Are you ok Hacker?"

His voice was quick, urgent, "Don't worry about me. They're looking for you. Well, both of us, really, but you're the one in danger. Take off your jacket."

Beside her, the baggage machine began running, producing a steady supply of incoming luggage from the depths of the airport.

"What?"

"The uniform you're wearing makes you stand out. Right now they're looking for a woman in her early thirties in a TriOp uniform with brown hair. Sound like anyone you know?"

"*Early thirties?* Give me some credit you bastards."

She stripped off the jacket. She was still wearing the pants, but they looked like any other pair of black pants. On top, she was now wearing a plain white undershirt. The moment she brought the phone back to her ear he spoke again, "Now, grab one of these bags and get out of here. Don't go back the way you came in."

She nodded and grabbed a suitcase at random from the moving conveyor. She followed the signs directing her out to the main concourse and broke into a light jog. Movement wasn't smooth with a phone in one hand and a heavy suitcase in another.

She neared a corner and he broke in again, "Walk here, don't run. You're just another passenger, following the evacuation."

As she rounded the corner she could see the way was guarded by three TriOp security personnel. They had moved away from the end of the hall and were now yelling at someone in the crowd.

She reached the end of the hall, she could see they were involved in a dispute with some police officers, who had drawn their weapons on the TriOp forces. The round, dark body of a peace sentry sat nearby, it's red and blue lights flashing. It's loudspeaker proclaimed

that it had detected unauthorized weapons.

One of the TriOp guys was screaming over the din of moving civilians and the blaring of the peace sentry that they did in fact have full permission to be armed in this area. A police officer was screaming back that he didn't care *what* permission they thought they had, they needed to disarm *right now*. The fight was escalating quickly and she walked out behind the TriOp forces without so much as a glance in her direction.

She joined the flow of the crowd as they headed for the exit.

She opened her mouth to speak but he cut her off, "There is a car on the way now. It should be there by the time you reach the main entrance."

"Where are you?", she asked.

There was a strange laugh on the other end, "That question is a bit abstract for me right now, but I suppose you mean where is my body, physically."

"Yeah.", she replied, "That's what I'm asking". He sounded so strange. It was clearly him, but he spoke differently. He spoke clearly, and with less attitude. His diction was clean, and free of the sloppy slacker accent he always seemed to have.

"Well, I'm safe. That's good enough for now."

"Where can I meet you?"

"That would not be wise right now.", he responded, "That would be putting all our eggs in one basket, wouldn't it?"

"What the hell are you talking about?"

He spoke calmly and evenly, "At least one of us must make it out of here alive."

"What? How about I come find you

"No. I'm busy here for the time being. I have the entire security network of this station working to protect me. I should be safe for quite a while, but I need you to get away just in case."

She was silent for several moments. Her eyes swept over the crowd around her. She looked like any one of them, carrying some awkward luggage with a phone pressed to her ear having an unpleasant conversation. "So what happens now?", she said at last.

"I need you to get out. I need you to tell your side of the story.

Tell people the truth about what happened, the truth about Shodan, TriOp, and Coffman."

"You found out about Coffman?"

"Yeah I'm just catching up on the news now. That is the worst part. I can't believe they killed Coffman. You probably won't understand, but they meant a lot to each other."

"Who?"

"Coffman and Shodan."

"You're right, I don't understand."

"It's too late to fix it, but I want everyone to know what happened. What Diego did, what TriOp did, and what I did."

The crowd was hitting a bottleneck at the doors. She dropped the suitcase and began elbowing her way through.

"Hacker, I don't think you realize how big this is. The TriOp PR machine is a titan. Coffman tried to fight it and look at what happened to him. One voice is just no match for them."

"You won't be a lone voice. Right now I'm uploading a bulk of data to Global Net for the world to see. I have hours and hours of video logs, reports, orders, everything you need to corroborate your story and then some. The world will see this. They will know what happened up there. You need to tell them what happened down here."

The reason for the bottleneck was clear. People were rushing out of the airport and then coming to a dead stop out in front. None of them had anywhere to go. A line of reserved cars waited for a lucky few, but for everyone else there were a dozen or so taxis to serve hundreds of people.

She was carried through the doors by the crowd. Outside, it was a different world. The sun shone brightly and a cool breeze washed over her.

Hacker sighed, "Well, you are beyond my cameras. I can't protect you anymore from here. My upload is about to finish and then I'm going to disconnect."

"How can I find you?"

There was another laugh, "You can't. But don't worry, I'll be watching."

She made a face, "It might surprise you to hear this, but that's not very comforting. So what happens to you now? You've got your implant. I guess you're going to go and pursue a life of hacking with impunity?"

Rebecca saw a reserved car waiting in line with LANSING projected onto the rear window. She headed for it.

"I admit, I wanted that for a long time, but I have new priorities now."

"Oh?"

"I want to find someplace safe, get an efficient, high speed connection to Global Net, and go exploring."

"Exploring?"

"Global Net is big. There is a world of knowledge out there. I want to discover new things."

She stopped, "What happened to you up there?"

"Good luck", he said before disconnecting.

She stood there, looking down at the phone for a minute or so. She didn't want to carry around the Director's phone, but she didn't want to cut off her only means of contact with Hacker, either. After some deliberation she decided he could probably contact her anytime he wanted to, phone or not. She dropped it and crushed it under her heel.

She stood at the door of her car for a moment and took one last look at the madness around her. People were fighting over taxis, fighting with security, and fighting with each other. Those that didn't have anyone to fight with nearby were on the phone, fighting with someone far away.

Beside the entrance was a small area allotted to a few trees. It wasn't much, but it was good to see the color green again outside the context of a computer screen. She drew in a deep breath and smiled. It was good to be outside, to taste some fresh air. It was good to be alive, and safe.

As she took one last look at the scene she noticed a lone man walking away from the airport. He was dressed in an ill-fitting business suit, but heading away from the concrete stairs that led to the underground service entrance. He was thin and pale, and walked

with a pronounced limp. The top of his head was covered in short stubble. He carried a suitcase in his left hand, while his right arm hung limp at his side.

She opened her mouth to call out to him, but decided not to. He entered one of the reserved cars and pulled away into traffic.

Rebecca entered the waiting car and told the driver to head out. She didn't know where she was going yet, but she wanted to get away from the airport.

She rolled down her window as they eased out into traffic and smiled into the sunshine.

"Drop me off in front of the TriOptimum building", she said at last, "I have a story to tell."