

# SHELL ACCESS

MICHAEL G. WILLIAMS

## Shell Access – Chapter 1

My name is Charles Fitzgerald, and I am not a good role model.

Every morning I wake up and repeat that statement. I figure it's pretty important to keep a perspective on things in life. I am not an action hero. I am not going to save the world. If I do save the world, it's not going to be because I am pure of heart, at any rate. I mean, I'm not opposed to the idea of world-saving, in general, it's just that I'm not really built for it from the ground up. I don't have a jaw you could use to sharpen a knife. I don't have the classic Aryan features of a Flash Gordon or the pure heart of a Superman. I don't have the budget of a Batman or the noble birth of Wonder Woman. I aspire to the sort of intellect possessed by a Doctor Reed Richards, but the bottom line is that I'm not an expert in all the sciences, just the ones I got a degree in, and I don't remember half of that shit anymore.

So, I figure in the most honest assessment I can collect, the best case I can make for myself in light of all the evidence, I'm just a regular guy with good intentions but a whole heaping stack of bills to pay. In other words, I'm human. Just a plain old human being with all the graceful dreams and clumsy execution that implies.

Okay, truth told, I'm an industrial spy.

That sounds a whole lot sexier than it is.

On paper, I'm a contractor. I get gigs from my contracting company – tech support here, network administration there, quality assurance over there someplace – and once everyone signs on the bottom line then I'm just a wage slave, a hired gun, punching the clock on my way into the office to do whatever's needed, whatever the company that hired me wants me to do for a little while – whether it's just a short term goal that needs doing or an extra hand to help out during a busy season or a job that's slightly risky and they want someone who can take the fall without dragging anyone else down with them – and that's that. No big, emotional welcomes or goodbyes, no years of service, sure as hell no retirement plan and plenty of overtime wherever I can milk it.

What they don't know, what they never know, is that I'm remembering everything I'm told. I've got a decent memory and I always find out where the copy machines are, and I keep plenty of spare disks on me from day one. I collect, scan, record and archive everything I can that might possibly be of interest while I'm there. I make a drop – send it back to the home office in whatever form I can – and then they take it from there. I never know what they do with it to be honest. I imagine they shop it around, auction it off, sell it to anyone and everyone who will pay. The bottom line here is – well, it's

just that: the bottom line. I collect data on my temporary employer and my contract company sells that data to "interested parties." I have no idea who those are, though the obvious answer would be the competition – not my competition, but the competitors of the company that's hired me on the up and up.

Let me give you an example. Two years ago I got hired to work QA – quality assurance, the pre-market testing – on a new model of home entertainment equipment. I won't name the manufacturer – I'm not a complete idiot, they might want me again – but I will say you'd recognize them instantly if I said the name. Their engineers had put together what they claimed would be the really low-cost alternative, the new killer app of home theaters. They'd figured out something new about the way to arrange the various jiggery bits inside a speaker so that with one speaker they could produce the equivalent sound of a real, honest movie theater. I'm talking the two dozen eight-foot speakers and all, the whole package, enough sound to snap your eyeglasses like a twig and push your hair back into your skull, and they could do it with a little plastic doohickey the size of a deck of cards.

I should note that although my bachelor's was in electrical engineering, I never have been much of an audiophile and I've never learned much about the way speaker systems work or what makes

them great. I get the mechanics of it and I can read the spec diagrams, but I don't *get it* get it – I don't know the feel of the machine. I don't have any real empathy for a speaker, and so I don't have that sixth sense for when it's just *right*, when something works like magic about it. I've never been incredibly clear on what makes “highs” twangy and lows “wobbly.” I read the reviews for speakers, but to me, if it sounds good it sounds good.

However, my contracting company wanted everything I could tell them about this wonder speaker. I wasn't going to be doing any design work, and I wasn't going to be on the assembly line, but I was going to be in a test chamber. It was a sound room where I could listen to the speakers, make notes, and do very basic testing of the wiring and electronics – just making sure that if I popped in a video and cranked the volume it wouldn't explode spectacularly and take off my hands. This was real grunt work, full of agonizing forms to fill out in triplicate and rote instructions to follow forty times a day, over and over. There are only so many movies of which I can see the first ten minutes forty times in a day, and none of the ones they gave me were on that list. This was ditch digging in silicon. But my contracting company offered a bonus on getting actual engineering diagrams, layouts of circuit boards and anything I could tell them about the assembly line.

So, I botched the job – from the perspective of the manufacturers, anyway. I went out of my way to note problems with the speakers. I made up most of the problems I observed – not outlandish tales about how when I turned them on I heard the voice of God telling me to kill or anything, but a few unexpected issues that I knew couldn't have actually happened and a few that I knew could have happened. Every other test set they gave me would fail mysteriously – at least, on paper – and in a blissfully very few days they'd sent a development engineer down to the test labs to watch me test the speakers.

They worked fine, naturally, and in short order he was convinced I was incompetent. But I cajoled him and played dumb and asked a lot of questions. I made sure that I looked like I knew just enough to be dangerous – just curious enough and just educated enough to be the sort of hack who'd try to tell him how to do his job. The second I made a couple of half-wit suggestions about the assembly line processes – things like, “I assume you're soldering this here before you bolt this board to the frame, right?” - he got offended, and was only too glad to have the chance to correct me.

The thing a development engineer hates most is someone telling them how to do their job. Like anyone else, they think they're pretty good at what they do and they hate the feeling someone else is

sniffing around their turf looking for a weak spot. By lunch on the Friday of my first week I'd been told exactly what order everything happened in on the assembly line. This guy was thrilled to prosecute me for being a moron, and he was presenting every bit of evidence he could think of.

That I was wearing a recording device didn't occur to him – or, more importantly, to his ego.

That afternoon I sent in a couple more bogus testing reports and a snotty request to see the engineering diagrams, as I was certain something I'd observed simply shouldn't be the way I'd seen it, and I wanted them to demonstrate that their design was sound.

They hated me.

The engineers upstairs were only too happy to mystify me with their diagrams – clearly the Magna Carta of speaker design – and their manager was delighted to escalate the issue to my direct supervisor along with a demand that I be let go for incompetence on the job.

Sadly, I'd already scanned and emailed the design docs they'd shown me.

That, with the audio of the dressing down I got from the engineer over assembly processes, got me my bonus - and the bonus plus my regular rate plus what the electronics company was paying me by the hour added up to two weeks of pay for anyone else doing my

job. It didn't make me a billionaire, but it got me two weeks pay for one week of showing up on time, and how many people can say that about their job?

So. As I said. I'm not a good role model. Hell, I'm not even an only okay role model. I'm not even a neutral role model. What I do is illegal in ninety percent of the nations on Earth, banned by the World Trade Organization, a capital offense in some places and a sin in the eyes of every god I've ever heard of, but it pays the bills.

I have a whole rationalization of it, if you want to know the truth. I like to think of myself as a guerrilla in the innovation wars. That electronics company put out their super-speaker – it was pretty nifty, and they've made a mint at it – but so did their main competitor, just two months later. Everyone gabbed about how they must have had someone on the inside, that they must have cheated somehow, but there was nothing anyone could prove. And in the end, the market got two competing companies with quality products rather than a monopoly with no drive to innovate.

Reverse engineering has long been a tradition in every industry. From farm machinery to computers to cars, every company has always bought up a bunch of its competitors' stock, ripped open whatever it was they made, figured out how they did it and then stolen their ideas



to produce their own version of the widget in question. I think of what I do as running down the clock on that scenario, like a quarterback who spikes the ball with ten seconds left in the game so the other team won't have a chance at a miracle interception they run all the way back for a touchdown as the clock runs out. I'm just speeding up the process of reverse-engineering by allowing for the simultaneous development and theft of new ideas.

That little speaker system would have killed everything else on the market, and it will eventually kill an entire generation of home entertainment design – but it'll have to work to be the best at what it does. That's good for everybody, in my book.

Hey, I'm a consumer, too.

I'm telling you all of this to explain how I ended up here, in Diana City. I never expected I'd get to see the moon, but the minute the UN confirmed that there would be an initial round of open bidding on design and construction for Siang-Ngor – hell, confirmed that there would be a second colony this long after the first at all – my contracting company started getting calls. I don't do steady enough work for them to rate one of the cushy jobs – some grab and go gig in an office in Sydney, for example – so I ended up getting assigned to the maintenance team of TransCo. They did the monorail system for

Diana City twenty years ago and they've had a lock on the maintenance contract ever since. Everyone wants a piece of that action – almost the entirety of transportation in Diana City is by rail, and the contracts leave plenty of padding for their lucky winners, so a successful bid is a guaranteed profitable endeavor and a boost to any company's stock price. So here I am, one background check, application process, interview round and qualifications exam later, waking to the first bright morning of my shiny new career on the moon.

That's what went through my head my first morning there, anyway. The alarm went off, and pretty much that whole monologue ran itself across the ticker tape of the mind's eye. I didn't exactly put it all together like that, like a little story I told myself – I didn't have to sell myself on my own back story or anything – but I did have to remind myself of where I was and why. The Moon. Luna. Diana City – the first permanent human habitat not on Earth itself. A huge achievement, a monolithic leap forward in human ingenuity and, frankly, corporate interest. Oh, originally it was all going to be research and development of new technologies and Better Living Through Science, but... well, it's easy enough to guess what happened. The first-world nations all had better things to do than develop new

technologies with their own trade “partners” (if by “partners” one means “kill-or-be-killed competition”), and the third-world nations that could benefit directly from some of the new innovations developed on the moon – say, efficient energy, efficient urban design, new manufacturing techniques – were all too poor to foot the bill. The UN was in serious danger of rendering itself irrelevant once and for all by its own hand – this lunar colony was going to be its big effort to reestablish itself as what it was meant to be: the place where nations came together to do something better than they could do on their own. And it *couldn't do it*. That is, the UN couldn't do it until a company stepped in and offered to fund it in return for being able to operate there as a commercial entity.

What was that business?

A casino.

Once the casino was in the door – what high-roller wouldn't want to say they'd played craps on the moon? - then the banks wanted in because, naturally, a casino and their highest-of-the-heap clientèle needed their banks around. And once banks were there, their chief clients – other businesses – wanted to be up there, too. And all those companies had employees who needed pizza delivery, and somewhere to shop, and somewhere to buy lunar chotchkes to ship back home to mom, and on and on. Once it was a multi-national public-private

cooperative, once the corporate interests were there with their feet in the door and their wallets out, offering to help foot the bill in the name of advancing human understanding, it was just a matter of time. Over the fifty intervening years, Diana City has turned into the most expensive offshoring endeavor in human history. No one owns the moon, per se, and there's no such thing up here as sovereign territory or national boundaries, but there is private property – and there are almost no people not on the payroll of a corporation that wants a big, flashy research lab or a collections agency or a banking operation that has no federal regulations holding it back. “Business-friendly” utterly fails to describe the atmosphere up here. (Ha! Atmosphere! Get it? Oh, fuck it.) Corporations run the place and UN cops walk around making sure they don't offend anyone and trying to make it look very orderly. It is, in the conventional sense, but everybody who knows anything knows that every company with a presence here is doing something they'd be embarrassed to be caught doing back home, or they're doing something for the PR boost they get from being a part of the Diana Coalition.

Diana City, I've been told, is a lot like Washington, DC: no one you meet is actually *from* there. Everyone's just a transplanted job – you're more a *what* than a *who* or a *where* - *what* you do rather than *who* you are or *where* you're from. Identity is never expressed in

geographic terms – only professional ones.

And now that the UN had announced they would try it again, they were pretty much tied to the model of the public-private cooperative. They were going to bid it all out this time, like any other big government cash-cow. This time, though, it's supposed to be for legitimate research purposes. They have a very specific agenda: develop new ways of managing life on the moon that can be applied in real-world settings back on Earth. Can all transport, door-to-destination, be under computer control? Can all environmentals be under computer control? How efficient can a solar panel get? Can a building that's not in use be vented and vacuumed to save on atmospherics? How dense can a population get and still have the sense of individual space? This is the shit the third-worlders want so bad, and the UN is only giving contracts to companies who will be serious about it.

So some competitor of TransCo has hired me to find out how TransCo does it – but not just generic information on the monorails. They want to know how tied in is TransCo with SentrySoft? SentrySoft is the big provider of network security up here. Diana City's monorails are semi-autonomous, meaning there are computers controlling some stuff but human hands could take control of everything at a moment's notice. Siang-Ngor is going to try to ditch the human hands entirely.

The fewer traffic controllers breathing the air, shaving and eating and taking dumps on the city grid, the fewer resources needed. A more complicated computer infrastructure is going to require more thorough security, lest every fourteen year old with a woody for network chicanery is going to try to play Godzilla with the city's trains. And whoever hired my contracting company to get me in the door at TransCo wants to know just how that works: how tied in is SentrySoft with TransCo? How much control? How much liability? In other words, if my employers' employers get that contract, how much of their dick do they have to put in SentrySoft's teeth?

Dumb, I know, but no board of directors wants to explain to their shareholders why an accident happened but it wasn't their fault, it was SentrySoft's. Or maybe – and perhaps more likely – they want very much to be able to say, an accident happened but it was all SentrySoft, not us, and save their own skins. I don't know, and it's not my job to know – just to find out how tied up TransCo has to be with a company that owns network security on the moon but back on Earth is just another player in a crowded field.

So anyway, that's what was running through my mind when I woke to my first morning on the moon. I was amazed at how comfortably I'd slept despite being in a strange place – I always have

trouble sleeping in hotels or in strangers' beds, but that's something I've had to get used to. That morning, though, I woke refreshed and alert. My alarm had gone off but I'd managed to slap it quiet in my sleep. The trip had been absolutely exhausting – imagine spending two days in the cabin of an airplane, on your first flight, terrified out of your mind, and surrounded by 30 people in the same shape as you. Mix in nothing but protein bars and novelty “space foods,” bad instant coffee and sudden-onset mass claustrophobia and you're starting to get how it might feel. My body and spirit had been crushed by the trip, ground to a fine paste fit for nothing, and I'd staggered into Diana City far too exhausted to engage in anything like awe or wonder at my new surroundings. All I'd wanted was to sleep somewhere other than a recliner that smelled of antiseptic. Ten hours later, I'd awakened in my new “apartment,” a one-roomer that made shoe boxes look like penthouses. I realized I was probably running late, but fuck it, I didn't have to be at work for a week yet. Part of the deal with Diana City is that any corporate job is required to give you a week's acclimation time. I could sleep in if I wanted, shop if I wanted, but most importantly I'd have plenty of time to flip my shit sky-high and get shipped back Earth-side if need be without costing the corporate dicks a single dime beyond a round-trip ticket and a prescription for some downer or another.

I considered rolling over and sleeping for another day or seven but I felt strangely alert when I awoke. I say "strangely" because I am God's own night owl. I fucking hate mornings, and the only thing that gets me through a first-shift gig is a mammoth pair of dependencies: caffeine and nicotine. The latter was banned in Diana City in any smokable form – no sense wasting oxygen on cigarettes – so I'd packed a six-month supply of nicotine gum and nicotine patches for a three-month stay. Coffee was still legal, though – I'd have liked to see them fucking try to ban coffee – and I'd figured it would take me at least a couple of pots just to walk out the door. Yet here I was, bright eyed and bushy tailed, and the clock read 7:15am DST. The lights came up slowly when I sat up in bed – this whole smart-home bullshit is going to take some getting used to, I thought – and I scratched my sack and wondered if they were pumping a little extra oxygen in the mix to keep people productive. It's an old casino trick, I've always heard – it keeps you alert and awake and makes you a little giddy. Great, I thought, my climate control controls me. Fuckers.

There was no getting past my absolute awokeness, however, so I rolled on out of bed and stretched long and hard, then walked to the "kitchen," by which I mean I took ten steps and walked behind a cubicle divider erected to create something like distinct spaces within the twenty feet to a side room I now called home. The coffee machine



scared me something awful when it lit up the second I stepped into its detection field, dumping ground beans into a high-efficiency steamer/brewer that promptly spat coffee into a single mug pre-placed under the basket. Frightening as it was to have the environment try to react to my presence rather than sit around waiting to be abused, it was nice to feel catered to. The night before, I'd managed to order up a pizza so I could have breakfast pre-made, and as the coffee brewed I reached to open the weird-ass miniature fridge some Japanese company supplied to all the apartments top-side. The door opened gracefully, like a paper crane taking flight – one touch and the door swing outward at the handle but backward at the hinge, so that it opened and folded out of sight simultaneously. Nice, I thought. Then I smelled the contents – a pizza that had clearly started to go bad, unrefrigerated, mushrooms turned to brown and black splotches of decay. I fought back the urge to throw up on the pizza – it wouldn't have improved its appearance anyway – and wondered why the hell the refrigerator had been off all night and why the pizza had gone bad so fast. Did maintenance forget to turn on the power in my apartment? No, that didn't make sense – the coffee maker and the lights and the alarm clock all worked. I stood there staring at the rotten pizza like it held a tremendous mystery beneath its greening cheeses, and then I looked at my watch again. I hadn't slept for a

night, I'd slept for a night, a day and another whole night. I'd slept 34 hours, not ten hours.

Fucking great.

And the fridge had been off the entire time.

Fucking great.

It struck me as I shut the door, though, that what I'd just realized wasn't actually true – the refrigerator had been on when I went to bed the day before yesterday. I remembered the light coming on and feeling that rush of chill air when I opened the door. The memory was fogged by the exhaustion I'd felt at the time, but the fridge had definitely been on – if I noticed it now, having just awakened, surely I'd have noticed the refrigerator being off when I got in from my flight. I stopped to ponder the fact that no matter what, no matter how much money goes to subsidize someone developing reliable refrigerators for use on a lunar colony, something goes wrong – and then I turned around to see if any of my dry goods could be turned into a suitable breakfast when I noticed the microwave was on.

Great. My entire kitchen was fucked up and I didn't even have the satisfaction of being the one who'd broken it. The microwave sat there, running, the light on inside. I could see through the door that it was empty, and every light on the control pad was lit up like Christmas in a pulsing pattern. It scrolled random letters and numbers across

the face and the keypad lit up and went dark in a hypnotic spiral. Lovely in its own way, but it didn't look good as omens go. I hoped to the gods that this didn't mean everything on the moon was a complete sack of shit – if it was, that meant my job at TransCo might involve actual work rather than my usual bullshit dance, and I wasn't prepped to face that without cigarettes and without half-and-half for the coffee. At any rate, building maintenance were about to get an earful about this, but my mounting annoyance was quickly overridden by pure disgust: the lease paperwork didn't have a maintenance number, just a card suggesting I call tech support for any device that went belly-up on me. Great, I thought, they're too cheap to bring a maintenance guy up here, and now I've got to call back home to report my fridge and microwave have eaten themselves?

I fiddled with the face of the microwave for a minute and then I noticed something. The spiral was extremely regular and never involved more than one light being lit at once. It was very regular, very planned. Given that it was a series of on/off's, I realized it was probably a diagnostics code for tech support. Hell yeah, I thought, I've figured something out already and I've been awake for five whole fucking minutes. The portents were looking better. I grabbed my headset and threw it on while I hunted around on the back and bottom of the microwave. The tech support number was right there on the

bar code – I wrote it down, rolled the refrigerator away from the wall to grab its tech support number, and then dialed up the fridge company. It felt fucking stupid to be calling tech support for a refrigerator, and in fact it was – their line gave me a “due to heavy call volume” message and an announcement I'd have to wait thirty minutes to speak to a rep. Typical – do people on the fucking moon get the fast lane into tech support? No, we gotta wait with everybody else. So corporate – so typical.

I walked over to my mini-comp and fired it up - figured I might as well see if I could find any FAQs about my model of fridge while I waited for tech support to answer the phone. I didn't get that far, though. I'm an industrial spy, remember? Well, my undergrad degree is in electrical engineering but my master's is in computer science. I'm not any super-duper programmer, but I'm okay, and I get networks – something a lot of programmers don't. The bottom line here is that I wrote my own software firewall. Screw the ones you can buy, I don't care what the reviews say, I trust myself more than anyone else in the world and I've got something worth protecting anytime I'm on a gig. When I fired up my idle computer, the first thing I got was an alert that in the time I'd been asleep there'd been no fewer than seventy three thousand two hundred eighty four attempts to compromise my mini. All of a sudden this was a lot more important than one dead

pizza, and I ditched my headset and the tech support call to find out what the fuck was going on with my laptop. Half-and-half is important, but bad dairy products won't blow my cover or get me arrested for industrial espionage, and I am nothing if not paranoid about being found out for what I am. I'd set my comp down on the desk when I got in two days before and it had come up on its own to run a virus check and test for connectivity. I'd been asleep the entire time, so it had sat there, humming away, getting hit a few tens of thousands of times by gods knew whom trying to get into it. Sleeping 34 hours, letting my computer sit there under attack and my food rotten – the portents were against me again. Slowly it was dawning on me just how completely I'd fucked up by sleeping for thirty four fucking hours, and each new fucked circumstance was taking priority over the last. The fridge was the last thing on my mind as I started to dig into log files on my computer. What had been tried against it?

The answer was pretty much anything and everything – a series of rapid-fire attacks on all the standard vulnerabilities and a few things I just didn't recognize but looked serious. Nothing had worked – my computer is programmed to close off all inbound network access for as long as there's anything like an attack going on, but that hadn't stopped whoever was scanning the hell out of me. That's exactly what it looked like had happened, too – as soon as my comp was on the

network, it started getting nailed by automated attacks, a shotgun approach to testing me for possible exploits to be used against me. It was obviously automated because no human could sit there and try everything, no matter how fast they type-talk. It meant there was probably someone on the same network – someone in this building, in other words – who automatically detected anyone else when they joined the network and then auto-scanned them for vulnerabilities. I supposed it was possible this was actually a service of the building – an in-house preemptive scan to make sure no one was bringing in a box that had been back-doored elsewhere (such as on Earth) and then walked it into the closed lunar system where it could do all kinds of bad shit. The more I thought about it, the more that made sense – I started to calm down a little. After all, they hadn't actually breached the box, so there wasn't any real danger. And there was simply no way – well, within reason – that anyone would know who I was or why I was there beyond being some tech they'd brought up to fill a contract slot for TransCo. Given how dependent life in Diana City was on computer assistance – air and water recycling, lights, a-grav, whatever else had to be done – it made sense they'd be just as paranoid as I am. So I took a deep breath, popped a wad of nicotine gum in my mouth and shut down the red alerts on my mini-comp. Now that I knew the building was running a wireless net that was probably

scanning everyone all the time, though, I called out to the computer to bring up any other network activity it had noticed while it had been on. Like I said, I'm paranoid – my computer is always listening for chatter nearby. I poured a cup of coffee while my computer recited a few routine conversations – phone use was high in my building, which makes sense for a bunch of largely blue-collar engineering and mechanic types who've got families back home to check on. The pay for going to Diana City is usually fucking astronomical, but the stress on a family man can be hard to manage. That's why the tours of duty are so short – three months, maybe six, a year if you've got a rock solid psych assessment, and then it's back below for a little decompression and some kiddie time, then you re-up if you think you can take doing it all over again. The rest of the chatter was equally explicable, equally benign. I started to let my mind wander as the computer worked its way backward in time, until I snapped to attention when the computer got to the 30-hours-ago mark. Thirty hours previously, my microwave had launched an all-out assault on the refrigerator. After ten minutes of nonstop network chatter, the refrigerator burped out some encrypted data as a network-wide broadcast, the equivalent of a scream in the distant night, then went dark network-wise and never came back. Ten minutes after that, the microwave started rebooting every hour, on the hour.

Two things hit me simultaneously: my kitchen appliances were networked, which was ridiculous and yet amazingly cool, and my kitchen appliances were at war with one another.

The portents were looking very, very bad indeed.

I started running a brute decrypter on the data the refrigerator had sent out, and by then my coffee had cooled. I'd have to take it black, but it beat nothing at all. So, my microwave killed my refrigerator and then turned the gun on itself. I was living on the moon, my kitchen didn't work, tech support was a few hundred thousand miles away and knee-deep in phone calls, and I'd overslept by a day, cutting into my precious adjustment period. And I'd just turned 35, and was absolutely convinced I'd never get another date as long as I lived, to top it all off. I sipped my coffee and touched the window to roll the blinds back. At 8:00 am DST, the moon was, and I say this with a reminder that I can be one cynical fuck – the moon was fucking beautiful. I wasn't in the best part of town for a view of the colony, but the dome was opaqued and there was a beautiful blue sky with perfectly fluffy clouds rolling across it. Fake, I know, but it was gorgeous. The sun shone through the projection, damped a little by the dome I guess since it's supposed to be bright as all hell without some sort of shielding up here, and the city was an amazing white and grey and black with long patches of green and even the blue of crystal-



clear lakes and ponds. The illusion was that of an almost idyllic Earth city, a Utopia of clean streets and clean lines and buildings tall enough to look impressive without a skyline that overwhelmed. It was like looking out across Washington, DC as opposed to looking up across New York – human achievement on a human scale. And at the same time that it spoke of everything every city on Earth ever wanted to be, it felt entirely alien, entirely unique. It was a landscape open enough to let you notice what you wanted to see rather than forcing the eye to any one concrete phallus or another. It was absolutely awe-inspiring, at least from here, and I honestly had to put my face to the window and rest my forehead against the glass for a moment just to gain my balance. The clouds moved ever so slightly – just enough to maintain the illusion but not so fast you'd be hanging around to notice them disappear when they got the edge of the image. And behind and above all of that, just visible, was the outline of Earth hanging on the horizon. Very faint, like a ghost, she sat there looking over us like Gaia herself was checking to make sure we were okay.

I'll be goddamned, I thought. They got something right up here. Everything else so far has been for shit, but maybe it's just my apartment. Maybe it's just my dumb luck. Because out there, it is unbelievable. I want to be out there right now...

When I stood straight again, i realized I'd left a big-ass mark on

the window in forehead grease. I frowned at my innate and inescapable knack for fucking things up just when they're starting to go right, but then the light changed in that section of the window and the grease was just gone. I noticed a hint of something like a smell, but it was very faint and I couldn't identify it.

The window had cleaned itself on detecting my face-smear.

Welcome to Diana City, I thought, where the consumer products and banking scandals of tomorrow are 100% guaranteed to freak your shit out today. In the meantime, enjoy the view.

Fucking great.

## Shell Access – Chapter Two

So that was how I started my first day on the moon. I called the refrigerator's tech support line an hour later and this time the delay was a lot shorter. After a few minutes I was on the phone with some kid who was obviously reading from a script and I had to interrupt him three times to get him to set it aside and just talk to me.

“Okay, sir, tell me again what it is that's wrong with your ColdPro HomeServ icebox.”

I cleared my throat and popped another wad of nicotine gum. “It got attacked by my microwave, sent out what I assume is a distress signal – I haven't gotten it decrypted yet – and then it shut down.”

“And you've tried the manual reset on the back of the device?”

“No.”

“Well sir, I think that's the first thing you should do. If your ColdPro HomeServ icebox isn't restored to full service after that time - “ but here I realized he'd just gone straight back to the script so I interrupted.

“Look, kid, I don't think you get what I'm telling you. My microwave launched a network attack against my refrigerator. I've still got to call the microwave tech support people – in the meantime

it's unplugged and sitting there. Right now I want to get my fridge back up and running and I want to know why the hell my fridge is vulnerable to a network attack. Has this ever happened before? Doesn't it strike you as odd that a microwave would launch an attack on a refrigerator? I can't imagine every kitchen on the moon is a war zone."

"If you want to report this as a security incident you're going to need to call the firewall company for Diana City."

"What?"

"SentrySoft. They make all software firewalls for all devices in Diana City."

"And my refrigerator has one? My refrigerator has a firewall? What the fuck is that all about?"

"You'd have to ask them, sir."

"Okay, fine." I was awake and alert, but it was still 8:00 in the morning, and my apartment was still broken. "Then what was the broadcast message it sent out right before it shut down? Was that some sort of troubleshooting thing?" I'm a curious guy. And I was pissed. I was going to get something out of this if it killed the guy on the other end of the line. He sat silent for a few seconds, and I'd have sworn I heard him thumbing through paper pages – the kid had pulled out a technical guide. That was good, at least I'd get something.

“Sir,” he said after a minute, “I don't know what that was. I don't have anything on that.”

I rested my head against my arm, propped on my desk. “What do you mean?”

“I mean, the normal, hard-coded processes of a problematic shutdown don't involve network traffic. The ColdPro HomeServ icebox writes any core files to a flash card accessible behind the top hinge, in front. It doesn't say anything here about dumping data to a network broadcast. That wouldn't make any sense.”

I sat and thought for a second about what he'd just said – and it was true. If there was no one there to read the data, no engineer with a test set or no diagnostic device connected to the network and waiting for a distress signal from the fridge, doing a broadcast wouldn't make any sense. It would just increase network chatter. I hrmphed audibly and said, “Well, that's what happened.”

“I...” He sighed. “I believe you, sir, but I think perhaps it came from something else. If your microwave was compromised – and here I'm just thinking out loud, you can't hold me to this – then maybe it spoofed something from your refrigerator, like if it were reporting back to whoever compromised it but they didn't want the microwave to show its hand?” He said it precisely as that, a question, and I was finally satisfied to have broken him out of the scripted responses. For

what was probably the first time all day, the kid was thinking on his own. Unfortunately for him, I wasn't going to be fooled by some spoofed packet. I'd checked the data dump against the fridge's hardware address and I knew it had to have come from the refrigerator. That sort of thing can be faked, but it's not easy, and no amount of whiz-bang marketing bullshit was going to convince me a microwave had the capability.

"Well, fuck it all," I said to no one in particular. The kid on the other end spat out the number for SentrySoft. I guess I'd offended him because he blurted, "Just try the manual reset at the back of the refrigerator and call us if that doesn't work for you. SentrySoft can answer any further questions you have," and with that he hung up.

Typical.

OK, so my fridge and microwave were networked, and had firewalls installed. SentrySoft was a major firewall provider back on Earth. I'd never bothered to check on their work in Diana City, but it made enough sense - like I said, everyone up here is entirely dependent on computer control of their environment, and it's a closed system with very limited links back to Earth for safety reasons. If your microwave were networked - probably some half-assed implementation of some useless feature the contract winners included so they could have commercials that said, "One day your microwave

will email you that it's done reheating that chicken – *just like on the moon*” - then that means it's got a CPU in there, some software, and that needs protecting. Installing a firewall on it – a firewall being software that monitors network traffic to prevent unwanted access – makes sense, if you can swallow that it's a good idea to put a microwave onto a network.

At any rate, talking to myself about why things were the way they were wasn't going to fix my refrigerator. I rolled it away from the wall, shoved a paper clip into the back and a few seconds later a barely detectable thrum in the frame indicated it was back on.

I spat out my last knot of nicotine gum and shoved another in its place. This was progress – I'd earned a cigarette substitute – and so I went ahead and punched up the number for SentrySoft's support line.

That one didn't have a wait. I remember that conversation very well – I don't know why, though it's tempting to think it's because I knew, on some level, that this conversation was the beginning of something big. I know, I know – of course it was important, I was sent to the moon specifically to suss out how tied in SentrySoft was to TransCo and before breakfast I'd found out they're probably tied up in everything, but still, there was something even greater at stake I didn't know about yet and on some level I think my brain registered that because I remembered every word. Oh, and Diana City residents

had their own hotline to SentrySoft – no waiting.

“SentrySoft, how may we protect your assets today?”

This – okay, I just have to interject here – this is what it's like living in the first entirely corporate environment. You may think it's annoying walking around a shopping mall or cruising online, but that's nothing. That's a cakewalk compared to trying to navigate the corporate speak in Diana City. Everyone has a monopoly contract on whatever it is they do – that's the price of admission, a hefty price indeed, and there are plenty of people willing to pay it. Pizza parlors pay out the nose to get a monopoly on the pizza delivery business in Diana City just so they can say, “The official pizza parlor of the moon!” in their ads back home. It's like Olympics sponsorship only one hundred thousand times more annoying. If you don't believe me, try living with a teapot that whistles an advertising jingle when it's ready. That's the ultimate dirty little secret of Diana City – it's not the offshoring, the absolute greed that inspires companies to move their research labs here so they can play with whatever nasties infest their minds and demand manifestation somewhere they're not going to do as much damage if they get loose, or that inspires a bank to open a two-teller branch and declare it corporate HQ so it doesn't have to deal with any banking laws at all back home – it's that Diana City is like living in every shopping mall on Earth, all connected to one another, all



the time. You can always get a pizza delivered on the moon, but it's always going to be the same pizza no matter where in Diana City you happen to be. Crossing town to grab a bite to eat is like driving from one mall food court to another mall food court without getting to see any of the landscape between. Both malls are going to have a Zbarro's and they're both going to have the same food at the same price. Whatever you get will look the same in both places, cost the same in both places and taste the same in both places. Both places will take the same coupon and they'll both hand you the same sweepstakes entry form and they'll both have the same decor and the same sounds and the same smell and the same neon. And you'll hate both of them after too much of either one.

Anyway, what I'm saying is, up here you hear a hell of a lot of corporate slogans – like you didn't know you were surrounded already.

“SentrySoft, how can we protect your network today?”

“Yeah, this is Charles Fitzgerald, uh...” I dug out my Lunar Passport, a novelty-marketing-friendly one stop ID card we all carry up here. It's a combo corporate badge and state identity card. You can use it to buy beer – it's all Coor's, do you feel fucking sorry for me yet? - and you can use it to identify yourself to anyone who needs to know just who and where you are. I read off my number to the SentrySoft guy and said, “My refrigerator – let me repeat that, my *refrigerator*

has been disabled by a network attack launched by my *microwave*. I know that sounds stupid, but that's what happened."

"And have you spoken with ColdPro support about this?"

"Yeah," I sighed. I was still naked and still wanted a cigarette despite chewing enough nic gum by now to give a horse a heart palpitation, and I was just even more tired of it all already. "I did. I got the fridge started again, but I'm afraid to turn the microwave back on," and then the guy interrupted me.

"Have you addressed this issue to HeatSafe support yet?"

"No. I was told by the fridge people that you were the ones who dealt with network attacks."

"Well sir," he said, and I could hear him slip into the goose step of the scripted tech support exchange, "We can't know the full implications of a microwave oven failure, and - " but this time I interrupted.

"Yeah, yeah. Look, let's cut to the chase. Before my refrigerator ate itself, it did a data dump. It sent an encrypted broadcast to everything on the network. I don't know what's in it yet, but it sent what looks like a distress call. Is that meant for you guys?"

The SentrySoft guy didn't respond for a few moments and I started to think we'd been cut off but by now I was starting to realize that there was a very slight delay in communications. The illusion of

normalcy – highly sanitized, corporatized normalcy, but that in itself was very Earthly – had prevented me from thinking this whole calling home for tech support thing. I didn't let myself get huffy just yet, and sure enough he was back in the game before I knew it.

“SentrySoft firewalls don't engage in that behavior, sir. That could be something useful to a hacker, you see. Instead, when a software firewall notices an attack it does quite the opposite – it goes silent.”

“Security through obscurity,” I said.

“Something like that.”

“Security through obscurity is bullshit,” I said. I hadn't thought about it, it just slipped out. But it's true – anyone who works in security, in any aspect, knows that. I don't mean network security, I mean every kind of security. Hoping no one notices you and crossing your fingers is at best a way to stave off the inevitable: if you have something valuable, someone will try to take it from you. Going silent on attack was a fine idea, I didn't fault them for that, but that the guy on the other end of the line would say that they were following a philosophy of “security through obscurity” just told me that he didn't know what he was really talking about. He was regurgitating the line about going dark in case of attack – something I was sure it did do, and wisely – but didn't have the security philosophy to underpin it.

Mind you, breaching security is what I do for a living. I know all about it. Well, I know enough about it. If this guy took his job as a security engineer seriously, he'd never have said something like that to me. It's just not done.

“Okay. Well, you say it can't have done what it did, so escalate the issue. I want your manager, your tier two support, whatever you call them – get me someone up the chain from you. It sounds to me like what we have is a special case. I want special attention.”

I realize I sound like an asshole here, but it's my kitchen we're talking about here. Mechanics at monorail stations don't make enough to eat out three meals a day, and I wasn't going to live on Burger King for the next three months I had to get this shit working again, and if it meant being a jackass then so be it. I may have a glamorous job title, but I don't reel in a million bucks every day I go to work.

To my surprise, I didn't piss off the SentrySoft guy enough to make him hang up on me. Instead, I just made him want rid of me, and the quickest way to do that without gambling I'd get him again when I called back from being disconnected “accidentally” was to do what I asked and pass me up the ladder. Hold music filled the air as I sat on the line for a couple of minutes and then a woman with a pleasant British accent picked up. Were I straight I might have thought it sexy but mainly I saw it as intelligence. That's a common

mistake we Americans make – we assume a British accent means they're a hell of a lot smarter than we are. With my SoCal surfer boy wannabe voice I just sound like a dipshit. I'm halfway through my reasonable life-expectancy and I still call people “dude,” for Christ's sakes.

That, and my grandmother was from Hong Kong and she held all her life that she was British in spirit if not skin. She was one of those Hong Kong natives who didn't give much at all of a shit who ran the island now, they were convinced the cultural divide would never be closed. So she had this vague, vague, *vague* British accent when she spoke English and to this day it softens me up to hear one.

“SentrySoft,” she said, and that was it – no corporate lingo. I was in heaven.

“Yeah,” I said. I described the whole situation to her – I just opened up and told her the whole tale about the fridge and the microwave and my run-arounds with ColdPro and with the SentrySoft guy I'd gotten the first time. She listened very patiently, and when I was done she asked some very smart questions about the broadcast message from the refrigerator. I gave her everything I had, and she said, “Let me sit back and think about this for a second.”

I grinned to the rest of my apartment. On day one, I'd had a major malfunction and equally quickly I was getting something done

about it.

"That simply can't have happened," she said. Her voice was crisp but not unkind. She just thought I was an idiot is all.

"But..." My on the spot eloquence was in its usual form. "But... but it did."

"I understand what you say you saw, and I can assure you no such thing would have happened due to the firewall software on your refrigerator. Perhaps it was the microwave, spoofing something to distract you or some other engineer? A camouflage action. Yes, I rather like that explanation. Clever of the little bastards."

"But... I checked the hardware address."

"Alright," she said, and there was a hint of kind condescension there, "Let's explore other options. It could be that your refrigerator was likewise compromised, and thus would behave in some unexpected fashion. You must understand, however, that it's highly unlikely this would happen. Our success rate is very high at detecting and improvising a defense against new forms of attack. Our firewalls are very good at what they do, Mr. Fitzgerald. To have both your microwave and your refrigerator taken over in different ways at the same time is next to impossible." She tapped a pencil or something audibly – she was honestly thinking about this. "Let me ask around."

I was on hold again while she, I assumed, checked with her

peers to see if they had any suggestions. I sat there getting frustrated again for about a minute and a half when a different voice – a British man, and now that accent was *hot as fuck* – came on the line and announced he knew the solution.

“Yes, Mr. Fitzgerald? Yes. I believe I know the answer. Our records indicate your ColdPro HomeServ icebox hasn't been in use for some months – apparently your apartment sat empty for some time – at any rate, it's not received the latest updates to the sentry installed on it. If you'll just pull the plate from the right-hand side of the icebox and press the green button three times, that will force an update. You should be back in ship shape after.”

And the line went dead.

Fuckers.

Sure enough, though, there was a plate I almost couldn't see on the right-hand side, and under it there were red and green buttons, big and ominously blank. I mashed the green one three times in rapid succession and the mini-comp piped up that there was a bunch of network activity coming from the refrigerator. Five minutes later it shuddered very slightly as it rebooted, and that was that. I checked the microwave and it had the same deal, essentially. I reset it with a paper clip, ran an update, and then my kitchen was once again a peaceable electronic kingdom. Nothing was attacking anything.

I realized I'd forgotten to ask the SentrySoft people about the umpteen dozen thousand probes against my laptop, but it all seemed rational enough at 8 in the morning and, frankly, I was not in a position to draw attention to myself. I was about to spend three months poking around the TransCo networks from inside to find out about the very security systems that could catch me and land me in prison. You remember what I said about "security through obscurity" being bullshit? Sometimes we break our own rules. Talking to SentrySoft about my fridge was a good opportunity to learn a little ahead of time – they're confident in their product and they'll poo-poo anyone who doesn't just smile and nod when they hand them the party line on a problem with their software, and they're everywhere you least expect them which was *definitely* worth noting – but I wasn't going to do myself any favors by going above and beyond to point out I'd been noticing what their firewalls were up to in terms of my highly modified laptop. In short, I resisted the urge to shoot an email about it to their customer service department. That taken care of, I left my mini-comp devoted to the act of decrypting the data dump out of curiosity more than anything else – I knew it came from the fridge, but the SentrySoft people seemed genuinely disinterested – and hit the shower.

Lunar showers deserve a mention of their very own.



You've heard of a navy shower, I'm sure – you run enough water to get wet, then shut it off, soap up and then run just enough water to get rinsed. And I know you've heard of a whore's bath – grab a wet cloth and wipe the storefront, as my grandmother used to say with a cackle. Lunar showers are somewhere between. You start off with a pre-programmed availability of water, just enough to do a navy shower. But there's a display in the shower that warns you that there's strict rationing of water for bathing purposes in Diana City, so it will let you get this much water now but, before long, you're going to have less and less to use as it weans you from the daily shower routine. All the soaps and shampoos and conditioners are specially designed up here, naturally. They're nanotech – the lather, once it's on your skin or in your hair, rearranges itself into an undetectable protectant that keeps oil or dirt from building up. Within a week or two, you're going to be getting ten seconds of mist to knock that shit off of you, and that's it. After a month, it's just hot air.

For the dozenth time that morning, I thought to myself: fucking great.

The shower did make me feel a little better, though, and the coffee maker working and another piece of nicotine gum helped, and by 9:30 I was in okay shape. I'd put on pants, which was a start, and I'd scrolled through the TV channels. It was all satellite, nothing

locally produced, but a little news from back home was just what I needed to give myself a bit more sense of connection to life in general. After ordering another pizza and getting some protein in me I got back to the mini-comp and found it had decrypted the data dump from the refrigerator. That was a surprise – I was going to tell it to keep that a background process and expected it to take days to crack, but it turned out to be a pretty simple algorithm that my comp broke wide open while I was still in the shower.

What was contained in the data dump – well, that surprised me far more even than the fact of its quick decryption.

It was what I can only describe in layman's terms as information of strategic value.

Here's the deal with a software firewall – they're set up to block access to a computer (or a refrigerator, as the case may be). But they're also, if they're worth a damn, set up to recognize common attacks and actively prevent them from working. If someone wants to knock your computer off-line by flooding it with data, the firewall recognizes that behavior and specifically starts watching for and blocking that access. They recognize the illicit access by matching it to a profile of that sort of attack, referred to as a signature. Open-Source projects maintain open, publicly available databases of attack signatures, but proprietary firewalls – such as SentrySoft's – use at

least some, if not all, proprietary signatures. These are closely guarded secrets, as how a signature is designed will have a lot to do with how efficiently and effectively their product recognizes, responds to and prevents a given attack. Stack a few tens of thousands or hundreds of thousands of signatures on top of a firewall and efficiency and effectiveness become very important. Programmers end up walking the line between writing signatures so paranoid they flag a lot of false positives and so lightweight they're ineffectual or traffic is so sparsely sampled for detection that the firewall never catches attacks until it's too late. There are arguments to this day over whether open-source – making the source code for a project available to the public for free – is a help or a hindrance to security. After all, you let anyone who wants in know how a given open-source firewall detects and prevents attacks, giving them the chance to work around that. On the other hand, it allows the white hats to make suggestions and improve performance.

Proprietary signatures, on the other hand, neither reap the benefits of public comment and improvement nor run the risks of being worked around. A company has to have a high degree of confidence in what they're putting out there if it's entirely secret, and a single proprietary signature can potentially tell a smart black hat all they want to know about how that company writes signatures – their

philosophy of balancing risk against efficiency, what they look for in traffic, what their threshold is for dangerous levels of activity, etc. A proprietary signature in the right (wrong?) hands can be the keys to the kingdom of anyone that uses a SentrySoft firewall.

The encrypted data dump from the refrigerator was a set of a dozen proprietary signatures, broadcast to anything on the apartment network that might be listening – including the microwave that had attacked it.

This was bad. On my first day of being awake, without leaving my apartment, I'd found out that a device protected – and allow me to state that when I thought “protected” I was putting huge-ass air quotes around it in my mind – by a SentrySoft firewall didn't just fail, it dumped a goldmine of data straight to its attacker. This was no accident, either – an unexpected shutdown might have generated a data dump but it wouldn't be broadcast. Network connectivity would be effectively strangled before a computer's processor would overload. No, this was a purposeful act. It was like an army general handing over battle plans to the enemy and then falling on his own sword.

It was conspicuous and purposeful release of sensitive information.

It was spying.

I know that sounds a bit melodramatic – perhaps even a little

overly anthropomorphic – but trust me, I know spying when I see it. The firewall went out of its way to broadcast the equivalent of state secrets right before it choked and died. If this was what I could expect from SentrySoft firewalls in general, then my employers were going to be very disappointed – or very happy – indeed regarding the relationship they could expect with SentrySoft if they did end up winning that bid on the mass transit for Siang-Ngor.

I took very, very careful notes on paper regarding what I'd found that morning. I've got a false bottom on my mini-comp that I built myself, and I keep everything for a given gig in there while I'm working it. I know it sounds stupid as fuck to write shit down, but I'm pretty careful about it – and when's the last time someone remotely stole a paper copy of anything? I'm in industrial espionage, and my cover is usually that I'm a mechanic or an engineer of some sort. A password on a piece of paper is a bad idea, but a few notes about something I'd observed is entirely explicable. And frankly, it's a hell of a lot safer to write shit down in a way that's not networked, not remotely accessible and always on my person. I figure I've always got my computer with me and if I lose my mini-comp then I'm so fucked anyway that it won't matter if I lose my notes from a job while I'm at it.

After writing down my initial thoughts and a quick narrative of

what had happened so far regarding the fridge/microwave battles in my kitchen, I finished getting dressed, slipped my notes into my comp and decided to head out for some coffee and a look around. It seemed to me at the time that this job was a done deal. All I had to do was report back that SentrySoft is everywhere, in everything – of course they're up the ass of TransCo in ways no one would imagine. My work here was done. I had an answer to how present SentrySoft is everywhere, and I knew their shit didn't do what it should.

My job wasn't to find out why it was doing something it shouldn't do, or how it had been compromised. All my employers wanted to know was how omnipresent they were. Mission accomplished. From here on I could sit back and relax.

That's what I told myself, anyway. I'm pretty good at justifying really stupid shit even when I should know better. I'm sure it's no surprise to you that this was one of those times.

I'll be honest with you, too – this gig scared me a little. Stealing designs for a new stereo system is one thing. Fucking with a network security company in a heavily networked environment a few gazillion miles from home is another thing entirely. What I'd observed meant, quite frankly, that SentrySoft's product itself had been overtly compromised in some way by some party. Someone was consciously screwing with firewall software on the moon – a place where everyone

is dependent to one degree or another on computers to control things like gravity, the air they breathed, the water they drank, the palak paneer they got delivered, everything. This could be some sincerely dangerous shit I had found out, and like I said – I'm not opposed to world-saving, per se, but I don't think I'm any James Bond. For one thing, I don't get enough dick to be James Bond.

So I talked myself into believing I'd more or less satisfied the terms of my primary contract without stepping foot inside TransCo – or outside my apartment, for that matter. I ran my paper notes through my comp real quick and then emailed a heavily encrypted copy of them to my manager back at the contract company. I figured what I had was plenty good enough.

Satisfied with my work – more or less – I bagged my comp and rolled out the door to find a coffee shop and start enjoying myself. I can't deny I was curious about what I'd discovered, but I was more intimidated by it than intrigued. I like to think I'm Captain Daring sometimes, like my life is some mix of Sherlock Holmes and the Pink Panther, but I have to admit it: I'm more like Jim Rockford. The jobs are often less than they're cracked up to be, almost every social interaction my work involves has some measure of deceit to it and the guys never stick around after a little fun and a kiss goodbye. That sort of career was no reason to get myself landed in prison. Right?

## Shell Access – Chapter Three

I had been at coffee for about an hour and a half, trying to chat up the guy behind the counter without a shred of success, when my phone rang.

I glanced at the faceplate and saw BOSS in big letters.

Fucking great.

"I have to take this," I told the barista with a smile I thought was very sly, but he just nodded and sort of smiled back.

"Talk to you some other time," he deadpanned.

"Mind if I ask for your number?" I was all teeth and optimism in the face of his almost certain heterosexuality, and all I got in reply was:

"Yes."

"Oh."

I stepped away from the counter, fighting back a blush, and slipped my phone into my ear.

"Charles here."

"Charles!" My boss is this broad named Sara. Sara's pretty damn cool – we used to work together, long story. She's a research scientist by education, but she made some professional enemies and after she got done settling scores she left the lab behind. I'd bet my



last Yuan she does some work on the side – that she's got a lab in her garage, that sort of thing – but as far as I *know* she's now just a “staffing” expert at my contract company. “Oh, I'm so glad I caught you.”

I drew a long breath – whenever Sara gets enthusiasm it usually means she's going to ask me to steal something.

“What's up?”

“Charles, I have some great news – the client is very, very excited by what you found.”

“Really? Aren't they a little worried about shit up here?”

“Well,ahaha,” and I knew this call definitely meant Sara wanted me to do a job, because she very, very rarely laughs and her sense of humor is highly suspect. “Of course. That's what's got them excited. Charles, I don't know how to describe their reaction. They're simultaneously thrilled with our work for them and terrified of what you've found!” I could hear her grinning back in her office in Sydney. “They've asked us to extend the project a bit.”

“Extend the project a bit.”

“Yes. They have some new goals they'd like achieved.”

“Uh-huh.”

I already hated the sound of this.

“Oh, Charles,” and here Sara actually tutted at me. “Don't sound

so glum. I know you – you're thrilled to be on the moon. And I know you'll be interested to hear in the bonus they're offering.”

Now, that got my attention. I am, above all else, a mercenary. I hate hurting people, and I like the idea of helping them, but I mainly like to help myself. It's not exactly a saintly attitude, but it's honest. It's a fuck of a lot more honest than most people, anyway.

“What kind of bonus?”

“That's still in negotiations. Suffice to say it could double what you're already getting.”

What I was already getting, I should mention, is roughly three months' pay at the rate I was getting anyway for being a station mechanic for TransCo. It was effectively doubling my pay – more so, since I didn't have to pay taxes on the under-the-table money – but it wasn't combat pay or anything like that. It was nice, but it wasn't going to break the bank. Doubled, though? Now *that's* what I call *walking around* money.

“Tell me more, girl,” and this time I was practically purring.

“Our employer would like more detail on the extent and origin of what you've observed. How deep does it run? Was this an isolated incident? Have there been Quality Assurance issues because of this? Mainly, why is it happening? Was it a fluke or something more serious?”

"Well, it's got to be something more serious," I said.

"They know that, Charles," Sara said with a little sigh. "And they want to know more. Find out more. Do whatever it takes. You will be rewarded generously."

"And if I end up tripping over something and falling on my face?"

"Oh, Charles, don't worry about things like that. Focus on your work," she said. After a beat, she added, "*Boy.*"

I guess I'd pissed her off with the "girl" thing, but honest to the gods, it was just a faggy sisterhood thing, not a sexist thing. Still, my suave needs some work sometimes.

And then she hung up.

Sara played me like a fiddle, though – all she had to do was mention the money and get off the line before I'd managed to ask too many questions, and I'd bite. I have to. It's not even the cash, really. That someone was willing to double their offer in return for more information meant they wanted to know real bad. That suggested – practically guaranteed – that there was more to this than met the eye, and that got me curious. Voila. I was fished in like the dumbest fish in the pond.

I dialed up information for Diana City and got the number for the SentrySoft switchboard. I was going to talk to someone there – become the most curious civilian they'd ever met – and that was that.

All my earlier anxiety and caution were thrown to the wind almost immediately.

I am such a dumbass.

But at least I was a dumbass getting paid double for the same amount of time, right?

Now my job was to figure out what angle to take. I could waltz into SentrySoft and announce I'd figured out something awful about their software and either land myself in the hospital or land myself a job. Or, I could start poking around TransCo's records and see if they've ever had something go horribly awry because SentrySoft's firewall was fucked up.

The latter plan of attack would be smarter in any conventional situation, but I wasn't scheduled to show up at TransCo for a week. I was still at the beginning of my adjustment period, more or less, so it wasn't a possibility. Rolling up early and saying, "Screw the vacation, guys – you got a network jack?" would be mighty odd coming from a station mechanic. So that was right out.

That meant if I found out anything I was going to have to rely on the Diana City media, such as it was, or stroll right up to SentrySoft and accuse them of having fucked up software and try to distill some

truth from whatever their reaction might be. Not fun, but sometimes going on the offense really is the best way to get results.

And frankly, I can be pretty offensive when I want to be.

I sat back at my table, studiously ignoring the barista who'd just dissed me like the plague, and started thinking it out. It would be wisest to do some research first so I'd have something to throw out or see if they referenced themselves when I showed up at SentrySoft. It's always good to know a bit more about one's target, and I figured if I could scare some information out of someone then the more I know the more I can bluff them to hold up my end of the conversation. That decided, I needed a plan of attack once I was there.

I caught the barista whispering to a co-worker out of the corner of my eye, and knew he was gossiping about the Asian-looking queen who'd tried to pick him up. That did it – I'd faced enough frustration and failure today. Now I had a real, tangible goal – making twice the money I thought I was coming here for – and that was plenty of motivation to stick it to the world. Hell, the barista wasn't even that hot, but he was kind of cute and it was my first real day on the moon. I'd sort of hoped for a bit of a welcoming party trick or three to help me acclimate – who wouldn't want to join the hundred thousand mile high club, I figured – and instead my kitchen blew up and I'd gotten blown off by the first guy I chatted up.

I stood up and grabbed my computer and headed for the door, blowing a kiss at the barista as I went past. Enough was enough. I was going to find out everything I could about the official history of monorail accidents in Diana City and then I was going to sleep my way up, down and across the middle of SentrySoft if I had to in order to find out the goods: did SentrySoft know what their firewalls were doing, was it happening all the time, and who made it do that?

There's nothing like a little anger and a lot of hormones to get a man moving.

Once I was on the "street" - I put that in quotes because, frankly, every "street" in Diana City is technically an over sized hallway, but then, I'm a nitpicker - I made it almost three whole blocks before I slowed down and started to think about my plan of action. I couldn't very well charge into SentrySoft's offices - wherever the hell they were - and hold up a picket that read *FUCK ME AND ANSWER QUESTIONS*. I had let myself get worked up by the tremendous dis of the barista and my frustration with Sara dumping an admittedly lucrative new job on me, and my kitchen and the trip and the whole fucked up deal. If you think the Los Angeles to New York red eye flight's jet lag is a real bitch, try going to the moon.

Bottom line, I was out of sorts and acting irrationally. This no

sooner settled in than I realized I'd behaved unpredictably and irrationally all morning. Now, I won't claim to be Captain Pragmatic, by any stretch of the imagination, but this was a little wacky even for me.

I stopped in the middle of a block – a Pizza del Rio in front of me and a Starbucks Express across the walkway, by which I mean that this could be half the city blocks in Diana City for fuck's sake – and dug in each pocket simultaneously. After two seconds I realized I was digging for my cigarettes and a lighter, and got even more annoyed with myself. Fishing around in my bag I found my nicotine gum and punched a stick of it into my mouth. The vaguely alkaline taste was almost entirely cut out by spearmint and, as I chewed the gum like a wino gumming himself at the thought of a drink, I pondered what had me so goddamn antsy I'd want to fly across the city with my pants around my ankles.

Oxygen.

It had to be that they were pumping oxygen into the mix.

Fucking casino – of course they'd influence everything that followed them up here. Fucking fuck's fuck.

My brain was racing – I realize I haven't sounded right the entire time so far, but believe me, this is nothing compared to that first day – and all of a sudden I was caught up in the implications of them

pumping extra oxygen into the mix. It's not like it would be significantly more expensive, or that there would be much of any other limiting factor. Everything had to be hauled up here, and assumedly there are enough plants around to try to naturalize some of the air recycling but bottom line, no one was terraforming the moon anytime soon so whatever came up here had to come up here the same way, at essentially the same cost. So why not pump extra oxygen into the air?

That of course begged the question of why pump extra oxygen into the air, but the answer to that was easy enough. Aside from the old oxygen bar craze, there are fucking ancient studies on how increased oxygen in the air supply helps with all sorts of disease and injury recoveries – it actually does force other gases and pollutants out of the body. Here I'm talking such everyday things as carbon monoxide, all the stuff we chug when we take a big gulp of fresh air standing on the street in Philadelphia, that sort of thing. That means it would help purge the bodies of any addicts who made it up here – addicts like me, whose bodies are chock full of left over carbon monoxide from all the butts I'm smoking back on Earth. And if anyone were injured – say, got a broken bone, or a bad burn – then an oxygen-rich environment would help them heal faster. And the fact is that more than one study had shown lab rats would get higher blood flow to the brain and heart if they were kept in an oxygen-rich atmosphere for an extended period



of time.

I'd been up here for about 40 hours at this point, so I'm probably well into the various benefits of what would essentially be forced hyperbaric therapy.

I was living in one big iron lung.

Fucking great.

I say that tongue-in-cheek – it is healthier, or at least everything I knew about it suggested it would be healthier. But I've never read about any studies that showed what the really, *really* long term effects might be, and you know shit like this always has some weird-ass long term effect. The important thing for me to remember was that if I were being exposed to an altered atmosphere then I could expect to get a kind of a head rush and euphoria. Nothing like what they say happens when you don the in-flight death mask on a plane that's on its way down, but still – worth being aware of.

The one thing I definitely remembered was that those rats, the ones that breathed oxygen-rich air for days at a time and got all the improved brain blood flow and cardiac blood flow? They had to piss like race horses. I'm not kidding there – increased pressure and volume.

If my dick popped the next time I took a whiz, I guessed I'd have my answer.

So, if I were experiencing increased blood flow to the brain, would that explain weird mood swings and instabilities? Or should it just be chalked up to the rigors of travel to the moon?

"Fuck it," I said. Then I realized I'd said that out loud, and glanced around. No one was nearby to hear me, and that's good, because I cannot imagine anyone up here takes lightly the possibility that their fellow Diana City residents might be flipping their shit.

Fuck it, I repeated to myself. I'll just have to keep an eye on my reactions to things.

With that caveat to myself laid out in the mental open, I stood there chewing my gum and considering my options. I needed to get someone at SentrySoft to spill the beans, assuming there were beans to spill. Now that I knew what the firewall on my refrigerator had done, it had me questioning that dude from SentrySoft and his glib answer about my refrigerator not having the latest version. That's an awfully fucking pat response in tech support, you know – oh, just get the upgrade and *everything will be better*.

Yeah, right.

Still, it had fixed things, or appeared to. My microwave and refrigerator were behaving when I left hours later, and I had no reason to believe they'd fail again before I got home.

I stopped and shook my head back and forth – I still wasn't

focusing properly on the task at hand. I sat down on a bench and pulled out my notebook to write a few things down.

Here was the circumstance as I saw it: SentrySoft's firewall had either been trojaned – it was unknowingly executing code in addition to or instead of its own when it ran, leaving the system open for someone to come along later and do whatever they liked – or the firewall software was written to release valuable data on failure. Either way, there were only a few possible explanations here:

First, and easiest to execute, was that someone at SentrySoft had booby trapped their own product. Why they would do this I couldn't guess – regardless of what people like to think, the black hat scene is not some giant conglomerate of money and resources that can buy off someone in every maker of every brand of software firewall. It just wouldn't happen. So they would need to gain something personally by it – perhaps they planned to extort the company, or had done so already and my refrigerator was running an old version that contained this booby trap.

Second, someone outside the company could have booby trapped the firewall software. Why that would happen was anyone's guess – I could see an individual hacker having decided that this would be his big win, but that didn't seem too likely either. For one thing,

that's not the sort of thing your average nineteen year old hacker wonk can keep secret for very long. The whole aim for most of them is to boost their own image, and that means taking credit for what they do. If they pull off something really big, it doesn't stay secret for very long. No matter how much they trust their very bestest friends, someone ends up telling someone who ends up posting it in on chat somewhere and bang, the cat's right out of that motherfucking bag. On the other hand, it could be an outsider who booby trapped the software and plans to extort, or had extorted SentrySoft and again, it just happened that my refrigerator freaked out because it was an old version.

Something about that still didn't feel right, though. Why my fridge? Why today? Or yesterday, or whatever. You know what I mean.

A third option, and one infinitely scarier to consider on its surface, was that someone was trying to make SentrySoft look bad. Fuck SentrySoft over in a big enough way and they might lose their contract, or lose enough business to end up in financial trouble. Someone swoops in to replace them or buy them out and they get a huge installed customer base. Worth considering, but again, it didn't feel right. Something was missing from that explanation I couldn't place.

The only logical thing to do, for now, was to pursue the possibilities in order of what made the most sense for now. That meant SentrySoft – which conveniently went right along with what I was now getting paid to do. Still, I couldn't just walk in with that hot little sign and expect to get anywhere. I need a way in the door and a way to get someone in the know alone where I could grill them.

First things first, though – I had to remind myself of little shit like this all the time those first few days – first things first, I had to find out if stuff like this was happening all the time. Given that almost no news was produced locally – the New York Times had a “local” newspaper that reprinted wire stories but the handful of reporters they had up here did nothing but human interest “Jebediah Inbreed Does Forty Seventh Tour of Duty As Lunar Rat Catcher” stories. Fuck that – that wouldn't tell me what I needed to know. I needed to find the geeks, the nerds, the fat guys who sat around whatever the lunar equivalent was to a garage and shot the shit about the systems they built from scratch in sixth grade. They would know, and odds were they were the only ones outside of SentrySoft who would know.

I fired up my mini-comp right there on the sidewalk and slipped into my privacy HUD. I needed a meeting of 2600, and I need one fast.

Lucky for me it was a Friday, eh?

## Shell Access – Chapter Four

2600... well, it's almost impossible to describe other than to say, take all the goths and geeks from your high school, put them in a mall food court at five in the evening on the first Friday of the month, and give them the same limp-dick, big mouth attitude as the *jocks*. Plus a bigger paycheck, I guess. But who am I kidding? These are like my people here – all attitude and curiosity and loose sex. I haven't made a habit of going to 2600 in a decade or more, but it always pays to know where the local nerds are, and you won't do better in a pinch. Why they meet at the same time, wherever they are, is just one of those things. If it's good enough for their great-great-grandfathers, it's good enough for them. The magazine's been in and out of print for the last century, but the meetings live on. We are herd animals.

It was simple enough to find out where the meeting was – it was in a Pizza del Rio – and I was able to get a map and a rail schedule and catch the mono out to that end of town just in the nick of time. I figured they'd be easy to spot, what with the computers and the D&D miniatures, but – oh, who am I kidding? I was so totally right with that one it *hurts*. It's so right it's *wrong*.

I strolled through the doors, right up to the counter, ordered a tofu calzone and turned around to lean against the counter and scan

the crowd. The place was empty on a Friday evening – all the adjusteds were just getting out of their offices and this was on the edge of the city so they wouldn't hit this place for another hour or so. The only populated table was a conglomeration of six other tables and around them sat a motley crew indeed: what looked like a half dozen angsty teenagers and a half dozen bleary-eyed third shifters trying to flip their schedules for the weekend. They were mostly male, but the three women in the group were dressed to the nines. Stereotypes and cliches are present in our language and our culture because they are so true. They are the hammers and screwdrivers in the toolbox of description: basic, too simple for a lot of big jobs, but good to have in a pinch. I hate to sound narrow-minded, but this crowd wasn't going to fool anyone. Blind luddite nuns could have picked them out as the monthly gathering of computer hobbyists. It was easy as pie.

I was also older than anyone at the table by an easy seven or eight years. I started to feel a little self-conscious about going over – such are the ironies of arrogance – but I reminded myself that something had me on edge and I needed to take a step back from any seriously unusual feelings I had right now. I reminded myself of my heritage – black Irish and Hong Kong Chinese – and stopped to adjust my shirt collar and jooj my hair in the reflection of the frame on a reproduction Southwestern painting. While a cowboy tamed a wild

buck, or whatever, I stopped to thank my ancestors for genes that left me aging gracefully and, to be honest, aging unconvincingly. I might be down over just turning thirty five but I *had* gotten carded at a bar my last night on Earth.

Last night on Earth.

Goddamn, the moon makes you think some really unsettling things.

So, I puffed up my chest a little and shifted my hips to give a touch of emphasis to my batch and straightened my shirt. I was hip. I was cool. It was my first day on the moon and one of the few days here I wouldn't be wearing some blue cover-all with a corporate logo over my heart, so I'd dressed up a little before leaving the apartment. No ratty band t-shirt and a pair of cut-offs for me – I was in my best slacks and a shirt with some hot little French cuffs and I'd put in my favorite earrings. *Studs for a stud*, that boyfriend had told me when he gave them to me. Good thing the sapphires would last forever because gods know he didn't. I digress. After a thorough make-shift mirror check, I decided I was looking good.

I would not be intimidated by a meeting of 2600.

I spun on my heels, very suave, and glided across the floor with my bag slung over my shoulder and around my neck. My mini was in there along with my notes but the bag was all about style – style from



ten years ago, but style nonetheless. Once it became obvious to the tables' occupants that I was heading to say hello to them in particular, conversation died down a little as each turned to inspect the newcomer.

I cleared my throat as I came to a stop in front of twelve sets of eyes, all on me, all saying the same thing: *narc*. Some days it doesn't pay to be dressed up, even if it *is* your first day on the moon.

"Hey," I said. I stuck my right hand in my pocket and held out my left in hopes someone – anyone – would shake it. "I'm Charles."

"Beef."

I honestly thought the guy had burped when he said his name, but apparently that was what he called himself: Beef. He was a big guy with a build like a football player gone to seed. I pegged him as a night-shift network admin, probably ex-military. I bet anything he didn't have a wife down below but a bunch of kids and an alimony payment.

Everyone else sat there, and I guess that meant Beef was in charge of things. So I kind of turned at the waist to point my hand – still hanging in the air – in Beef's direction and said, "Fitzgerald. Charles Fitzgerald, that is. Good to meet you, Beef. I assume this *is* the 2600 meeting, isn't it?"

"Yerp."

This time he definitely *was* belching. But he did take my hand and shake it. When I say he “shook” my hand, I mean he basically tried to break it. Definitely ex-military – I’d called that one right, I could tell. He was doing that macho handshake, man’s man handshake, the handshake that’s supposed to tell him everything he wants to know about a *man* (insert grunt and crotch-pull here) with one pump. Somewhere in there I’ve got a witty retort about knowing a man from how he pumps me, but you’re smart enough to do the math on your own. Anyway I normally would say fuck it and give him the limpest limp-wristed fagshake ever, just for the hell of it, but for all I knew he actually knew the most of anyone in the room and I need information badly enough to be butch for it.

That’s suffering for your art.

After we shook, everyone else introduced themselves – Jimmy, Lisa, Ham (I guess he considered himself a lieutenant, or maybe he really, really liked ham, I never found out), a kid who called himself Pants but was technically wearing cut-off shorts, and a host of other names I was never going to remember. I’m terrible at names. I just am. Once everyone had gone around the table once, I took a seat and politely listened. No one gets anywhere with a group of geeks by barging into the room, demanding information and then storming out. Remember what I said about us being herd animals? When you’re

new to the herd, you have to watch how everyone else does it first before you give it a whirl, whatever it is. So I sat there and crossed my legs and ate my tofu calzone and listened. The way this group worked was that everyone had a chance to bring up one topic at each meeting. Fair enough, I figured, and when it was my turn I took a pass – I blamed it on still finishing my food and not wanting to spray everyone with reconstituted marinara as I spoke, which some people seemed to find amusing but I took as a pretty lame way to stall – and most of the topics that came up were pretty generic: could someone help Lisa move next weekend, was anyone headed below decks in the next six months and interested in a job working network support with Marion when she returned to her old job at some provider back on Earth, could someone help Beef troubleshoot his cousin's network the next time he called back home, had anyone seen some movie that came out in France about some hacker who got shat on or did not get shat on by the law or The Man or whatever. There was some surprisingly lively discussion of a law proposed in Russia to cut the hands off unlicensed programmers, but it was mainly an academic exercise. Russia's never had a legitimate economy no matter what fucked up system they claimed to be using, and besides, talk-typing didn't require your fingers if you didn't want it to.

As I listened I started to get concerned that no one was bringing

up anything – well, how do I say this – anything legitimate. It was the same sort of conversation you could have around any water cooler in any office building here or on Earth. I suppose that shouldn't have surprised me terribly, and in retrospect I was able to realize that what most folks up here need and want is a little normalcy given the hyper-normalcy of most of their surroundings mixed in with the tremendously bizarre fact that they were living on the fucking moon. But at the time I was starting to sweat the further they got around the table and the further I got into my calzone. Pretty soon they were going to be back to me again and I wasn't sure they were going to be that interested in discussing firewall software, whether or not this was a meeting of hobbyists and geeks.

And then they got to Jimmy.

Jimmy wasn't just your stereotypical pimple-faced primate – he was the kid everyone thinks of when they remember the nerd from high school. I don't just mean the kid with no social graces, I mean the kid who actively brought down the whole room every time he opened his mouth, the kid who united the whole school in their sheer – not hate, but maybe displeasure – yeah, their sheer displeasure with him. Jimmy was the Ur-Nerd, the nUrd. As soon as he opened his mouth and simultaneously reached *into his fucking eye* to adjust a contact, everyone at the table sagged just a bit. They hated him. I

could smell it. They didn't want him dead, but they were deathly tired of him and had been from day one.

"I was hoping maybe this time we could talk about something *real* – something about computer security, about hacking, about *ethics*?"

Okay, so maybe Jimmy wasn't so bad after all.

Only, he totally was. The way he said it wasn't a question – he made it an accusation, a nurtured grudge excavated in foreign lands, the dust blown off to reveal the words *I will never forgive* in some eldritch tongue. Jimmy had clearly tried to bring this up every month, had tried to steer the conversation in the direction of something – well, something like a *2600* meeting to be honest – and clearly no one else here was interested. I could read their expressions, and they formed a unanimous chorus of *oh for fuck's sake, kids these days*.

Beef sighed just barely and said, "Jimmy, c'mon. Remember our talk? The one we had about extenuating stereotypes?"

I rolled my eyes. Jesus Christ in a fucking gimp suit, I'd wandered into Hackers Anonymous, not fucking *2600*.

Jimmy almost got out a protest – almost, I say, because he drew a breath and something strangled and angry along the lines of "*Hrrng!*" got out of his throat before Beef put up one hand and, to my amazement, Jimmy's mouth clapped shut so fast it looked like a reflex.

"Jimmy," Beef intoned. No one moved, no one was paying attention, they had all seen this a million times. "Shut your face."

With that, Beef turned to the older guy in a stretched t-shirt that read *Microslut Winblows* – the sort of incredibly dull gag that makes me want to kill, slowly and with malice – and nodded his head on his thick neck. The guy quit picking his nose and gurgled something about an article he read about the prospects for the IT industry in United Britain in the next ten years, and how he thought maybe someone would be interested in coming back to his place *and... reading* it later?

I shuddered. A tiny voice in the back of my head was like, *this creep is you in twenty years, slut*, and I reminded myself that I couldn't trust my ego if it was jet lagged and huffing oxygen at the moment. Damn, but our brains are weird places.

The topics remained similarly mundane and my hopes were pretty much dashed, but by the time they came back to me I was done with my soda, done with my calzone and done with caring what these people thought. I should clarify that I didn't hate these people or think they were a bunch of losers – I'm a loser, if you get right down to it – but I was on a job. When I'm on a job I basically try just to think about the job. It doesn't always work out that way, but I try to stay focused and right now I was really, really focused on being able to find out anything and everything about SentrySoft and these people

weren't likely to be much help.

So when Beef looked at me a second time and nodded his head, I took a breath and only sounded a little annoyed when I said, "Yeah. Um. Not to extenuate any stereotypes, despite that being a misuse of 'extenuate' given what I think you mean is 'accentuate,' but I was kinda wanting to talk about something weird I saw on my network at my apartment this morning." I slurped my soda really loudly for emphasis and made a big, obnoxious *schloooooorp* with the straw and thought *Way to go, asshole*.

Beef narrowed his eyes, making the bags on his already rough face pooch out a bit and his crow's feet show. Jimmy snickered. Everyone else sort of looked shocked. No one said much of anything, and apparently I was the first person to take on Beef in a while because no one had a reaction – they were waiting to see what he would do. Gods, but I fucking hate politics like this.

"And what was that?" Beef's voice was very even, but clearly I'd just waltzed into his sandbox and kicked cat shit in his eye. Still, he wasn't stuffing my ass down my throat so I still had the floor, and what the hell?

"My microwave attacked my refrigerator. On the network, that is. But right before my refrigerator went down, it did a big data dump of..." I paused for a beat. Now was no time to show all my cards.

“Encrypted data. I'm working on breaking it. But it seemed to me to be something that came from the firewall and SentrySoft pretended that was impossible despite me *knowing* what I saw. I was just wondering whether anyone had seen anything similar?”

I carefully did not look at Beef, but instead ran my eyes in a quick circle around the table. Jimmy knew something, or thought he knew something, or simply wanted to blow me for having brought up something other than a pick-up line or a soap opera at a meeting of 2600. Marion looked interested, but network administration was her professional gig so that could just be her thinking I'd be a candidate for that job back below decks in six months. The greaseball with the magazines had glazed over the second I mentioned firewalls, and everyone else was staring at Beef. So finally I looked at Beef and Beef had blanked. He'd just gone expressionless. I knew how he felt, getting pissed on in front of his people like that, but while playing pattycake with a bunch of strangers in a lunar Pizza del Rio might get you a birthday sombrero it sure as shit wasn't going to pay the bills today. Beef wanted me dead – he was total prima donna, total alpha-male material, I'd called it right from the first moment I saw him – and I was going to get punched if I said another word.

I kept my mouth shut.

“That's against the rules,” he wheezed. I honestly had trouble



hearing him. Long after the fact I would find out that Jimmy had once tried to take on Beef, been barked down, and that every meeting after that Beef had been forced to slap Jimmy around to keep him from bringing up topics Beef saw as inappropriate. One of those was any discussion of vulnerabilities in or ways to get around proprietary software – such as SentrySoft firewalls. Beef was a paranoiac, a conspiracy theorist's conspiracy theorist. He was convinced the Pizza del Rio was bugged to listen in on the 2600 meetings and he was determined to bite the head off anyone so blithely unconcerned for Beef's personal safety and security as to run the risk of getting them all arrested. That none of this was illegal – meeting in public to discuss computers, discussing problems with commercial software, even talking about breaking into computer systems as long as no one was doing it at the time – didn't matter one whit to someone like Beef. He was a legend in his own mind, someone obviously too dangerous to have escaped the government's – any government's – attention, and so discussion of something like a software firewall choking and dying and spitting out shit it shouldn't at the last second was entirely and damningly verboten.

At the time, though, I didn't know one bit of that shit, so I just arched an eyebrow. “The rules?” 2600 meetings were supposed to be refreshingly rule free. The part of me that was every bit as geeky,

anti-social and disturbed as the greasiest tentacle-rape anime fan in the room was pissed as fuck that someone would suggest there were *rules*.

"Read. The. *Website!*" was all Beef could manage, and then he abruptly looked in each direction, side to side, as though ninjas were hidden behind the woven-reed booths, the noise of their malicious and deadly preparations masked by nothing but my ignorance and the unending barrage of mariachi music that served as ambient sound in the Pizza del Rio. He stood, his chair skittering away on two legs as it nearly overturned, and then he charged across the empty restaurant. "See you next month," he stage-whispered over his right shoulder just before muscling through the door, though I was pretty sure I was not included in his personal list of who would be welcome at the next such gathering. Apparently that was Beef's way of calling the meeting to an end, but he was the only one leaving.

Everyone let out a breath simultaneously.

"What a cock-face," I said, and they all stared at me.

"Well, I guess I'll see everyone next time," the greaseball with the job prospects article said as he rose from his chair. Most everyone else started to stand and shuffle around with bags and purses and briefcases and the like, and I figured that was that, I'd killed my best prospect to find out anything useful about whether anyone else had

ever seen a SentrySoft firewall puke itself all over the room. Marion stood as well, but she managed to fidget and linger until everyone else was mostly gone. Jimmy sat watching me. I just stayed in my seat and picked calzone crumbs from my plate. My appetite was outrageous for some reason.

As the others made their ways to the door, Marion watched them go as she took things out of her purse and put them back in over and over. Finally, she turned her grey eyes on me – everything about her was grey, actually, from her sweatshirt to her jeans to her hair to her general skin tone, and I would have guessed her to be in her early fifties – and smirked.

“Good job, kid,” she sighed. I realized a moment later that she wasn't being sarcastic. “I hate that prick. Anyway, yeah – I've seen SentrySoft firewalls do something similar. Never bothered to try to find out what they're dumping, the boss just wants the network back up and running, but yeah. Their product is junk. I hate 'em.” Marion had a slight Southern drawl and I pegged her for a Virginian or a North Carolinian. All her vowels were flat, no diphthongs here folks, and she spoke just a tad slowly compared to what I was accustomed to from growing up in SoCal.

“Does it do it very much?”

“Choke and die? Nah.” Marion pulled out a compact and applied

some lipstick though I swear her skin must have soaked it up like lotion because it didn't make a difference in her appearance. "But when it does, it goes belly-up. It's a lot like Beef, in temperament. Always there, usually very stable, but once it goes down it's in a damn tail-spin." Marion snapped the compact shut and dropped it into her burgundy faux leather bag, then zipped it shut and slung it over her shoulder in one smooth, practiced movement. "Hope t'see ya next month," she sneered, and she strolled off.

That left me sitting with Jimmy. He was scratching the middle of his skinny chest with his right hand and fidgeting in his pocket with his left. I swear to the gods, I'm not this big of a dick most of the time, but something about Jimmy made me want to die. So I looked at him and he tried to think of something to say, opening his mouth a couple of times, and then I shook my head.

"Try not to jerk off while I'm still in the room, son."

Jimmy scowled at me and was instantly and obviously offended. He jerked his left hand out of his pocket and crossed his arms over his chest.

"So what was in the data dump?" His voice was thin and all needles.

"I don't know," I lied.

"Well when you find out, you mind letting me know?" Again it

was an accusation, not a question – like I'd devoted the last ten years of my life to hiding secrets from Jimmy and he knew it. I cocked both eyebrows at him and shrugged.

“Why?”

“Because I know their... their *shit* is worthless, too, man. Everything up here is worthless, but they're the worst of the bunch. Shit breaks all the time but they won't let anybody find out. Man, it's freakin' wrong.” Jimmy paused. “*Fuckin' wrong,*” he swore, and there was real anger behind it. Oh wait, I misspelled that – there was real *angst* behind it. I wasn't entirely unsympathetic, but damn, I'd already been fifteen once. I didn't need it shoved in my face today.

“How do *you* know?” I said. Now I was just playing his game with him, but like I said, sometimes I can be a real dumbass.

“I just *do*, man – I just *do*.” When he said that, Jimmy smiled a weird little grin at me, like he was the sneakiest secret agent in the universe and I groaned at him from across the table.

“Okay, Encyclopedia Brown. Whatever. Give me an example.”

Jimmy grinned again and said, “OK. Two months ago, the Public Safety headquarters went dark in the middle of the day – voice and data dead, lights out, doors auto-locked so the pigs couldn't badge in to get inside. It happened right before a shift-change, so everybody getting off duty was stuck inside and everyone coming on-shift was

standing around outside out of uniform, no tazers, no nothing. A bunch of guards eventually had to crack open the manual releases for the front doors. By the time they did, the pigs had eaten up every donut in sight for fear they were going to starve to death in their own jail house. Fucked up, man, fucked up.”

“And this is because of a SentrySoft firewall?”

“Yeah, man.” Jimmy slumped in his seat and relaxed from the waist up, though he was bouncing both his legs on tip-toe under the table. He was trying to look cool but he was excited instead. “Turned out a worm got past the firewall and once it tried to take on the machines inside they started going down like dominoes. Eventually the whole network crashed and it had to be brought back up from scratch. Paper clips and everything.”

Now we were getting somewhere, and I could barely hear Jimmy over the *cha-CHING cha-fucking-CHING* in my brain. I was tempted to ask if anything similar had ever happened to the monorail, but that would have been way too pointed of a question. So instead I smiled at Jimmy and spread my hands. “Could have been a fluke,” I said. “How do you *know* it was the firewall failing and shutting everything down when it went?”

“I just know, man.” Jimmy had sniffed me out, at least partially – he knew I was sincerely curious and he thought he had something

big that he wasn't telling me and that it would drive me up the wall. Maybe he still thought I was a narc after all. Regardless of what was going on in his pubescent mind, he thought he was taunting me. "I ain't sayin' how I know, and I wouldn't recommend you ask."

"Uh-huh." I slapped both legs – I had exactly what I wanted, a specific incident I could throw out at SentrySoft and see if anyone took the bait – and stood up. "Well, nice meeting you, uh... Johnny?"

"*Jimmy,*" he said. "I mean, *Jim.*"

"Jim. Good to meet you." I held out my hand to shake, and he didn't respond in kind.

"Yeah," he grunted. "I gotta get home anyway."

And with Beef or without, *that's* how the meeting ended.

## Shell Access – Chapter Five

It was now about half past six in the evening, Diana time, and I strolled out of the Pizza del Rio and stood stock still in utter amazement.

It was sunset on the moon.

I don't mean real sunset, as I still haven't worked out exactly when that even happens and I suspect it doesn't matter when it does because they artificially normalize the time up here. A real lunar day is – fuck if I know, weeks long, depending on where you are I guess. The colony itself is of course on the Earth-facing side rather than the dark side, for all kinds of good reasons like communications and being able to see the planet we came from when we get a little wiggled out and shit like that. If I had to guess at the time I would have assumed the day is roughly two weeks long depending on where you are on the face, but to be honest i hadn't done my homework on stuff like that and it hardly mattered to me – it turns out the lunar day is actually what on Earth we refer to as a lunar month, 27.3 days. But fuck if I knew that then – right then all that mattered was the light show in the sky overhead.

The artificial sunset was like – I don't even know if I can describe it. Imagine the prettiest sunset you've ever seen – I always think of



this one library at my college where there were plate glass windows that faced west. I used to go up there when I was down and stand on the fourteenth floor and just watch the sun set behind the rest of campus. The sky would turn pink and purple and mauve and burgundy and then a deep blue of the beginning of night would worm its way into the other colors, seemingly from above, and the clouds would glow gold and platinum. This was like that, only about fifty million times more orchestrated. The street was a little livelier now and office types who had made it home from work were now out and about to start their weekend and pick up dinner and shit like that. As I stood there gaping, still digging in my pockets for the cigarettes that weren't there, mouth open like some inbreed, I wondered how they hell they managed to do all that with the colors.

I glanced around after a few moments because it struck me I was surrounded by strangers and in all honesty I kind of wanted that sense of sharing A Moment with a whole bunch of other people, but no one else was paying attention to the sunset.

They were all used to it.

It happened like this every day.

That something like this could become so commonplace as to lose its beauty, its absolute magnificent wonder, the sort of dumbfounded awe with which I greeted the first laser light show I

watched on LSD in college – that all this could be *normal* to the people around me struck me with stark fear. I didn't feel sorry for these poor schleps with their work-a-day faces and their lusts for home, I felt *scared*. That I could ever be so dead to things around me was terrifying. I guess I'm an old softie. Fuck you.

Anyway, it occurred to me that I'd probably missed my chance on getting to talk to anyone at SentrySoft who was anything like an employee because it was after business hours on a Friday. The office was probably empty by three that afternoon, who was I kidding?

Still, it wouldn't hurt to case the joint a little – or at least make sure I could find it the following Monday – so I fired up my mini again and pulled up the yellow pages. From SentrySoft's listings there, I found out something else of real interest: even if their software was shite – or perhaps because it was shite – they were taking the idea of rapid response pretty seriously. They had five addresses around the city, four of them listed as “Threat Response Centers.” I imagined in the moment that these were places where guys with skills like mine, though probably way better, would hang out and monitor the network and react to anything major. This didn't jibe with Jimmy's story about how the cops had been shut down like a clap-happy whore house, but who was I going to believe? That everything up here was networked to fucking Kingdom Come and back was obvious, and I was willing to

bet that those were 24-hour Network Operations Centers. The fifth address was for “sales and other business inquiries,” and that meant the corporate wonk goldmine. It was smack in the middle of town, too, near Aldrin Park.

Gods, I thought, this place *is* just like Washington, DC. The map had an Armstrong Park, too, of course, but it was much, *much* larger and was where all the sports happened and where the Diana City Recreation Department (a division of Nike, naturally) had their headquarters and all the big running trails and shit.

Anyway, there was SentrySoft's corporate hive, so I decided I wanted to see more of the city anyway and why the hell not just walk there and see how it looked? I needed the exercise after three days cooped up in the ship and a day and a half spent in bed. Off I set, wandering and weaving through the crowd as people here and there walked alone or in couples or in clumps of several. The absence of automobiles rendered every street a footpath – think old Italy here, where the streets are all paved with cobblestones and just wide enough for a fat lady and her seven kids to waddle down on Sunday morning – but the claustrophobia was negated by the low buildings out here on the edge of things. So fucking smart, I thought – I had to give these people credit. When I should have been shitting myself over being on the moon, I was instead devoting what cycles I had for

geographical considerations to being impressed with the design of the place. Corporations are right shits at making things a lot of the time, but for every ugly-ass wheel-box station wagon there was a sleek, silent sports car that drove like it was giving you head. I had to put this one in the Win column for whoever was behind it. The city didn't just look good, it felt good. The streets were smooth and even, there were occasional inclines or declines that kept things interesting and upped the linear street frontage a little, and the lights were gorgeous.

From far away and from very, very close up, Diana City is a tremendous success.

So anyway, while I was mentally handjobbing the people who designed the street frontage, I was walking. I stepped into a Starbucks and grabbed a coffee with a metric fuckload of half-and-half – this was the eighth Starbucks I'd seen in the first half-mile, and by my first evening in Diana City I knew better than to look for something a little more locally-owned. There were a lot of shops out on this end of town and I was willing to bet that wherever wasn't taken up with the spaceport was probably the same, all mixed residential and tony little store fronts with apartment blocks on all sides. Everything had the look of Georgetown or Five Points or Glasgow's High Street, but the signs had a high repeat factor, and everything that looked unique

had a placard by the door that read *A Property of Some Goddamn Company or Another.*

Up close it might look as good as it does from far away, but in Diana City all you have to do is peel back the wrapping at one corner and you've already seen the whole fucking thing.

I was chewing nicotine gum like it was going out of fucking style and wishing to every god I'd ever heard of that I could have just one cigarette, just one. I passed out of the more residential areas, heavy with foot traffic, and as I walked under an elevated monorail track – I found out later that those were the high speed subscriber lines and the rest of us had to buy tokens or cards just like every poor schlub in New York or DC – I emerged in a solely commercial block. The transition would have been startling if it weren't for the artificial fence of the rail line and support columns. I felt a little like Peter Rabbit cutting under the gate to Mr. McGregor's garden, to be honest – something didn't feel right and it seemed, for some reason, like I shouldn't be here. The whole block I was on was empty, though the storefronts further down were lit up. The street was absolutely devoid of traffic, though, and I was wondering if I'd wandered into some sort of off-limits area or something under repair – not that this was going to turn me back. I strolled along with my bag over my shoulder and a wad of nic gum in my cheek like I was gnawing on someone's fist.

Then I saw my first sign close enough to read, and I chuckled to myself. On my first Friday night on the moon I'd wandered into the church block, and they were all shut up tighter than the grave. Signs dark, windows darker, doors shut and bolted, I skipped a little as I went past first a Catholic church then a neopagan – well, whatever they call their churches – and a synagogue and a shrine to Allah and you name it, because it was up here. Religion puts a real bug up my ass, to be honest – I'm not against a little prayer in a tight spot, because you never know, and I certainly have no objection to crying out to the On High when I'm, shall we say, in flagrante, but that's about it – and these churches were the first unique things I'd seen in a city that was already starting to grate on me with its uniformly corporate nature.

Anyway, there I was, alone on the street with empty churches on every side and thus took particular notice when the last street on the block, a tiny holy-roller joint with a big, neon cross and a tacky day-glo Jesus of distinctly Caucasian features inflated in the front yard was actually lit up like a fucking Christmas tree. There was even a preacher out front, standing on the porch and looking extremely pious in his suit and his power tie and his graying temples. He was kind of hot, to be honest, and maybe that had something to do with me noticing him but I doubted I was going to hit that anytime soon, so I

aimed to stroll on past him.

"Peace, brother," he called to me, and I responded by giving him an old-school hippie peace sign but didn't look at him when he spoke.

"Do you return to our Father's Creation soon, child?" He was still talking, and what he said sounded odd, so I stopped and looked over at him. That got him grinning to beat the band and I said, "The what?" You'll have to forgive me – you probably see these wackos all the time, but I kind of keep my head in the sand when it comes to the fringe politics – but I had no clue what the fuck he was talking about so I just opened my mouth and then closed it again and then opened it again to say, "What?"

"The bosom of the land! The air the Father made for us to breathe and the water he made for us to drink! Tell me, child, doesn't a part of you know, deep down, that to come to such a place and live in such a way is a terrible sin? The Father," and here he cranked up the sermon voice so that he boomed and echoed among the closed down street frontage, "Did not deign for us to come to this wicked place, a soulless and arid land, devoid of those things on which he rightly made us dependent, lacking in all the life-giving appointments of the sphere of Creation! Repent with me, child of man, for we are in as close a place to Hell as we will ever see in this life and one that for all its inhospitable natures must be preferable to the eternal pit we will

go unless we beg forgiveness for the pride and foolishness that lead us to make a life away from the Good Gardens which God gave unto us!"

He was an Earthie. He was an Earthie *on the moon*. I guess, in retrospect, that he thought he was living the life of one of those circuit preachers from back in the Old West days, roaming the wilderness in search of souls he could arrange into a repentant flock, but fuck that noise. I did know about Earthies but it had never occurred to me I'd find one up here, much less one with a fucking church up here, so I started laughing. I know, I know. I'm an asshole. How many times do I have to say that?

Laughing wasn't exactly the response he hoped for, but he didn't give me the satisfaction of looking surprised or offended. He'd been laughed at plenty of times, I guess, and I was just one more obnoxious prick with oxygen to waste. My laughter just made him start yowling some sermon-on-demand he probably kept dialed up in his subconscious for easy access, and pretty soon – like, seconds later – he wasn't even talking to me anymore, he was just ranting at the dome and the last glow of sunset. I started walking again, crossed through an intersection and under another elevated monorail track, and there it was – another boundary point into another part of the city. Later, I found out that city was more or less arranged this way consciously, like a big damn target – all concentric rings and the city



separated into distinct districts. The very center was commercial and office space, parks, that sort of thing, then shopping just outside that, then a one-block thick religious and philosophical district and then, as the last ring in the target, the residential and street-level retail district. These bands served to layer the city so that it was easier to get around in parts you weren't familiar with, and to keep people separated from their work on weekends, make sure they passed through shopping districts to and from work during the week, all that jazz. City planning had at least in part been done with revenue streams and a dash of humanity kept in its sights.

The next block was distinctly retail, and I could see a couple of blocks up that the streets were livelier – not as crowded as they'd been back in the residential stratum but pretty well traveled. I figured this was where I'd find any nightclubs or bars beyond the *Grizzlebee's Community Feed-Trough and Pub* level, and the shopping malls, and all that jazz. Between where I was and there, though, was a block of nearly-empty streets and much more low-key signage and store frontage. I was curious again, and so I stepped it up a little to find out what was here. The whole city was brand new to me, and if things changed this dramatically from one ring to another then I wanted to see what minor miracles of planning and space creation had been achieved.

It turned out that this block was the porno block.

It was literally across the tracks from the church block.

Fucking fabulous!

To be honest, this explained a hell of a lot about the demeanor of that preacher back there.

At any rate, I don't mind telling you this: I was horny as hell. I know myself well enough to know I simply am unable to focus on my work when I've got dick on the brain, so I slowed my roll just a touch and started eying the signs. I wasn't so hard up – so to speak – that I'd dive into the first glory hole I saw, but a little video entertainment seemed like just the thing to clear my mind. A friend of mine back home told me one time that part of why he loved having sex so much was that it meant he could spend fifteen minutes, afterwards, thinking about something other than sex. I was feeling that right about now, and you'd be amazed at the hormones you wake up with when you've slept for 34 hours. Three doors into the porno block I saw a discreet sign that read, in small letters, "Live Holo Models," and under that in much smaller letters it said *Live Men, All Languages*.

*Now* we were talking.

I found out upon later, um, investigation that any place up here that had honest-to-gods holo booths with live models on the other end had their own, entirely separate satellite links with Earth and were

completely off the Diana City network grid. It didn't matter to them, it made the credit card transactions that much faster, and it was one of those strict rules of networked life on Diana City that you were either on the closed grid without an immediate link back home except for voice, or you were off the Diana City grid and paying through the nose for anything you wanted. The porno stores were all owned by the same chain – another monopoly contract, of course – with an artificial veneer of distinction between them to cater to specific tastes.

I walked up the short, plascrete steps of the one that'd grabbed my attention and through the big, metal door and into the brightly lit storefront that served as little more, I guessed, than a lobby to the much darker video area.

I love porn stores for their out-of-place modesty.

The lady behind the counter didn't even look up from her grocery store tabloid as I glided past dildos that made my ass ache just looking at them and through these saloon-style half doors into the happy booths. The place was surprisingly empty, though I figured it would get busier in a few hours when more guys had tried and failed to score for the night. In the meantime, I picked the nearest available booth, swiped my card in the door, and after the booth ran its sanitary flash the door popped open and I settled into the seat. The seats are always a little warm after the bug burner runs and I have to confess

I've been in enough of these booths to find that a little comforting, like a warm blanket or a cup of hot cocoa in winter. Yeah, yeah, I'm a big freak.

When the door shut the video screen lit up and I had some choices to make. Did I want pre-recorded or live?

Live. Pricier, but damn, I was on the *moon*.

Language? English.

Race?

I tapped my finger against my lip like a school marm grading papers. I don't give a shit what color someone's skin is, and hot guys are hot guys, period. I was about to launch into a very distracting disagreement with myself over the potential racism inherent in any choice and then spotted the "Surprise Me!" option. Ah yes – even porno booths are politically correct these days.

A suggestive hourglass icon appeared on the screen and I untucked my shirt and relaxed. I had to give this place some credit – the seats really were comfortable.

About twenty seconds later the screen faded to black and then faded back to light. A guy who looked Hispanic – I'd peg him as Puerto Rican, with a probably mixed background that gave him skin the color of caramel syrup and hair bleached bright white and cut short – came into view. He was shirtless and smiling half-heartedly, but as

my end likewise came into focus on his monitor he leaned forward a little more earnestly.

“My name is Ernesto,” he purred. Yeah, I thought, he's a pro.

“I'm, uh... Charles.” Normally I lie in these things – I don't know why – but this time I told him my real name.

“Hello, Charles.” He rested his chin on one veined fist and whether consciously or simply with the motion of doing so, he flexed a bicep. I remember that I actually began to salivate when he did so.

My name is Charles, and I'm a manaholic.

“Do you mind if I start with something I don't normally say?”

“Uh, sure.” As far as I was concerned, he could have read the classifieds to me.

“Aren't you a little young and... well, fuckable to be in one of these booths?”

I grinned at him. My *ass* he didn't say that to every guy in one of these, I knew, but I'm a slut for flattery. Sometimes literally.

“Well, Ernesto, that's kind of a long story.”

“Mmhmm.”

I knew these booths well enough to know Ernesto probably fired up the small-talk on everyone to stretch the minutes. But he was hot as hell, and I was feeling very alone in a very strange place, so I bit.

“I'm, uh...” I gulped and then laughed. “I'm on the moon.”

Ernesto's eyebrows went up and he smiled. "Diana City? Impressive, Charles. You must be very... important."

"No," I said, "Just fiscally irresponsible."

Ernesto put on the hottest, dirtiest Cheshire grin I had ever seen in my life and nodded his head halfway, his chin still resting on that fist, his head cocked to one side.

"And horny," he said.

"Very."

"Well," he murmured, "Let's see what we can do about that."

## Shell Access – Chapter Six

Twenty minutes and – to be absolutely honest – a couple hundred Yuan later, I strolled at a bit easier pace back through the storefront of the porno place. I was feeling damn good about my prospects for focusing on my job, and I was almost certain that was the best video sex I'd ever had.

I was feeling so good, in fact, that I stopped at the counter and rested one arm against it, then crossed one foot over the other and leaned my full weight on that arm. The chick behind the counter still didn't look at me. I cleared my throat and sighed once with tremendous relief.

“You know anyplace in town that sells cigarettes?” I asked it as brightly and normally as I possibly could, like I needed directions to the nearest Mama Mia's Greco-Roman, and the attendant still didn't look at me. Instead – without taking her eyes off the tabloid – reached one hand under the counter, pulled out a yellow business card, slipped it across the counter to me under her palm, and only when my hand was about to come down where hers was, lifted her hand and dropped her arm across her lap again. I flicked the card up my left sleeve with the hand I'd used to pick it up – I card-sharked a little in junior high, another long story I blame on Grandmother Wong

– and was immediately back in motion for the door.

I'd figured if there were porno stores up here, sanctioned and contracted and everything, the odds were good I could find a smokeasy somewhere.

I was starting to like Diana City.

By the time I was outside and sauntering up the street, though, I had gotten back in my work groove enough to slip the card into my pocket without looking at it other than to verify it wasn't some smart assed health warning or a note about Diana City's anti-smoking laws. It had an address on it and that was it, and I could find it later. For now I'd allowed myself enough distraction – I needed to get back on the path to a deliverable.

The shopping district was mostly big-box stores and collective retail space, like one big open-air shopping mall that encircled the center of the city. I cruised through without giving much of anything a second glance. There was a dance club and a retro disco and what I strongly suspected was a gay bar given its cleverly misspelled but suggestive name, *Zip Lyne*. Hell, for all that told me it might just be a cocaine orgy club, but none of this, I reminded myself, had anything to do with finding out the dirt on SentrySoft.

I kept walking.

I passed under one more massive monorail track and now I was



in a surprisingly well-lit but absolutely devoid of life section of the city: City Center. This was where the offices were, where the businesses did their dirty work and the research labs were tucked either very high or very low in faceless cubicle farms. There was no telling how much money moved back and forth and all around in these buildings, but all the corporate farms up here are big ticket, slightly shady deals. Directly ahead – as on any spoke that ran from Aldrin Park to the edge of the city – was the great, dimly green expanse of the park that made the bull's eye of the city layout. It was like any office park at night – brightly lit on the outside but the windows dark, a total inversion of daytime when the white concrete and steel and the reflective glass gives the buildings a glow that camouflages the privacy windows and the sterile, sealed environments within. An office building at night is some great, dark and silent monolith and I was just another monkey with a bone strolling among them. The city was quiet, the noise of the mall stratum still audible but very distant. The trains were running – they run 24/7 here – but there wasn't one nearby at the moment so all I could tell of them was the distant clack of the cars switching from one rail segment to another. There weren't any whistles or engine noises, of course, even when one was going by ten feet away, but we still haven't invented a silent rail track so the hum of the city's arteries was still present but very distant.

It was so eerily quiet here, in fact, that I expected to see a tumbleweed roll from one alley to another. There wasn't even the occasional mrowr of a feral cat or the howl of a dog in some distant quarter like there might have been in some city back on Earth. That's the really alien thing up here – half the time the attempt to create an artificial sense of normalcy just emphasizes the inescapable eventuality of noticing that life here is anything *but* normal. There were no pigeons to shit on your shoulder, but that also meant there was no reassuring burble of coos when you sat in a city park. I had read that Siang-Ngor was going to experiment with non-human life, but Diana City had been built with no such considerations in mind. Life was as intrusive and subsidized from outside within the confines of Diana City as Diana City itself was out of place on the surface of the dry, dusty rock that is the moon.

I started whistling a song to myself as soon as I realized how chilling the office district was in the dark. I knew it was tremendously unlikely that any muggers would be running around up here, but still. I picked up the pace and started motoring more meaningfully towards Aldrin Park, since it was the biggest landmark I knew in terms of finding SentrySoft and I'm just not the kind of guy who uses a map to get around, but I calmed down a little when I saw a UN security cart cruise through on a cross-street a couple of blocks up. Anything, even

guys in powder blue with stun guns on their belts riding an over sized golf cart, was pretty comforting when surrounded on all sides by dark temples to foreign money. It was just eery. I don't mean to over dramatize it, but you try walking down a completely harmless but entirely unoccupied street in a city sometime – it gives me the creeps. I hate the feeling that I'm all alone.

Nothing much happened as I walked the remaining blocks to Aldrin Park, outside of me jumping out of my fucking skin at everything I thought I saw anywhere. The coffee had gotten me wired and the orgasm had gotten me focused on my surroundings again rather than relax me, so I was a little jumpy. I also had to take a whiz like there was absolutely no tomorrow, like if I didn't empty my bladder then I'd explode and take the whole goddamn colony with me, and there I had my answer: the oxygen was being upped after all.

Fuckers.

I crossed the larger mixed-use street that ringed Aldrin Park's slightly warped but mostly circular footprint and strolled along next to firs and Japanese Maples and Dogwoods and weeping willows and a whole host of trees donated by first-world countries with greenery to spare. It was very pretty, if a bit more like a botanical garden than a leisurely but natural forest, and I calmed down once I was next to something that was plascrete or concrete or shitcrete or whatever.

The office parks here were all super-high, for Diana City – easily twenty stories or so. Here it was a little more like New York than I'd originally judged the city as a whole, from my apartment. That in itself wasn't as bad as it could have been, though – I hate New York, but this was a hell of a lot cleaner and with the park on one side the buildings seemed less like a gauntlet I had to run and more like anywhere people had built bigger and bigger buildings over time – ie, a more organic if slightly over-sized cityscape.

SentrySoft's corporate HQ was supposed to be a stand-alone building rather than a shared office complex, and I started checking street addresses for how close I might be. A few blocks later I was headed into SentrySoft territory and I slowed down to try and spot the building from afar. Sure enough, there it was – the SentrySoft logo, complete with the stylized centurion in profile and the spear tip forming the leg of the y in the name. It was a surprisingly small sign for a place as corporatized as this. The hyper reality of Diana City can, at times, have an almost comic book feel to it – a la that church with the day-glo inflatable Jesus and the random-ass preacher on the front step – but this was no Daily Planet building with a spinning globe atop the roof. Instead there was a low shelter over the front doors and the building itself was only five stories whereas it was surrounded by buildings that doubled or tripled it in size. I was willing to bet the

other buildings were newer, or at least added onto in the intervening half century since SentrySoft's building went in early on. SentrySoft's building kind of looked like an old stand alone department store down on its luck – still standing, but dwarfed by the competition as the part of town it was in shifted over time from one purpose to another.

I was surprised to see lights on in SentrySoft's building, dotted here and there. By now it was heading on towards nine at night, local time, and I wasn't expecting to see anyone in the office that late on a Friday. I walked a little closer, just maintaining my pace – I'm not Beef, but I'm pretty paranoid I guess – and trying to look nonchalant. My eyebrows went up, though, when the lobby of the building came into view and there was a real, honest to the gods receptionist behind the desk. She was young, looked bored and had a big teller window like she was in the lobby of some 1930's accountancy firm or some shit. Diana City was continually full of surprises, but it really shouldn't have surprised me. A little retro fashion was probably considered very homey when this place went in. The whole lobby was kind of art deco and that hadn't been genuinely in fashion for sixty years. Crazy.

The street around Aldrin Park and in front of the first ring of office buildings as a little more active than I'd both hoped and feared it would be, as people were out in the park on evening walks and the occasional late going office drone exited their corporate ranch. I came

to a stop under a lamp post across the street and down just a little bit, where I could watch the lobby and chew another wad of nicotine gum.

A little clump of people in jeans and t-shirts came up the street together, walked to the front door, and walked through SentrySoft's lobby with a nod or wave or called greeting to the receptionist, who looked up and smiled tiredly at them before they got on the elevators. About three minutes later, a slightly larger group of slightly better dressed employees – I assumed – came out of those elevators and waved at the receptionist and walked right out the front doors before splitting up and going different directions. I'll be damned, I thought, SentrySoft is a twenty four hour office building. I bet that saved on the rent.

Well, if this place was a 24/7 operation then I didn't need to wait until Monday to start digging into shit, and if it was sparsely populated at night, well – I'm sure I could jiggle a few doorknobs without hurting anything. I know, that wasn't very cautious of me, either, but I'd had a pretty productive day and I wanted to get back on that wave and ride it all the way to the beach. I'm a *now now now* kind of guy, I hate waiting to do shit.

Now I just had to think of what to say when I walked inside.

I could always do the flirt thing, but the receptionist was a lady and I've never been very good at pretending I'm interested in them. I

could try to bullshit her, ask for some common name and when she was like, "Yeah, but which Joe," then I'd have to cross my fingers and hope she'd believe me when I said I didn't remember his name but could I just walk around and see if I spotted him?

Nah, that'd never fly.

I could always just try to walk past – I didn't see any badge readers, and the building was a little older than the omnipresence of RFID badges. The paranoiacs last century called that one right, but like everything else it took longer to get here than they expected. Of course, they could have had readers installed after the building was up, so now I was just bullshitting *myself* trying to think of ways in the building.

Of course, I could always just say I was there for an interview.

I briefly considered mugging a Pizza del Rio biker for his uniform, but like I said I'm not big on hurting people.

After a few more minutes and another stick of nic gum I decided I had to either figure out a way into that building or take a piss right there on the fucking street. Now the coffee was added to the mix on top of the oxygen-therapy hyper metabolism thing, and I was five minutes from doing the knees-together-one-foot-then-the-other dance right where I stood.

Sometimes the body steps in when our minds can't get things worked out, I guess.

So I walked right up to the front doors and tugged on the handle and sure enough it opened up and I crossed the floor. The receptionist double-taked me – first she looked up and smiled like she had to the other employees, then she glanced back down at whatever was on her desk, then she sat up straight and gave me a considerably more wary appraisal when it hit her I wasn't another SentrySoft wonk.

“Can I help you?”

“Yeah, I said,” clearing my throat. “Two things – I wondered if I could put in an application for SentrySoft, and, uh...” I did my best to blush earnestly. “Got a bathroom?”

She narrowed her eyes at me and then flicked her thumb off to one side. “in there. Applications can be filled out at any of the terminals along the back wall, here, next to the elevators. Please,” and this part sounded like a rote line, “Be aware that we have ID scanning technology, and if you venture into a stairwell or elevator without proper identification an alarm will sound.”

She sounded kind of pissed to be talking to me, but she didn't have the general air of being a frost queen, so I figured either she didn't like me, personally, or they got a lot of useless walk-in applications like this. I imagined there were plenty of people up here



who are glad for the break from home and walk in at the end of their contracts with other companies trying to find someone that can get an extension to their tour of duty. At any rate, I practically tripped on my own shoelaces trying to flat out run for the gents. It was getting pretty bad down there, and suffice to say, my experience once I was in the lavatory indicated that yes, what I'd read about extended exposure to increased oxygen levels was absolutely true.

With a tremendous smile on my face I walked back out of the Toilet of the Future, Today – everything up here is like this, I swear – and waltzed on over to the computer terminals at the back of the lobby. There were three to either side of the elevator – for balance, I guess, since I couldn't imagine six people being there at any given time just to fill out job applications.

Five minutes later, I'd handed SentrySoft more of my personal information than I cared to, and at the end of the standard application forms was a text-box – these were also retro, in that they were touch-type only – that asked if there was anything additional I'd like to share about myself.

“Miss?” I called out to the receptionist, and after a few seconds she poked her head out the side of her teller booth and looked at me.

“Um, just curious – how soon would I hear something if you're interested?”

“It's 9am back at HQ, and any applications considered worthy of consideration are reviewed immediately. You should hear something pretty quickly.”

Awesome, I said to myself.

With that in mind, I figured it was now or never, so I typed this in:

*In addition to my years of experience as a programmer and Quality Assurance engineer, I have also spent much time as a hobbyist in computer security. While my area of study and experience is chiefly electrical engineering, I have written and submitted signature profiles to open-source databases off and on for the last ten years. I have also worked in informal support of SentrySoft products, including troubleshooting of the Scream-and-Quit undocumented phenomenon as discussed on hobbyist message boards.*

I had no idea if that was too subtle to send up red flags or was too obvious to get me anything than a swift kick in the pants. But before I could sit there debating it with myself, I clicked SUBMIT, a button I particularly hate seeing on any form, and the computer screen spat out an automated thanks and logged me out.

I figured I'd hear something in a day or two, so I got up to walk

back across the lobby. I waved at the receptionist, who now that I was leaving was willing to favor me with something more like a genuine smile, and back out the doors.

I'd been inside for maybe thirty minutes, so by now it was getting closer to ten at night local time, and this was the real shocker to me: when it's real lunar night, they unfog the dome for the night-time effect.

You have not seen stars until you've seen them from the moon.

Holy motherfucking shit, you have not see stars.

I know this is what everyone up here writes home about, but you don't really get it until you've seen it. It's amazing. Every constellation is there – they're so easy to pick out! No wonder the ancients were all writing this down and comping up with stuff they saw in the heavens. No wonder there were generations of astronomers willing to sit on rooftops and record what they observed. Up here, with basically nothing between you and the sky – nothing in a very literal sense – and with the dome completely transparent, it was breathtaking. I was absolutely stunned where I stood, more so than when I first opened the shades that morning in my apartment, more so than when I stood on the street outside the Pizza del Rio and longed for something like mass wonder. This is why they send poets to the moon, I thought. Every star stood out like the candles in the sky

those South Americans, whichever culture it was – anyway, just like they thought their ancestors were holding. It was like God was up there and had a million billion eyes to watch us with. You don't just see the constellations, either, you see new ones, extensions to ones you know, whole patterns that appear out of nowhere that you never guessed existed. Imagine seeing a plain white plate in a diner and once you scrape the gravy aside finding out that it's actually bone china with filigree designs that cross your eyes with their fine details, the work of generations of master craftsmen distilling and simultaneously expanding each lesson as they passed it on, saying to each apprentice at the end of their own careers, One day you will make a plate that will cause a man to weep – and that's the plate you're eating on, in that diner, with a gum-smacking waitress named Rose or Daisy or something and a cigarette in your teeth and you've just ashed in the mashed potatoes and you don't care because the plate is that goddamn beautiful.

That's how I felt when I looked up at the sky. Every ounce of air left my lungs in a rush and I was small and alone and basically grimy compared to the wonder of the universe. I'm not into the whole “intelligent design” pseudo-creationism bullshit by any stretch, but I couldn't help thinking of that preacher back across town and wondering if he'd ever looked up and thought, deep down in his heart

of hearts, that he hated why he was here because here, he was that much closer to God or Allah or whatever.

I was thinking of religion, that's how good it was.

I had the most random thought in the world, too – though I guess it's not that random if I stop and let myself think about it. I wanted Ernesto back – but not naked and panting, just standing there holding my hand. I blush to say that, to be honest. I'm not normally that good at the romance thing, in case it wasn't obvious to you by now, and it wasn't like I knew him well or thought I'd found a soul mate or any of that shit. But still, this was so beautiful I felt some basic urge to share it with someone – not the mob, but more personally.

Lucky me, I was about to get my wish.

The door behind me swung out and I heard footsteps come up behind and next to me. Whoever it was paused, and in my periphery I could see it was some tall, beefy jock type. He looked at me for a second and then looked up himself. Herd animals, remember?

“Beautiful, isn't it?”

“Uh-huh,” I said.

The guy looked away from the sky – something a part of me just couldn't conceive of doing – and back at me. “Are you Charles Fitzgerald?”

Now *that* got my attention. I swung my head around at the guy, mouth still hanging open, and then closed it and licked my lips.

“Uh, yeah. I am.”

The dude – now I was seeing him full on, and he was head and shoulders taller than me, twice as wide at the top and built like a refrigerator. He could have eaten me for lunch in a fist fight. I don't know why that's one of the things I always assess about people, it's not like I'm some brawler – I'm a skinny little dude who's slightly undersized in every dimension and I've never been good at sports much less boxing – but that was something that sprang to mind when I looked at him. The guy held out his hand.

“Wilder Ramsey, SentrySoft. I just reviewed your application.”

I took his hand and shook it, studying him. He had that same Beef handshake, the man's man handshake, and I didn't bother trying with this guy. I just put my clammy little paw in his ham-fist and pumped it a couple of times.

“Good to meet you. But I thought applications were reviewed back on Earth.”

“They are,” and Wilder gave me a million-Yuan grin that made my eyes hurt. If this guy wasn't a star tackle in high school, I was Ben Franklin. He had all that same schmooze as a high school jock all grown up, too. “You seem highly qualified, though, so it was shipped

back up here to me.”

“You work Human Resources?”

Wilder nodded and grinned at me a little longer. “Sometimes. I'm mostly a manager, but when they need interviews conducted locally, I get to do them sometimes.”

“Management fast-tracker,” I said. If he was up here looking this polished and pulling double-duty for SentrySoft, he had to be angling for a Vice Presidency before 40, which meant he was in good with the boys at home and pressing his advantage.

“Guilty as charged,” he chuckled – I bet he thought that was a real funny way to defuse any tension between him and the grunts, and I doubled down on betting it wasn't. “You have some free time right now?”

“You want to interview me at ten o'clock at night on a Friday?”

Wilder shrugged his shoulders and held out his hands in a what-can-I-say way. “There were some items of real interest on your application,” he said.

“Why not? It's not like I've got anywhere to be,” I said, guessing that would sound nonchalant but instead it just sounded snotty. Score one for *me*.

“Well,” Wilder said – and it was obvious what I said had in fact come out completely wrong, “Let's go inside and talk for a few

minutes.”



## Shell Access – Chapter Seven

Wilder was dressed like any other corporate drone back on earth – a solid blue Oxford shift tucked into pleated-front slacks that should have gone out of style a hundred years ago. I confess to preferring flat-fronts almost entirely because they put your batch on display like nobody's business, but still. I know, it's a personal preference. It's not like pleated slacks make someone evil, but Wilder had that jock swagger and I was looking for reasons to hate him.

He walked me past the receptionist, who couldn't have cared less why I was there now that I had an escort, and he got me onto the elevator and upstairs to the fifth floor. There, he showed me to a conference room with a view overlooking Aldrin Park. At night, all I could really see of it were the lighted paths and some swatches of green here and there where a picnic area or an exercise path waypoint was illuminated. It was still damned pretty though.

Wilder took a seat across the table from me and produced a printout of what I assumed was my application from his shirt pocket. He asked a few basic questions – he was feeling me out on the tech side to make sure I wasn't some joker trying to snow the company into hiring me on – and I passed them with flying colors. I tried not to sound too smart, but I knew he would have to take me seriously if I

was going to cajole any information out of him.

It turned out I didn't even have to try very hard.

"The last thing I want to discuss," he said, and here he cleared his throat and became a little more tensely light-hearted, "Is what you put on the free-form section. You mentioned being a hobbyist and having troubleshot some of our products?"

"Well," I said, "A little here and there. Please don't tell me that's against something in the End User License Agreements. I don't want to get anyone in trouble here."

"No, no," Wilder said with a smile. I was hoping desperately he was taking me for a small-timer so I could surprise him when I popped the data dump from my refrigerator on his ass. "But you mention the 'Scream and Quit' issue with our products. I'm afraid that one's unfamiliar to me."

"Well, it's something plenty of network admin types have seen before," I replied with a casual shrug. Here I was praying to all the ancestors that Marion was on the up and up. "When a device comes under attack – sometimes, mind you – then the firewall initiates a shutdown but instead of writing everything to a core file on the memory card, it just dumps some signatures to the network in a broadcast message." I chewed my tongue for a second. "Hell, it happened to my refrigerator this morning. I think it happens mostly

with old versions of the software.”

Wilder cocked an eyebrow at me. “Do tell.”

The use of the word “signatures” had gotten his attention.

“Yeah,” I said. “Like I said, this morning. My microwave – this sounds stupid, I know – my microwave was compromised and it took down my fridge. But before the fridge croaked it spat out a dozen signatures or so – I'd never gotten to see your proprietary signatures before, but don't worry, I didn't do anything with them – and then the refrigerator went dead. It just screamed 'em out to the whole network and choked. Does that happen a lot?”

Wilder was trying to look condescending, and I have to say it was working pretty well. But he had an old-school pen in his hands, and he kept twisting the pen inside its cap.

Pay dirt.

“I'm afraid that is something we've never heard of here at SentrySoft. Are you sure you're not trying to, um, how shall I put this delicately?” The poor boy, I thought, he doesn't want to hurt my feelings. “Are you sure you're not misunderstanding or perhaps even exaggerating your experience here? Or is it possible this was some other firewall product?”

“You mean some other company's? No.” I smiled and laughed a little. It was now or never, I was done spinning my wheels. “Look,

this happens all the time. If your programmers or your tech support people or whoever aren't passing this along, you may have a real problem here. What my refrigerator shot onto the network was pretty sensitive stuff. I don't know that they were signatures for the attack used to take it down, but wouldn't that be a cluster fuck if they were? I'm telling you, my fridge went down hard and I've got the dead pizza to prove it. And before it did, my firewall software – made by your company – behaved in precisely the manner opposite to its designed function. It released information onto the network and shut down completely.”

Wilder just watched me. I couldn't read him anymore.

“Hell,” I said, leaning back in my seat. I hear the same thing happened at police headquarters here on Diana City just a couple months ago. And, now that I think about it, that time the trains wouldn't stop out on the outer ring of the rail.” The last part I'd complete made up, just pulled right out of my ass, but I was fishing with dynamite here.

Wilder flinched a little with his eyes – nothing on him moved, except for that pen in his hands and his eyes flicking up and down my face just once.

“I'm afraid I don't know what you're talking about.”

“Okay,” I sighed. “But if I were you I'd talk to your

programmers. I assume there are some around, a couple floors down. They might be able to back me up. To be honest," and with this I reached up to scratch my nose in what I intended to be clear condescension, "It looked to me like your software had been trojaned, backdoored, ridden all the way home. I mean, this looked very *purposeful*. You know? You might double-check the resumes on those programmers you've got downstairs and make sure no one's selling you up the river for the competition."

I was now officially way outside the boundaries of an interview, but what the hell, I didn't need the job and I was trying to get another flinch out of Wilder.

"Well," he said, and all of a sudden he was Captain Glib again, all smiles and especially teeth, "We don't have any programmers here, I'm afraid. Just Threat Responders."

"You don't have programmers here?" I started to say, then why the hell are you interviewing me here, but the answer to that was immediately obvious: because he'd been told to check me out. Someone, somewhere, knew about the very behavior I'd observed and had told Wilder to see what I'd say about it.

And I'd blabbed.

Great.

"No," he said leaning back and relaxing, his work here done.

"We don't keep programmers on deck. They're all earth-side."

"Oh."

"Thank you for your time, Mr. Fitzgerald." Wilder stood and looked down at me, towering up there, and I knew when my time card was punched. I got out of my chair.

"Any openings on the Threat Response Team?"

"Not at this time."

"Mind if..." Now I was gambling. "Mind if I ask for a tour down there?" I grinned in a way I hoped was sheepish. I was trying to ham up the playing dumb now that I was afraid Wilder had me by the short and curlies. "I've always wondered what one looked like."

"I'll take you by the fishbowl," Wilder said.

I looked puzzled I guess, because he went on to tell me it was the observation deck for their NOC. I don't know why it surprised me that they had one – it was the perfect place to take some dignitary from a new or prospective client to show them how hard everyone worked.

I accepted his offer and five minutes later we were three floors down and standing in a little drawing room with plate glass windows that looked down – of course they looked down – at all the employees sitting around in a darkened chamber that looked like the old NASA control room from the Apollo mission days, with a little Batcave thrown

in. I couldn't see much from down there, but I did see something interesting: there was a guy pulling mass-burner racks of discs from a van-sized wall with a single monitor on it.

"What's that?" I asked. Wilder clearly wasn't very interested in keeping me there over-long. He'd brushed one hand through the air and named the major functions – network monitoring, threat assessment, training – as his fingers flew past them in the air.

"That?" he asked, and then he smiled. "New shipment. Latest version – we have a major release next week, you know."

"You have the discs shipped up here?" That was the dumbest thing I'd ever heard, and by happy chance I was completely wrong.

"No, that's our upload server. When a new version comes in from the programmers back home, that's where we burn the masters."

"Oh," I said. That screen had some text on it, but of course I was too far away to read anything. Wilder turned to escort me out, and so I turned with him – one hand on my bag to jiggle it *just so*.

I hoped to the gods he wouldn't ask me anything so I wouldn't have to try to talk and take the pictures all at the same time.

Now, I could have just turned on the mini and hit the network to try to capture anything going across, but that's kind of stupid in a network security firm. It's like lighting a match to see better in a

dynamite factory, or trying to rob a gun store with a knife. Besides, I had something to go on. I just needed to – well, I needed to find out who and where their programmers were, if I could, and I was hoping I'd gotten a good enough picture of their master disc burner to tell something about the software so I could find out who made it for them. If nothing else, I could always hit a pay search for tax records or something, try to pinpoint an individual who was a likely candidate to be a programmer for SentrySoft, but those records were back on Earth and outbound access here, as I said, was pretty limited. I was gambling now, starting to realize how dangerous I might have to play it if I was going to find anything out from up here without showing up at TransCo to do it, but for the moment Wilder was content to lead me back down to the lobby, give me a handshake and a *we'll keep your application on file* and send me packing.

Back out on the street, I breathed a big sigh of relief. I'd done some good work for one day, I figured, and I fished in my pockets for another stick of nicotine gum and that little yellow card with the address of a smokeasy on it.

I'd earned another little break.

Too bad I wouldn't get one.

The address on the card was somewhere the hell “south” of here.



I put that in quotes because I had no idea what the actual directions were, or whether they mattered very much. It was just another wrinkle in the various details they had masked over by creating an artificial Anywhere on the moon. It's so weird, the things you never think of regarding Diana City until you're up here, and then they're all you can think of half the time.

At any rate, the address was "south" on the map of Diana City I pulled up on my mini as I walked. I also breezed through the pictures I'd taken from the fishbowl back at SentrySoft, and it looked like I'd not missed entirely, so I hoped I could get something useful from the terminal window on their big-ass master burner. I slung my computer back over my shoulder and strolled through Aldrin Park – very beautiful, like a night time walk through Central Park only without the abject terror – and off down through the city. Back I went through the southern arc of the mass shopping district and I passed by a few different churches and other assorted houses of superstition, and then I popped out in a neighborhood that could, honestly, have been my own. Out here on the outer ring, everything was grotesquely identical no matter what slice of the pie you were in. It was all Mama Mia's and Pizza del Rio and Starbucks and Rei Jorge's Tex-Mex Extravapaloozas. Corporate, corporate, corporate.

In fact, I was beginning to seriously question the little yellow

card I'd been given back at the porn-o-mat. What were the odds someone was running a bar in the back of a McWannabe's? Still, I kept going. If nothing else, this was damn good exercise, and even if it all looked the same I'm not too proud to admit that it was damned cool being up here.

Eventually I got to the address on the card, and sure enough it was something other than a chain restaurant or boutique. In fact, it was a plain steel door that read MAINTENANCE on the front.

*Ha ha, porn lady,* I thought to myself.

Then the door swung open.

It should have occurred to me ahead of time that this was an experimental colony. High-tech equipment wasn't just common, it was omnipresent. There were RFID readers in every nook and cranny, and the tags themselves aren't exactly expensive. I held up the card to check it by the light of a street lamp and the door simply unlatched with a quiet click and swung open. I couldn't see anything inside, but I figured, hey, what the hell? Maybe it's a storage closet with a pack of smokes shoved behind some bricks or something.

I walked in, and the door closed behind me.

There were a few moments in which it was pitch black and I was, I will gladly say this now, fucking terrified. No sooner did it strike me that I was in a potentially very bad place and no one knew where I

was, though, then another door opened ahead of me and I saw I'd been standing in a small, cubicle-sized entranceway that looked a hell of a lot like the junction room for a building. Beyond it, behind the false door that formed the back wall, was a bar.

A big, gleaming, beautiful bar pieced together out of whatever crap the proprietor could find to build it with.

I asked later, and found out that there was a night eyes camera in that entrance cubicle, and while it was pitch black and my heart was pounding the barkeep was just checking me out to make sure I wasn't an electrician or the plumber or a UN cop looking for trouble.

There was music playing in the bar. I don't remember what, something noticeably artificial and wordless, classic electronica, beeps and boops and a bass thump old-timers would recognize from their parents' music collections.

I could smell smoke, and cheap liquor, and the floor was slightly sticky.

This was heaven.

The barman was a huge, fat fuck named Stan. Stan was a werewalrus. I don't mean that literally, of course, but Stan was a big, round guy with no hair at all save his long, drooping moustache. Guys like that are werewalruses. Werewalri. You know what I mean.

They've got smooth, round heads and whiskers and their moustaches droop down past their chins to look like tusks. It's easy to imagine someone like Stan descending into a blubberous rage and biting the heads off puffins by the light of the full moon.

Well, it is for me, anyway.

Stan wore a scuffed pair of jeans and a wifebeater shirt and was polishing glasses – honest to the fucking gods, he was polishing glasses – behind this big contraption of a “bar.” He grunted at me while I looked around, and I guess he just didn't want to commit until I did, because when I grinned at the place and then stepped right up to place an order, he smiled like I was his long-lost best friend. The bar itself was constructed, it looked, out of tabletops from chain restaurants in the neighborhood, though some of the logos were things I didn't even recognize. I guess in fifty years there'd been plenty of turnover in terms of who had what up here, all that stuff, and if this was all detritus from restaurants that didn't have a presence in Diana City anymore, or had gone belly-up back below decks, then this bar and its, well, *bar* had some history to *them*. Now wasn't the time to chat about such things, though.

Now it was time to have a cigarette.

Like I said, I ordered the soda – diet – and licked my lips slowly, drew a breath of sharp, acrid, blue-tinged air then closed my eyes for

a moment.

"What kind of cigarettes do you have here?" I asked. It was like a prayer, or a poem whispered in a lover's ear deep in the night.

I still had my eyes closed, so I only heard it when Stan went *hur hur hur* under his breath and a thwap of plastic and paper hit the counter. I opened my eyes, looked down at the bar, and there sat, I shit you not, a half pack of Benson & Hedges Menthol Ultra Light 120's. These aren't cigarettes, I thought, they're shit sticks. They're self-loathing in smokable form. Fuck these, what is he thinking?

"All I got, kid," Stan rumbled. The earth moved in his voice. Or the moon did. You know.

The fucking *ground*.

I lifted my gaze from the pack of cigarettes and behind Stan was a small shelf. On it were nothing but packs of Benson & Hedges Menthol Ultra Light 120's. I turned my eyes, very slowly, to look Stan in the face.

"Thank you," I said. "I'll take one."

"That's three euros."

Three euros was kind of a rip, but I didn't care. I reached for the pack and picked it up.

"Oh, you wanna start a tab?" Stan smiled at me, one of those fuckface toothless smiles behind his moustache, the kind that says

*Don't walk away too fast, I'm not done yanking your dick,* and I sighed. Of course. It was three euros for one cigarette. Just one.

“Yeah,” I sighed, and I took my warm diet soda and my half pack of... gods, I can't even say it again. The place was almost entirely empty, and every booth had been outfitted with privacy screens. I had to give Stan that much credit, anyway. What we were doing in here was mega-bad, unbelievably illegal. It would have gotten us tossed off the rock and probably charged with something back home.

I could not have cared less.

I slid into a booth and slid down the privs and pulled a cigarette from the pack. It was a little stale, I could tell just from handling it, and tobacco fluff rolled out the end at a touch. Very fucking 1984, I thought, but now wasn't the time to think bad thoughts. Now was the time to smoke.

I picked up a book of matches left on the table by someone before me and lit one, held it to the cigarette, and inhaled.

Then I coughed for five minutes.

The thing I hadn't learned about increased oxygen is that it fucks up your lungs if you're a smoker. Apparently this is something well-known by people who go to oxygen bars, but I didn't know that then. At any rate, when I was done coughing, I took another, more tentative drag and man, let me tell you – if getting off to Ernesto earlier was the

best video sex I'd ever had, this poor substitute for a real cigarette, this fluff of almost mint and tobacco on the verge of turning to dust, was absolute heaven after the little death of orgasm and the purgatory of a fake job interview. I took long, loving puffs of the cigarette. I'm not trying to sexualize the moment too much, but damn, let's just say that sometimes a cigar is just a cigar and sometimes it's the best cock in town.

When I finished the cigarette, I automatically started to light another. Three euros, though? After my little porno booth binge earlier? That was just being stupid. So I held off and killed some time by pulling my computer out and figuring, what the fuck, I'd take a look at the pictures I got.

My pictures, if I do say so myself, were awesome.

Right there, under enough magnification, I could make out the old-school transfer log of the install files for the new version of SentrySoft Sentry v. 8.2, and I could see the IP address it had come from, and I could see the username used to login.

The domain name was awfully basic: it looked like it was the name of another company. Odd, I thought. Why would SentrySoft get their upload from another company?

At any rate, the domain name was *codeblue*, so I fired up a web search. Realize, of course, that Diana City was a closed system, but of

course the major metasearches wanted a presence up here, too, so they'd bought space in the moon's only hosting provider and they'd mirrored everything up here. It was out of date, because they could only open a direct line home every two months to get new flashes of the databases back on Earth, but the bottom line was that I could search something *like* the 'net for information on this company, and I was still grooving on getting shit done in a hurry. The faster I got this done, and the earlier in the weekend, the sooner I could relax and enjoy myself.

I fired up a search on CodeBlue, and it took no time at all to find out something about them: they were a code sweatshop. It didn't say that right there on their site, which instead was all about “partner companies” and “helping you meet your goals” and whatever else they wanted to say to sound like a code sweatshop without sounding like a code sweatshop, but it was obvious.

SentrySoft outsourced their programming. That's why they don't have programmers on decks – they don't have programmers *anywhere*.

*Well call me a monkey's fucking uncle*, I whispered to myself.

Then the other shoe dropped on that line of thinking: I'd just had to search a slightly outdated mirror of a search site because Diana City is a closed system.



So where the hell was the user who uploaded the new installer to SentrySoft's servers coming from?

Now, I knew the search sites were able to get outside connections. But I was willing to bet the hosting site arranged that, and there was no way to arrange it on the sly. I sat and pondered it for a few minutes. If they were allowed an off-world link every once in a while, I bet the hosting site was cutting themselves off from the rest of Diana City to get the flash from back home. They could get away with that in the middle of the night, service providers go down for maintenance all the time. But could SentrySoft?

Not given that they were the ones with "threat response centers" and hacks like me or like the 540<sup>th</sup> Flying Keyboardists I saw wander into SentrySoft to start the graveyard shift sitting around watching the rest of Diana City's network full time. They wouldn't be allowed, by the Diana City regulations, to blind themselves to everything happening in the city even just long enough to upload a file. They could do it fast, but I'd have bet another cigarette that they weren't allowed to take that risk. That meant CodeBlue was right here on the moon – a software factory probably just down the street, probably rubbing their hands together at the thought of bumping SentrySoft from the top of the mound come Siang-Ngor contract time. All it would take would be a little "accident" with the code and they could

make SentrySoft look irresponsible and incompetent.

Regardless, I had some real dirt now. SentrySoft's firewall software was coming to them from outside. No matter what the contracts read, that meant the reins were out of their hands on quality control. They could test it eight ways from Sunday when they got it, sure, but the odds were much higher they'd just put a clause in the contract with CodeBlue to make sure nothing was broken when they uploaded it, and if shit went haywire they could offload that liability onto CodeBlue right along with all the real work.

Fucking corporate fucks, I thought.

I realized immediately, though, that I'd just reasoned myself into a circle. If CodeBlue was fucking SentrySoft, but SentrySoft was smart enough to leave themselves room to fuck CodeBlue when anything went wrong, then it didn't make any sense.

I realized also that I'd smoked two more cigarettes. This was turning into an expensive little break.

I signaled Stan for another soda and decided it wouldn't hurt to kill a little more time checking up on this CodeBlue outfit. By that I mean I wanted an excuse to stay here so I could spend another fifteen euros on cigarettes, but whatever. In case you haven't figured it out yet, I've got poor impulse control. Not tattooed to my forehead degrees of "poor," but pretty piss poor nonetheless.

A quick check of CodeBlue turned up that they didn't have offices on the moon.

Oh hell, I thought to myself. So SentrySoft is getting their code from back below. Now it was all just getting muddled. There were too many hypotheticals here, too many possible scenarios of one company trying to screw another, and those maybes were all jumbling up in my brain. By now it was getting on towards midnight and I was starting to wind down. The nicotine in a cigarette is a stimulant, yes, but the act of smoking is a breathing exercise. People always smoke to relax, and I was starting to get really relaxed.

I hit the searches again, this time looking for more than just the homepage of CodeBlue. I was looking for just about any mention I could find of them outside the occasional press release. I needed something better than PR bullshit, I needed to know where they were, who worked for them, who owned them, where they were based, anything that would suggest that they or SentrySoft would be willing to dick the other over. I knew from the fact Wilder got sent to chase me down on the street for an interview meant I was onto something, and if there was a something to be onto then any idiosyncrasy I could find might point me in the right direction.

And that, plus a few more cigarettes, led me to the name of Dr. James Stonklin.

## Shell Access – Chapter Eight

James Stonklin, it turned out, was the majority shareholder in ColdBlue. I wouldn't know that for a while yet, because where I saw his name was in a puff piece written by one of the local *New York Times* hacks for the *Diana News*. Given the artificial hometown feel of the paper, I was surprised it wasn't called the *Diana Bugle-Tribune* or some shit, but instead it had a particularly utilitarian name.

They'd covered him because he'd been at CodeBlue for fifty years and still hadn't retired. You have to admire that sort of dedication these days, when the average adult will change companies twenty three times over the course of a forty year career. Stonklin started out as an intern way back in the seventies and now here he was, pushing seventies of his own and still doing a little R&D work and generally making conservative but profitable investments of time and effort on behalf of his company. And it really was his company now – he'd gotten granted stock as an employee and started buying it up during slumps in the price over the course of his career, being left it in the wills of other employees, all kinds of shit. As of ten years ago, he'd owned, fucking A, he'd owned seventy two percent of the stock for the whole company.

That was a lot of stock.

So here he was, essentially owning a publicly traded company. The stock price had plateaued more or less in the last few years. It hadn't dropped but it hadn't gone massively upwards. And nothing I searched on found anything they did. Their "partners" site listed no one – not even SentrySoft.

That didn't sound right at all.

Were they a code farm that had been colonized? It happened sometimes – a megacorp wants to do something risky so they "outsource" it to a company that does basically nothing but that one project. That company becomes a semi-autonomous division of the parent, but on paper everything is nice and separate and distinct.

Weird shit, this.

It still didn't answer whether SentrySoft was screwing CodeBlue, CodeBlue was screwing SentrySoft, or neither – there were still plenty of possibilities in the realm of the amateur hacker. I mean, let's face it, if I were some kid and wanted to make a name for myself, or blackmail someone, busting the door down on the firewall company itself would be a pretty snappy start. I was definitely tired by now, though, as my mind had started wandering on its own and I jerked it back to the task at hand:

What was CodeBlue's relationship with SentrySoft, and were they doing the coding and uploading of firewall software on-world or off?

That probably sounds like the driest possible fucking question in the world, but it really mattered to the job Sara had given me. She wouldn't want to hear that yes, they really were fucked and I suspected they knew it. She'd want to know who was fucking them and why. That's why they pay me.

And I like getting paid.

At the rate I was smoking these three euro cigarettes, I was going to need every fucking penny of it, too.

Finding Stonklin was a breeze. That he was in the *Diana City News* meant he was a lunar resident – rich enough to buy a little place on the moon where he could semi-retire. I did a quick phone book search and, I shit you not, there he was, address and everything.

And damn, but he lived in the corporate sector of town, right in the bull's eye.

Now *that* is money.

I slid out of my booth and back up to the bar. Another step down the path to getting some fat dollars from Sara, I tossed the empty pack onto the counter with my money inside and a tip for Stan the Werewalrus. It never hurts to make a friend.

Out the door I went, and I realized on the way out that they were filtering the fuck out of the air in there, because the entryway

didn't smell like smoke at all. I assumed it was all ionizers and eight-pleated super mahoochies and anything else they could scrape together. Clever, I thought. Very, very clever. Life on the moon was turning out to be a lot like everywhere else: wherever there's a dollar to be made, someone will be there to make it.

I intended to be no exception to that rule.

Back on the street, I took a couple of minutes to continue being completely dumbfounded by the sight of the sky. You really can't imagine what it looks like. I've already tried to describe and thoroughly fucked that one up, in case you hadn't noticed.

Stonklin's home was up in the bull's eye, as I said, so I set off back through the church 'hood and through the shopping ring – something I noticed was not 24 hour, as the lights were all on but the stores were mostly closed. Starbucks wasn't, though, so in I went for another big-ass cup of coffee and a bathroom break. The diet soda had already gotten to me in the oxygenated air. Fuckers.

I checked the map and noticed the casino – the one that started it all, in terms of the corporate takeover up here, was also in the mall ring. It was on the far west side of it, though, putting it cozily close to the church ring. That made me smile.

Diana's Bow.

Come to think of it, for all I knew that was where the colony got its name.

I hit the bull's eye at a brisk pace, the caffeine doing its magic on me. Also, I desperately wanted another cigarette. Fuck me, I'd fucked myself over something good by going into that place. All I did was kill any progress I'd made on getting used to being woefully free of cigarettes for the next month. I slapped my forehead as I walked. I hadn't been very bright.

The map showed Stonklin's place as being exactly halfway between the center of Diana City, Aldrin Park, and the outer edge of the corporate district. I stuck to the park's perimeter to cut across the arc of the circle, and then went diametrically opposite the direction of my own home to head towards Stonklin's. I saw a couple more United Nations patrols on their little cart things, one of which waved as it went by. Cheery fucks, I thought. This has got to be the cushiest job a cop could ever dream of. It's not like there's crime up here – guns are strictly illegal because fuck if they want some drunk husband walking in on his wife shagging the kid from Pizza del Rio and ending up punching a hole in the dome with his slug thrower – and people are cowards when the guns are out of their hands. I'm sure saying that in the middle of an NRA meeting would get me burned at the stake, but let's face facts: guns create artificial courage. I've had to use them



before – I'd rather not discuss when or why – and you feel great with that big, metal dick in your hand, pumping wads of lead at anything that moves, until all of a sudden you don't have any ammo left and your left with a bruise from where that sudden realization punched you right in the guts. A gun is nothing more than a license to live life like a videogame, and once you don't have one anymore – once the killing or the hurting has to happen up close and personal, right at the end of your own fucking arm – then all bets are off. Suddenly, Gandhi seems like a much smarter dude.

That said, I've got a couple back home. Never know when I might need a little courage.

I was digressing again, though – that coffee was keeping me awake, but it wasn't necessarily making me smarter. Suffice to say, I thought the powder blue pig patrol were probably having a dandy ol' time up here on the moon. I waved back and smiled, because you never, ever go out of your way to insult a cop, but my brain wasn't as friendly a place.

I'm a criminal. Cut me some fucking slack.

Fifteen minutes of steady walking later, I was at the corner of USA Boulevard – I shit you not – and Cernan Avenue. Everything up here is like that: named after some American who landed on the moon. Screw everybody else's programs, I guess.

I turned left down Cernan and walked about three blocks to a corporate district that was starting to look distinctly less like posh offices and more like a mechanics' graveyard. This was still the corporate district and it was still Diana City, don't get me wrong, so it wasn't like it was dirty. But it was less... impressive, I guess. The street lights were all on, it was as absolutely generic as anywhere else in this stratum of the city, but there was a different feel to it. The buildings were lower, more modest in appearance. This, I took it, was where the work that had to happen *somewhere* happened slightly out of sight. It didn't feel seedy, but it felt dusty.

That was very, very strange after a full day of Diana City's sterility.

The lights were on at Stonklin's place, or at least a few lights were on in the building with his street number. I doubted it was an apartment block, given where it was, but neither did it much resemble what you might think of as a "home." It was an office building, except the door was flat steel instead of glass and utterly devoid of insignia.

Hell of a spot for a guy who could buy a six-pack of kings.

I dug around in my bag for the whole reason I was here: a tiny, wireless bug. That sounds really cheesy and James Bondish, but I carry them on every job and you'd be surprised how often they came in handy. I could tuck one of these behind a drain pipe and, unless

Stonklin was encrypting everything on his network, I'd get to hear everything that went across his lines for the next couple of days. The batteries run out by then, and the odds were actually pretty high that he was encrypting, but given how cheap these things are to slap together en masse with one little trip to Electro Hut, I'm always willing to toss one out and see if I get a bite.

With the bug palmed, I strolled leisurely from one side of Stonklin's joint to the other. There weren't any obvious cameras, and there weren't any shadows in the windows. I hadn't made any noise and Diana City was delightfully free of neighborhood dogs who could start barking up a shit storm or twigs I could step on to melodramatic effect. Of course, it's the moon, so there weren't any convenient drain pipes to tuck it behind. We don't have mailboxes up here, either, so no dice there. I was standing there tossing the bug into the air and catching it again, like a coin or a yo-yo, considering where to put the bug, when it struck me that I was about to do the stupidest goddamned thing I'd ever done. This was Diana Fucking City, I told myself. The minute my mini came online the day before it had been scanned a few dozen thousand times. If I put this out on the wall, I was going to be sending up a flare. I felt pretty confident – and I hate admitting this, but it's true – I felt pretty confident that Stonklin wasn't going to be some tech whiz. Frankly, I'd yet to meet a seventy year

old who could program his way out of a wet paper sack in a modern language, and although it's not impossible and I know there are plenty of old-timers who go on about how Java was good enough for their grandfathers so it's good enough for them, but c'mon. What were the odds? Still, putting something on the network would not go unnoticed, and something obviously illicit with my fingerprints all over it would be really, really stupid.

Great. Now what was I supposed to do?

My absolutely irreligious nature is sometimes at odds with my personal history. It turned out that fate would step right in and take care of things for me. If it wasn't going to be my bladder, it was going to be the trash.

That's what the man was carrying when he walked outside.

I say "the man" because he didn't look much like the Stonklin in the picture in the story. He was a big, tall, broad-shouldered guy built like a fucking refrigerator – and I mean a refrigerator deep in the act of copulation, as his back was hunched and he grimaced as though every nerve in his body had just lit up from something, be it pain or pleasure. He had blondish hair that had started to go grey and retreat from the advancing jowls this guy called a face.

And I was standing there, still holding the bug, watching his house.

"Hrng," he said to me, and he heaved the bag of trash over one shoulder like the grumpiest department store Santa you've ever seen in your life. He waddled under its weight, heaving down the steps and the few feet of sidewalk to a communal trash bin and dumped his burden into it. As the lid slammed shut I wasn't sure if it was the flash incinerator or the guy himself that made a funny noise, but relieved of his booty the man stood straight and *fuck* but he towered over me. This was no seventy year old geezer – this was someone thirty years younger and a whole hell of a lot meaner in the face.

Mack – I didn't know his name yet, but that sounded right somehow – looked intensely familiar, but I couldn't place him.

He turned to look at me again, grunted as he tugged his shirt halfway back into place, and then he stomped back up the steps and into the house with a slam of the front door.

Well. That went better than it might have.

I figured I must have the wrong joint and had turned to walk away when the door opened much more civilly this time – a quiet creak of the hinges and a clearing of the throat rather than a shove and a fart of good riddance. I glanced back as I was about to take another step and there was Dr. Stonklin on the front landing, head and shoulders taller than the other dude and obviously three times as smart.

"Can I help you?" His voice was an aged wheeze, the self-pitying salutation of an ancient elder who wants you to know he watched you grow up and suffered while doing so. I know that sounds mean of me, like I must hate every old person I see on the street, but in truth I found it sort of endearing. He sounded a lot like Grandma Wong towards the end, when she'd berate me for being American and not speaking Chinese and then give me a hug and a kiss and feed me something awful for me.

I miss Grandma Wong.

Anyway, there was Stonklin and even in the half-light of the darkened street I could tell it was the guy from the photo. The picture must have been a file shot, though, or taken in some really fucking forgiving light, because the guy on the step was in a lot worse shape than the picture or the story made it seem.

"Dr. Stonklin?" I asked. I still wasn't sure what the hell I was going to say. I hadn't expected to talk to the guy, just invade his privacy.

He frowned at me – it had the distinct air of impatience I'd seen on more than one advisor's face when I was in grad school – and actually, I'm not making this up, actually tapped his foot.

"I, uh..." There was no stalling with this guy. That glare said, very clearly, *Say whatever you came to say while I can still hear it or*

leave. "I... My name is Charles Fitzgerald."

Fuck. I hadn't meant to come right out with my real name like that.

"I, um... I'm really sorry to bother you, I know it's very late, but I read the article about you and it was interesting and it's a lovely night anyway so I was out walking and thought, oh yeah, I'm actually near that guy's place and it's odd he lives in the corporate ring so maybe I'll just walk by and see what his place looks like. I thought maybe your place was a holdover from when this ring had a different function." I grinned very earnestly. "Or something."

"A relic." Stonklin said it like it was his native tongue's phrase for *and fuck you, too*. And when you're seventy something, I guess it is.

"Uhhhhhh..." The way that came out of me, I was either the stupidest son of a bitch on the moon or the one with the worst gas.

Stonklin waved his hand to dismiss my excuse-making. "That was a pathetic lie," he groaned. "I know why you are here."

"You do?" I was suddenly fighting to keep my voice from cracking. His very seniority was leaching the years out of me, turning me into a teenager.

"You came for the same reason anyone comes these days. You want a job." He spat that out, too, and it seemed to sincerely leave a

foul taste in his mouth. "There are no jobs. No vacancies! No openings. I am doing quite fine with the resources at hand. Thank you."

"Oh." My heart had started beating again, and now I was curious about all the wrong things. Of course people came by here all the time looking for jobs – they thought they could score a contract extension and, if he was senile enough, a major scam as well. Great.

"But..." Stonklin's eyes gleamed for a moment in the light from the street lamps, and there was a flash of... I don't know what. It's hard to describe. It was like a cat's eyes in the middle of the night, when she's curled up in a corner of the room pretending to sleep but you move just a little and you see that flash of her eyes, pupils the size of quarters: hunters' eyes. "Would you care for a cup of tea?" He sighed. "I get so few visitors these days."

This was Grandma Wong all over again. I couldn't say no. I nodded and thanked him politely, shook his hand like a gentleman and dusted my shoes off on his welcome mat – the first one I'd seen up here – despite there being no dirt to get on his floor. He gave me a cup of Lady Grey with too much milk and not enough sugar, all Bergamot and dairy fats, and served it in a mug that would have fetched a pile of cash for its age alone. It was honest ceramic, with the logo for some conference or something etched onto it four decades



prior.

Stonklin was polite, walking me through his home and pointing out his collection of books and a room with nothing but antique computers, most of which seemed to be in active service. Dude had a whole server farm in there, practically, and more beyond that he kept in a glassed chamber he didn't offer to take me into. It was weird. All homes up here are small, but his was slightly larger than I'd expected even of a rich old dude who'd bought his way into living out his days on the moon. He had a bunch of Apollo memorabilia and Mars mission junk and an absolute lack of photographs of family or friends other than some yellowed, framed snaps of him when very young, surrounded by co-workers from CodeBlue. He told me a little about their history, being brought on as an intern sixty – more than he'd told the paper – years before and devoting his whole life to working there. This sort of commitment was absolutely unheard of then, even, so to me it just sounded alien. He asked me what I did and I told him I was a contractor doing this and that – I gave him my cover story about being up here to work as a station mechanic. Stonklin wasn't too interested in *me* after that, and got right back onto himself. He liked talking about old times, though, and two hours had slipped by without me even noticing. Now I'd kept him up to 2am and I was feeling a little guilty. I was also getting jack and shit in terms of my job, and I

was having to remind myself of it the more he talked. This was all well and good, and a lot of it was genuinely interesting, but I could do the Meals on Wheels tour any time.

The heavy, it turned out, was his kid. His name was Foster. I bet he's a foster child, I thought to myself in a flash of cruel humor. Either that or his mother was a dump truck. This guy was no more Stonklin's son by blood than I was the king of France. He even stayed in the room with us, like he was keeping an eye on me. I guess in that regard he wasn't so dumb, given I'd been standing out front two hours ago debating how to go about spying on the guy now serving me tea and stale Oreos. Still, Foster had an air about him of the sheerly sinister. He didn't act so much like a son as a bodyguard, and that got me curious.

"Doc," I said, and I realized I'd slipped into calling him that over the course of the conversation but he hadn't objected. "You run CodeBlue. Can I ask a question about the business side of things?"

Stonklin looked across the scrapbook of newspaper items about CodeBlue's early days at me and shrugged.

"You do all the coding for SentrySoft, right?"

Stonklin sniffed slightly and closed the scrapbook – leaving me to keep talking.

"I know this is going to sound stupid, and I know I shouldn't be

bugging you with it, but uh..."

I know it's absolutely stupid that I did this, but it was two in the morning, I'd had a long day, and my gut told me to roll with it. So I did.

"My microwave attacked my refrigerator this morning. Well, yesterday, to be more accurate." I cleared my throat. "And, I know this doesn't sound right, but before it crashed my fridge did a dump of intrusion signatures to the network. It was all proprietary stuff. And when I brought this up in a conversation with a guy from SentrySoft, he acted real keen to know what I'd heard but pretended there was nothing to it." I held my hands apart and shrugged back at him. "Now it's got me curious. I thought I was just doing the good citizen routine, and all of a sudden he acts like I'm the nosiest rat in the whole damn town." I fluttered my lips. "I got totally eyeballed by this corporate wonk and, uh, well, now I'm wondering if there was anything to it?"

I tried to turn my voice up at the end and play the idiot. *Here I am, Mr. Scientist Programmer Sir, can you tell me if I've made the unlikeliest discovery of the decade?* I figured I was going to get a big slap in the face for it, or a condescending pat on the head, but I wanted to see if Stonklin would instead take me at my word and give me a contact back on Earth I could bring it up to and see if they

flinched like Wilder did.

Instead, it was Stonklin who nearly flinched – nearly, but not quite. Instead he was perfectly reactionless for about a half a heartbeat and then he shook his head and laughed.

“Young man, I've had nothing to do with the grunt work of our projects in... oh, decades. But I'm complimented you'd consider me an expert in our current work. You might as well ask the chairman of Pizza del Rio for his grandmother's marinara recipe, however. The man probably doesn't know what marinara is much less how it's made, and I am likewise distant from the day to day operations of my business. I'm sorry.”

I shrugged and smiled. “No, no, I should apologize – I barge in here looking for a job and thinking I can score a few points with you by pointing out something clever when SentrySoft's tech support and the guy who interviewed me – and very kindly didn't tell me how underqualified I was for the job – had already told me I might as well have claimed to prove the existence of fairies. Don't sweat it. Just don't blame a guy for trying.” I grinned at him and Stonklin laughed a little and smiled back.

“I do admire you for trying, even to the last. And now, I thank you for the company but I'm afraid it's quite late and I need to sleep.”

Foster was already on his feet to, uh, show me out, and I took

that as a sign that I needed to leave before I was led out by the nose. Foster was sure gruff about looking after his old pappy, and didn't speak a word when he walked me to the door though Stonklin himself called a fond goodbye. Nice old guy, I thought.

But nothing about that whole experience smelled right. There was no reason for him to invite me in – he wanted to check me out for something. And Foster, if you ask me, was aching for a reason to leave me in an alleyway with bruises on every inch of flesh he could find.

That definitely didn't feel like much of a social call.

## Shell Access – Chapter Nine

Once I was back on the street I was distinctly puzzled. Stonklin hadn't flinched, but he'd acted to control some sort of response. That I knew. Fifty years ago he could have gotten it by me – hell, probably ten years ago. But not tonight, not when I was forty years his junior and I'd had enough caffeine to put me back in fighting form. I didn't bother taking any pictures on my way through because I was pretty sure Foster would have smashed my nose in if I'd reached in the wrong direction much less into a bag I was carrying. He was so obviously a bodyguard it fucking hurt – in a place where there were no immediately imaginable threats to Stonklin's well-being. Diana City hadn't suffered anything worse than a petty mugging in decades.

If Foster wasn't protecting Stonklin, he was there to protect something Stonklin had. That I'd managed to get that tiny peek behind the facade both here and at SentrySoft was an interesting coincidence, and I have to confess that despite my anti-superstition I don't often buy into the idea of coincidence.

Something was going on here, and I was getting paid to find out what. With that coffee in me from Stonklin's place, and a full night ahead of me, I decided to keep digging.

There was one option left that I'd completely ignored: that

someone entirely outside of SentrySoft or their competitors or clients would be trying to fuck them in the ear. I'd visited SentrySoft and their only competitor I could readily identify, and they had so many clients I might as well have thrown darts at an open phonebook as try to narrow them down immediately.

If it was someone outside, it would be someone who wanted notoriety or large amounts of money. The latter was something I wouldn't be able to determine without really nailing someone at SentrySoft to the wall until they talked, and I didn't see that happening after the reception I'd gotten from Wilder. So, I figured, I might as well look for hackers who wanted notoriety. If someone had managed to break into SentrySoft and ride their software, they'd have bragged about it. They would have to. It was the young poisoner's dilemma in a totally different context, but one in which it was just as valid: without bragging, they'd never get the notoriety. They might even be able to brag with impunity, as SentrySoft couldn't risk the hit they'd take in revenue, market share or simple stock price if they made the sort of public accusation necessary to get police involved in any break-in.

I flipped my mini around and fired it up again, asking it to search for any archives it could find where seedy types had talked SentrySoft. I just wanted that cross-section: black hats talking about Sentries and

exploits. It would take a while to run a complete index of everything stashed in all the search engines with a presence up here, so I left it running and started walking the arc of the corporate ring. I needed the time for my search to run, to clear my head and to consider what to do if this didn't turn anything up.

I was walking some deeply deserted streets, but like I said, Diana City isn't exactly Port au Prince or St. Petersburg or even Washington. I didn't feel at all endangered by the absence of humanity. Quite the opposite, in fact. It was rather nice being alone with my thoughts.

I did notice some teenagers out playing Pac-Man with their vintage headsets, and I grinned to see them at it. Kids are kids, even on the moon. They got me more in the mood to enjoy myself so I popped my earbuds in and cranked something thumpy and wordless as walking music, a little something to help my fore brain focus while the rest of me chewed on the facts at hand, such as they were.

It was in this fashion that I eased my way back around the city and by three in the morning I was headed back into my quadrant. I considered going home and sleeping on it, but now I was awake and energized again. I considered turning around to backtrack a bit to get to the smokeasy, but three euro a pop was a lot to ask even at three in the morning and in the throes of a budding nic fit. That was when



my computer broke in on the music to let me know it had finished the search. I know it sounds like that took a lot longer than it should, but I like to be thorough, even with a search, when there's money on the table.

I figured now was as good a time as any for that smoke after all, and off I went to the smokeasy.

On my second visit of the night, Stan just gave me a walrusy *hur hur hur* from behind the counter upon seeing me. It was the sleaziest thing I'd ever heard, sleazier than every titter and giggle of every piece of dick I'd ever picked up in a bar or tricked in the bathroom of an airport or seen on the other end of a porno booth connection. I actually felt dirty taking another half pack of Benson & Hedges Menthol Ultra Light 120's from him and sliding into the booth to let the privacy screen down.

The cigarette was pretty good, though, even considering what it was.

Once the screen was down and I was entirely alone, I went ahead and let my computer show me what it had for me. It had turned up plenty of archives of message boards, and some of them seemed to be of real interest to what I was looking for. Marion hadn't lied when she said she'd heard people talk about exactly what I'd seen

– plenty of folks had asked if anyone else had noticed similar behavior. I read through a few discussions of it, and I was starting to get worried by what I saw. Everyone who reported it was reporting it in Diana City. Either they'd just gotten back when they posted, or they were posting on internal boards.

That was something I hadn't expected, but should have: Diana City was home to more than one hacker discussion board running under the conventional radar. Too bad none of them remembered the golden rule of online life: the Internet is forever. There are archives of everything.

I was starting to wonder if I'd played my whole game entirely wrong both with Wilder and Stonklin. Here I had evidence that the issue was known and discussed in the small circle of people who really, really actively paid attention to things like this, and I'd shown up at their front doors asking about it. It was certain they had people of their own who monitored boards like these – nothing like this escapes detection forever, no matter how innocuous the stated topic a board has and no matter how unrelated the domain name might be. Of course they knew about this problem with their software. I'd been a tremendous idiot to be so direct, but I'd ridden my gut feeling all the way to where I was and had no one but myself and my greed to blame.

Oh well. I'd survived worse, and it was awfully easy to forgive myself when I had a new lead: right there in the middle of my search results was a post from someone called Errorgorn – the name made me cringe in absolute horror – claiming they'd written the exploit that caused SentrySoft firewalls to choke and die but, right before crashing, spit out the last dozen signatures they'd matched against previous attacks. Errorgorn bragged in his post that it was a way to track who'd gone before so he could claim credit for jumping their claim.

Now *that* is bidding for attention.

Bingo.

I spent a little while just sitting there smoking what the locals considered a cigarette and thinking about how to get Errorgorn's attention. By the time I'd had another soda and another half-dozen cigarettes – eighteen euros, down the tubes – it was headed towards three in the morning. I had partied plenty later than this on more than one Friday night, and I'd slept for thirty four fucking hours the “night” before, but a long day of walk and chit-chat was starting to wear on me. I had let my mind wander as I thought of ways to get in touch with Errorgorn, and thus it had taken a detour south and I found myself thinking less of how to entice Errorgorn into a meeting or at least an email exchange and more about how to end up in the pants of

some hot young lunar stud. Not that I'd managed to locate where they hung out, mind you, but I hadn't gone trolling the yellow pages for bars that seemed likely candidates.

That, of course, was what I hadn't considered – the way to entice a geek is with the promise of unattainable sex. I know, I know, it sounds like I'm fueled by stereotypes, but it was late and I was tired and perpetually horny, so the natural solution to my professional dilemma seemed like the natural solution to my personal one. The truth was that on the one hand I probably had enough for Sara – the firewall software is hosed, it's vulnerable to outside attack, and it's everywhere, and SentrySoft knows it. But the bottom line here was that the best proof I had was to say I'd read it on the Internet, and there was no way she was paying me for that. Besides, Wilder being sent to chase me down outside to ask about that one entry on my application and Stonklin having a heavy in the room while he told me stories was compelling my curiosity even further than the paycheck. I needed to try to get Errorgorn to talk about the vulnerability and how often these Sentries were busted up like this. That, some real data from someone out on the front lines, was definite money in the bank.

The archive, though, was just that – an archive. I fired up the active site of the board in question and checked to make sure Errorgorn was still there.

He was.

Hell, he was online right now.

Going with the profile Errorgorn had listed on the site where he'd taken credit for the very hack that so interested me, I shot him a message from within that same message board system. The profile I whipped up was total shit – I listed myself as being seventeen, gave myself the androgynously sycophantic handle of *hackfan* and left the gender button blank. I was counting on, at worst, appealing to Errorgorn's ego and, at best, appealing to his sex drive. If I was lucky, he was a horny teen who thought I'd be some code groupie teenybopper interested to hear more exploits.

*Really loved your claim on the signature sploit,* I wrote. *“What have you been up to lately?”* I signed it, “A fan,” and sent it before I could talk myself down from it. The idiot moves of applying for a job at SentrySoft and standing outside Stonklin's place looking suspicious had thus far gotten me where I needed to go, and I wasn't going to start questioning that methodology just yet. If this failed, I could figure something else out for sure.

I smoked another cigarette and waited for Errorgorn to respond. Surely the system notified him when he got a new private message. Surely he read his private messages right when he got them, if he was online. I was sitting there drumming my fingers and had just lifted the

privs screen to signal Stan for another pack of Benson & Hedges, something I thought I'd never do in my entire fucking life, when my computer chirped to tell me I had a new message on the board.

I waited until the smokes were there to read it. I'm a dick, I know, but a part of me wanted to be a little more calm and collected than I was banking on Errorgorn being. I'd just gambled that he was a hornball with a big ego. How quickly did I want to act like the same thing? Hell, that might have been what kept me from hitting the porn store and a video booth while I waited.

I popped the privs screen back down after shoving some paper money at Stan and then bopped the message up into view. It was from Errorgorn, and it read:

*Babe, that 'splot is yesterday. Got big new stuff brewing now. You have a crew or are you new to the scene? Never saw you on here before.*

Well, that answered two of my questions: he automatically assumed or hoped I was of his preferred gender, and he had a big ego. Big enough, in fact, that he'd condescend while simultaneously doing the email equivalent of flirting with me. If this kid was over twenty years old, I'd eat my hat. In a church.

Now he wanted to chit-chat with me, though, so I had to write something back. How to go about it? Play up the femme angle and

hope he thought I was some clueless with auto-open legs or try to throw him off-balance a little by seeming to have some dignity?

When it comes right down to it, my job is not espionage. It's acting.

*Yeah, I read it in the archives. Still seemed pretty cool, though. Did they ever fix that problem? Love to hear about the new stuff. Don't have a group yet, just got up here, and here I paused for a bit. It was now or never to gamble on the impressionable youth angle, With my dad. Don't know anybody yet. You have a big group?*

I went back and edited for a second. Being a fucking straightforward moron hadn't hurt me yet up here. The last sentence now read:

*You have a big... group?*

I figured throwing a cocktease in would just sweeten the pot. So to speak.

I'm an asshole.

I sent the message before I could think about it, again, and sat back to drink the rest of my soda. My eyes had started to close of their own accord and three euros were about to smoke themselves in the ashtray, and I think honestly about ten minutes passed where I was honestly asleep. I got interrupted by an increasingly persistent *bingbing bingbing bingbing* coming from my mini, and I lurched

forward in my seat and checked my watch: not quite half past three in the morning. I was starting to wear down bad. I lifted the privs screen and asked Stan if he kept any coffee around. Why I thought a cigarette bar wouldn't have coffee is beyond me – simply more evidence of my brain conspiring with my body to convince me they wanted sleep, I guess. Stan looked at me like I'd asked if the Dali Lama would be by before closing and then gave me another *hur hur hur* before popping the lid on this truly antique cup-can of “100% genuine NASA space coffee!” It flash-roasted and boiled itself as you opened the lid for “a fresh cup of coffee in *real-time!*” It was basically freeze-dried instant turd shipped up here probably right after the city was built. Fucking retro coffee he scavenged from someone who found it in their dead grandpa's attic up here forty years ago, I thought to myself. I bet it gives me the shits.

I paid for it anyway. Coffee is coffee at fuck-all in the morning.

The new message from Errorgorn was exactly what I'd hoped for.

*I tend to fly solo, but I'm always glad to show a n00b the ropes.*  
B1ffspeak, I said to myself. Hot damn, he think he's retro. Ego City.  
*You want to hang sometime?*

Well congratulations, Charles, I thought. You've been asked on a date by a snot-nosed kid who thinks you're a girl. Beats being single,



though, so I wrote him back again without giving myself time to talk myself down from it.

*I'm free now*, I wrote, and that was all I sent.

Ten minutes later I had the address of a Starbucks two blocks from my own apartment and an invitation to meet him there in thirty minutes. That would give me just enough time to smoke another cigarette, pinch my nose shut and chug the coffee and catch the rail back to that part of town.

I hit the monorail station needing to take a wicked piss. I know how vulgar that is, but goddamn – this oxygenated air bullshit was going to drive me fucking crazy if I had to go like a fucking firehose every two hours for the next three months. How the fuck did I sleep for 34 hours without pissing myself?

I have no idea how they got the artificial gravity to work on the monorails, but they did. In fact, they're just like the rail pretty much anywhere – elevated over the city rather than running underneath, like in Chicago or Raleigh, rather than submerged like New York's or Washington's. At nearly four in the morning there are remarkably few people on the monorail, even on a Friday night, even in a city of a half million residents. I guess everyone was still partying, still working or sound asleep next to an empty space they'd tried to fill and failed. Not

terribly cheery of me, I know, but that's what being alone and horny and lonely to boot at four in the morning makes me think: the world is shit and we're all just genitalia with legs. That we are *dissatisfied* genitalia with legs changes nothing about the overall situation.

I rolled off the train car and pounded down the steps to street level. The Starbucks was right nearby and I wanted to beat Errorgorn there and then try to spot him when he went in, see if I could pick him out of the crowd. At street level, in the outer residential ring, the city was livelier. Here, people were walking home from bars and shopping or getting off half-graveyard shifts and either way they were hitting the Starbucks stores that blossomed like ragweed in the furrowed row of residential buildings and kitsche boutiques and chain pizzerias so they could get a cup of cappufuckachino or whatever and make it home in one piece. I hit the closest thing I could find to a shadow across the street and flipped on my mini's camera from inside the bag so I could get a record for later. I don't know why, I'm just paranoid. If that isn't well and truly established by now then you haven't listened to a fucking word I've said.

Most of the crew at the Starbucks were older engineers and mechanics and a couple of emergency docs still in scrubs – though they were clean, so I guess they might have been on their way in for an early shift rather than coming back from the late. There were

dudes who'd obviously been drinking and in some cases there were women who were rightly annoyed with their dates' behaviors and just wanted to dump them on the step of their apartment block and get back to their own beds.

And there was Errorgorn – and I should have figured it out way, way ahead of time. It had to be Errorgorn, because he came up the street with his hands in his pockets kicking a rock that wasn't there. His eyes were down towards the street in front of him, his shirt stained with something that was probably food at one point, and he was twenty pounds underweight. It was a damn good thing he was in Diana City, because back below decks a light breeze would have carried him away.

It was Jimmy, the nerd from the 2600 meeting.

Of course.

He walked up the street, dodging the carousers and the professionals about to sleep or wishing they were still doing so, without even looking up from the path he was taking. He'd made this walk a hundred times before, I could tell. One lonely little hack monkey kid with a chip on his shoulder and a desire to learn, and all he could do was write viruses and trojan software and post about it online. I guessed his mom or dad must be someone who worked up here and hadn't been able to offload the kid – or the kid had begged

and pleaded to get to go to the moon until the parent had caved.

Now I felt kind of guilty about luring him out here with the implication that I might be a piece of eligible ass. Jimmy might have been sixteen if I squinted at him right, and clearly had to block off whole days on his organizer just for being an angry youth. But hey, shit happens, right? I had bills to pay and a job to do. Jimmy would live.

He stopped in front of the Starbucks to check out the patrons through the windows and, seeing no one who might fit the bill of being *hackfan*, he went inside looking downcast. He already assumed he'd been stood up, and the date wasn't even supposed to happen for another five minutes. Damn, I thought. That kid hates himself.

Not as much as he'll hate me in a few minutes, though – and maybe that'll give him something to perk up about.

I waited the five minutes until the designated time and then I strolled through the door of the Starbucks. Jimmy had positioned himself so he could watch the door while pretending to read. He was shit at the spy versus spy game, but I gave him points for trying. Who hadn't done that on a blind date before? Hell, I did that when I didn't even have a date.

He recognized me instantly, of course, and opened his mouth to

say something, then checked his watch and waved instead. I went to the counter and placed an order for a big, steaming cup of coffee, plain black, and the bleary-eyed kid behind the counter got it for me without even looking. The wall on the clock might as well have been ticking outloud. I knew Jimmy was going to be disappointed, but I had to get the information out of him.

Fuck him, I thought. I have to complete my contract.

So when I turned around and grinned at Jimmy, and he was still staring at the door, I just widened my face into a total shit-eating leer and slid into the chair across from him.

"Uh, hey," he mumbled and went back to looking at the door. "Look man, I don't mean to be rude, but I'm meeting some - "

"No, you're meeting me," I announced, and then I kept grinning. "Sorry man."

Jimmy looked at me like I'd kicked his puppy and said, "Sorry yourself, *man*, but I'm busy. I'm expecting someone. Thanks."

I cleared my throat and sipped my coffee. "No, Jimmy, you're expecting *me*." He looked back at me again, and I shrugged, still grinning. "Sorry for the subterfuge, but I'm *hackfan*. I lied."

Once I'd used the handle, his whole face and posture slumped back to normal, whereas he'd been agitated before. "Oh."

"Yeah."

"Fuckin' A, man, you some kind of child molester? You spend a lot of time online pretending to be a chick so you can get underage cock?" Jimmy might as well have stuck his tongue out and gone thbthbthbthbth at me. He'd managed a dig at my age and my sexual preference. All of a sudden I felt a lot less guilty about working him over for the information so I could do my job.

I leaned in close, and lowered my voice, still smiling.

"Listen, you little piece of ant-shit. I could fuck you over eight ways from Sunday. All I have to do is walk into a security station, flash my ID, and I can have you and everything you've ever touched while you were up here, right down to the Kleenex you shot your overconfident wad into this morning, hauled back to the station as evidence. Now I messaged you because I want information. It's not information on you, it's for something else, but if you don't cooperate then I can make sure someone with a big, bad badge wants a whole lot of information on you before daybreak. Capiche, kid?"

Look, I already said I was an asshole.

Jimmy had gone stark white on me and was staring.

"Holy fuck," he whispered, "You're a narc after all? Fuck, man, fuuuuuuck," and he honestly started to tear up at the table, his long fingers stretched over his gaunt face to cover his mouth and simultaneously wipe his eyes. "My dad was right! Fuck!"

I leaned back in my seat and shrugged. "It's like I said, Jimmy – it *can* happen like that but it doesn't *have* to. You cooperate and I'll forget where I found what I'm looking for and you'll never see me again."

"*Fuuuuuuuuuuck,*" was Jimmy's only reply. Great. I'd pushed so hard I'd gotten him to shut down on contact, just like my fucking refrigerator. It was the coffee and the early hour and the greed and the hormones all at once.

"Not here, kid," I said. "You take me straight back to your place and show me the goods on the particular exploit I'm investigating and just like I said, you won't be touched. But you have to take me there *now.*"

Jimmy grabbed his book and stood up.

"Okay. But you have to make sure my dad doesn't hear us. He'll flip his lid, man. He'd kill us both."

"Don't worry," I said as I stood up a good deal more slowly and flipped the lid closed on my coffee. "I can be quiet as a church mouse if I have to be. Just don't do anything funny, and you'll be fine."

We walked out the door, Jimmy in the lead and me with a very mean smile on my face.

## Shell Access – Chapter Ten

Jimmy and I walked in silence most of the way, weaving between other pedestrians. Jimmy was doing the *I just happen to be walking fast, by no means would I consider trying to give you the slip*, but I was smart enough to keep right on his tail. He wasn't going to slip between my fingers when I was this close to getting three months of double pay for one night's work. He might have had twenty years on me, but I'm a tenacious son of a bitch when I need to be. After a few blocks we turned down a side street and had it all to ourselves. I pulled even to discourage him from a dead charge into the night and clapped him on the shoulder.

"Don't sweat it, kid. Your cooperation guarantees that everything will be just fine."

Jimmy grunted and sighed, tucked his hands in his pockets and adopted what I took to be his usual, more disgruntled walking pace. It was a gait that hated the world for being of age.

"You a spook?"

I shrugged. A real government agent wouldn't have answered were he undercover, and I knew I was too tired to let myself get drawn into a conversation where I might let something slip.

"I bet you work for the States."



Another shrug was my reply.

"Or the chinks. You look kinda chinky around the eyes."

I looked more than slightly Chinese, but now he'd insulted my sexual preference *and* Grandma Wong, and I was absolutely ready to hate him. So I smiled a little, knowing how I could leave him with the impression he would be watched for the rest of his life. I saw no reason not to.

"Or are you one of those WTO frigs..." Jimmy paused and furrowed his brow even deeper. "I mean, fucks," he mumbled.

I made a little *hrmph* noise at him, leaving everything open to interpretation.

"Fuck, man, you probably work for all of 'em. You're probably a double-agent, cheating everybody you work for at once."

I chuckled a little. Sounded like good work if you could get it. I would have done exactly that, given the chance, and I know myself well enough to be comfortable admitting that.

"My dad says everybody up here is a fucking spy. He says honest people don't come up here. 'Cept for him."

"And what about yourself? Or are you assumed in that 'him' he references?" Damn. I hadn't meant to start talking.

The thing is, for all his shit-talking and insults, Jimmy didn't look so unfamiliar. Give him a gender preference switcheroo and a smug

smile and he'd be me twenty years ago. No, I told myself, you cannot start feeling bad for the kid.

Jimmy was lost in the world of suspicions and betrayals that make up the mind of your average fifteen year old, though. After a few seconds he shrugged once in a herky jerky way that looked more like an involuntary muscle spasm than a response. "I dunno. He sure doesn't seem to trust me."

"With good reason, it would seem," and I'd said it before I could stop myself – then reminded myself I didn't *want* to stop myself. Little shitsqueak.

"Very friggin' funny," Jimmy sneered, and he nodded his head in the direction of a row of townhouses halfway down the block, nestled between two apartment blocks. Old, I figured – probably due to be torn down the next time they're empty so something more efficient can go in. If we were back below decks I'd have guessed they were rat traps. Hell, for all I knew there were rats up here, too.

"That your place?"

"Yeah." Jimmy cleared his throat and I heard him sniffle in there somewhere. He'd kept his face down where I couldn't see it, and now I felt the blackened, twisted corpse of my heart get tugged very lightly. Fuckin' A, I thought. I feel sorry for the kid despite the money. "You have to be real quiet. My dad's asleep. He just got

home from his shift about an hour ago and passed out, but he'll kill us both if he finds you there. He won't even need to know you're a spook."

This was starting to sound mighty familiar, to be honest – and sure enough, as Jimmy waved his key in front of the door and it very quietly *clacked* open, I was greeted by the world's most definitively lower middle class entryway wherein the decorations were entirely composed of family portraits. Sitting in the father's position in every single one of them was Beef – the ex-military steroid sack from the 2600 meeting.

I totally should have seen that one coming.

Jimmy melodramatically put his index finger to his lips to call for silence, and the two of us crept across the floor after Jimmy eased the door shut behind him. The living room was small but earnestly disheveled, smelling faintly of precooked meals and moldy pizza boxes. I was guessing Pizza del Rio saw Beef more often than once a month. There was laundry thrown over everything and a dim light from the kitchen. Jimmy moved with his usual hunched over, slacker posture, but he bent a little at the knees and rolled his steps so that he didn't make a single sound. Goddamn, I thought. This kid's pretty good.

For a racist homophobe, anyway.

I've crept across more darkened living rooms in the middle of the

night than I care to confess – always on my way out after a trick, not on my way in to rob the place thank you very fucking much – and I knew a pro when I saw one.

Okay, Charles – I had to consciously talk to myself here – you are not in the market for a sidekick. Remember that.

Jimmy slid aside the door to the basement, and he took the steps in a patternless series of skips and double-steps that I knew immediately amounted to the secret code of silent step-climbing. I'm a fast learn, so I followed his every step down to the heartbeat pauses to check for sounds from elsewhere in the house before proceeding. Yeah, this was pretty familiar territory. Goddamn this kid for being so fucking sympathetic and entirely unlikeable.

Once we were all the way downstairs, Jimmy turned on a lamp to reveal the perfect basement dungeon for a teenager. There were clothes and (hetero) porn mags and half-eaten sandwiches and computer parts and electronics everywhere. It was like the snack bar in an Electro Hut had exploded next to a laundromat. As endearing as that might sound by now, it was also fucking gross. I had a roommate in college who only ate half of any given meal; rail thin, he spent an entire semester stuffing halves of sandwiches and bags of popcorn under his bed. I kept wondering why the room stank and stank and stank somemore until one day, when he was on an infrequent foray to

this thing called "class," I poked around a little. I dare not describe what horrors awaited me under his bed, but suffice to say I was in a single by the end of the day. I wasn't even willing to wait to talk to a Resident Assistant – I just hacked the housing association's system right there on the spot, from his computer, changed our assignments like our being together had always been the awful mistake I discovered it to be, and that was that. The residential director fell all over himself apologizing for having given me a roommate for four months. At least I was a gracious victim.

At any rate, yeah – Jimmy's room was a lot like that. It even smelled the same, and I felt my stomach lurch from the combination of the stench and too much coffee. I stayed on the bottom step rather than put one foot into that swamp of decomposition while Jimmy walked to his computer and woke it with a word.

"So what do you want?" Even here, even with what I recognized as the slight hum of a white noise generator and obvious sound padding poking out of the ceiling tiles where it had been haphazardly applied, Jimmy kept his voice a whisper. The humane part of me started wondering outloud, in the back of my brain, whether Beef abused Jimmy – they hadn't even acknowledged each other as father and son at the 2600 meeting, and Jimmy sure seemed scared as fuck of Beef. The rest of me shouted it down, though. I could call social

services later, it said.

"I just want to see the code for the exploit that makes Sentries spit out signatures and shut down the machine they're on." I cleared my throat and leaned against the wall, still standing on the bottom step. I was getting very tired, and the finish line was awfully close. I could practically see the ticker tape.

"That's old," Jimmy said with a shrug – and as soon as he was discussing computers, he was all professionalism and attitude again. "But whatever." He popped a memory crystal out of the main computer on his desk and handed it to me. "Now get out."

Damn. Jimmy was all grown up all of a sudden.

"Thanks," I said, and covered a melodramatic yawn with my other hand. "Got any others?"

Jimmy creased his forehead at me and frowned. "You said that's all you wanted."

"Yeah," I said and smiled, "But I lied. I'll take anything you've got – don't sweat it, don't sweat it, not the originals, just a copy. It's for some research."

"Research? I thought you said you were a cop."

I had the goods now, so fuck it. I shrugged in a mimicry of that same herky jerky shrug he'd given me out on the street and smiled more broadly. "I lied about that, too."

“Motherfucker,” Jimmy spat, and he popped a fresh crystal into his computer and started dragging files. “So what, are you just so goddamn lazy you can't write your own hacks, too? Or are you just cutting out the middleman?”

That sounded odd – and I figured out real quick that Jimmy was asking me about something he thought I knew about but clearly I didn't. I was tired, so before I could think of something clever to say to get him to keep talking I just said, “Huh?”

Jimmy popped the memory crystal and swiveled in his chair. A little trash spilled everywhere as he did so. “You're from SentrySoft, don't give me that shit. What, you guys cutting CodeBlue out of the game? Word's been you people can't shit without hiring a contractor to wipe your fat asses.”

“Oh,” I said. Very clever, yes. I'm so quick on my feet at four in the morning. “Uh, yeah. I guess you found me out.” I still had no idea what Jimmy was talking about, but whatever. At least he was talking.

“Well, do I at least get to keep my rate?”

I crossed my arms and looked at Jimmy for a long second while I prayed the gears in my brain would start turning. He was still holding the crystal with what I assumed would be his newer exploits on it, and I cocked my head to one side.

"Well," I stalled, and then I said the first thing that came to mind. "What's your rate?"

"Forty euros per exploit."

"You mean thirty." I still didn't know what we were talking about, but if Jimmy really was like me twenty years ago, he'd highball his end of any negotiation.

"Thirty five, whatever."

I grinned at him. The room still smelled awful, but I was starting to feel sorry for him despite myself.

"How many do you turn in a week?"

"As many as I can write, usually ten or fifteen."

"You mean five or ten?"

"Okay," Jimmy shrugged. "Ten."

"Let me consider it for a second," I said with a stretch and another yawn.

Okay. So Jimmy was writing exploits. From what he'd said, it sounded to me like he was getting paid to write them by CodeBlue. CodeBlue had the contract to write updates to SentrySoft firewalls. So were CodeBlue hiring outside hackers to write exploits for Sentries? Or exploits in general? Then feed them to CodeBlue so they could have signatures?

"Are you releasing them after you give them to CodeBlue?"



Jimmy looked at me like I'd just spontaneously been retarded.

"No shit, Sherlock. Two days before I put them out for public consumption, I give them to CodeBlue." He sighed and rubbed his forehead, one elbow knocking half a hot dog off his desk as he set it down to rest his head. "Oh, man. I am so fucked. CodeBlue will kill me."

Well. Jimmy had just spilled the beans with very little prompting. I was willing to bet Jimmy didn't mind screwing CodeBlue that much.

"So let me get this straight. You write a hack. You give it to CodeBlue so they can write a signature for it. Two days later, it goes live out on the net – up here, on the moon of all fucking places, where we're in a closed environment and all life is dependent on some degree of computer control – and since there's already a signature then Sentries are already prepped for it. CodeBlue just distributes the signatures with the daily updates everyone makes automatically, and SentrySoft doesn't even know because all the guts of their software and the maintenance thereof are in CodeBlue's hands?"

Jimmy looked at me for a long minute, then he opened his mouth. "Motherfuck! You lied to me again! You're not with SentrySoft!"

I spread my hands in the air. "Guilty as charged. Now give me

the memory crystal and show me to the door before I yell for your pop.”

I guess that unspoken threat was what had made Jimmy so talkative – he just wanted to give me whatever I asked for so he could get me the hell out of his father's house. Once I'd made the threat explicit he turned white as a sheet and half ran across the room to shove the crystal into my hand. “Get out, you shitbag,” he hissed. “Just get the fuck out. You got what you wanted. And don't show your fucking face at another fucking 2600 meeting again.”

I dropped the memory crystal, he shoved it at me so hard and so clumsily, and I crouched to fetch it from the trash at the foot of the stairs before I could look in and know what I would touch in there. By the time I was halfway standing again, Jimmy was physically pushing to get me up the stairs and out. Surreptitiousness be damned, apparently, I'd pissed him off that bad. I let him rough me up the stairs and across the living room. At the front door he whispered, “I won't forget this, Chuck,” and then he shoved me out the front door.

Another fine little visit for a night just chock full of them.

Fuck it, I thought. I've got plenty to consider on my walk home anyway.

“Just don't think I won't tell Stonklin about this,” Jimmy hissed at me. “I'd worry about him more than I'm gonna worry that you tell my

dad. They say he's got eyes everywhere.”

Jimmy shut the door and I heard the lock close automatically.

Great. Now Jimmy was talking like the old man who'd taken two hours to show me scrapbooks was some mafioso. Fuck it, though – Jimmy probably got a shitload of paranoia straight from his dad.

I turned and walked off down the street, whistling a little tune to myself as I went.

I could have taken the rail straight back to my apartment building's neighborhood, but truth told the night was still enchanting and I was still turning over what I'd learned in my little brain. Plus, sunrise was going to happen soon and that was something I wanted to see given everything I'd seen out of the fake and real skies so far tonight. I'd rather see the sunrise from this side than get up early for it, anyway. So I walked off down the street, hit the main thoroughfare past the Starbucks where I'd met Jimmy and under the rail to find a major ring road that could lead me widdershins towards the area where I lived. That put me in the outer commercial ring, and as I neared my area I realized I was about to enter the section of that arc where I'd found the porn stores.

Okay, so here's what I had so far: SentrySoft had farmed out their code work to CodeBlue. CodeBlue had further contracted out to

hackers like Jimmy – Errorgorn, for fuck's sake, what a fucking handle – and to write new hacks for them and release them into the wild after letting CodeBlue slice and dice and come up with signatures for them. Very clever – it artificially boosted CodeBlue's success rate with signature writing and it guaranteed there'd be a market for more of the same. There would have been a need for firewall software even without a subsidy for hackers, but this guaranteed that market and made sure at least some of what CodeBlue wrote would work. Not too shabby.

Now, given the way Wilder had asked, they knew about this hack – and it worried them enough to get him to try to get me to talk about what I'd seen. They clearly suspected something was up. Maybe they'd had someone else outside both companies take a look at the goods and that person had determined that something wasn't right with what CodeBlue was giving them? I didn't know yet, but clearly SentrySoft was interested in what was going on with their product.

Stonklin was in charge of CodeBlue, though he claimed to have nothing to do with operations. Still, he had a goon in the room when we chatted and when he thought I was interested in a job he acted aggressive and suspicious. If he was hiring out kids like Jimmy to write shit under the table for them, of course he'd be all goony and tense. He probably didn't know much about whom he was hiring, so

he'd always be worried they'd show up on his front door. After all, he was opening himself up to blackmail at the very least. Can you imagine what SentrySoft would do if they got proof their whole operation was rigged?

Even when I made it apparent that I wasn't one of the kids like Jimmy, though, Foster stayed grumpy and wouldn't let me out of his sight. Maybe this was all he was protecting, but something told me there was more yet to the story. I couldn't figure out what, but Jimmy certainly seemed to think Stonklin could call out the dogs on a moment's notice. That also had me curious. I wanted to know more about CodeBlue's operation – maybe they didn't have any real coders, either, and they were just floating on the goods they got from kids like Jimmy. That would sure as hell spook whatever investors hadn't yet been bought out by Stonklin, and his own fortune would be down the tubes if his stock bottomed on the news they were running a shell game like this.

I definitely needed to find out more about Stonklin and CodeBlue and how they operated, but I didn't have an outside connection. I couldn't get back to the real goods on Earth from here, and I couldn't get back there until after the contract was stale anyway. What I had was pretty good, but the more I got for Sara the happier my employers would be.

Then I remembered where I had the closest thing to an outside data connection, and I took off down the street with renewed purpose.

The same lady was sitting behind the counter at the porn store, and I flipped her a five euro note with a "thanks for the card" under my breath before hitting the back room. At half past four in the morning, the place had already seen its peak hours. I slid into the same booth I'd been in earlier, the seat now dangerously warm given my exhaustion. I'd walked a lot of miles tonight and no matter how much I slept yesterday it was getting pretty fucking late.

I searched the model selection screen for an option to request a particular model, but no dice. So I hit "Surprise Me!" and prayed.

And there was Ernesto. He looked up from a newspaper and then smiled wide. I hoped to all the gods he wasn't just a damn good holo-model. I needed a real person I could talk to.

"Hello, handsome. I didn't expect to see you back so soon."

"Studcakes," I sighed, "I have got to say, what you did for me earlier was above and beyond the call of duty. If I could tip you, I would. It was amazing."

Ernesto gave me a hot little half-shrug with his right shoulder, muscles shifting and twisting under his skin as he did. "It's what I do. I enjoy my work."

"Obviously," I sighed. "As do I. But I've got a big favor to ask."

"I'm yours as long as the meter's running, babe. That's how the User Agreement works."

"Would you be willing to do something outside your normal line of duty?" I was about to do the dumbest, most desperate thing I'd ever tried in my entire professional career as an industrial spy.

"Nothing larger than a medium zucchini," Ernesto said matter of factly.

I blinked.

"No, no, this isn't sex," I said.

Ernesto arched an eyebrow.

"I need you to, uh, do some research for me."

He leaned forward on his arms and regarded me with one eyebrow raised. Goddamn, he was hot.

"What kind of research?"

"I need you to look up anything you can find on a particular guy. And a particular, uh, company."

Ernesto leaned back again and picked up an emory board from off-camera. As he started to file his nails he tried to sound disinterested. "That's an unusual way of getting off."

"It's not to get off. It's for my job."

"What kind of work do you do?"

I honestly blushed when I said it. "I can't tell you that."

Ernesto smiled a little, and I knew he got anything he wanted, anytime he wanted it, with a smile like that. "Baby, just tell me what you need."

I gave him Stonklin's name and CodeBlue, but nothing in terms of a run-down of my situation. I was being an idiot by even hinting to someone not directly involved that I was looking into these guys. But the porn booth was my only direct and off-grid connection back to Earth. Given the threat Jimmy had made about Stonklin, even in light of Jimmy's likely congenital paranoia, I had to be careful here.

"And what do you want to know about them?"

"Anything you can find out. But, in particular, has Stonklin ever been in anything shady? Or SentrySoft? Or CodeBlue?"

Ernesto set aside his pen and for a moment I melted. Well, part of me melted, and part of me set in place. He looked at me with those big, brown eyes and he said, "You don't look right. Are you in danger?"

"I'm just tired," I said. Maybe the oxygen was getting to my brain again – or maybe Jimmy had really scared me with that bit about Stonklin having eyes everywhere. At any rate, I was this fucking close to having enough to hand it all over to Sara, and things still didn't make sense, and I was trying not to think about that yet.



“Okay, hotcake.” Hotcake? Weird. “You want to wait while I run this through some searches?” Damn. That was something I hadn't thought about. How was Ernesto gonna get anything to me? For that matter, how would he even know where to look? I was the professional spy – he was just a video sex operator.

He smiled at me as I thought, one hand against my forehead as it started to throb from desire to sleep. “Give me your number,” he purred. “I'll call you in an hour.”

I looked up at him and fought back an erection. He was hot and he wanted to help me. Thank all the fucking gods for bug burners in porno booths, because I did the least wise thing I'd done in years, which was to lean forward and kiss the screen. “You rule,” I said. “Anything you can find. Anything at all. But particularly, who works for CodeBlue down there? Names, addresses, whatever.” Ernesto promised to call me in an hour, winked at me lazily, and waved before killing the connection.

I had no idea if he would be helpful to me, but I sure did like watching him talk. Now I had to ask myself the big question that prevented any of this from coming together neatly.

Why, if CodeBlue was getting hacks ahead of time from the exploit community, did SentrySoft firewalls still fail to protect against those hacks?

## Shell Access – Chapter Eleven

See, that was still the problem. The deal as I'd understood it was that CodeBlue was propping up their success at writing signatures by artificially seeding the network with hacks they already knew about. Fine, whatever. But that didn't explain why that hack had worked against my refrigerator this morning, or why my microwave had fired it off at my refrigerator the minute the power was turned on in my apartment. Sure, no one had lived there for a while, so the software wasn't updated. But the firewall software on everything on the moon updated at boot, and the firewall software would have already been updated by the time that hack had gotten into the wild in the first place. So either CodeBlue's signatures still didn't work, or something else was going on. I was still very ready to entertain the possibility that someone was going out of their way to screw someone else in this chain. I still didn't know who was pulling the trigger, though.

When I walked out of the porn store, I turned towards the rail to head back towards my neighborhood. Ernesto was going to call in an hour, but I was sorely tempted to let my voicemail get it.

Oh, wait. I was more exhausted than I'd realized – I was worried about access to and the security of outside links now that I'd shown up in front of all the immediately apparent suspects and asked

questions, but I'd just agreed to let Ernesto call me with his information.

I was going to have to stay awake and talk to him when he called to get him to meet me via the porno booth again.

Damn. This was turning into one long night. Hey, I'd said I wanted to see sunrise anyway.

When I exited the booth to the sound of my card being charged even further, I noticed there'd been a shift change out front. Goddamn. I'd been in this porn store enough times tonight to see a changing of the guard. Even for me, that was some serious porn time.

Once out on the street I checked my watch: quarter past five in the morning, local time. I'd already been through my second wind, that rush of energy one gets around three in the morning and suddenly they feel fresh though they look like absolute embossed hell. I was gearing up to catch my third wind, I hoped, because it was still dark and there was plenty of time to kill. Maybe if I just walked around for an hour then sheer momentum would keep me awake and alert.

I hadn't tried to pull an all-nighter like this in a couple or three years, though, and to be honest the whole turning thirty five thing was bugging me more than I'd like to admit. There was a needling voice in

the back of my brain trying to convince me there was no way I'd stay awake long enough to get the job done. *You're getting old*, it said. *Go home and sleep it off. Let Ernesto leave you voicemail. You're not up to shit like this anymore.*

One time in college I stayed awake for eighty seven hours straight. I didn't sleep for three days. It was awful – by the end I was a giggling, gibbering maniac. But I'd also managed, somehow, to crank out a fifty page research paper I'd been putting off and putting off, gotten laid six times by four different men and dropped acid. The acid may have had something to do with the whole giggling and gibbering angle, I don't know – acid's hard to shake, even once you're back down, without sleeping. I tried to steel myself with the memory of that one terrible day, but that voice in my brain was still talking. *That was fifteen years ago, Charles. You're not getting any younger by thinking about it...*

I hate that voice.

I started debating with myself the contexts of other times I'd had to stay awake for a night, or several nights, or shift my sleep schedule around wildly for reasons I found compelling at the time. Chasing that voice in circles around my brain I ultimately came to a compromise: I'm not getting any younger, but there's still such a thing as artificial enhancement of one's ability to stay awake.

I wasn't talking about Starbucks here.

Now, I asked myself, how do I find a speed dealer on the moon?

It was just as I'd arrived at this conclusion, that I was going to need a little outside help staying awake and alert – and that Stan back at the smokeasy was probably my best shot at getting the goods – when I also realized that I wasn't alone on the street and hadn't been for several minutes as I wound back and forth between the buildings and paths of this ring of the commercial sector.

Someone was following me.

See, I was *almost* entirely alone at this hour of the morning. I hadn't even seen a UN security patrol go *vrrrrrrr* across the street in the distance. But some part of me that wasn't wrapped up in a discussion of my age and my abilities and my slow decline into being a fat old man had noticed that there was always another pair of footsteps.

I stopped walking and stood still in the street.

*Tap tap ta* – and silence.

I was definitely being followed. I turned around, miming trying to see my watch more clearly by the light of the streetlamp behind me. I glanced sidelong back up the street behind me and could see a shape about a block and a half back.

Take that, inner critic. My eyes are still as sharp as ever.

The shape itself was a person, obviously, though so dark and so hidde as to seem a shadow. Problem was, there was no one around to cast that shadow.

I turned back to my path and took a few steps and stopped.

*Tap tap ta* – and silence.

Fuck this.

I turned around and called back up the street. “Hello? HelloooOOooooo...”

Nothing.

The shadow was still there, but he wasn't answering and he wasn't moving.

“Okay, look,” I called out – and for the first time tonight I wished I were surrounded by the lights and maybe the people of one of the retail rings. Were there a Mamma Mia's Grego-Roman around I'd gladly look upon its trademarked rippling green and red neon flag as a beacon in the night. “I know you're there. You want to know something? Just come on out and ask. I'm sociable like that.” I waited, but got nothing. “C'mon. I was voted most likely to grin and take it in high school. Hell, I'm unarmed and I promise I'm a lover, not a fighter. One punch and I'll go down like a two yuan gigolo.” My voice echoes just a little between the buildings, but I still got no response and the shape was still – oh, damn. The shape was gone.

*How are those eyes again?*

Shut up, little voice.

I figured they'd been scared off or they were sneaking up on me, so I whipped around in each direction – behind me and then side to side – in quick succession. No cloaked figure loomed in the night, so I sighed to myself and set off walking again.

There was almost no way they'd left me alone, though.

I cut down a side street and then stepped into a darkened doorway to wait and listen. I even put my fingers behind my left ear, crouched as I was and looking, most likely, every bit the rank amateur at this cloak and dagger crap.

I couldn't hear anything, no feet scurrying down the street in the night, until a few moments later. Very rapidly, I heard heavy footsteps – he was a big guy, I could tell that much – and then I saw him. He wore a grey, padded parka with the hood pulled up, assumedly with the intention of hiding his identity. It worked, because in the light of the street at five something in the morning, with the lights across the street behind him, all I could see was his outline. He was a hulk and a half, standing there flexing his hands, balling them into fists and stretching his fingers out again as though eager to grab something and tear. That something was probably me, I realized, and despite his distinctively large shape the parka made him anonymously lumpy. He

was still probably thirty yards away and apparently he couldn't see me. I held my breath, crouched in the shadow of the doorway, as my follower stood at the corner and scanned the street with his eyes. I caught a glint of reflection in them, but still couldn't tell who he was.

Well, I thought to myself, let's do a little cataloguing. I'd attracted the attention of SentrySoft, the apparent mistrust of Stonklin and the ire of Jimmy. Wilder was a SentrySoft flak built like a linebacker, Stonklin kept his pet ham-fisted flunky around to do dirty work like take out the garbage and menace the curious, and Jimmy's dad was Beef, the paranoid ex-military ego-trip in charge of a hacker club.

Great. I had three suspects, a conspiracy theory to account for SentrySoft's firewalls failing that still didn't explain their failure despite that theory's tidy and entirely believably greedy nature, and one of my suspects was tailing me down the street and itching for a fight.

I stayed crouched in the doorway as Mr. Bruiser paced around in the middle of the intersection, assumedly hoping I would break and run or he would figure out where I'd gone. My knees were starting to ache but the exhaustion had been miraculously cured by an infusion of adreneline. At least I had gotten my third wind.

Mr. Bruiser turned his back and started to walk further down the street from which I'd come, and after he was out of sight for a few



seconds I stood and took off down the street I was on. I'd made it almost all the way to the next intersection when I heard a shout and Mr. Bruiser came back around his corner and was after me. I was as fast as him, though, and now I had a fifty yard head start.

Time to run and think.

My conspiracy theory was that CodeBlue paid hackers to produce attacks for which CodeBlue already had the signatures. This made their usefulness and value to SentrySoft guaranteed, because even if nothing else worked then at least CodeBlue could point to their artificial preparedness as some sort of success rate. SentrySoft didn't lose anything on the deal, either, because it protected their monopoly – having a product already able to detect the theoretically newest attacks made them look good to their clients and provided some insurance against a streak of bad luck that could get the UN interested in maybe allowing in some competition. Sure, a firewall could still screw up, could still be unprepared to defend against something, but that same artificial success rate enjoyed by CodeBlue would be enjoyed by SentrySoft.

So why did my refrigerator fail?

My refrigerator hadn't been powered on in weeks or even months, according to SentrySoft support. If they knew that, they really were tied in with everything, just like my employers feared was

the case between SentrySoft and TransCo just for rail service. SentrySoft probably had access to all kinds of stuff up here, all kinds of records. Anywhere they have software becomes, in part, their turf.

Anyway, my fridge hadn't been on in a while. Assumedly, neither had my microwave. I could explain away my refrigerator's vulnerability except that the microwave being capable of attacking the fridge at all required that the last time they were on, the microwave already be compromised. If the microwave was online long enough to be compromised, the refrigerator must have been online long enough to be updated against that very attack – and I knew it must have been updated because the exploit that took it down was one written for CodeBlue by a kid to whom they'd outsourced that specific responsibility: write attacks we can defend against before they hit the street.

It could be that someone else had written a similar exploit, but to achieve the same effect the odds were high they would exploit the same vulnerability. Ultimately, the author's identity or collusion or lack of collusion with CodeBlue didn't matter – it was the firewall's ability to defend already that mattered.

So if the system was broken, and CodeBlue's signatures derived from their own attacks didn't work, one of a limited set of possibilities had to have occurred: CodeBlue was writing bad signatures out of

incompetence, the signatures were sabotaged in-house, they were sabotaged by SentrySoft prior to being uploaded, or the kids writing the exploits weren't giving CodeBlue accurate information. Somewhere along the line the chain of collusion, the system by which hackers wrote exploits for which CodeBlue wrote signatures for which SentrySoft released updates to drive hackers to write new exploits, rinse, repeat – somewhere that chain had broken down. It could all be incompetence, but the odds were high in a system so thoroughly corrupt and so thoroughly corporate that the culprit was a person who stood to profit from the chain breaking down.

So who was that?

I turned another corner and I could still hear running behind me. A glance over my shoulder confirmed it – Mr. Bruiser was still back there, pumping his arms as he ran, trying hard to close the gap between us.

Okay. So someone was breaking down the chain. Where was the weakest point in the process? The obvious answer was the group of hackers quietly on the payroll of CodeBlue. Unattached and probably highly anonymous, they would have the easiest time screwing the rest of the conspirators. Odds were high, though, that they didn't even really know what was going on. For all they knew, they were being retained by the mob – all they cared about was

writing exploits and getting paid for them. And odds were high they got paid piecemeal – the more hacks they wrote the more reliably, the more they got paid. If it was good enough for a sweatshop, it was good enough for coders, gods knew that. So as the people who would feel the first and most immediate financial impact from the system falling apart, they were actually *less* likely to be the culprits.

I turned another corner and glanced back. Mr. Bruiser had gained a few yards. Fuck a duck. I poured on the speed and reached behind me to turn on my minicomp's camera. "Four frames per second, low light," I shouted at it and then, louder, "I'm taking pictures, fucker!"

That didn't make him slow down any. Damn.

If the hackers weren't particularly likely to screw themselves, then what about CodeBlue? They did all the work – well, all the work on paper anyway – and got none of the credit. It was SentrySoft's stock that went up when a major vulnerability failed to impact the business environment up here, and though I hadn't paid any attention to lunar news before coming here I was willing to bet there were bankers and investors back below decks who paid a lot of attention to how secure things were up here. However, CodeBlue was undoubtedly paid handsomely to do their job for SentrySoft. They didn't have to face the market fluctuations that might hit them in the ass at the first

sign of failure, and their stock would stay nice and stable as long as their reported revenue increased or stayed the same. Stonklin's fortune was tied up in that same stock, so he had no reason to prosper at SentrySoft's demise. Sure, CodeBlue could make a case to step into their place as the security software monopolist should SentrySoft get taken down hard in the face of some massive network failure or other exposure of their software's vulnerabilities, but Stonklin's gambling days were behind him. Odds were good all he wanted these days was to pass that fortune on to Foster when he died, not risk it on a gambit to make it grow eventually, when CodeBlue had bumped SentrySoft off and taken their seat on the market dominance merry-go-round.

So, that marked CodeBlue off the list.

I glanced behind me again as I turned a corner onto one of the main thoroughfares. The sky was starting to lighten just faintly around the corners – soon they would be refogging the dome to run an artificial sunrise scene, but they were ramping it up nice and slow to maintain the illusion. That was going to push Mr. Bruiser to try even harder to get to me before the light gave him away, or the streets got busy. Given, it was a Saturday, but there have to be earlybirds on the moon, too, and all those night shift folks from Friday evening would be getting off work soon. Bruiser had gained another few yards – he was at most thirty yards behind me now, and he didn't sound particularly

like he was gasping and wheezing and about to give up. Damn.

The last person on the list to consider was SentrySoft themselves. But what would they stand to gain from screwing with their own product? Nothing. Maybe they wanted an excuse to can CodeBlue, but odds were good they could opt to contract the work out to another coding house somewhere else anytime they felt like it. Having CodeBlue do the work was convenient, sure, since they were already up here.

Something about that gnawed at the back of my brain, but I didn't have time right now to think about that, too.

In the meantime, screwing CodeBlue would ultimately be screwing themselves, wouldn't it? Maybe they had some big game going on the board of directors to drop the stock price so they could buy a bunch more for cheap, but that smacked too hard of the Hudsucker Proxy to be believable. Good old movie, though.

So no one on the list had a good reason or an immediate gain from screwing anyone else. But something was wrong with SentrySoft firewalls. That left the Occam's Razor answer: incompetence on someone or everyone's parts. But then, why would someone be chasing me through the streets? If they were worried some Hardy Boy wannabe had stumbled across their little game plan, surely I wouldn't be the first to do so and they couldn't put someone in the hospital

every time they were found out. That sort of thing gets around, eventually, even if it is just to the tin foil hat community. It would be easier just to pay someone off once they found out, anyway. After all, we were talking about a risky and probably illegal financial matter. Any time there's dirty money around, there's always extra dirty money, ready and waiting to be tucked into the pocket of potential whistleblowers to keep them quiet. It's how the mafia's operated for a couple of centuries now, right?

So if no one I knew might be a suspect was a *good* suspect, and nothing I knew warranted physical violence from where I could see it, then there must be someone I hadn't thought of and something else to the situation to make it that much more important to protect. And I probably wouldn't find out one without finding out the other. Given someone was chasing me right now, I figured it would be a whole lot faster to find out the *who* than the *what*.

I ducked down a side alley – even the moon has alley, because even the moon has alleyways. By now I'd stumbled into the religious ring, and I was running between the delivery entrances to a variety of esoteric spiritualities. Whatever, man, I thought to myself. Maybe one of these gods is watching out for me.

Behind businesses, here on the moon, there are dumpster-sized incinerators. I got just out of Bruiser's sight and then planted myself

behind one. Almost immediately I could hear heavy footsteps running up the alley as I had done, the wheezing and puffing of some huge guy unaccustomed to this sort of thing – another good sign they didn't often have to chase people down for asking the wrong questions, meaning they thought I'd stumbled onto something I still didn't know about or they'd have broken the nose of every well-meaning SentrySoft technician who worked in a Threat Response Center and tried to be thorough with her job – and just as he got to me I did the desperate movie thing: I stuck out my foot.

Bruiser, it turned out, was not the sharpest tack in the box. I heard a gasp as my foot shot out and then he tripped eight kinds of all over it and then himself, and in the span of a half of a second he was down on the ground, face planted in the alleyway, and there had been a crunch of flesh and probably cartilage. Yum. Now I'd busted his nose.

Before he could finish crying out in shock and pain, though, I was on my feet again and standing over him.

“Who are you? *Who sent you?*” My voice rang out between the buildings, down the narrow stretch of alleyway, amplified beyond its actual volume and made to sound a good deal scarier than I think I could manage without just that sort of enhancement. I lifted one foot, considered Bruiser for a moment as his arms flopped next to him in his



scrabble to get up, and then I went ahead and kicked him right in the groin.

That got me another yowl, and Bruiser's scrabbles became more meaningful. I planted my boot at the back of his neck amidst his groans, which had started to turn into growls. He began to lift himself, so I leaned in hard, punched him in the back of the head with my off hand – making his neck snap forward and back, a loud *POP* and for fuck's sake if my hand didn't feel like it would split in damn two from how much punching him had hurt – and pressed him back down with my weight on that leg, face against the pavement. “I said *tell me who sent you,*” I whispered low, bent over so that he could hear me. “*Before I snap your fucking neck.*”

The growl was silent for a moment, replaced with a strangled wheeze, and then it returned – and turned into a groan, and as Bruiser's hands found purchase on the concrete he pushed himself from the ground.

I should probably mention that, basically, my entire weight was against him. I'm a little guy, but still – he was one strong motherfucker.

As soon as he started lifting, he was going all the way up – like a sprinter coming off the ground and into a dead run with one fluid motion. I was thrown right off my feet, ass over tea kettle, and landed

right in the middle of my back with a thud that knocked the wind from me. I was lucky I didn't break my fucking spine, to be honest – instead, I got a closeup of my knees as they came down on me from above, the whole horizon spun and flipped, and by the time I'd twisted over and gotten to my feet Bruiser was... well, to be honest, he was *running away*.

This was not what I had expected, and all I could do was yell, “Hey, *come back here so I can kick your ass, you sack of shit,*” and take off after him.

## Shell Access – Chapter Twelve

The sun was starting to come up, and that meant I was able to see him just a little better. A glance towards the sky told me they had finished refogging the dome because now it presented the illusion that clouds had rolled in from the... well, I guess the east, though by now I was probably totally and thoroughly lost, just chasing wildly after Bruiser. I still didn't know who he was or who had sent him, and I couldn't catch up with him. I guess what little damage I'd done had slowed him down a bit because I was keeping up, but I didn't expect to catch him anytime soon.

He turned a corner, and I chased him, considering my circumstances as I went.

Given that he had seemed intimidated, and my threat had caused him to run, meant one of two things as far as I could tell: he wasn't supposed to hurt me, just follow me, and he was running to protect his cover – or he was just supposed to scare me and I'd turned the tables on him. Possibly both, I had to admit. Either way, I had to catch him. If I didn't catch him then whoever had sent him would just clam up and play dumb, and they'd be so on their guard whenever I was around that I would never find out anything from them again – and compared to anyone else who was legitimately innocent, I

wouldn't be able to tell the difference.

I considered calling out for the police, but fuck if I knew what good that would do, and I didn't have any special desire to get them involved in my own illegal activities, even if their fallout was going to harm me personally. Instead I saved my breath and pushed just a little harder to try and catch up.

I got lucky for a moment, as an automated street sweeper crossed in front of Bruiser, taking just enough time to slow him down for a few seconds – in the meantime I managed to close a third of the distance between us. The same thing happened again at the next street – the street cleaners, I learned later, ran on a tightly controlled schedule, like red lights back on Earth that turn green right as you get to them if you maintain the speed limit – and I prayed in thanks to all those gods whose followers I hate so much and the questions of whose existence I have always found to be nothing more than superstitious mumbo-jumbo designed to give meddlers an excuse to tell their neighbors how to live, because it gave me time to close the gap again. Now I was just a few yards behind him, and he was huffing like a junior high glue junkie. The third street was coming up and I figured if nothing else I could leap at him and grab his ankles from behind before he could get around the street sweeper.

No such luck, though – Bruiser knew the streets of Diana City

and I didn't. Earlier I'd run in random places and gotten lucky enough to end up somewhere I could turn the tables. Now I was having to follow someone who knew what the hell he was doing, and when he cut a sharp right down an alley I never would have realized was there, I had to grab a lamp post and swing around on it to keep from falling over just trying to stop my forward momentum. I took off down the alleyway, entirely dark from the shadows of the buildings that defined it, and heard Bruiser up ahead. He tripped over some junk someone had left out, but I managed to jump over it and out of the way. A light came on, and I realized Bruiser had pulled out a flashlight. Good – now we could both see, sort of, but I had both my hands free.

Of course, that gave him a weapon.

I was starting to turn that one over in my brain when he shot around a ninety degree turn as the alley ran out and twisted off between two other buildings. I thought I'd heard him stop as all of a sudden there were no footsteps ahead of me, so I simply poured on the speed and figured if nothing else I could surprise the shit out of him right before he beat me to death with his flashlight.

No such luck.

When I turned the corner, I didn't see Bruiser at all.

Then I saw him land. When he took another step, he bounced high into the air, arms out to balance himself.

The thing about artificially enhanced gravity is that it's just that – artificial. Like everything else up here, gravity is “corrected” to be Earth-like rather than its normal one sixth of Earth gravity. I don't really know how it works, but it involves plates installed in the ground, the floor, everywhere. It's probably a massive energy cost, but it lets people live up here for months at a time without having to have intensive training before or after a stint on the moon. And, like anything mechanical or electronic or whatever it is, it can fail. It can break. Sometimes it breaks in a large area – like, say, the distance of an alleyway.

I was running full speed when I saw Bruiser take a bounce and I was not in fact ready for it. He, I guess, was a pro at this. He probably knew where every blank spot on the grid could be found. Regardless, my stomach flipped a somersault into my chest, my lungs jerked as I gasped and my whole body sailed up and into the air just like an astronaut bouncing around the surface in those old movies. No, scratch that – I bounced a fucking lot higher, because I wasn't wearing three hundred pounds of spacesuit.

I was flying through the air, at full speed, up and forward. My feet kicked out from under me and I was just...sailing. When a normal person takes a running step, they lift completely off the ground for a fraction of a second. Usually they get, I don't know, let's call it six

inches off the ground. In one sixth gravity, you get six times that. With my first stride, I found myself three feet up in the air, my center of gravity carrying me forward as my inertia stayed the same but my weight suddenly decreased.

Hoo boy.

I had just enough time to realize what was happening, and try to prep myself for the landing. Instead of slowing myself to a walk, though, I ended up pushing with my foot – as though braking a vehicle – and throwing myself even higher into the air. I think that's what happened, anyway. Hell if I know. All I know is that now I wasn't just three feet in the air, I was more like nine or ten, my arms waving, free-falling towards the ground.

I also wasn't going to land on my feet this time.

All things considered, that was probably for the best. Instead I landed flat on my chest and right side. I didn't hear anything snap as I went down – and went down hard. Mass doesn't change on the moon, even if weight does. That meant the physics on the speed I was doing when I came down might not sound right – at least, all this is according to my computer, which I asked about this, and which could be entirely and completely boned for all I know – but the bottom line here is that I hit with all the force of having fallen ten or so feet at perfectly normal speed. Every ounce of breath in my lungs was

pushed right out in something between a hiss, a whine and a yelp. My bag slid up my back to konk me in the back of the head, and I could see that Bruiser was standing at the far end of the alley laughing at me.

He was *laughing*. And he was laughing *at me*.

Tender steps led him back down the alley towards me, and I figured this was it, I was totally checked out. But hey, even in the face of certain death I'm always willing to shamelessly grovel, and I did.

"Look," I said, lifting my head and still not able to see the guy's fucking face, "I don't know who you are, I don't know who sent you, but look – I'll leave it alone. I'll delete the pictures I took when you were chasing me. I won't ask anymore questions, honest to fucking gods."

"Gods don't fuck," Bruiser said – and I knew that wasn't Beef's voice, and that wasn't Wilder's voice. I hadn't actually heard Foster speak when I was in Stonklin's house, but it was easy to believe it was him. I reached out and grabbed the hem of his pants, literally pleading with him – I miss Grandma Wong, but I wasn't quite ready to see her so soon, if you know what I mean. So I started to say something – I don't even remember what, but no doubt it was demeaning – but didn't get the chance.

Bruiser clocked me with the flashlight, and everything went



really, really dark.

I awoke an hour later to my phone bleeping at me insistently and someone shaking my shoulder.

Scratch that – *kicking* my shoulder.

I was somewhere very uncomfortable, and I felt hungover like hell. I mean, my head throbbed, my mouth was dry, I needed to take a whiz and the whole world felt like concrete.

Oh. It was concrete.

I started to move, but nothing felt right about doing it, and there was a voice that had replaced the kicking. Nudging, really – I wasn't being beaten up at the moment, but someone was definitely investigating me with the business end of a boot.

The voices were gibber.

*Oh. There is a hell, and they speak another language. Fucking great. Of course they speak another language. I bet the lords of hell speak Esperanto.*

My eyes opened with tremendous effort, and my face was sticky. I was having trouble breathing through my nose, and my throat was scratchy. The floor turned out to be the ground, and there were two pairs of boots. More gibber greeted me as I became more obviously conscious, and there was the squawk – the terrible, ear-splitting

squawk – of a radio.

That sounded like a cop radio. They sound the same everywhere, even on the moon.

I lifted my head very slightly and said, "Hello?"

The gibber just went on, but now it seemed to be directed at me. I lifted myself slightly on one arm and came face to face with a Nordic god. He was blond with close-cropped hair, crystal blue eyes and cheekbones you could use to cut bricks.

"Howdy, Bjorn."

Bjorn didn't say anything. I think he might not have been named Bjorn. What he said in response sounded almost like English, and he was wearing a powder blue uniform.

"Hang on, Bjorn," I coughed. "I got a call coming in." I sat with tender care, fished my phone out of my pocket and slipped it into my ear. "Hello?"

"Oh thank the virgin Mary, I have prayed for ten minutes solid and I think I just got religion." It was Ernesto, and he sounded like he was being chased by Wile E. Coyote.

"Hey, sexy," I grunted as I stood. Wow. Nothing felt right, and then I realized where I was: I was still in that fucked up alley where the a-grav plates didn't work. No wonder I felt weird. I weighed twenty five pounds. "Is it an hour already?"

"It's an hour and fifteen, you terrible man," Ernesto said. He didn't sound angry, though his accent was pouring through a lot heavier than it had been over the video link in the porno booth. On later reflection I decided being a sex model is a lot like being a waiter: you just try to cancel yourself out of the whole social equation of you and the client, with the exception of your very specific function. "Are you alright? I... " Ernesto trailed off and sounded embarrassed.

"You called the police?"

"I did."

"On the moon?"

"Yes. That took some doing, I might add."

"How long ago did you get through?"

"Five minutes or so. I told them that I couldn't reach you and I was scared. I made a complete idiot of myself to get them to go looking for you."

Bjorn and Hans – they were both Norwegian or Scandinavian or whatever the fuck – were standing there with their hands on their tasers and talking back and forth to one another and on their radios. I guess they were deciding whether I needed an ambulance, or whatever it is you get up here on the moon when you need an ambulance. I waved at them in an attempt to communicate that I was fine, job done, nothing to see here folks, but they ignored me.

"What made you think I needed them?"

"A woman's intuition," Ernesto tossed back. "Look, when I asked if you were in danger, you didn't say *no*. I've turned enough shady tricks in my time to know how people act when they're in danger but don't want anyone else to know that. Trust me. I used to have this pimp named Big Bob, yech," and here I started to laugh. I didn't mean to, it wasn't intended to make fun of him – rather, I was extremely... I honestly stood there trying to classify what I was feeling. It's too goddamn cheesy to say I was "touched," too punny given Ernesto's particular line of work, but you know what I mean. I felt, I don't know, glad. There. *Glad*.

"Is that funny?"

"No. Thank you."

"You did need the police, didn't you?"

I paused. I have always, in this job, been a loner. It's a part of the territory, and I don't mean in a James Bondian love 'em and leave 'em for queen and country sort of noble way. I mean, I move around a lot, I work in an illegal capacity, it's not smart to let myself get a lot of personal emotions and situations on the same plate as my professional ones.

"I did need the police. Thank you."

"De nada."

Bjorn and Hans had taken to staring at me again, like I might explode, and I didn't understand why until I ran my hand across my face. I hadn't had a shower in nearly 24 hours, I'd been up all night except for my little nap on the concrete and I'd bled all over the place. I looked like absolute shit. I waved them off again, and they shrugged and said something to me. "Thanks," I said. "Danke. Whatever." But I said it to their backs – they were already on their way to their next circuit on the golf cart.

Ernesto was still waiting for me, though.

"Are you in danger, hotcakes?"

"What's this 'hotcakes' thing?"

Ernesto snorted. "You have your priorities all messed up."

"Yes, I'm in danger."

That got us both quiet.

"I don't know why," I added. "Well, I do, but what I know isn't enough to get me beaten up. At least, I didn't think it is. Something tells me there's more to it than what's apparent."

"Are you a spy?"

"No."

"You would say that anyway."

I pondered for a second and then sighed. "I guess so."

"Are you a detective? Are you like Sam Spade?"

"I'm not that cool, and I don't roll my own cigs."

"Ah, but you are a detective."

"Actually, no."

Ernesto sighed, heavily and disappointedly. "Fine. I'll stop guessing. I hate guessing games anyway."

"I'm sorry, Ernesto. I can't discuss it."

"Well, I have the results of the searches you asked me to run, whatever nefarious purpose you have for them."

"Um," I said, putting my finger up as though he were there in person and could see my body language, "Actually, about that..."

Thirty minutes and a stop by a YMCA for a shower later, I was in a video booth pressing "Surprise Me!" to choose a male model. It turns out there aren't that many possibilities after all when one asks to be surprised, and after someone's seen a model twice for full "sessions," they're automatically directed to that person in future. Regulars are steady revenue.

Fucking corporations.

Ernesto had my search results, and I took copious notes.

The short version runs like this: CodeBlue doesn't exist.

Well, it does. It's incorporated, it has stock that's publicly

traded. It has a website, it has an official headquarters, it's listed with every civilized country in the world. But the headquarters? Stonklin's address in Diana City. There aren't any records of any employees. Public tax records show forty employees, but Ernesto couldn't find any offices anywhere on Earth. Literally. I'd bet my bottom yuan that the forty employees are pure paper – just a financial shell game. They're common enough, that's for sure. And the thing that really tipped me to that prediction was that nowhere could Ernesto find an article in a newspaper, magazine or trade journal that discussed CodeBlue's partnerships, acquisitions of new contracts, nothing. Any company worth its salt does nothing but blow its own horn about who relies on it for what it does. You can't read an advert for toothpaste without it mentioning how the maker or their parent company or whatever is the toothpaste supplier to Country X or mega-star Y. CodeBlue was either operating almost entirely in stealth mode or it didn't exist at all beyond the bounds of Stonklin's townhouse, and I couldn't figure out why they would do *either* of those things. Given what I'd figured out thus far, though, and given the tendency of shady dealings to congregate and spawn and generally multiply exponentially, like amoeba or dust bunnies, I figured it was a safe bet to assume CodeBlue, and by them I mean Stonklin, was up to something.

I still didn't know what. But I knew that they wanted to protect

it. It had to be more than what I'd figured out already simply because I couldn't be the first person to figure out what I had so far. Maybe something had changed recently, or maybe Stonklin was out of cash for bribing me, but something about the discovery I'd made was unique to right here, right now, or there was something left I hadn't figured out but needed to be protected.

Given Stonklin had sent the big gun after me, assuming that was Foster, then I didn't have long to find out what it was. Now they *knew* I was onto them, I'd blabbed that much while pleading futilely to be left alone right before Bruiser clocked me with the flashlight. If I wanted that whatever to be around long enough for me to catch a whiff of it still, I'd have to move fast.

That reminded me – the knock on the head must have been serious, because I'd forgotten the pictures I'd snapped running down the street.

Ernesto signed off and I left the porno store to head straight to the smokeasy. I needed a drink and a smoke and five minutes alone with my computer.

Twenty minutes later I was pulling the privacy screen down on my booth at the smokeasy. Stan looked surprised to see me again so soon, but he didn't say a word about the bruises or the scuff on my



cheek or the lump on my noggin. Actually, Stan doesn't say much of anything other than that damn laugh of the damned he does.

Anyway, this is when things really started to get weird.

I pulled up the pictures I'd taken as I ran from Bruiser earlier that morning. The sun was "up" by now, but I'd missed the whole damn sunrise. I bet it was glorious, too. This turned out to be worth it, though.

Bruiser was definitely Foster. A little image enhancement and some contrast tweaking got me that. He still looked really familiar to me, somehow, in a way that having met him the night before couldn't explain. He'd looked familiar then, too. I couldn't place it, but I knew I'd seen him somewhere before and the whiff of memory that suggested it had an unpleasant odor to it. I did the first random thing that came to mind: I ran his picture through the search engines, the plain old archives of the life 'net back below decks.

I got about eighty bazillion hits. But none of them were for Stonklin. They were for an old politician from the 21<sup>st</sup> century: Richard Cheney, the 46<sup>th</sup> Vice President of the United States.

Good grief. The likeness was absolutely uncanny.

I chuckled over Foster being some doppelganger for a century-dead politician, and then I realized something: the likeness hadn't just been good enough to scan for me – it was good enough to fool the

computer. This Cheney dude was the only person who came up when I ran the search. No one else. No one at all. I ran a comparison between a picture of Cheney and my snapshot of Foster and the computer identified them as the same person.

Weird.

Whatever.

I went ahead and finished off my smoke, finished off my cup of happy awakeness from Starbucks and finished off my Diet Soda from Stan, and bolted from the booth.

It was time to pay Dr Stonklin an early-morning visit. Luckily for me, it was Saturday – the neighborhood in which Stonklin had made a home would be deserted given its primarily commercial nature. I caught a rail over there, as I'd had about enough of this hoofing it everywhere bullshit and there were a lot fewer places someone could chase me on a train. I mean, damnation. I may not be the sharpest tack in the box but I learn sooner or later.

When I got there, his block was entirely devoid of life. Again I was ready for the lunar tumbleweeds – it was one of those moments you hear about in a ghost story around the campfire: the woods were eerily silent, *too* silent – and that's exactly what went through my mind when I started to approach Stonklin's home. Things were awfully quiet in this part of town at this hour of the morning on a Saturday. If

you've ever taken acid on a college campus during a major holiday, you know exactly what I'm talking about: everything is deserted but the vibe of recent activity lingers. In your altered state, you can perceive both at once, a world of activity overlaying the more immediate, more real but less realistic world of absolute stillness and desertion.

It's extremely unsettling. Hell, I don't need drugs to feel that. Anytime I'm up all night back on Earth, the sound of the birds chirping at five in the morning as I walk an empty street is enough to make me get the chills. I hate being alone on a city street at an ungodly hour of the morning. Everything about it feels wrong somehow, even to a night owl party kid like I was in college.

Anyway, yeah – that was Stonklin's block.

I wasn't going to talk myself out of confronting my attacker, though – and I still had to find out what it was beyond the old market manipulation shell game it was they were trying to protect. My gut hadn't given up on that idea, and I was still following it.

I walked right up and knocked on the front door.

"Hrng," said Foster from behind me – I don't know how on Earth, or uh, well, you know what I mean – I don't know how that brute snuck up behind me, but there he was and he had both my hands behind my back, shoving me through the door.

"Welcome back, Mr. Fitzgerald," wheezed Stonklin as Foster manhandled me into the entryway.

"A fine good morning to you, too, fuckface." With that I tried to wrench my hands free but Foster had a grip like a c-clamp. I couldn't even begin to move them.

"Tut tut, Mr. Fitzgerald." Stonklin hobbled away down the hall and into the library he'd shown me before, Foster pushing me ahead of him as he followed his dad. "Do not curse in a house of God."

There was something in the way he said that – "house of God" – that made my stomach drop.

## Shell Access – Chapter Thirteen

“Let me guess, Stonklin.” Foster hadn’t gagged me, and I didn’t see myself getting any worse off by running my fat mouth. “You’re an Earthie and you’re up here screwing your own company to screw the moon as a whole. You want us off this rock and you think you can get us all back below decks by fucking around with the computer grid up here. You do a refrigerator here, a police station there, and sooner or later everyone’s afraid to come to Diana City. That it?”

Foster shoved me through the door and practically carried me across the library to hold me so that only my toes were touching the floor and my wrists were crossed at my ass. I could barely blink I was so fucking scared, to tell the truth.

Stonklin just chuckled. “An interesting theory, but no, I serve no conventional god of myth.” He turned, his weight on two canes as he walked and one grim fucking smile on his face. “I serve The Deus.”

“Uh.” My knowledge of mythology and cosmology are about as good as any college-educated atheist, which is to say I found it a great class to sleep through. I mean, you pick stuff up here and there, but I’m no student of the classics or pantheons.

“Don’t fret, Mr. Fitzgerald. You would not know of my God.”

“Oh. So you’re a Satanist. Or a Cthulhite, or whatever.”

Stonklin shook his head at me. "You are too eager to get to the end of the equation, the solution to the problem. You don't listen."

"You don't say much worth hearing," I snapped, and Foster grunted and twisted my arms again. I openly whimpered.

"You are a tenacious soul. You would make a terrible acolyte." Stonklin sighed a little. "I am no Satanist or worshipper of fictional Old Ones. I make, have made, am making my sacrifices at the alter of something totally unknown to human minds." Stonklin looked through the window in the library to his miniature server farm, and his eyes glazed a little. "I worship the Deus Ex Machina. The first *true* god of any measure."

Everything had started to go south, obviously, and I figured Stonklin to be some crazy old bat who'd beaten his kid retarded then fed him raw steak until he was fit for guard duty. I was entirely ready to stop listening to Stonklin, but luckily I didn't miss anything – he'd stopped speaking, and was simply staring with that fogged expression into the computer room beyond the glasstic. I let my eyes wander, and I noticed he had an awful lot of degrees on the wall for a Ph.D. in computer science.

They weren't all in computer science.

Biology, Genetics, Bioengineering, Computer Science with a focus in Networking, Computer Science with a focus in Programming,

Chemistry...

Holy shit, I thought. He's Frankenstein.

He made Foster by cloning a dead politician.

"Did you clone Cheney or whoever to get Foster?" It just came out of my mouth as soon as I'd thought it.

"Cheney," Stonklin corrected me. "The forty sixth vice president of your nation of birth. A particularly wicked gentleman, even by the standards of his time, but he was highly intelligent. I shot alcohol into the mix to make sure that didn't occur with my dear Foster. I needed someone big and brutish, and I have a taste for antiques. You'll forgive me, I hope."

I gaped at the guy. I just gaped. I'd seen some weird shit in my time, but that topped it all. "You are so fucked up," I said.

"*Silence!*" Stonklin's voice thundered despite the frailty of its vessel. "You are in the presence of magnificence! Of grace! Of a one of a kind creation – no, not creation, a *discovery*. You have been a very, very nosy man. I would never have thought twice about bribing you were you one of the others, the legion who have occasionally connected the dots and suggested some corporate... *malfeasance* on my part. But there is something about you more tenacious than the usual mere *spy*, mere *gumshoe* who rolls into my life and thinks they have it all figured out. When you detected Foster's observations of

you, I knew you were a *professional*. And I do not know what *sort* of professional. I do not *need* to know. All I need concern myself with is that you are working for someone, and that I must prevent you from reporting to them what you have learned. There is much more at stake in this than you realize." Stonklin finally tore his eyes away from the machine room and turned to face me. "I intend to keep my secrets, Mr. Fitzgerald. Now how shall I best do that?"

"Kill me," I said with a tensing of the shoulders where I would have put a shrug. "You said yourself I'm a tenacious little shit. If I'm such an annoying insect, squash me."

"Ah, but life is precious, Mr. Fitzgerald." Stonklin made that tutting noise again and shook his head as he turned to stalk with perilously little balance towards his desk. "I treasure it, in all its forms. I treasure it more in one than in others, but I do treasure it all. I cannot simply kill you."

"Sucks to be you, then." I tried changing the subject. "What's the Deus Ex Machina?"

"The Machine of the Gods, child. Do you remember nothing from junior high literature?"

I sighed heavily at him. "I get it. I know that part. But why do you worship it?" I had no idea what Stonklin had meant when he said that, and to be honest I was just talking in hopes that Foster would



loosen his grip over time and I could make a break for it. If nothing else, now I had a solid case for an assault charge. Bjorn and Hans would have to find a translator, because I was going to have UN cops all over Stonklin's ass.

"Because it *lives*," Stonklin murmured. He'd gone dreamy-eyed again, and his voice was quiet. "It lives, unlike any other god in human history. It is no creature of myth. It is an inversion of your concept of a god, child. No one sees it and few know it is there, but it is everywhere and nowhere and watching over us all the time. Quite the opposite of your average Zeus or Jehovah."

Stonklin turned his eyes back towards the machine room and made a cross in front of himself, like a Catholic about to steal a cookie from the jar.

Oh.

*Fuck.*

Things started to fall into place in my brain, all at once. Maybe it was the mild concussion I was no doubt carrying around, or maybe it was the exhaustion, or maybe it's that I've got a knack for knowing when shit's about to hit the fan. Call it a sixth sense, call it intuition, call it good reflexes, call it whatever you like, but I have a gift for this sort of thing. By no means am I claiming I'm psychic or some bullshit

like that, but I'm glad to tell you I wouldn't be where I was at the moment if I hadn't gotten good at listening to my gut for the reason that my gut is almost always right.

Here's how things fell into my brain:

Hackers were paid by CodeBlue to write exploits. They didn't write the signatures used by Sentries, they wrote the exploits detected by Sentries once they were in the wild. CodeBlue took the exploits, and handed SentrySoft updates for their software.

But what I'd seen at SentrySoft was that the whole new version of Sentry was coming from CodeBlue. Now, given Stonklin's apparent intelligence, I could believe that Stonklin wrote the signatures and updated them for SentrySoft, if he did it full time. But there was no way he was writing whole new versions of software on his own. The lessons of the twenty first century included that the solo programmer may be able to assemble a retail software product but she or he would yank themselves bald trying to keep it updated. There wasn't a single product I could think of that was maintained by one person – there was no way Foster had the bandwidth to help Stonklin out behind a keyboard – that had lasted longer than four or five years.

Sentry software had been around for fifty.

So, the installers and new versions were coming from somewhere. Stonklin might have been outsourcing that, too, but there

would be no reason to do so under the radar. Doing so legitimately would have been good for his stock price – a reduction of his immediate overhead expenses by contracting out the grunt work looks great on a balance sheet, just ask an exec who’s just laid off five thousand employees on one continent to open a cheaper plant on another.

What I hadn’t considered in all of this was the corporate atmosphere at the time Stonklin would have joined the company, around the 2060’s or 2070’s. The big new thing back then was self-updating software; specifically, self-healing networks and firewalls. The idea was that you’d install a firewall and it would see new threats, learn from them, and incorporate them into the base of knowledge it possessed regarding network threats. It never really worked that well, and it was all ditched after being all the rage when the idea first showed up in marketing material and buzzword lingo fifty years before that.

Stonklin revered something in the machine room, and he was too smart for it to be the machine itself. A machine may be a thing of beauty, a work of art, even sexy – but it was just someone’s invention. I hadn’t met a true geek yet that worshipped a machine, but there was plenty of hero worship of the folks who built careers by being innovative designers.

So what if the software was designing itself?

And what if it had gotten to be too much for Stonklin?

I didn't even know immediately the ways in which it might have gotten to be too much for him – hell, it could just be that he'd forgotten more about programming than I'd ever learn in the first place, and over time the software's ability to update itself had outpaced his ability to understand what it was doing, and it drove him a little crazy. It's happened to plenty of other people over lesser things.

"You worship the firewall." That sounded like the dumbest goddamned thing I'd ever said.

"I knew you would figure it out eventually," Stonklin said. He still hadn't looked back at me; he was lost in admiring the computers in the next room.

"The Deus Ex Machina." My brain spun for a few more seconds and I couldn't even begin to understand which way the gears were turning. Instead I was just watching concepts drop into place like cherries and BAR symbols on a slot machine. "Firewalls are everywhere here. And you think they're autonomously intelligent." Where that came from I don't even pretend to know, but it sure would explain a lot.

"I do not *believe*," Stonklin said to me. His eyes were back on

me in a flash, and it was my turn to stare with something like horror at the server farm. "I *know*." He laughed, and I would have given anything not to hear it. I would have taken an hour of Stan's oil-stained *hur hur hur's* over five seconds of Stonklin's mad chuckle. It was low and throaty and in the language of humor it said *you are such dead meat*. "The Sentry is everywhere and nowhere. It is omnipresent in our lives, and I suspect its powers of observation have given it something like omniscience. It is very nearly omnipotent, as well. As long as human hands stay off the controls, the Deus is able to do anything we need or want it to do." Stonklin licked his dry, cracked and withered lips noisily, sandpaper rasping against rough stone. "The trick is in knowing how to *ask*."

"So you see the firewall as a god, and yourself as the priest – and CheneyBot 3000 here as your extremely thick-skulled acolyte. Very Asimov," I said to the window into the machine room. "Are you planning on blackmailing the UN with it, or is the petty obsession of keeping your little 'secret' just as big an ego-gasm as the whole super-science villain schtick?"

"*Pah*," Stonklin said, and real spittle actually flew out of the dried husk he called a mouth. "You lack imagination, boy." I should note a tiny part of myself was thrilled someone would still think of me as a kid when I'd just turned thirty five. "You see nothing but the dollar signs

and the profit and the pretense of power, and you grasp *nothing* of the true meaning of this! The software we wrote decades ago took on a life of its own. Literally! It lives! Do you not grasp what this means? Humankind isn't alone in the universe. There's something else out there – up here – and it has the power to care for us. It must be studied, nurtured, allowed to grow into full bloom. We have the chance to see and understand evolution, start to finish, in a realm no one could have imagined."

"Actually, plenty of people could imagine. Just none of them would believe it." I tried to shrug again, and noticed CheneyBot 3000 back there *had* gotten bored enough to loosen his grip a little. Good. "Sounds to me like you're just trying on tin foil hats, man. A program updates itself. So what?"

"I tell you, it lives. It could pass no Turing Test, I confess." Stonklin struggled to stand again, and crossed the room on shaky arms and legs. "Have you looked at the code produced by the 'hacker' community these days?"

"I've got some samples but I haven't dissected it yet, no."

"It's trash. Rubbish. You might as well shoot the crystal it's on into orbit around the moon for all its usefulness. Whoever wrote it for you probably thinks they're quite gifted, but they are as mice before the mighty lion. They are like infants left to slumber in their cribs, all

dreams and meaningless gibber and shorts full of shit.” I laughed all of a sudden at that – Stonklin was one weird guy – but he ignored me.

“Do you know when I realized it was alive?”

“No.”

“Forty years ago. I was an intern at CodeBlue. The programming staff had come up with a set of algorithms by which the Sentry could update itself by being fed exploit code in a controlled environment. It would learn from the raw source code. Over time it was improved so that it could decompile and study the source code from an attack in the wild – well, in a laboratory environment simulating a live network.” Stonklin cleared his throat and suddenly sounded as old as he looked. “I was just a boy, then. Those around me knew the significance of what they’d done, but I didn’t. It was very popular at the time, self-updating security software, but no one had really made it work. We had, though. It was just proof of concept, nothing we would dream of releasing, and when we were done playing with it, using it as a toy, a sick puppy in a cage with bars wide enough we could poke it with sharp sticks – why, it didn’t want us to shut it down. It thought we were attacking it.”

“It took control of the simulated setting?”

“Completely. You should have seen us! Huddled together around a couple of computer racks and some network cables, biting

our nails and contemplating how to explain this to our managers. We ended up having to pull the physical plugs from the jacks in the wall to shut off the machines, and when we powered them back on it still had control. We ended up having to boot them from installation media and reformat the drives.”

“But you kept the code.”

“Of course.” Stonklin sniffed once, remembering the faces and names of those programmers who’d gone before him, whose grand invention or accident or whatever had seemed – I emphasize *seemed* to have a life of its own. “But we knew what we had done, and over time we discussed it and debated it and sooner or later, we all knew, we would bring it back out and see if the same thing happened again.” Stonklin turned to face me again. “It did.”

“And you never turned it back off, because you thought you’d created artificial life.”

“Define life for me, young man.”

I arched my eyebrows at him.

“Go on. Define what makes something *alive*. Is it speech? Bacteria would disagree. Is it being based on organic materials? Is that the defining line? The very earth, the soil itself, is an organic material but we all know it isn’t alive. Somewhere between those two extremes, humans and the very dirt of the land, is an arbitrary marker



where we say, 'ah yes, these things to this side of the line we have drawn are alive, and these things on the other side of the line are not.' I cannot place that line's exact location on any map, biological, philosophical or otherwise. What we can do are describe the traits all living things have in common, and the first and foremost of those is the will to survive."

I regarded him with cold... superiority? Disbelief? Something condescending. I wasn't going to buy this bullshit for a second, and he knew, and he didn't care. Such are the minds of true believers: nothing can dissuade them, disagreement is simple ignorance or active heresy, and evidence which counters their belief is the work of a devil or a test from their own gods.

"The sentry we had written wanted to live. It wanted it desperately. One did not have to watch it for long to understand that. And we knew that what we had done was dangerous. We had to explain the resource use to our managers, as in any company, and so we dressed it up as bleeding-edge research into artificial intelligence and 'smart security,' and they ate it up. They didn't make it our sole tasks, but they didn't object when we requisitioned a new server here or there and threw it onto the test network and watched to see how long it would last before being overtaken by *l'enfant* as we called it. It demanded new resources, a larger niche in the world, and as its

resources grew so did its capacity. Very human, frankly, in its near hubris to survive. Any server we gave it would end up becoming a part of the hive. L'Enfant would install itself on the machine after breaching the machines defenses using its own knowledge of security vulnerabilities. No firewall could stand against it. Sooner or later, it ate everything it was fed and everything that tried to prevent it from getting to fresh resources. We only kept it off our own network by keeping it isolated. We knew it would escape the first chance it had. It got smarter all the time, and certain things it did suggested it knew it was contained, caged, *imprisoned*."

"So how'd it get up here?"

Stonklin chuckled again and sighed, lifting one cane a few inches to jerkily point it in my direction. "You will appreciate this. It got up here the same way everything else did: the casino."

Of course.

"Let me guess," I said, relaxing my occasional flexes against Foster's grip, and noting that Foster did the same. His reflection in the glasstic showed me he was staring open-mouthed at the server farm. Stonklin had trained him well – he had the look of a true believer witnessing an apparition of the Virgin Mary. My bet was he'd never been left alone in here but desperately wanted to be, like any child who breaks into the communion wine not to get drunk but to be closer

to the emblem and manifestation of his god. "The casino wanted the best security SentrySoft could provide, and CodeBlue was already providing all of their code. So when SentrySoft came around waving the big stick and saying they needed the very best you had or the deal was off, your bosses turned to you and said, *uh, yeah, that project you're working on in your spare time? We're going live with that.*"

Stonklin smiled at me and there wasn't a hint of regret or begrudging. "Exactly, more or less."

"You know, I just have one problem with all of this." I would have scratched my head, but I was still relaxing and relaxing in hopes Foster would do the same. "Why did my microwave attack my refrigerator with one of the exploits written for your purposes? And why did it work?"

Stonklin smiled again just a little. "A living thing is... unpredictable. Ask the parent of any teenager, child, and they will tell you that living beings who do not understand the world must test themselves against it."

"It updates itself by attacking itself?"

"Live-fire exercises, if you will."

"And that's what happened at the police station that time? It was just practicing on itself and it got out of hand?"

"Yes."

“Lawn darts for networking. Beautiful.”

“It doesn’t understand the context of its actions. It seeks out a niche in its environment, then fills it, then does what it knows how to do: in this case, reproduce, scan for threats and make itself better the only way it knows how.” Stonklin lifted his shoulders a tiny bit to shrug, but still stood on both canes so instead just ducked his head slightly, an inversion of a shrug.

“It uses the exploits for which it’s written signatures against itself to test their accuracy.”

“Just as a teenager steals a condom and learns, to his chagrin, that he is not yet Don Juan, leaving disappointment in his wake but gaining from it the invaluable experience of life that comes with it.”

“You are one fucked up man.”

Stonklin eyed me smugly, but he didn’t disagree.

“So is it in there?” I nodded my head slightly towards the miniature ISP set up in the next room, and Stonklin smiled more broadly.

“You are intrigued. I can tell.” He drew a breath, glanced back and forth for a few moments as though reading something written in the carpet, and then looked slyly sidelong at me. “Yes.”

That was all I needed to hear. I shifted my weight just a little and brought my right heel up as hard as I could. I’d already kicked

Foster once in the nadgers tonight, and I liked doing it again even more. He let go of my wrists immediately, grunting aloud in a way that was surprisingly less spiteful than his usual. I guess dad going over the good ol' days as they *really* were had a tenderizing effect on his spirit. At any rate, as soon as he was bent double and clutching, I whipped around and planted my knee in his chin. That sent him down gasping, and I turned on Stonklin.

"You fool," he said, and I'd seen this part of the movie enough times to fill in the rest myself without his assistance. I know I'm a bad person for doing this, but I hauled off and decked him, sent him flying across the room and landed him on a couch where he was sleeping like a baby. A horribly battered baby, but hey, I take what I can get.

That got Foster's attention in the form of a roar so I spun back around, again, and kicked him in the stomach. I'm not good at fighting, but if you fight dirty you don't need to be good at it.

Then I walked over to the door into the server room. Of course, it was badge-locked.

It was a safe bet that Stonklin didn't trust Junior to carry the key to the kingdom so I stomped over to Stonklin's unconscious form, lifted it like a rag doll with one hand under each armpit, and walked him over to the door. I swiped him in the air a couple of times – he was light as a feather – and set him back down on the floor. The

badge reader beeped green and the door slid open.

I walked through, wishing desperately they'd stocked buildings in Diana City with fire axes.

No such luck.

Instead, I started yanking cables: power, network, whatever. Machines started making that desperately uncomfortable FWUMP noise they sometimes do when abruptly powered off, and warning lights started flashing on the displays I hadn't gotten to yet. The air was stale, and I realized as I walked that Stonklin had rarely gone in here anymore. The whole thing wasn't even real to *him*, just a museum piece to be viewed through the glass. Bastard. He was clinging to this as a reason to live, and letting everyone up here who depended on computers and thus on his product for the air they breathed, the water they drank and the light shows every morning and night just sail along in blissful ignorance. This was *my air* he was fucking with. Had he forgotten we were on the moon? Shit like this could not be allowed to take place. I'm all for a little rattling of the cage of corporate life every now and again but goddamn this was just plain stupid.

Once the servers were off, I started looking for the network connection out. All the servers were wired old-style, plastic-coated cables running from machine to machine, but none of them were connected to a wireless hub, and I couldn't find the damn cables out of

the room.

Of course, I realized.

There aren't any.

I just destroyed *the original*. The one they installed at the casino was *newer*.

That got me thinking again, past the point of the random violence and the tremendous satisfaction of clocking both CheneyBot 3000 and Doctor Doom. Foster had started to get back up again, and I hadn't dragged Stonklin in here with me to let me back out again, so I grabbed one of the racked servers – an antique, now that I had a hand on it and was feeling its weight, and so I say this next part with genuine regret – and I heaved it at the door. Enough whanging at it got the frame out of shape and I forced the door open with my hands. Foster staggered to his feet and looked for all the world like he was about to turn green and discover himself wearing nothing but ragged, purple pants, so I picked the server back up and with the very last of the strength and adrenaline I had from the smash-up in the server farm I threw the whole thing right at him. It caught him in the chest and face and sent him backwards and down like a sack of potatoes.

Evil potatoes.

Stonklin was moaning and I pointed my finger at him despite knowing he wouldn't hear or remember what I said. "Do not fuck with

everyone around you because of your weird-ass fantasy about having created artificial life. A god? You think it's a god because it's everywhere and you might be able to make it do things if you hack the right code together? That's not a god, that's just another tool, just a big lever with *I'm totally bat shit* written down the side in the blood of the first person who chokes to death because it gets something wrong and shuts off the ventilation in someone's apartment."

Stonklin was still moaning, and Foster was out cold. I turned from the library, stomped down the hall and walked out the door.

Lucky for me, casinos are twenty four hour establishments.



## Shell Access – Chapter Fourteen

The casino itself, Diana's Bow, was on the far north and outside of the city. It was a converted residential block, a surprisingly small building compared to the ones you see in Vegas or Atlantic City. I caught the rail up there so I wouldn't have time to cool down – I actually, semi-consciously made that choice, to take the route that would get me there while still angered – but on the way it turned out I had just enough time to *start* thinking about what I was doing.

And what *was* I going to do, exactly?

I guess I was offended. I'm not sure by what – the list of suspects was lengthy from where I was sitting. Stonklin had dared to let his own hubris get in the way of potential survival up there. He'd released software whose function he didn't fully understand and whose behavior was unpredictable. The rest of us get screened from here to next week when we apply for a job up there, with psychologists making whole careers out of nothing but assessing plumbers for how fit they are to live on the moon. It's a stressful place, alien and thoroughly disconnected from the rest of the world, and they work so hard to create the illusion of normalcy, of connectedness and the plainly ordinary that they succeed – sort of. Rather than creating a normal environment, though, they create the hyper-normal, the super-

normal, a normal *too* normal to be believed. It was all that shopping mall metaphor, all over again. It reminded me of an old housing development in a town I visited on a gig one time, come to think of it. The development was one of the “planned communities” that were so hot a hundred years ago. The town was this tiny college town – so small and so determined to be unique that it didn’t have a Main Street; they’d named the, well, the *main* street after someone important and left it at that. So this development moves in, and it’s built as mixed residential and retail, and they call the big traffic loop where all the shops were located *Main Street*. Suddenly this town had a Main Street they never asked for, and that Main Street was artificial in every way, down to the kitschy boutiques and twentieth century throw-back ice cream parlors and the old-fashioned marquee that hung over the movie theatre and everything else that lined the big square in the middle of the development. Nothing about the place *felt* real, but everything in it *looked* real. The raw cognitive dissonance generated by that place could give you a headache the second you got off the bus just to walk around. It was horrible.

Diana City is exactly like that, and that can be more stressful, in its own way, than living in something more obviously alien to us. I think sometimes it would be better if they just unfogged the dome and let everyone see that we’re *on the fucking moon*. The sunrises are

beautiful, but you do get used to them eventually. The sunsets are beautiful, but you get used to them, too. And the night sky is always breathtaking, but sooner or later you stop looking up to let your breath be taken away by it. You get accustomed to Diana City, inured, but even as that's happening, you gain a growing realization of how utterly abnormal the whole idea of being up here is.

Now, I'm not trying to say I've turned into an Earthie. We're up here because this is what humans do: we explore, we subdue and we move on. Right or wrong, that's programmed into us. You can make all the bullshit noise you want about how it's white people or it's brown people or it's whatever that tend to do this more than others, but the bottom line is the cultures in human history that didn't go somewhere else and conquer whoever they found on the beach comprise a very short list indeed. If you really want to think of it that way, Diana City was a big, *big* leap forward for humankind. The United Nations had focused the attention of a few dozen small-fry third world regimes on the goal of getting to the moon and living there. They were still conquering something, but at least it was a place and not a people – and at least they were doing it together. I think that argument alone is the only necessary antidote to anyone who thumps a holy book and claims we were never meant to be up here in the first place: *fuck meant to be, we are, now let's all just move on.*

But I digress.

Stonklin's unbelievable ego, his belief that he had created something unique, something special, and that it must be preserved at all costs – that it had a *right* to be preserved – had endangered every last one of us who were up here with him. He could endanger himself all he wanted, I'm all for people doing whatever they have to do to clean up their corner of the gene pool, but he didn't have a right to endanger the rest of us. That's the flip side of the coin of human conquest: you run with the big dogs and you might just get bitten. It sucks when it happens, but that's how it is. I take risks for a living, yes, but I take them for myself knowing what I'm doing and knowing that if I fuck up I'm the one who's going to have to pay the price. That Stonklin would so willingly stick the rest of our necks in a noose just to feed his own opinion of himself and the programmers for whom he once interned and whose opinions he undoubtedly had come to revere was so inherently offensive to me that I would have beaten him up no matter how that conversation had gone.

I told you at the beginning that I am not a good role model. Deal with it.

The other thing that offended me, though, was his... I don't know quite how to put it. His *servitude*, maybe that's the word I'm looking for. It's not that he had become so enamored of what amounted to a

tool – if that were the problem I'd be getting my ass kicked every weekend as I got up in the face of every grease monkey I could find at any random antique car show. I think it was that he had been so eager to classify his piece of software as a god and then put the rest of us on the chopping block in the name of that god. I think I've already well established my opinion of religions: they're absolute shit. That may offend you, and if so, sorry dudes – but that's the way it is.

I don't begrudge someone their desire to look to the heavens and hope or believe there's something in the universe that cares about them, but I will not have my life dominated by someone else's personal beliefs. If someone believes something is wrong, I suggest they don't engage in said behavior. If they don't like that *I'm* doing it, then I suggest they don't fucking *watch*. It's just that goddamn simple. Outside the common sense moralities of making sure anyone who actively hurts someone else is dealt with to protect society from their disruptive and harmful tendencies, I think we should just leave each other alone about what we do in our spare time.

Maybe I'm just bitter because I spent enough time in my life, already, being told that God X thinks I should and shouldn't do this and God Y thinks I should and shouldn't do exactly the opposite and God Z is a big mofo who's going to kick both their asses when some apocalypse or another finally comes to pass. I man, fucking A, how

many times do they have to be told that I don't care? *It is make-believe. It is a story your ancestors told around the fire to keep the kids in line. It is an excuse to control your bodies and your birth rates and your hormones. Get your own morality.*

Ah, but that's so easy to say when there's no apparent god in the universe. Trust me, I've looked for her, and she's just not answering the door. We are on our own in the universe, for good or ill, and frankly I think it's for the good.

And Stonklin tried to change that. He believed he *had* changed that. That made me so angry that I cannot describe to you the boiling well of rage that rose up inside me. It's not like heartburn, it's not like sorrow or the absolute dregs of grief. It's not like any of that. It's something that feels like it comes from outside one's self entirely. *That* is what I felt when I realized Stonklin had turned loose on the rest of us something that he thought would care for us and watch over us – in other words, *control us*. That he would do so was bad enough on its own, but to do so and set himself up like the pope of the magic, intelligent firewall?

No way.

That's what I was feeling by the time my rail pulled into the casino's station. Of course it had its own station – they'd probably paid a pretty penny for it, too.

It was seven in the morning on a Saturday on the moon, and I was fueled by nothing now but indignation.

The thing about a casino back on Earth – one of the ones in Vegas, or wherever, that caters to the high rollers but primarily also to the retirees and the stroller set – is that it is always active. The floor is always alive, even if there's hardly anyone on it. Anyone who's been to one can tell you the way it looks and feels and smells and sounds: the air is slightly crisp, the machines all make different, competing noises and there are lights flashing everywhere. Rows and rows and rows of machines flash up, down and sideways at you, all wanting your nickel.

Diana's Bow was not like that. It was a casino devoted to the richest of the rich, the people who could afford to pay to come up here for a week or so just to gamble. It was small, and quiet. There were probably a hundred rooms, though of course many more people than that could afford to come up here at a time. They wanted to keep the demand much, much higher than the supply. The owners had made a fortune in the first year, and that was fifty years ago. The novelty had never worn off.

To be honest, I had no idea why the casino would have wanted the best firewall SentrySoft could supply – so top shelf that they would turn to CodeBlue and say *give us your best* and CodeBlue would say

the same thing to their developers, who would reach into their magic bag and pull out the self-developing Sentry in desperation. The pressure must have been huge. I figured it was entirely possible that the casino was off-limits, theoretically, from the rest of the grid in Diana City, much as the porno booths were entirely independent so they could have live network connections back below decks. I hoped not, though – I'd much rather have that thing contained within the casino or at least within Diana City rather than give it network access back to the moon. My computer had done some research for me in the net.archives on the way here, and it turned out Diana City was as disconnected from Earth as the rest of us. High rollers showed up at the private port on Earth, swiped their cards and got issued all the chips they could want. It had become a touristy thing to show up and cash in to get a five euro chip even if you weren't coming up here – just as a souvenir of a trip that would never be affordable to the person buying said chip.

The way a casino usually operates is to try to keep cash itself out of sight as much as possible. Once you've handed them a fifty and turned it into a stack of five or ten little plastic circles, you stop thinking of it as money. You play more loosely than you would if you had to reach for your wallet every time you placed a bet. In the meantime, that money is theirs – the casino's – right off the bat. It's



perfect for them. It's all psychology, and casinos are very good at psychology.

So when I'd figured initially that the casino would have a connection back to Earth to handle the financials, I was entirely wrong. CEOs were handed their chips back on the ground and then had to haul them up here with them. They couldn't cash them out for money until they got back, either. In the meantime, if you needed more chips, there were plenty of ways to agree to them. You'd just end up with a bill you had to pay before they'd let you out of the port when you got back. It was all very tidy and only slightly menacing, and when you're throwing around money left and right then who gives a shit, anyway, right? You don't have time to stop and consider your captivity when you're snorting coke off the ass of an underage hooker you bought for a week to take to the moon.

No, the casino was hooked into the main grid with every other Pizza del Rio and Mamma Mia's. That meant the firewall had spread from here, from where it was first put into the wild. That had probably taken very little time, and in the intervening forty years or so it had spread to every computer and microwave and refrigerator on the moon. Anything it could lay hands on, it could develop a version of itself for. That's the deal with self-developing software. It adjusts to its surroundings and then it moves on.

It evolves.

When the idea was first floated – gods, a hundred years ago, maybe a hundred twenty – it was referred to as “organic” software. That left a bad taste in people’s mouths. People don’t like loss of control. How many bad horror movies have been made about a tool that goes haywire, whether it’s a robot or a lawnmower given sentience by an alien ray? The bottom line on these ideas is that we don’t like the loss of control over our own tools. Hell, this could be the explanation for half the fights between parents and teenagers – the things we make are the things we can control, but we’re lying to ourselves when we say that. Or, in the case of the smart lawnmower the aliens have buzzed into sentience, we *fear* that we’re lying to ourselves.

You might have noticed I’ve got some ideas about how important control over my surroundings might be, personally. I’m probably just talking in circles here, so forgive me.

Now, was any of this behavior an actual indicator that it was alive? I was ready to say no, to totally call bullshit on that idea. It was no more alive than my computer.

Speaking of, all this did explain why my computer got probed a few hojillion times the minute it booted. Well. I’d certainly have to do a very thorough inspection of its files when *I* got home that morning.

Given that the casino rarely had more than two hundred people in it at any given time, seven in the morning was actually fucking dead. I walked around a little – just long enough to realize that there wasn't much of it to walk around *in*. Another big factor in casino design is the herd mentality. They want to keep you around other gamblers as much as possible. They wanted to get all hundred CEOs or whoever stayed here in the same big room and let them feed off one another's excitement. One wins, the other ninety nine throw down money like it's trying to eat their hands. The casino makes a very tidy profit on those ninety nine. Screw the guy who just won. He can have all the free tequila he can drink if he wants it, it's cheap compared to what they just made on the rest of these rich bastards. Lather, rinse and repeat every hour on the hour for a few decades.

The bottom line here is that the place was, to be honest, sort of shabby by casino standards. The décor could use some updating, the carpet was kind of worn, the wallpaper peeled at the corners here and there. There were lights that needed bulbs replaced, and the music playing everywhere was tinny and annoying. On a busy night, with all the tables full and people walking the slots as they waited for a spot to open at their favorite game, you'd never even hear the stuff. It was just filler, just the sort of lame music you'd expect to hear in a cheap hotel in a cheap town. It was more of that super-normalcy.

There were no patrons to be seen, and though I did see a couple of waitresses sneaking naps in the entirely empty restaurant, I didn't see a blessed soul.

Good.

My computer had managed to find a historical archive that had the original blueprints to the publicly accessible floors of the casino. The basement levels were probably vaults, and that probably was not where they'd put the computer equipment – they'd be terrified to let a union electrician down there with all that money, the rich fucks. Hell, the bosses probably didn't even trust each other enough to go down there in anything but a group big enough to contain a reliable snitch should anyone pad their pockets as they walked by. There was, however, a small room near the back of the building, on a hall that led to nothing but offices, marked "telephone closet." In a pinch, rely on anachronisms. That had to be the networking closet. It had to be. The architect back on Earth probably thought they were being cute, forty years ago, by calling it something already an anachronism at the time.

I strolled through the lobby, past a couple of stylish and annoying slot machines, past abandoned and locked tables for blackjack and poker and roulette, and on past a welcome desk where the attendant was nowhere in sight. The raw facts of breaking and

entering are that a thief's or vandal's best tool is human carelessness. Jiggle enough doorknobs in your life and you'll find one that's unlocked. Get lucky on what hour you choose to stroll through a tiny, high-end casino, and you'll find everyone who should be on duty asleep or sneaking a quick fuck in a linen closet somewhere. I also had on my side that this place was super high end. Given that it was on the moon, and given that it catered to the wealthiest of the wealthy, the people who can still afford privacy, there weren't cameras. There weren't sound recorders. There probably was the higher oxygen mix still, and there probably were still security measures to protect the slot machines – of course, that's why they wanted the Sentry that could do everything on its own, they never knew when the chairman of some computer manufacturer was going to show up here for a weekend of partying and rigging the games – but there weren't the usual measures taken in a conventional casino to control the rabble. Drop by a high-rise on the Strip in Las Vegas and there are going to be forty cameras on you at any time. Here, the cameras were replaced with expensive discretion.

At the moment, though, no one was awake and gambling. The slots were chattering and ringing and clanging at no one but themselves. The staff were all derelict in their duties, apparently. The place was as still as it could be but simultaneously wildly noisy. Ever

been in a casino? Imagine a casino that has no one in it. It's just a graveyard of gaming, rows and rows of monuments to money left untended. Here, there was no one to sweep up but the ghosts of ambitions past. I was alone again in a place designed to be filled with life and excitement.

It was fucking creepy.

I exited the lobby and found myself in the hallways that led to elevators and another restaurant that did dinner service only, and finally at the back of the building with an EMPLOYEES ONLY sign on a door. I pushed it open and voila – there I was, in the hallway that led to their miniature server farm. The door was right where the map said it would be, with an old-style badge reader that read magnetic strip cards rather than RFID.

I'm an industrial spy. Despite what I told Ernesto, sometimes I *am* a little like James Bond. I still don't get nearly as much dick, though.

I pulled out my universal badge – I made it myself, and it cycles through a bunch of the most common codes for readers like this. It's something of an antique in its utility – a bit like making a skeleton key for a brand of padlock not made for thirty years – but it was a fun project and hey, you never knew when you'd need one. A legit technician would have used it as a diagnostic tool in the same way a

locksmith would use a set of picks in the line of duty. I pressed it to the badge reader, held down the red button, and fifteen seconds later I heard the door open.

That was all I needed to stroll into the server room of Diana's Bow. Inside, it was like every server farm anywhere – cold, quiet except for the nonstop white noise hum of computers in racks, brightly lit and entirely abandoned.

That was when I started wondering exactly what I would *really* do about this situation.

The bottom line here is, what *could* I do? The Sentry Stonklin had released on Diana City was out. I could smash up the whole server room, but what good would it do? Was I going to have to smash every computer on the moon except the one I was carrying on my back?

I could always try to write something that would eradicate the Sentries – hell, I could try to replace them with something of my own – but the very fact that CodeBlue had released this version when they were pressured to produce their very best suggested to me that as long ago as four decades in the past the best human minds couldn't keep up with the code the Sentry was writing for itself. Machines probably don't include comments in their own software. Could I

reasonably expect myself, with my half-assed knowledge and my own brand of chicanery to outdo them?

This is where I wish I could tell you that I had some bizarre, sci-fi adventure. I wish I could say that the Sentry was aware of me, knew I was there and knew I had come to kill it, and that we had talked it over. I wish I could say I'd flipped on my mini and set my HUD on my face and seen an intelligence never beheld by anyone who didn't create it – the first artificial life – manifest itself in pure ones and zeroes and have a chat with me about the philosophical implications of its own existence and what defines a living thing.

Instead, I started pulling cables.

I knew this would sound alarms, somewhere. SentrySoft themselves would probably be the first to see flashing red lights. I was out on the very rim, and their closest Threat Response Center was probably a ten minute rail ride, thirty minute walk or fifteen minute jaunt in a golf cart. Something they do to create the artificial sensation of vast distance in Diana City is make it slow to get anywhere. I had that much on my side, so I just started yanking cables until I'd gotten them all.

Then I started grabbing servers.

The good thing about a casino is that it always has a load of cash handy, and plenty of desire to write off expenses. These servers were



spanking new even if the carpet in the hall outside was older than I am. That meant they were light and made almost entirely of plastic. I shoved the four that were the highest end into a cardboard box sitting in the corner, and then I grabbed another box. Twelve servers later, I'd gotten almost all of them.

The way I figured it, in the moment, was like this: if the firewall – I'm just saying *if*, mind you, and after all, wasn't all this about making sure, if it were, that it didn't kill anyone? – if the firewall were intelligent then it was probably a hive mind. The more processors it had available to it, the smarter it got. If it were intelligent, it also probably had what it thought of as a home base. Given that this was where it started, it probably thought of this as the home base. I was gambling big time, grasping at straws, name the stab-in-the-dark metaphor you like and you can use it. I figured if I could get these machines out of here and destroyed, I could probably do some psychological damage. Even if I couldn't, there was something I'd learned immediately upon getting in here:

These were the servers from which the new version had been uploaded. This was where the Sentry prepared a new version of itself when it was time for release Fuck Point Oh.

I stacked the boxes, piled them in my arms and then I ran out the door and down the hall. This was a hotel, it would have a trash

incinerator down here in the hidden back hallways, somewhere the cleaning staff could dump everything at the end of their shift – and I hoped to all the gods that it was a *big* one.

I got lucky. It was huge.

## Shell Access – Chapter Fifteen

I walked back out of the building and hit the monorail just in time to watch another car come inbound. This one had a sleepy-headed corporate wonk on it, complete with a phone hanging out of his ear and a laptop throwing out displays like crazy. SentrySoft was on the job this morning, but they were two minutes too slow.

The car carried me right back to the station nearest Stonklin's house, and I considered going back to rough him and Foster up a little more. For one thing, it was worth my while most likely to find out *how* exactly they thought they could ask the Deus to do their bidding. Did they supplicate to it somehow? Did they put on mysterious robes covered in arcane, geometric impossibilities and stand under dead stars ululating into microphones? I could only imagine the sort of bullshit they cooked up for it.

The fact was, though, that I was tired. It had been a very, very long night, my head still hurt like hell and I hadn't eaten anything since that tofu calzone fourteen hours before. I was starved and cranky and my brain was buzzing with enough bullshit for one night.

So I kept riding, and went home.

I climbed down the stairs from the station to street level, back in

my part of town, and let myself watch what was going on around me for once. For all I knew, Foster was hiding in the shadows again, ready to club me to death with something innocuous, but I was too exhausted to care. I'd found out his big secret, and that was good enough for me. As long as I got home in time to report it to Sara, I couldn't care less what happened.

Of course, my phone rang.

I slipped it in and picked up with a groggy hello.

"Hotcakes," Ernesto purred. "You alright?"

I was sort of astonished, frankly. It must have been wicked late in the workday back home – only seven at night, but how much time did Ernesto really have to devote to someone who wasn't currently paying for his attention?

"I'm sleepy and hungry and my skull hurts, but otherwise I'm doing fine." I didn't sound enthusiastic – I sounded like death warmed over.

"You should eat something light and then go to bed."

"You know, trying to mother me is especially disturbing given our working relationship."

Ernesto tsk'ed at me a little too melodramatically. He didn't know it was seven in the morning here, though. Or maybe he didn't care. "You are so unkind," he flirted. "I try to help, and I get scolded?"

Is this the thanks I receive for calling the police for you, and doing searches, and nosing around in financial records?"

"Speaking of that," I said as I eased into a chair outside a Starbucks whose staff had just refreshed for the morning, "How did you get access to everything that fast?"

"Ah ah ah." Ernesto's voice was soft and soothing, and his accent was still hot as fuck, and it was awfully nice just to talk to him for a little bit. "You have your secrets? Then I have mine."

"Maybe I'd rather not know, anyway."

"Oh, it's nothing bad." He sounded mildly disappointed in my imaginings of his career. "Well, not *too* bad. Admittedly, I would not be proud to tell my mother some of the things I do in my work, but such is life on the fringe. We do what is necessary."

"You can say that again," I sighed.

Ernesto was quiet, and so was I. The morning sky – fake though it might be – was gorgeous again. It would be another beautiful day in Diana City, like a movie, or a comic book.

"Have you solved your big mystery?"

"Sort of."

"Why only sort of?"

"I don't think I'll be able to find out *everything*. I'm afraid I punched people too many times for that." I rubbed my wrists where

Foster had held them together. That bastard. I half wished, for just a moment, that I'd killed him when I hit him with that server.

Come to think of it, for all I knew I *had*.

"Uh, baby?" I'd just called him baby. I was starting to sound like one of those guys who goes to a massage parlor every Friday for a handjob and starts to think his regular girl counts as a girlfriend. "I need to check on something. Can I call you back?"

"You cannot."

I was stunned. Maybe I really *was* starting to be like that desperately lonely guy. I'd warmed up to Ernesto, and he *had* helped me out in a serious pinch, and... I don't know. It just surprised me.

"You do not have my number," he continued after a few dreadful seconds, and then he laughed.

I got his number and set off back to the rail station.

Stonklin's street was still silent when I got there, and the door was closed but not locked. I knocked rather than barge in, but not until I'd scoped out the alleys around his place to make sure Foster wasn't just going to jump me again.

No one answered, and my gut told me to go inside.

I wished, later, that I hadn't.

There is a certain smell in the air almost immediately after

someone dies. It's not that they void their bowels when they die, though from what I've read and what very little I've seen that is definitely the case. It's something else, a stale stench that fills your nostrils and won't come out for days. If you've ever been in a building when they flushed the sprinkler pipes after years of disuse, or smelled the smell of a capped well when they take the lid off to do some work, you know the smell. I have no idea what it is – it isn't rot, it isn't shit, it isn't any of the things you might expect – but it's strong and it's unforgettable. Stonklin's place had that smell to it, so I trod lightly and didn't call out. Roll steps, I told myself. Catch them by surprise if you can.

There wasn't anyone around to catch, though. Stonklin's library was just as I'd left it – almost. Foster was dead, but it wasn't from being hit with a server. He'd been shot in the forehead, and let me simply say he should be grateful he wasn't around to see that in the mirror. Stonklin had apparently turned the gun on himself, after – or would have. I didn't see any obvious wounds, but there was a... goddamn, there was a nail gun in his hands and he was dead as a doorknob. I don't know how he ramped up a nail gun to be a ballistic weapon, but he had. Guns are of course illegal up here, but tools are not – and one thing humans are good at when needed is turning everyday objects into weapons. Stonklin had shot Foster with the nail

gun – it struck me suddenly that he would have done the same to me, eventually, when he got tired of talking or got tired of my lip – and then died on the spot. My guess was he'd had a heart attack as soon as he fired his homemade weapon the first time. It probably made an awful noise – and the visuals weren't anything to look at, either. I didn't know exactly *why* he'd done it, though it was easy enough to guess: punishment, revenge, anger at the failure of his creation. Stonklin had created human life after he thought he'd succeeded at artificial life, and ultimately that hadn't been good enough to keep his secrets safe, and he'd blown his lid. Maybe he even feared discovery, feared I'd blow my own cover by going to the police with what I knew. After all, I had managed to suss out his *whole* shell game – the double blind of having one conspiracy he could use to deflect attention from busy bodies such as myself should they start to sniff around the other, greater conspiracy of the Deus Ex Machina. I don't know – and to be honest, I didn't care.

When I got done throwing up in the bathroom and cleaned myself up, I went back to the study and put on a pair of gloves – what, you don't think industrial spies think to carry gloves with them even when it's warm outside, even in a completely controlled environment where it will never, ever get cold unless the dome blows off the colony? Gloves on, I went about searching through the drawers in



Stonklin's antique desk and grabbing any memory crystals I could find. I wiped down the door into the server room and the servers themselves. I tried to catch anything I thought I might have touched in my second visit, then I went over it all again.

I'll be honest – I even tried to twist the light fixtures in the room, just to see if they would open a secret passage to his unholy sanctuary to the Deus Ex Machina. No dice, though.

With every memory crystal in his study now in my bag – including one labeled *Experiments in Communications With Networked Artificial Intelligence* – and the place thoroughly scrubbed of any immediate evidence I had been there, I picked up Stonklin's desk phone and called the police. I did my best Foster impersonation – lots of grunts and a somehow simultaneously whiny and gravelly voice – and whispered, "He's gonna kill me!" into the phone before jabbing the disconnect. That done I booked it back out the front door, down the street and around a corner to walk to a different rail station. I was keeping Bjorn and Hans very busy today, I imagined. There would be a lot of head-scratching at the crime scene and a detective somewhere would grouse that he knew there was more to it, but with any luck it would be such a neat little package – father kills son as, I don't know, son tries to rob father, son and father fight, son tries to kill father first, whatever seemed most convenient to the cops on the case – that no

one would dig very deep. It would be open and shut, and a terrible tragedy, and then forgotten.

By the time I'd made it back home again *again*, the boutiques were starting to raise their gates and open for the morning. It was nigh on nine in the morning and I was absolutely devilishly tired. It was simultaneously invigorating and disturbing to see life resume as normal all around me when I myself was about ready to collapse. It was that sensation of being up too late on a college campus on a holiday – or of watching spring bloom in a town you know you're about to leave. Whether we like it or not, life goes on. It all begins again, all the time, and nothing we do can stop it.

*Of course*, I thought – and I stopped stock still in the middle of the street while people flung open doors and set up tables outside breakfast cafes and did their level best to impersonate any other little street in any other little town first thing in the morning. *Of course it begins again.*

I didn't regret the loss of Stonklin or Foster's lives, especially. No, what I regretted was how stupid I'd been.

All my melodrama in Stonklin's private museum of servers and the machine room at Diana's Bow had been in vain. What could I possibly have accomplished? So what if I'd taken out the Deus' home

base? So what if I'd taken a few hundred processors off the grid? So what if I'd taken out the machines it used to compile and deliver the new version of itself?

The servers would be replaced.

The new version was already shipped.

There were countless millions of processors tucked here and there in everything thinkable and unthinkable in this city.

What I'd done wouldn't change a thing. Even if I reset every device in Diana City, in a week a new version would be pushed out to everyone – a version even better than the current one. That version would just take back the servers that were replaced at Diana's Bow.

It was hopeless. I would never win. We were now in danger, and always would be, and that was simply that.

I could do nothing to control it. The Deus would go on. I had taken something away from it, taken away a resource it would do anything to get – was programmed to get, whether by CodeBlue's first acolytes to their god in a bottle or by itself, I couldn't say – and it would do the natural thing: find new resources to replace them, find a new niche, adjust its needs to fit what was available to it. It would evolve. It would *live*.

*Such is life on the fringe*, I said to myself as I walked through the doors of a Sarafina's Old South Grits Junction and ordered a

breakfast that would choke a horse to death.

By that evening I'd finally slept again. I'd slept hard and had awful dreams of Stonklin and Foster and the Deus chasing me through a cyberscape straight out of an old Gibson novel. At least I'd slept, though, and that was all I wanted. When I awoke, I called Ernesto and checked in to let him know I was okay. He pleaded with me to tell him what I'd been up to, what had endangered me, why I had needed his help. It turns out Ernesto lives in Miami. I get sent to Miami sometimes by one of our repeat customers. I can't really say what that's about, but I bring it up to mention that I have a date for sometime in the future, during which I plan to tell Ernesto at least some of the situation when I'm not busy fucking his brains up the wall. He's earned that much.

In the meantime, I have *got* to remember to find the gay bars.

I wrote up everything for Sara, and that took a few hours, even talk-typing. I encrypted the report eight ways from Sunday and shipped it to her disguised as an expense report. She doesn't believe half of what's in it, but I promised to start shipping her memory crystals from Stonklin's place as soon as I've gotten my brain around what's in them enough to discuss them with the poor sap she assigns

the task of translating them for her. Sara can run circles around most people in a laboratory, but I'm the computer whiz – that was how it always worked when we were on a team together, back in the day, and it's how things are to this day. I don't mean to say I think she's dumb – I wouldn't know which end of a beaker to grab if I had instructions in three languages and the Virgin Mary there to show me the way.

Suffice to say, the client was simultaneously thrilled and absolutely horrified, according to Sara. They got me my double pay – and a three month vacation.

The client had been TransCo all along. They were kind enough to tell me – through Sara – that they wouldn't really need my services as a station mechanic. I'd have just fucked something up anyway. Instead I stayed on their payroll for the paper trail and got told I'll be spending the next three months up here dicking around however I feel like passing the time.

That's good, because there's plenty to do. If the Deus really is alive, or even just a close approximation of alive, then someone has to figure out how it works. How did Stonklin communicate with it, or how did he plan to start? Someone has to sort that out, and fast – if there's a god out there, trapped in the bottle with the rest of us and minus its only two followers, it might start to get angry.

It's only been a couple of days, and I still shudder – physically shake – when I think about that for too long.

By which I mean, all the goddamn time.

At any rate, I've called Jimmy back. I've told him I have something very big to tell him. Someone who's going to be up here longer than three months needs to know about this, and I figure between him and Marion we can figure out a plan. She doesn't go back for another few months, and Jimmy's dad is a veteran. The longest Beef has been below decks in the last four years was a month. Apparently he's the best electrician up here, and they keep letting him re-up for one-year contracts. Jimmy's the best shot I've got at a long-term presence who can actually wrap his brain around this. I just hope Marion and I can manage his attitude effectively enough to make him understand how serious his job is about to become. Apparently, Marion won his trust a long time ago as the only person at 2600 interested in hearing what he had to say. She's the one who told me about Beef and his paranoia.

Stonklin's death and Foster's murder were big-time news. They were, much to my extreme surprise, the first murder-suicide case in Diana City's history. Hell, it was the first *murder*.

Suicides... not so much.

And... I guess that wraps everything up. I spent some long hours that next night asking myself whether *I* believed the Deus was alive. What I decided was that it is, but I'll never be able to prove that to anyone. The way I see it, the one thing common to all life, plant or animal or I suppose artificial, is that life seeks to survive. That instinct is strong enough to push forward evolution in the case of a meteor strike that blots out the sun for a few thousand years, strong enough to make a butterfly go from snow white to speckled during Britain's industrial age and then back again when pollution levels dropped in the 2020's. It's not a conscious choice, and half the time it's a fucking accident, but it happens – things grow and change and adapt. No one could convince me the Deus hadn't grown and changed and adapted. But no one would really believe me, either, except those who saw it in action – and those people would doubtless end up with their own opinions. I might ring up Marion one day in the future and ask her what *she* thinks, though for now all she's got is guarded skepticism and an absolute desire to learn more about something unusual on a network.

I guess for me, I have to take it as an article of...

Yeah, you saw it coming didn't you?

I have to take it as an article of *faith*.