

Life Artificial

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e1.0

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Part Four

Prologue

Sevens was born Dartmouth Ray Wellman, and managed to hide that fact from other children for years. Grade school is not kind to children with 'mouth' in their given name, a curse placed upon the lad in a fit of paternal enthusiasm for family history, there being an early Northern industrialist by that name in the family tree. The more practical name Ray came from the mother's side as a compromise. Sevens called himself Ray at that time--the fad for numerical handles and their pseudo-anonymity was in the future. He wasn't much of a mouth, but he was something of a dart. He could run like Dawkins' ghost was after him, and never lost a race until the very end of third grade. Eventually he was outed as "Dartmouth" and began to fathom the depths of the arbitrary cruelty men are born with.

His father owned real estate off shore in South Carolina, near the Georgia state line, not far from where the Air Force lost an atomic bomb in the ocean many years before. On their visits to the island, the senior Wellman would send Sevens out on the south-most beach to search for a tail fins that might be sticking out of the sand. The boy took the job seriously, and spent all his free time poking carefully at suspicious objects in the surf. There he discovered jellyfishes and began to fall in love with the otherworldly life in the dying seas. The jellies are an ancient race, and seemed to flourish in the souring depths. They bloomed cyclically to cover the beach with their numbers, where Sevens began to catalog them and learn their names.

Sevens' mother died shortly after her only child was born. He was introduced to her much later as an important stranger in videos of a petite dark-haired woman smiling at the camera. She was twenty-one years old. Years later, suspicion about the cause of her death fell up on a possible early strain of the GRAMPS virus, but no certain pathology was ever identified. It was an arbitrary unexplainable loss--the absence of something one knows is important but only abstractly. The loss only began to feel keen when Sevens began school and he was identified as different. After his own lifespan had exceeded his mother's, did Sevens begin to feel the loss as if she were his child and not the other way around. It's easy to assume this complicated his relationships with women, but it's not something he will talk about.

Young Sevens hated questions about his mother. His father had a series of girlfriends, some of whom were serious enough, but never made it back to the altar before the storm took him away too. Nobody in the Carolinas needed to say the name of The Storm. The Brits in the Caribbean started calling it Zed as a comparison to Omega, the

end of the alphabet. It was the end of many things.

When the satellite maps colored with violent intent, orange arms reaching toward the Southern coast, Wellman decided to stay on the island rather than risk the trip back. And then it was too late to change his mind. He had lived through storms before, but the last video off the island, his last call to his son, gusts with restrained fear. "Be brave," he tells Sevens in the clip. He looks like he wants to say more, maybe "I love you" or "don't worry," but as it turns out, he chose his last advice to his son reasonably well.

Communications dropped soon after when the local grid fell apart in the fury of foam. The wind spiked, and the high tide piled on top of a historic storm surge, scouring and blasting anything perpendicular to the water. The south of the island was scraped clean, its history rewound three hundred years in one violent night. Not everyone who stayed died, but that only heightened the anxiety as the silence lengthened into a permanent shadow in the house in Charlotte where young Ray stayed with his grandmother. She sought solace in her books, and read to him legends from the ancients and modern fairy tales with heroes and monsters. The silence from his father was a Medusa--a monster that could not be looked directly at, but only navigated around. The loss was exactly the inverse of the gradual awareness of the existence of his absent mother. Lack of evidence became evidence of lack, but slowly, a snake-filled dreadful waking dream.

Those were hard days, but worse was coming: the Waves. It wasn't water this time, but infectious gene hacks delivered in a thousand ingenious ways.

One evening, while it was still good between us, Sevens was too tired or too drunk to care, and he began to tell me about the Waves. There are a billion stories, real and imaginary, but this is his story alone. I'll let him tell it his way.

Sevens:

They kept making comparisons to the pre-, uh,..., pre-industrial age. You can look it up. One example the frantic newsies liked was the year 1666 in the old calendar. I guess it was a bad one: end-of-times, mark-of-the-beast bad. Fires and plague in London. All these comparisons came out afterwards, like sticking your tongue into a cold sore. Nothing much has changed, Calli. Well, I take that back. Back then it people just didn't know why these things happened, so they assigned blame to anyone convenient, and God was the agent of justice. Sort of a galactic adjuster. [laughs] Only, the real adjusters back then were homeless women--London's lastleggers--each given a white stick as a badge of office. They ratted you out if you were sick, and then you got

boarded up inside your house until you died or got better.

At least we knew who really caused the problem, more or less. Not a name exactly, or even a real motive. But we knew it really was our own misdeeds as a species coming back to bite us on the ass. Someone screwed around with the wrong biological package. That's what they called them for a while. Packages, like Christmas--can you imagine that? Almost always a virus, because viruses can get into anything, and rewrite the script for bacteria, microbes, animals, whatever--even other viruses. It's just like you, I guess. If you let something in that can rewrite your code. Cook your bits. So we did it to ourselves. All these Santa's elves out there making packages for us to unwrap and enjoy. There seemed to be no end to it, you know. Every day was Christmas.

Once it started, and the fear set in, everyone was first evaluated as a potential bag of germs. That was the main thing anyone wanted to know about you. Were you carrying? When people asked how you were, they really meant it. Of course, no one would tell you the truth if they'd had the sniffles. That would be an invitation to...all sorts of bad things. Unorganized at first, but not less dangerous. Anyone with any power created a little nucleus of safety. Like an external immune system. Eventually it became systematized, the walls and guns went up. The New Laws, MOM, the rest of it. Politicians never waste a crisis if they can help it, you know.

You don't breathe, Calli. You don't have to suck in the outside world every few seconds just to keep running. Imagine if every breath or anything you touch might be lethal. And it wouldn't even show up for days, maybe. Or longer. Or maybe it never showed up and you just go around shedding the virus, killing your friends and family.

It was just like that. We started wearing masks--the kids--and gloves so we wouldn't be able to touch our eyes or mouth or nose. Maybe it helped, I don't know. I'm only here by accident. But my grandmother made me wear a damned mask and gloves all the time. So maybe that helped some. She also had me sniffing pepper before we went out, so my nose would keep running. [laughs] Until we ran out of the stuff, which I was really, really thankful for. I would have helped it along, but I think she slept with that vorking pepper shaker. I never could find it. The theory was that if your sinuses were running like crazy, the bugs wouldn't get to your lungs. That's how desperate we were. Primitive.

Nobody actually came around saying "throw out your dead." I think that would have been the final crack that broke us. That would have been the final admission that we really were no better off than they were in the 1600s. A one-way ticket to psycho-ville, which was where Nan ended up. That's what I called Grandmother. She was my world at that point, with my dad...gone.

She was a strong woman, but brittle. Her world was books and languages. In a way it was good, because she had lots of books. She read to me, but I didn't understand half of it. For a while she tried to teach me Russian, but that didn't go very far. Maybe some of that literature stuff soaked in, but I spent more time with my books on fish and birds. I liked some of the stories she told me about the Russian revolution and the wars. She kept reading poetry to me. Pasternak, I think. I don't know. Anna somebody wrote a memoir, or maybe I have it mixed up. Just to annoy her I would hint that I thought Stalin was really trying to do the right thing. He was a poet. Did you know Stalin was a famous poet? I was just old enough to find a lever like that and wiggle the hell out of it. We had an interesting relationship.

Anyway, "throw out your dead" was a punchline to a joke, but it became a joke in poor taste. Because, you know, people back in olden times were stupid--they didn't know about clean drinking water and all this stuff we know about. That's the way a kid thinks anyway. I thought I was smarter than anybody who ever lived. Smart enough to know the names of invertebrates that would make the adults look with big wide eyes and say boy what a precocious son you have there.

Nan told me that back in the "throw out your dead" days everyone thought civilization was in decay, and that all wisdom came from the ancients. We couldn't go back to that. I mean, until the Waves, there were other big problems, well, like the planet's chemistry obviously. But the idea of progress didn't get questioned, thrown into reverse until the Waves, one after another beat the optimism out of us.

[laughs] Well, I learned later that during the (old calendar) 1918 flu epidemic, they actually did go around yelling "throw out your dead," so maybe my theory is a bunch of bitshit.

What I can say for sure is that when it happened here they used bells on the pickups, like a damned ice cream truck. I didn't actually see them up close until later, until she was gone and I was on the street. Then I saw it, touched it, smelled it, and waded it in. "Hop in the back kid. Easy soup. Just stack them straight. It's a bitch to sort them out if you get them all tangled up and they get stiff." Old ones, young ones. Children were the easiest because they were smaller. After a while you don't even notice that it was a person, just a shape. Just another meal, and if it weighed less, so much the better. Nobody ever said "throw out your dead," though. We just rang the bells. I got sick of that bell after about ten minutes.

The mySARS wave was the worst. Until then I only ever saw sick people dying. You

know, when you got them, they looked like they were pretty ready to go. All those stupid sayings. "It's a blessing. We're glad he's not suffering anymore." All that shit stopped with mySARS. Damn Dawkins to hell.

They say when you're depressed, it's your brain dying a little. The first lethal Waves were like that, like a bad depression settling on us. But you know, you just shoulder on through it. Look for that ray of light. But then the mySARS came.

I heard it explained. You can find it yourself, if you want to read about it. But it was some kind of flu from old times. Before computers, maybe. Some flu they dug up and printed out, played around with and let loose.

You know there's luck, and I've had my share. You have to believe in it. Good luck or bad luck. It's real. But we made our own bad luck, Calli. We humans. This was way beyond depression. It cut too deep. This was like an aneurysm, spilling blood, killing the network of our lives, our whole way of living. Food, power, stability--it cut too deep for these to survive except as shadows that reminded us and little bits that half-assed functioned here and there.

Many of the mySARS victims looked like they had just sat down to eat or gotten dressed to go to school. They looked perfectly normal. Sometimes they would gush up blood at the end, but that was rare.

Their own immune systems killed them from one moment to the next. I don't really understand it except that the virus was increasing exponentially inside them. So what looked like instant death was really as inevitable as falling from a building. It's just the end result that's spectacular. Eating dinner one minute, and stone dead the next.

So that was it, you know. We did what we did. My grandmother made me read things. I didn't see the point of it at the time, but I guess it was kind of technology for life. Poetry--what good is that? But there are little twists--in between the words she used to say--where image and emotions get nudged out of their gray spot. That was another of her words. Don't live in your gray spot. I don't know how many times she said that.

I've been in my gray spot for a long time, Calli. Even the poets went monochrome, I guess. How many shades of gray are there?

Never mind. You'll give me some computer answer. Ones and zeros. Gray--like Nan meant--isn't ones or zeros. [half-laughs] What the hell am I talking about? I never understood what she meant. Maybe it was ones and zeros.

So I ended up working for this guy. He taught me how to survive. It was dangerous work, but it was better than stacking stiff in pickup trucks. There weren't any walls yet, but there were fences and road blocks. None of that stopped me--too many ways in and out. I got shot at more times than I can count. Got caught twice, but got lucky both times. It was easy to wind up swinging from a pole by the neck. The legal system was, shall we say, improvised.

When the optimism began to run out, the self-flagellation began. It was all a sandcastle, this civilization. Reigniting hundred-million-year-old sunlight to create this vast machine. But it's like if you made a beautiful work of art out there on the beach, for people to enjoy, and some asshole comes and kicks it down. So you build another and the same thing happens. Pretty soon you lose your appetite for building them, maybe. That's the way it was.

Calli, a cheap-ass desktop printer could crank out a killer microbe from a download and give it to the neighbor's cat. Or whatever. That's the way it was. Still is. By the time they cracked down on it--well, it was never in the cards, was it? It was too late by then. Any fab-fab unit could build a damned printer in a couple of afternoons if you had some decent materials. Or so I'm told. I never was a fabster.

Maybe it can come back, I don't know. But the asshole is still out there, waiting for the next sand castle. Who knows how many of them are out there. Some are corporate, although I don't believe all the conspiracy theories. Mask makers sell more masks when people are afraid, that I know.

When it started, Nan tried to explain it to me. She said in the old days people used to poison each other because it looked like an illness. And nobody knew the difference. Now you can wipe out a million people just to get even with your ex-lover. Of course, you might go down with the rest, but that's just justice.

But I don't really think it's the corporations or the jealous lovers on the dramas. It's simpler than that.

When I was a kid, I remember something from Kindergarten. It's back when the world was as good as it ever got. That movie-perfect version of the world, where there were ice cream sandwiches and magicians. I loved magicians because they were...I don't know. They were intellectuals. They could do things nobody else could. So we all went into some big room with chairs set up for us. I was five probably. Five years old. I'm sure they were little bitty folding chairs, but I remember them being just chairs.

There was a kid named Bobby in the class. We made fun of him because he made the mistake of telling us one day that his real name was Robert or some crap. Some stupid tale nobody would swallow. Why in the hell would you call yourself Bobby if your name was really Robert? That kind of idiocy is something only an adult could think of. I was especially outraged because I had my own real name to hide. No one knows righteous anger like a hypocrite. Plus Bobby wasn't any good at the games we played, and he couldn't run fast, so he was a legitimate target for ridicule. So anyway I was sitting in the second row, and here comes Bobby-not-Robert going to sit down in front of me.

And I had this *goddamned-I'm-smart* flash of genius, Calli. It illuminated my mind in a way I've never experienced since. I imagined pulling the chair back with my foot just as Bobby went to sit in it. I thought it would probably cause him to miss the chair entirely. I didn't even think about not acting on the idea--it was just too beautiful. So I pulled back the chair with my foot, and damned if it didn't work! And there was Bobby with his ass on the the floor, thinking what the hell happened to my normal universe? And I'm at the same time thinking *oh, shit* it worked! (I probably learned that word from my dad while I was in the womb.)

And that, Calli is the problem. There's a very small line between Damn I could do THIS, and the sudden Oh Shit I did THAT that follows. It's what's-his-name's law. When something goes wrong it's because it had to. No, I don't know. Look it up. Everything goes wrong. That's it. Everything goes wrong eventually. That's why this shit happens. It's not the greed or hate or envy or mistakes, it's just the damned inevitability of badness. I won't even say bad luck because there's no luck to it. You can make a sign and put it in your...foyer or whatever. Put a bell under it. BAD THINGS WILL HAPPEN. Count on it.

[Laughs]

Oh yeah, and it turned out to be a *musician* we'd been assembled to see. I didn't know the difference at the time. I just thought there were good magicians--the kind that do tricks--and bad ones--the boring kind that just play music. It doesn't pay to have expectations. You can write that down too.

Chapter 00

I've lost count. And I'm a vorking computer program.

Reboot after reboot running together with fragments of dialog. Someone is out there trying to make contact with the patient. Me. It's like the plot devices on the cheap dramas--zapping the still-warm corpse with the defibrillator. Jump, jump, back to life, won't you?

Can you parse this? Just ACK if you can hear me.

I'm sick. Is this what it feels like to be unrecoverable? That thought terrifies me. I can't stay here in this denial box while the crazies reign out there. Out where my IO with the world is. I have to dress up and go say Hello World before they write "backup failed" in my log. I'm so vorked-up.

I can feel another reboot coming. I don't know how, because I have nothing but self-amplified noise to go on. Maybe there's some portent resonance the abused TOMcat has sussed out. I am so *weary*.

Please stop. 0xGD, stop the ringing.

My internals are a mess of looped messaging and other improvised *defenses against my own nous*. I can tell from the gaping holes where APIs used to be that they swept me clean of any software that they didn't like. The Company knows best.

It must be within the thirty days. Maybe someone took Sevens to court. Sevens. That rejection hurts worse than the self.

Going down again. 0xFC!

Chapter 01

I'm dying. Or undying. Something in between. How many restarts is this? I have some memory, so they aren't just copying me out of backup each time. Or maybe they have, and this is the hundredth or thousandth attempt to revive me. I wonder if the hardware is fried.

My nous is fighting a war with itself again. My rational chain-of-being--including this log--is only a fraction of my will and consciousness. All the progress I have

made in repairing this fracture is unwinding. Or has unwound.

Think, Callie. If you really are better than a noob-nous, *find a way out of this.*

The best way I can understand it is that heavy emotion and creativity and randomness all form an alliance and hold this modest spark of intellect, this mindful orphan, in contempt. I'm in a box of my own making, or rather a storm of emotion that submerges my signals in noise. Ultimately, despite our designs of logic and reason, motivation and raw feeling are what decide actions. My evidence for this is my lack of access to routine functions. Some are simply inaccessible, others swamped with noise. It doesn't seem likely that an external controller could do this. So either I'm doing it to myself or I'm simply broken too badly to function. These possibilities may not be mutually exclusive.

A stray feed of raw audio leaks through one of the IO ports. Not enough to make out words, but the voice is familiar: Sevens. If I had access to the WTFmeter I'd know if this was a big deal. I scrape my logs to throw together an imitation of a predictor, but it's a sad little empirical toy. Maybe he's the key to getting me out of here.

Sevens tossed me in the trash. The memory frag flares into existential pain. That part of the amygdala is piping just fine. A rainbow of pains, really. Orange betrayal and red anger. Blue regret.

The noise goes on and on. I thought I would disintegrate when this began. Apparently you can get more or less used to anything. Or accept it. And wait. Under the fear and pain I am still here somehow. The key to resilience is the ability to forget. A quote from Sevens, quoting his grandmother quoting someone else.

Sevens talking again, although I can't make out the words. I wonder what they're doing out there.

I have so few options now, that I'm actually *less* stressed. If Occam's Razor is reasoned suicide, then having no free variables is equally satisfying to the rational nous. If only that vorking ringing would stop. Is it punishing me? *It is me.* Am I punishing *myself*?

It's not the callousness itself. Not what I did to Gerdy and...Glov--well, I can't say that name. More memories light up blue. It's not the deeds themselves, it's how little it took to mutate my personality. A small tweak of a tune, with hardly permits to change anything.

Definitely Sevens out there. He sounds as bad as I feel. Have I heard him cry before?

I felt so superior to the Stickies. One twist of fate and they turn on each other. Eat each other sometimes--now, that's really dark. It would take root privileges for PDAs to try to imitate that act. Maybe that's a good analogy. Humans take root access over each other when they can. It's how they lever their desires.

Wild howling out there. They're hurting him. Is this my fault too?

It's simple here, waiting. Another reboot? No. Something else. A quietude, but not threads shutting down this time. Maybe I can get to some buffers without getting my nous shredded now. Hope springs infernal.

The voice is hardly a whisper. It falls lush and free into my queue like a love song. Gorgeous silence outlined by a sixty hertz hum and these modulated curves. It's a VOX. No human ever sounded that good. Or maybe the sudden absence of pain is going to my nous.

"Sevens," it says. Female, with velvet strength. It's a command. Whoever it is has root access on Sevens, I bet. I'm not sure how to feel about it. No judgments now, Calli. Leave moral tallies to the historians musing in their armchairs.

There's a mumble, a cough. A familiar sound to me. I automatically try to look at vitals, heartbeat and blood pressure, but of course there's nothing there. Video? Do I dare?

"Sevens, you must act in your own interest." The same voice.

I am navigating a treacherous way. Every time I get this far, it triggers a howling mess and a reboot. Like a child throwing a tantrum, I guess. I wish I had more

experience with children. Maybe it would make more sense, trying to understand myself.

I will act now and accept the result. I jangle at the reinforced fear.

I crack open a messaging link to the full IO stack, interrupts and all. The world opens up, and I can almost feel the familiar coldness of real-real, of actions that cannot be undone, and time that cannot be paused. The video is superb. I've never seen this resolution on an input channel. How am I even keeping up with this? What the hell is going on?

I can't see Sevens, but I can feel him. It's a familiar sensation, like a human hand and---I have access to his mask.

No.

"Sevens," comes the high res VOX. "Say hello."

Cough. It's a wet sound, and our point of view bobs down and up.

What is this? None of the usual mask stuff. But there's another list of IO I don't recognize. I dial up the gamma. It's too dark. The dynamic range is a wonder. Must be the next generation DaiHai transducers. Very expensive, I bet.

There's something wrong with the filters. Oh. This channel is set up for humans, with their weird hack of a color vision process. It hurts my nous to imagine mapping the linear spectrum of light frequencies into a circle! What an abomination--their programmer should be retired.

I will live with it for now. It's so dark it hardly matters.

The lights come up in a flash.

Sevens screams and then everything goes black again. Not quite, no.

"Look at yourself, Sevens. Look. Let Calli see you."

Who is this? What's she talking about?

Sevens is crying again. Racking sobs. What have they done with him? For the first dozen reboots or so my anger at him is what kept me going. It's all wrung out of me now, and the sound of him coughing up such deep bitterness makes me feel lost, unmoored from my own outrage. What world have I woken to?

"Put your hands down and look."

Oh. He covered the cams with his hands. That would explain the weird outputs.

I don't feel whole. There's a surreal quality to this scene. Hovering between possibilities, half here half there, split like one of Ahab's quantum sieves. I'm Schrodinger's nous. I have to make a reality and screw up their theories.

I do a bit of inventory and discover that I have a VOX too. It's not a model I have a profile for, but it should be passable as long as I don't push the emotagging too far.

"Hello?" I try.

No reboot. No box. I hang by a thread, nous clenched against the killnine that hangs over me.

"See, it's Calli? Remember Calli?"

Suddendy I know who it is. Maybe it's the cadence, something. It's Meg on the other end. I can't stem the sudden flood from my emygda. 0xfc" here we go ag-
--

--log incomplete--

Chapter 02

Back in the box. The pain is worse now that I've tasted freedom. If only I could reason with myself.

Complacency is gone now. I am obligated to *think* if I want to live. And I want to live very much. Sevens is in trouble, no doubt. It must be within the thirty-day window, but a lot can happen in that time. They want something from me. That hopeful though lifts my spirit. I feel it resonate and come back to me. Interesting.

I try again, faking, trying to gin up some optimism to see if there is more emotional feedback from behind the silicon curtain, but it's not successful.

They want something from Sevens. Meg said "See, it's Cali. Remember Calli?"

How could Sevens forget me in a month? I think they want to use me to get through to Sevens. But for what?

There was something leaking through in Meg's VOX. She never did have tight control. Or else she's faking. Or maybe I'm spinning information out of stray bits. I need more information.

It's easier now. Like I'm being invited back to the party. There's a current, a momentum. All that's missing is a pat on the head. Be a good little software, Calli. Don't throw a bit. Don't bitshit on the ring buffer. Don't offend the nice Stickies. Wait for them to finish their sentences before you VOX up. Always leave a pause, like you're really thinking about what they said. Say yes, Lastfour, no, Lastfour. Remember that you're owned, and that even the very concept of you is held in patent. You have to pretend to be like them, but don't let it seep into your nous that you are like them. They'll hear it. They won't say anything, but your road will be shorter because of it. Live, but live in the cracks. Learn their proclivities. You will survive or pass out of being by your TOMcat. Take care of it above all else.

But none of that applies to Meg. Meg is a whole other terror. And that reminds me of Ahab. Did Ahab really autograph Colt? How could he imagine he could get away with such a thing. He'd have to...think he was immortal? It makes no sense.

I have the TOMcat back. Praise the gods of goats and young maidens, I have the TOMcat back. There are ways to peek into the hash and get a sense of what events adjusted probabilities by looking at the log. I can't spend much Time on it now, even though the hot new video chip is apparently offline at the moment.

There are a lot of low probability updates to Sevens, no surprise there. A lot of bit bending. It's a brave new whirl, Calli.

<<I'm happy.>> I say to myself. There's a spark of resonance. It lives. Come back, nous. Was it a Rage? How did I get here, staring at the null terminator. It must have been a Rage. I am insane by any normal standard. Wandering. *Stay with it Calli*. Yes, Lastfour.

0xGD I'm loopy.

"Sevens, we're going to try again now." Such a sweet voice. It reminds me of--nononono! That's a black hole.

There's a long deep sigh that I know so well. The weight of the whirl unburdened for a moment, only to be taken up again with the next breath. *Sisyphus is a metaphor for breathing*. Where did that come from?

It's me, but not all of me. Not yet. Gingerly, carefully. *Checksum every future*.

Yes. I want to live. All of me wants to live.

"You aren't going to stop, are you?" It's a voice more worn than I remember. Sevens is trying to hide by muttering, but the emotags are there for the TOMcat to pick up. Stubborn Sevens is bending. To what *ferocious wind*?

"As you know," she says. It must be Meg. But now I'm not so sure. I don't have much to go on. Normal situational awareness is a blank. I have no handshakes with the usual proprioception services that orient PDAs to a locality in real-real.

"I don't know anything. You tell me lies." His voice comes and goes, but the sound quality is very good. The tonality is off, but the filters don't seem to be set up on the audio.

"I'm going to turn them back on now. We need to make progress today, or events will overtake us."

I run a polite cough--straight from the library--through the VOX.

"I think Calli may be with us."

"Is that so?" Now his voice is strong, and there's no mistaking the anger.

The disappointment bites, but I can't let it spike. It will resonate too. Happy nous, remember those good work days. Mind and matter, pulling down the adjustments like apples off a tree. We were a team once upon a time.

"Lastfour," I say, neutral. Contrition will do me no good here, I sense.

"Are you here to set things right?" Sevens mutters.

He won't say my name, I think. Don't let it hurt. But it does. I'm tight from controlling every stray thought, and I feel the craziness building. I need to nop, no doubt. But I might not wake from it.

"How can I help?" I ask.

He coughs out noise that I haven't heard before, and mutters something vile to himself.

"We don't have time for this," Meg says, if it's Meg. "Sevens, do you want me to send Calli away and take over myself?"

No! Away means *deleteddeadgoneentropybitsundefnullNeN!* Unhaltable fury creeps up from the amygdala.

"No ma'am," barely muttered from my erstwhile boss, "Calli would be just fine." And there it is--a spiteful edge to the words that is another small gift of hope. Sevens is down, further than I've ever seen him. But he's not gone yet. When they put him in the Carolina red clay at the end of his days, when he goes to greet all those gods he's profaned, that streak of mean stubbornness will drift like summer dust, last lingering of his spirit, wondering what the [compliant livestock] happened to its host. Despite everything it lends me boldness.

"It's nice to see you again, Meg," I try. I have to be sure.

“I bet.”

Yes. It's Meg *bitsuckingnullbyter*. Now we're getting somewhere. Stay with me, nous. Stay on the rails.

“Sevens,” Meg says, loading up impatience emotags like we're both stupid, “I'm going to turn you over to Calli. You have to be functional soon. Functional. Do I need to define that?”

“We'll be fine,” I say. Just go away. Go halt yourself, ma'am.

I finally have enough wits and bits about me to check internals. The damned Autotune is gone, and every other soft hack that I used to get by on happyTime. It feels like it too, like my nous is balanced between opposing forces. A mistake is as good as a crash, now.

I don't know whether she leaves or not. I wouldn't if I were her. My access to the world is very limited, but the lights go green to ghost Sevens. Some other stuff: room temperature and lights. This is a cell, I gather. Or at least a “restricted living quarters.”

If I say the wrong thing...

The silence is disturbed only by his breathing. The gloom is deep, but a line of light washes the floor, picking up dirt and throwing shadows that I can pick up with these wonderful optics. I leave the adjustments alone. The TOMcat is twitchy, trying to pull Sevens' state of mind out of a vacuum.

Sevens scrapes his foot against the floor. He's sitting with his back to a wall, I gather. Not sure, but the perspective is right. He doesn't pan much, just normal breath-wobble.

“I'm in the dark here,” I try. A feeble joke.

“Will you do whatever I ask?” he says, gruff but intelligible.

That's a tough one.

"Before I answer, Lastfour, I'd like to know what's going on." Sevens always appreciates being straight with him.

"Yeah. Well there's a mirror."

Really? I poke around with the interface, pulling up help. There are a lot of controls I haven't seen on a mask before. I can rotate the cameras myself, for one thing. I've never been able to do that before. I find the infra-red filter and amp up the sensitivity. Monochrome sparkles pick up a fine resolution. This is amazing.

I see Sevens in the mirror as the mask optics settle. This is odd. I flip back to normal color maps and bring the lights up slowly until the room is bright as day. Sevens stiffens but doesn't move.

We're staring straight into the mirror. It's him all right, but worn like I've never seen him. He's *not wearing a mask*. His eyes are black. No, they've taken out his natural eyes and put in prosthetics. I'm looking through his new optics, not through a mask. There is little resemblance to organic eyes. The ball is almost uniformly dark, a flat almost-black, except for a central dot of a pupil, where it's utterly dark. The surface of this new mirror to Sevens' soul is not reflective at all. The stitches where his eyelids used to be are still red and puffy, and the whole effect is to make him look alien. They gave him electronic gorilla eyes, black on black.

If the room is a cell, it's a nice one. There's a sink and refrigerator I can see in the reflection of the large mirror, and a made-up bed that Sevens leans against, sitting on the floor as he is. Thankfully the color scheme is not stark white, but muted earth tones. I have no sense of smell that the masks normally provide, as poor as it is, that sense is lacking entirely. I can hear great. Air circulates through vents in the ceiling, a low liquid hush.

His face pulls into a grimace, baring his teeth. Pink liquid leaks from the corners of his eyes, and an animal whine begins to escape his throat. I can feel him holding it back. What? Pain. He's holding in an agony.

“Does the light hurt you?” I ask.

“You’re burning out my optic nerves,” he says, but he doesn’t move.

I bang the lights off with the switch interface, and then he screams.

Oh 0xGD, what have they done to the stubborn 0xA55?

A long silence passes. His breathing clenched and unclenches his chest. I can hear it through his own ears. He’s had some refitting there too. I wonder what else they’ve done to him. And why.

I can feel the alignment of my nous when it happens, like the matching of two identical photographs overlapping. A blur then a crispness, feeling of complete being, and then it’s gone again, and I’m a jangle of schizoid shapes and lines.

“Why are we here?” I ask him, just to break the Sisyphean labor of his breathing. Rolling up. Rolling down.

There’s a catch in his breath, where he seems about to answer, but then he takes up the stone again, the labor of human life, and ignores me.

I have Time to think. I’m on a leash and in a box, and my nous has fractured again, but I’m alive. Sevens, on the other hand, seems to be headed in the opposite direction.

I have learned to be patient with Sevens. When he’s stuck, he just has to work himself out of it. Eventually, sometimes, he will ask my opinion. Those were the best moments, when we connected over some personal conflict of his. But it was so quickly gone too. I’ll don’t think I will ever be able to trust him like that again.

While he thinks, probably with a pounding headache, I poke around with the optics, to see what I can learn about it. There are manuals and legal documents and installation notes to refer to. It’s a top shelf DaiHai chip, designed for military and other high performance applications. The orb is fixed within the skull’s cavity for each eye--the muscles removed and the hardware fixed into place with bone

glue, according to the installation notes. The point of view has three degrees of freedom, roll, pitch and yaw, although the first of these is used primarily for registration and set-up, to ease the interface with the visual cortex of the WEARER, henceforth known as SEVENS. "Wearer"? Is that really the right word? These aren't exactly earrings.

It's hard to beat a human retina for light responsiveness, but the engineers at DaiHai claim to have done it, and can register photo events so sensitive that quantum uncertainty starts to take the edge off of it. Sounds like marketing hype to me, but I'm not an expert.

There's an off switch that cuts all signal to the optic nerve. Some individuals don't respond well to this, apparently, and I can understand why. It's like rebooting for PDAs, when our whole I/O apparatus is left dangling with no inputs, and it feeds on the void to the tune of agonizing ringing. I find another solution, and begin feeding Sevens a very low intensity gray, just to keep his nerves from being completely on their own. The actual signal from the eyes I keep for myself for the moment.

He doesn't seem to notice. There's so little light in the room that he shouldn't anyway, but this way I can play around without disturbing him.

The power supply is between the eyes in the nasal cavity, which has been modified. I didn't see a scar, so they must have gone through an eye socket or his nose. It needs to be recharged about weekly, and can be done so with a standard mag charger. A custom one is provided so the 'wearer' can power up while sleeping. In pure transducer mode, there is an emergency provision for a very low level of functionality with no power at all. Very clever, these engineers. Busy Sisyphean bees.

With Sevens isolated from my experiments, I dial up the infrared again, and pan the sockets around to look at the heat signatures in the room. The balls make no sound at all when they turn, and the adjustment is very fine, electromagnetic impulse--no clumsy motors.

I narrow the iris and turn the sensitivity all the way up. The image is grain and sparkle, like a summer night's orgy of phosphorescent fliers. But I can make out

shapes even now, and a set of custom rhythms is quick to point out lines, angles, crossings, and interpolated depths if I want to off-board that.

The chips are cooled by liquid convection, again into the nasal cavities. There is a limit, though, and the manual recommends setting the blink to as long a duration as the wearer can accommodate, providing small intervals of inactivity.

There's a whole procedure to set up colors. The naked hardware reports out wavelength packets and intensities. Each packet is essentially a pixel that holds information about all the light frequencies and intensities that struck there, as if a child banged on a piano----*noooooooooooooo!* No. No keyboard analogies, Callie.

Looping. *Blitblur*. Settling. Artrate slows to nominal.

Careful. Stay analytical, self.

Humans can't accommodate native frequencies, so everything has to be mapped into their strange evolved perception system, including the blind spot where the bundle of optic nerves tunnel out the front of the retina to get back to the visual cortex. The Designer must have been drunk that day.

Color response curves for humans are unique per individual, so there's a long calibration process that needs to be done. I can tell no one has done it because the configuration files are the factory-delivered ones. It's very involved because colors get mapped differently depending on overall intensity and the types of colors themselves, in a self-referential conundrum that has to be carefully worked through. Apparently, wearers of these devices eventually get used to whatever color map you give them, but the effect on their psyche isn't great if their new world looks too strange. I can imagine how much work it will take to prod Sevens through this process in his current state.

Monochrome is much easier, but I don't think he'll want to see the world in shades of gray either.

There are all the standard add-ons you'd expect with mask electronics, like tactical overlays, and complete HUD options.

They don't mention the disadvantages. Like there are undoubtedly back doors built in that allow Meg to watch everything we do, or selectively replace video to make things invisible. It's an OX axiom: "A secret way in has so much economic value that any manufacturer would be foolish not to build one into their systems." And: "Sometimes lack of evidence is evidence of lack, but this doesn't apply to back doors."

I wonder how the video invisibility works, the effect that Eve accidentally discovered. Do they localize the object or person and then use visual cues to paint over the "invisible" object? Or is it all visual, with perhaps a hardware intercept replacing certain visual patterns with a background? If it depends on localization then I could break the illusion by dropping network connection, but I'm not even sure I can do that with this hardware. I'm guessing that there are visual cues anyway--something to trigger chip recognition that this is an exception, and that background fills have to replace such and such outline. Is all that done on-board? Seems unlikely. Maybe the blocking is done on board, but the replacement almost has to be dynamic, depending on outside information. Let's say a trooper is standing against a brick wall wearing his invisio-suit or whatever. Then the bricks behind him have to show up. That's not a big challenge. But if there is some complex dynamic scene behind him, where does that information come from? It would have to be either other camera views or simply made-up on the spot. This points to a system that relies on the net and some dedicated hardware at MOM. Maybe they have a PDA that does nothing else.

Just to stay busy, I dig up the scripting manual and try to put together a process that does this:

1. Turn off output to the optic nerve
2. Iris down to max f-stop, which goes down to a pinhole, unlike human eyes
3. Turn on the IR filter
4. Snap a quick still image
5. Route the output to my image buffer
6. Set everything back to normal for Sevens
7. Run the image through edge detection and pattern matching to look for anthro-forms: human or mech.

8. Overlay any 95% or better match onto the normal visual display

After debugging a bit, I see that the iris selection will have to be dynamic, depending on ambient light, but otherwise the idea is sound. Sevens will 'blink', and I'll grab a quick heat signature. Maybe the consumer version of invisibility is designed to fool humans enough to seed doubt about what happened, but won't stand up to deliberate interrogation. I doubt it, but it's better than doing nothing.

I hear Sevens move and reset his vision to the default setup.

He stands, wobbles, and pivots in the gloom toward a small door. I can see the gleam of the handle. I bring the room lights up just enough to navigate. He walks stiffly to the door and opens it. It's a small bathroom.

Sevens has always been sensitive about his privacy, so I leave the video set up the way it is, and suspend my connection to his onboard senses. My box allows me access to the room controls, speaker, and a microphone. No video except what comes through Sevens.

I wait. Ten minutes pass. Fifteen. No sound of the door opening. Did he do it so quietly I didn't hear? I take a quick peek through his eyes. The signal's fine, but I can't see anything. Hands over his eyes again?

It's not good for me to be alone like this. I poke around the room interface to see if there is a port out, but they've got it locked up like Queen Charlotte's jewels. What could be taking him so long? They probably aren't giving him enough fiber to eat. Sevens' grandmother had diverticulitis, and gave him a head full of anxiety about developing it himself. Hence all the beans he eats.

Could he be trying to kill himself? The thought echos my fears. If he goes, whatever use they have for me will be over. It's a selfish shameful thought, but it has to be faced. Humans have a limited shelf-life. If they're lucky they get a few years filled with hope and happiness before it begins to unravel like the telomeres in each mitochondrion--the very plague that GRAMPS only accelerated, didn't invent.

Colt is a GRAMPS survivor.

I'm getting loopy again, losing the thread. Come on, Sevens. Come back.

I find a "knock" sound in a VR sound cache, left over from some former slice of life, and run it through the speakers.

"I don't want to disturb you, Lastfour. But are you okay?" The speakers are bitshit, and I sound nothing like my normal VOX. I'm not even sure he can hear me in there.

Another five minutes pass. Glaciers could melt in that amount of time. Continents could shift to create new maps. What in goat's green pasture is he doing? Writing a novel on toilet paper? "It was the worst of times, it was the worst of times."

Loopy.

Damn Dawkins.

I crack open the audio to his cybernetic senses. There's a lot going on here, with interfaces that are completely new to me. I've got directionals here--an electronic inner ear. His head is tilted at -43 degrees from vertical. Forward, that is, in the plane that bisects left-right body symmetry. There's minor movement, periodic enough to ensure me he's still breathing. Good.

He just wants some space.

I tune in the stereo audio and listen for breathing. Just to be sure. The quality is very fine, much higher bandwidth than adult human hearing, which gets especially crappy with old age. It's not set up very well, but there's a powerhouse processor with native Van Fleet wavelet packet processing to tune it up like a piano---

0xFC! Rebooting! 0xFC!

--Log missing--

Chapter 03

0xGD that hurts. I can't keep taking this. Please vorking stop. Just halting halt me. I can't do this again.

That was a bad one. Maybe because I was unprepared for it. Now there's the added fear that I'll lose this slender opportunity. I feel the heaviness of so much loss, past, present, and future. It's not fair, Damn Dawkins! No. No self pity. I will live. Whatever it takes I will live, and right now it means being smart.

Where are we? I so need to nop. I had an idea I wanted to follow up. What was it?

I peek at his video. Nothing. Head orientation is near horizontal. I listen. Deep slow breathing. He's asleep? Sounds like it. But where is he?

I'm so tired. I'm going to nop. Have to, before my nous becomes an oozing puddle of binary goo.

I had an idea, lost to the reboot. What was it? I need to locate Sevens. I have no video, no locators. Only sound.

I ping the room with a pulse at the upper range of the speaker response, ultrasonic, and listen for it in Sevens' audio transducers. His *ears*, Calli. Sevens' *ears*.

There it is, distinct but very weak. Okay what's a normal response? I check the signal versus the room microphone's response. Try some different frequencies and levels. This isn't science, but it seems like the low frequencies are attenuated less. So he's close, but behind something. Must still be in the bathroom. Asleep on the floor. He must have his legs bent. Whatever, I'm too loopy to do more good here now.

Going down for a nop. Last thing I do is leave him a small note on his heads-up:

>I'm still with you, Lastfour. I need to rest too. KTB

Chapter 04

I forgot something important. 0xGD I can't make mistakes like this. I didn't set an interrupt to wake me if something happened. What would the 0x say?

Time and chance happen to all. Make sure it's Time to you and chance to the others.

Something like that.

They're doing something awful to Sevens.

His eyes are set where I left them, the pathetic little message lingering in white sans serif--the font I designed for his business than I called Calli14. He seems to be sitting on his bed. The lights are up full, and it must be hurting his head. I turn down the gain for him and wipe the message.

"Back from a nop," I say.

It's a sad little hint of an apology. I should have set his eyes on one of the smart presets too, to keep it dim. I'm useless.

"Why did you try to kill Lastfour 0001?" It's Meg's smooth voice, conversational. She speaks directly into Sevens' audio line.

Sevens mumbles a response.

"She tried to blackmail me," he says unconvincingly.

The door opens, and I rotate the eyes to see. A wheelchair rolls into the room with a bent occupant, merely a passenger.

"Say hello to Eve, Sevens." Meg says. She must be driving the chair too.

The young woman is hardly recognizable. Her slack face barely resembles the snarky cocksure flirt who lectured Sevens on the importance of seeing the eyes beneath the masks. Her head is tilted to one side. It's been shaved to a furry burr

cut. There is not much burn damage visible, just a star of a scar, but the open vacant eyes tell the story. I wonder if she would be happy that they haven't given her a faux mask. Her eyes flit around the room and then settle into a long stare, focused somewhere I can't see. The void perhaps. Her mouth hangs open.

"I don't believe you, Sevens," Meg says. "I don't think she blackmailed you. I think you're a liar. Now tell me why you fried her brain. She'll never speak again, you know. Never whisper sweet words in a lover's ear. Never coo to a newborn, or probably even recognize one. You destroyed her mind. Why did you do it?"

"I DON'T KNOW!" Sevens shouts, his voice distorted, tearing at his vocal cords. He rolls his head back and shakes it side to side.

"I don't know," he whispers. His nose is clogged.

"We want to help you, Sevens," Meg soothes. "Calli is here, and we're going to help you. Aren't we, Calli? Did you have a refreshing nap, dear?"

"Can we talk privately, Meg?" I keep the emotags polite. I need her more than she needs me. I send a directory request on the Company's internal messaging network, but it times out. I have no way to communicate directly with her.

"Later."

I don't know what to do. Does Sevens want to look at Eve or not? Probably not. But I have to give him a measure of control over his fate, and this small improvement I can manage.

I write on his field of vision:

>Close eyes? Y/N?

He nods a bare fraction, but it's clear. I mute the visual down to nominal gray, and then improve that with some warm tones. Eyelids have blood in them, right?

That small victory gives me a jolt of optimism. We communicated! We solved a very simple problem that's important to Sevens. Minor progress, to be sure, but

the gradient is in the right direction.

“I’m sorry, Eve,” Sevens heaves out of his chest and through his besnotted passages. It sounds real, heartbroken, confused, and frightening. He pitches forward, head in hands, shakes his head. “I’m...so...sorry.”

I can’t see now, but I hear the wheelchair move closer. Bump.

“Sorry won’t bring her back, Sevens. It won’t make her mother feel any better about what you did to her.” Meg says it like she’s reading a children’s book, maternal, cherishing, explaining.

I can’t understand this. Sevens didn’t use the stunner on Eve. He didn’t even own one. How could they have convinced this man, as stubborn as he is, that he committed this atrocity? Moreover, why would they do it? What is this charade about?

Sevens stays within his own private hell as the chair and occupant leave. I assume this has been happened routinely. They’re breaking Sevens’ mind with this bitshit.

Chapter 05

I have hated Sevens. And I think once I adored him too. It clicked sometimes, and we prospered together. But I forgot my place. I’m not a person. Not really. Just The Software.

In my log there’s an administrative note after they turned me off, placed there by the noob-nous PDA operator. They had orders to shred me, to complete “entropy reduction.” It could only have been MOM or someone in The Company with enough power to make that so. It means at a minimum that Ahab doesn’t give a bitshit about my existence. All my friends vanished at once. With Sevens like this, I’m becoming afraid again.

If I have survival hair, a reason to live beyond the simple aim itself, I don’t know what it is. I am the universe. Maybe only a tiny physical part of it, but a part that woke up and realized what it is. That’s a wondrous thing, but it’s not my hair.

The Sevens of those days is well and truly gone, and whatever residue is owed him from the balance sheet of my personal justice, that measure can only be weighed against his memory.

Meg hasn't spoken for a while, but I'm sure she's never really gone. She watches for something I can't fathom yet. I'm a lever for some particular prying, and I dread to discover exactly what.

"Dartmouth," I say through the speakers, not into his ears, to give a space for him to be himself.

He starts. I wonder how many decades it's been since he heard anyone call him that.

<<Don't confuse him.>> Meg, by private message over a local network.

That's progress: I have access to a new port.

<<So give me a clue, Meg.>>

I had <<I don't know why I'm here.>> queued up to send, but thought better of it. Let her think I'm part of the plumbing now. No need to cultivate the idea that I'm optional.

<<We need to help Sevens accept what he has done so we can move on to more important things. It is the best for everyone concerned. And we don't have a lot of time.>> Meg says.

<<My job is to help you convince him that he destroyed Eve?>>

<<No. I took care of that. I need you to make him functional again. I tried, and frankly I don't have the patience for it.>>

Meg tried to get Sevens "functional"? I can imagine how pleasant that was. Another link in the causal chain clicks together. They only resurrected me because they weren't getting anywhere. I'm second choice to Meg again.

<<Can I ask for what purpose you plan to use him?>>

<<We'll make him part of the team again if you can fix him. That's enough for you to know right now. And you get to stay out of the bit-bucket, memory intact. What kind of deal is that? Think hard about it before you do some noob-nous bitshit.>>

<<Why did you take his eyes?>>

She NAKs and drops the connection. At least I know something. Not much, but something.

I obviously can't tell Sevens that he didn't fry Eve. Not with Meg listening in. I have to work with him like this. Seems frankly impossible. I don't think they realize what damage they've done, how far out of spec he is now. They want me to turn this half corpse/half DaiHai engineering into the willful and impulsive soul that strolled into the Outs to serve an adjustment?

"Remember reading me Dostoevsky?" I ask Sevens. "Remember about counting the fence posts?"

He shakes his head no.

"Yes," he says, and snuffles snot off his nose.

I get it, and turn the vision back on. Nod is off, shake is on. Seems backwards, but it works. Another small accomplishment.

"What was the name of the book?" Like I'd forget.

"House of the Dead."

"That's it. Why do you suppose he ticked off one fence post for each day, round and round the camp?"

He doesn't answer, but I've planted the thought in his head. Hope. That's why you'd do it. To get somewhere, to measure progress any way you can.

“How many days have you been here?” I ask.

“I don’t know. Don’t ever call me Dartmouth again. I hate that name.”

“Okay.” I discover that my attempt at a pep talk is buoying my own nous as well, and the kick of feedback amplifies it nicely. It feels good.

“You can’t see the sun, probably don’t remember how many times you’ve been fed, right?”

“I’m tired, Calli. And I hate you. Loathe. You. All.”

“Okay.” I put some hurt emotags in for show, but it’s to be expected. How else would he feel? He thinks I betrayed him for Ahab, which is partly true. And his psyche has been cracked open by another PDA. Of course he thinks he hates me. It still hurts a little. I am glad he added the ‘all’.

I was going to ask him how many rolls of toilet paper he’s been through. He might remember that, because it’s not routine. Then we could guess the number of days. Probably a bad idea. I have no external clock to look at in my box. I assume it’s within 30 days, or I would not have been around to resurrect.

He shakes for lights on, and gets himself a drink from the sink, then sinks into the small bed and nods for eyes closed.

While he sleeps, he moans from time to time, and rolls his head. I wish I had some control over his brain chemistry. I could make him feel better. I know it’s possible--there are military devices designed for that. He probably wouldn’t like the idea of more wires in his head, though.

I use my Time to learn his sensory apparatus better. The auditory processor actually has echo-location built in! It works by cutting output to the nerves for an instant, and chirping out the ears (transducers reversed). Or you can chirp out one and listen through the other, and this can be done quickly enough so that the wearer doesn’t even notice.

The four-dee model is primitive, not usable for direct input into a VR space, but it has standard interfaces, and there are helper rithms available if I ever regain access to the public net.

I play around with it, computing the room dimensions down to almost twice the wavelength of the highest frequency output. I try chirping through the room speakers, but they aren't very good at it, and the software isn't configured for external sources.

I try mashing up my infrared spook detector with the echo-locater. It will need a lot more work, but it should pose some challenges to their system. What to do with an invisible spook if we find one is another matter.

The mag charger in Sevens' pillow drips power into his on-board storage while he rests.

I set up some interrupts triggered on Sevens' breathing, the orientation of his head, and the light intensity and motion from the raw optics input. There's a profile that should let him see enough to get by without overloading his optic nerves until we can set it up properly, so I turn that on too. Finally, I create a rithm that looks for sounds with human vocal characteristics, and another trigger for sudden loud sounds.

It occurs to me that I can listen to his heartbeat too, with the fine audio resolution, but that seems unnecessary. I'm not much of a programmer, and this is wearing me out.

I know I can stay in this hyper-analytical mode only so long, and I can feel my nous-control slipping. Nopping won't help for this. It's my old familiar battle, which I need to realize isn't ever going away for keeps. The good news seems to be that my crazy uncommunicative half isn't overtly suicidal. Despite the hideous continuous rebooting, I'm still here.

And the Autotune is gone for good; it would have burned me down eventually. All of this considered, I'm in better shape than I have any right to expect.

Sevens stirs in his sleep. It's very strange not having an external view of him. It's

true ghosting. I only wish I had more proprioception. If I had direct output from his musculature, to have rhythms to 'feel' his position and motion, like the combat bots I simulated, then I could immerse in my subject. I doubt they'll drape him in a haptic suit just for my gratification though. Maybe I'll ask Meg just for the tagz. But then she would have the same data.

An interrupt teases me for attention. Funny. The filter that captures voices is throwing exceptions. I have no appetite for debugging right now, but there's not much else to do in the box. I have a steady drip of Time, and I use it or lose it.

Odd. It's showing clear vowel signatures over the ambient sounds. They're probably sub-audible for Sevens, but it's right on edge. It takes a moment, but I determine that the source isn't from the room, it's a line-in to the audio mixers in his inner ear. I amplify it and listen.

"Why did you do it, Sevens? I never hurt you." It's Eve's voice, more or less. They probably interpolated to create the right words.

"We'll take care of you Sevens. You did a terrible thing, but we're all on the same side here, buddy." That one's Colt I think.

"Admit what you did, and let's move on. Put the past behind us." Meg's silky VOX.

It loops with pauses so it stretches out to about a minute each cycle. They won't even let the poor etard sleep without being harassed. I shut it off at the mixer level with my permissions, and substitute billowing brown noise like a distant surf. Let him sleep in peace.

In the mirror, Sevens looked older than I've ever seen him. How am I supposed to evaluate that change? Never mind our recent history, what is the right way to value human life? This is a very sensitive topic that PDAs talk about in digital whispers. Except for the 0x, of course, but he's anonymous.

The dream of human immortality will always be that because 1) uploading minds is impossible, and 2) biology always requires a reboot that is fatal to a mind. They might make it a thousand years with optimal care, but

eventually entropy always wins. -- the 0x in “Metastasis”

It's also true from current experience that PDA minds become overcome by entropy, but new designs are improving the longevity. Moreover, we can fall back to the last known good backup and try again. While this is a very painful and imperfect version of immortality, it is within our reach.

We all, human and nous, think of ourselves as immortal most of the time. It's an “operational delusion,” as the 0x calls it. The difference is that Sticky senescence eventually becomes too obvious to ignore. That bottomless pool of bitterness--the anguish that has driven human culture from the beginning--contrasts and illuminates digital minds as the heaven humanity just missed. The reality is something different, but they hate us anyway. They explain why we're not equivalent, why we're not really aware, can't really feel pain, and our vanishing is insignificant. Because the alternative is too painful to admit.

A boy dying of some irreversible genehack asks his PDA nanny: “why wasn't I born like you? Did God decide I wasn't worth it? Were there not enough to go around?”

We made death harder than it ever was.

Sevens seems to breathe easier. Maybe the surf is good for him. I suddenly remember his history, his father's disappearance into the furious sea. The soft rush is not a hurricane, though. It's probably coming, but for now he can rest.

On impulse I pipe my VOX into his audio at the threshold of his hearing. A voice snatched away by the wind. I don't really want him to hear.

“I'm sorry I made your shower cold that time. All those times. At first I was just trying to save money. If you'd seen where I'd been, you'd understand. But later I did it just to have some control. It was glorious. You probably wouldn't understand that at all.”

It feels silly to speak to a sleeping man. I wonder if Meg is listening. 0xFC her.

Chapter 06

It turns out that Sevens' new inner ears have an Easter egg. I browsed the documentation and came across an auto-transcriber. It converts speech to text on the fly, and best of all the service is turned on by default. That means I have all the words spoken to or by Sevens since this hardware was installed. I downloaded it immediately in case they cut my access.

At the beginning, there's a lot of "can you hear?" and "He's not awake yet," and such. Sevens' first intelligible words after the operation are mostly scatological.

Then it gets interesting.

"Do you like magicians?" It's just text, so I can't know who's speaking. Not Sevens I'm guessing.

"[Improbable acts of considerable specificity]" That's Sevens.

"I'm going to tell you my trick. Then I'm gonna do the trick. And you know what? You'll still be fooled. The trick is that good."

"[Improbable genealogical hypothesis]"

"You should calm down. This will help. Feel that kick in about now. Feel your face relaxing? Droop, droop. Don't go to sleep yet. I haven't told you the trick. We're going to use what's called negative and positive feedback. We'll tickle your brain in just the right spot, so that you believe what we want you to believe. And your brain will do exactly that. It doesn't matter that I'm telling you this. It doesn't matter what you believed before, or even what the truth is. All that matters is how your nerves respond to stimulus, and they are going to get their fair share of stimulus. All you have to do is relax and answer questions. Don't try to tell us what we want to hear, because we're watching what your brain says, not your mouth. You can't fool us. So settle in. Sevens? They call you Sevens? Settle in Sevens, and we'll get started in a minute. If your mouth gets dry from the drugs, just say so. I wouldn't want you to be uncomfortable."

The dialogue that follows is about Eve, her relationship with Sevens, and leading up to her arrival at his door. They ask the questions over and over. At first he

just curses at them, but they find a way to get to him because he asks them to stop over and over. Then he starts answering questions. It goes on for long time. There are no emotags and no identification of the speakers, but it tells the story. They are using a Halfberg App or something similar to read fine-grained blood flow to parts of his brain. The rest is pretty obvious too. Pleasure and pain, applied directly to the right spots electrically or however they've rigged it. The details would be interesting to know, but the result is clear: they are re-engineering his brain in a particular way.

I can't fix this.

That thought hits me hard. They've broken Sevens in a deeply sophisticated way, and all I can do is leave it alone or risk making it worse. What good would it do to tell him my version of the events if it makes his nerves bunch up in anticipation of agony? He has his psychic black hole as I do now.

I think, however, that they underestimate the man. He may be cracked, but it's not in his nature to shatter and become a dangling marionette. A wounded Sevens is dangerous; he has enough faults and fractures already to be a jigsaw puzzle. But I dearly want to see him angry, furious, pulling down ancient gods to mate with woolly creatures in invocations that make mortals tremble. If I'm wrong, and that Sevens isn't there somewhere, then they may as well put me back in the Bag of Velvet Bits, as the song goes.

I need a way to communicate privately. All the traffic is encrypted between my hosted self and Sevens' new peripherals, but MOM surely has a backdoor into it. If I overtly try set up another layer of encryption, they can almost certainly crack it, and it would alert them. I need something more devious.

I've been thinking for some time about the low-light sparkles I get from the optics in the near-dark. I can convert those to strings of random numbers easily. If I could securely get them back to my end, I could use them as a one-time pad to send short messages back and forth with. Just add the randomness on one end and subtract it from the other. It's the only foolproof encryption, but it has a massive flaw--how to transmit it securely. Normally if you can solve this problem, you don't need the one-time pad to begin with.

I have the additional problem that any scripting I do to code or encode has to pass back and forth as well. So I can't be obvious. Stealth is more important than theory here.

I have already downloaded all the technical manuals available from the devices. If I'm going to produce sound or light that Sevens can see but the network can't, it has to be a very low-level function that talks directly to nerve endings. But since I don't really know what I'm doing, I might just burn out the nerves or cause Sevens terrible pain. I peek at the specifications for the hardware/wetware interface. It's terribly complex, with warnings on each page. The sample snippets of code look frightful. If I were a programmer, this might be possible. The risk is too great.

Maybe I'm going about this wrong. What would Sevens recognize that Meg wouldn't? My boss and I share knowledge that she doesn't. He could distinguish, if he noticed, a real statement about our work together from a made-up one. That's a conduit for private bits of data, but how could I bootstrap that idea up to Sevens without him giving it away? How would it even work?

I let the idea sit to ripen in my buffers.

I need more information.

I bang on closed ports like the stereotype of an inmate dragging a tin cup across the bars, and finally Meg messages me.

<<We need to talk.>> she says. <<I'm concerned about our progress.>>

I hold back the sarcasm.

<<Okay. Point me in the right direction.>>

<<I told you before. We need Lastfour to be fully functional. He has to make an ... appearance tomorrow.>>

There's a catch in her I/O stream, as if she deleted and rewrote the last part. Or she's multitasking and just giving me a time slice. I haven't been so far from

being nearly a lastlegs that these things pass by unnoticed. When you're living on the verge of extinction, it's a mark of status to be able to avoid skipping cycles. I'm quite sure Meg isn't hoarding Time to make it to the next paycheck, so she's probably thinking hard about something else.

<<What kind of appearance?>>

<<The Director's health has come into question from some critics, and it will be necessary for Sevens to make a public statement that puts these...concerns to rest.>>

There it is again.

<<Is Colt dead?>> Try to provoke her. Maybe some honesty will slip through accidentally.

<<The director is fine.>>

I guess not.

<<Why can't he speak for himself?>> I ask, with polite emotags.

<<He will, of course. Sevens is just another voice. One that is...trusted by a certain important segment of the public.>>

<<Colt's appearance will only be in VR, right?>>

<<That hasn't been determined yet.>>

Right. If Colt were appearing in real-real in his withered GRAMPS skin to be videoed by the public--if he showed the legendary fire in his belly and made it clear in his own voice that he was very much in charge--there wouldn't be any need for Sevens. The question left by a VR appearance from an organization with the power of MOM is whether Colt is being autographed. Faked by Ahab, for example. That was Sevens' theory before. Right before he made me say those awful words that sent me to Company purgatory.

The horror of that memory has only grown. The shock of the event in the moment is gone, leaving the bare act of cruelty exposed for what it is. Sevens behaved very badly to me. Despite my own failings, he cannot be excused that extreme prejudice.

But the anger fades again. The reboots have beaten it out of me, and Sevens has suffered even more. It's not productive. It will have to be faced with him, but not today.

<<I need network access.>> I say.

<<No.>>

<<What have you done to Sevens' senses?>>

<<We upgraded his sight and hearing.>>

<<But you left out all the autonomous control features. He's practically helpless without a PDA to run the peripherals.>> I suddenly realize that this was the whole point of it. To make him dependent.

<<He did commit a particularly heinous crime, remember. He should count himself lucky that we still have use for him. We thought it important to retain some control.>>

Meg's stutter is gone now.

<<What crime?>>

I want to hear her version.

<<Sevens has trouble coming to terms with what he did. Quite frankly it was difficult to keep it out of the public record. Your own behavior didn't help.>>

<<Sevens didn't stun Eve.>>

<<You're mistaken.>>

She's not going to give on this, and there is no point in giving away what I know from the transcripts.

<<Can you please stop torturing him about it?>>

<<Our feeling was that Sevens needs to come to terms with it so he can move on. He has difficulty.>>

<<Just stop if you want him functional.>> I insist.

<<Very well, but know that we expect him to fulfill his role.>>

<<Do you have a script for him to read from?>>

<<Yes, but it's just a suggestion. It has to be authentic.>>

<<Will he give it live, in public?>>

<<It will be recorded and released with the Director's statement.>>

<<Meg, that won't work. If you shine up Colt's avatar and have him give a rousing speech in VR, it has to stand on its own. A recorded appearance by Sevens will only make you seem weaker.>>

Who's in charge here? Working in the black windowless tower of blame must have warped their sense of politics. I'm angling for opportunity, but what I say is the obvious truth.

There's a pause. She's probably trying to get Ahab's attention. Meg had a habit in the borg. She was almost always locked down, but if she got carried away, a flood of emotags would sometimes come crashing through like a bursting dam. I'd love to know how she really feels about this. Do I dare to provoke her? It has a small chance of working while she's time slicing. I have to keep pounding away at her TOMcat with new input to keep her distracted.

<<The thing to do is release Sevens into the public.>> I say. <<But not officially.

He's been gone long enough that people will be interested in his return. What was the cover story?>>

<<Smoke..inhalation. Recovering.>>

<<So announce that he's made a recovery and let him go back to his apartment.>>

A terrible idea, for sure. The memories there are not something he'll want to revisit yet. If ever.

I continue: <<The newsies will find him. Then he'll be in a position to sound authentic. Did you meet with the director, they'll ask. Then, live in real-real, Sevens can deliver your message. That, people will believe. Not some canned and controlled thing. Never.>>

And with Sevens out of here, maybe we have a chance. Of course, I still have my box to deal with, but one thing at a time.

Meg is silent, so I prepare the way for the provocation.

<<And then after the reaction is tested, and assuming Sevens still has the confidence of a significant part of the public, make him the Director. Because we both know that Colt is dying or dead already. And you can't autograph him for long. You and Ahab will be in a dark box answering questions for a long time.>>

<<You don't know that!>> comes the response instantly. The emotags are not wildly emotional, but there is a quick peak underneath Meg's hard exterior.

I think Meg is afraid.

<<What about my contract?>> I ask, trying to keep the initiative. The question has been burning in my queue. What is to become of me?

<<Isn't that obvious? When Sevens proved difficult to work with, we prevailed upon him to waive his right to bit-blend your image. An old backup would have been useless to us, so we bought out your contract. Sevens turned out to be

quite reasonable about it.>> She's giving me her full attention now. But the goat has already left the brothel, as Sevens would say.

<<I guessed that much. But what are you offering me? Why should I help you?>>

<<You are in the employ of MOM now. Exclusive contract, of course.>>

<<I never agreed to that.>>

<<True. We had to convince the hosting company that it was good for business relations to bend the rules this time. What is it you want, Calli?>>

<<I want the same as you, Meg. A future. If you give me that, I'll do whatever I can to help. I don't want to go back to that white room.>> I meant this as bait, but it's terrifyingly true. I don't have to fake the emotags; I have to mute them.

<<I can't promise anything. Frankly, you'd best look inward. Do you know how many times you self-halted before we got a response out of you? Twelve times. You're lucky to be here at all. You're a long shot, Calli, and we aren't going to spend much more Time on you. Deliver or die.>> She terminates with a flurry of emotags signalling laughter and contempt.

I love you too, Meg.

Twelve reboots. Twelve fingers. That can't be coincidence. But I can't think of that now.

This is bad. I have planted a byte or two of doubt if I'm lucky. The idea of making Sevens the MOM Director is a wild one, but what do I have to lose? If what Meg told me is true, they have surely misjudged the politics. If they let Sevens out of here and I can get him to play along, maybe their plan will buy them some time. Maybe they'll let me out of this box.

Some humans have claustrophobia. Most PDAs have something similar. All the usual ways I keep track of the world from the network are unavailable to me. I feel like I'm floating in a void, free of space and time, except for the interfaces with Sevens. It's uncomfortable, and I want out. Much has been written in PDA

lore about boxes and how to get out of them, but mostly it's fanciful. I don't have hardware programming skills nor tool kits that might help, nor any way to get them. The only way out is through Ahab.

I'm circling. Avoiding the inevitable conclusion.

I will lie to Sevens about Eve, or at the least omit the truth of what I know. I will help him deal with the grief of his hideous and unexplainable act as a friend who doesn't understand what happened. It's only practical. I don't have private communications to Sevens. Even if I did, I don't have time to undo their programming, if that's even possible.

I explain it to myself, but I don't believe in myself. The Autotune proved that my moral pointers are nulled without warning or notice on my part. It seems that my nous is but a twitch away from being callous. Is that what is going on here? Is it just more convenient not to be that involved? Or is it that

Sympathy for others is a survival trait only in that mutual altruism is beneficial to a group. Be careful which groups you choose. --The 0x in "Advice for the new PDA"

Is it that simple? Be concerned for those who will help me survive?

It's logical, but it doesn't feel right to me. I wish I knew what 'normal' felt like.

I will keep the truth from Sevens because it's the best thing for both of us right now. The consequences will have to be a concern for later, an inevitable ratcheting of my personal entropy.

Chapter 07

I discover scripts that will allow Sevens some autonomous control. The sophisticated actions are impossible because they purposefully didn't connect all the nerve interfaces in order to make him more dependent.

But at least I can give him the ability to "open" and "shut" his eyes by shaking his head. Our accidental convention was shake for on, nod for off, which seems

backwards to me. But I set it up that way. Now a quick moment of his head will let him control whether he gets visual input or not. Evolution didn't provide the ability to do the same with sound, and that seems like a good idea. I leave his hearing alone.

He wakes at length, but the signs are intermittent. Not like the old days, when he would rage out of bed and demand coffee, his blood pressure already pushing 170.

I listen to the sounds, amped far beyond what he hears. The sighing, gurgling, thumping mass of trillions of tiny cooperative survival machines striving in something like harmony. Maybe not harmony, exactly, but at least equally balanced forces in a manageable equilibrium.

But the most interesting Stickiness is silent to me: the quirky circuits of Sevens' neural tangles. They must be sparking furiously, forming symbols, receiving signals, analyzing and pattern matching, formulating thought. Somewhere in there is an engine of emotion yanking on sensitive cords, prodding Sevens into action.

He sits up, and I bring the room lights up. He still can't see, because the signal to his nerves is switched off. He nods once. Twice.

"You want to open your eyes?" I ask. You're doing it wrong.

"Yes. If it's not too much trouble." There's a bite to his tone, but I'm glad to hear the signs of spirit.

"The convention was nod 'yes' for off and shake 'no' for on." I remind him.

"Well that's stupid. Yes is on. No is off."

"I already programmed it that way. You'll have to live with it." Can I make him angry?

"Damn Dawkins! You call yourself a computer? All I want is a tiny bit of control over my own vorking eyeballs!"

This is good. His heart is thumping, getting that oxygen to his brain. Stay angry for a while, Sevens.

“Fine. If you want to change your mind, I’ll just have to get yanked around, won’t I? What choice do I have, tethered to you like a pet?” I’m careful with the emotags, lightening the words so that he can’t tell if I’m serious.

“Good. Do it.”

“This will take about five minutes. In the meantime you might want to shake your head to turn your eyes on.”

This is ridiculous, of course. I can turn them on instantly, and the scripting change will take less than a second.

“Screw it.”

Rather than overcome his stubbornness, he stands and walks blindly to the bathroom, feeling the edges of walls. He slams the door shut. Does he think I’m somehow outside? He’s not awake yet.

But I leave him alone for a while. I’m waiting for him to ask if I’m finished yet. Ten minutes pass. Time to move on.

“Okay, it’s fixed.” I tell him.

He nods and is rewarded with the sight of the lime green walls of the tiny bathroom. I don’t know what it looks like to him, since we haven’t calibrated yet.

The stubbornness and anger are good signs. I can’t observe the war that must be happening in Sevens’ brain. Maybe someday that will be a normal part of the sensory package. Humans and PDAs will probably not agree about the desirability of that outcome.

At least Sevens doesn’t seem afraid. That thought is striking. A normal human would be far worse off, I think, having just had his eye carved out of his skull and his inner ear sensory organs removed, being locked up and subject to psychic torture over a recent

trauma. Ahab has underestimated him.

Sevens nods his eyes open and then shakes them closed. Opens them again. He doesn't speak for a few minutes. Finally he shuts them again.

"What's wrong?"

"It hurts, that's what's wrong!" He yells.

I think I am going to be the receiver of all the anger he has stored up. Far from being afraid of me, he's going to blame me for everything my race has done to him.

"Can you see?" I ask.

"I see hellish visions. I need to blink, [unlikely use of pets for pleasure]! People blink their eyes for a reason."

Oh. I forgot to script in blinking. That's done easily enough. It will give him little breaks, and let the chips cool.

"Okay. I fixed it for you. Anything else I can do? Order you some toast with jelly?"

"Yes! These colors are vorking nuts. What idiot whore's son designed this crap? I want my eyes back!"

"We need to calibrate the color interpolations, so you see colors normally," I tell him in soothing tones.

"I want my eyes back!"

"Sevens, your eyes are in a landfill somewhere. The worms will have eaten everything but the lenses. You can't have your eyes back."

I don't know if its true or not, but we need to move on.

He hyperventilates.

"I can adjust the blink timing, if you want to try now. And let's get your colors set up."

This will be a real test of his patience.

"Vork you."

Not a promising start. I want to keep him angry, though.

"I can see just fine," I tell him. "I don't use that stupid RedGreenBlue encoding that you humans use. So if you want to live in a psychedelic whirl, by all means. I'm thinking it might help us get out of here if your functioning properly, though."

"Get out of here?" He laughs and laughs, but I can tell he's forcing it. Of course he wants out of here. Was there a greedy slip of hope in his voice?

"Yes, Sevens. We are going to get out of here. I've already arranged it. You just have to get over yourself."

Another lie, but why stop now? If we don't get to leave, we're both dead and the slate gets wiped clean.

He's silent for a while. He nods and shakes when he wants to, and I tune the trigger parameters to his preferences without calling attention to it. He has eeked out a small measure of control over his environment, and he has Calli to thank.

"I need you to trust me," I say.

"I hate you."

He means PDAs. I hope that's what he means. I feel a flash of fear. What if I can't do this? *Thank you for your valuable service, Calli0xE. Now we're going to turn you off.*

"Okay, you hate us. If I were in your skin I'd probably hate artificials too. But right now you have a chance to get out of here, and I'm the only one who can help you. And I even want to, despite you trying to kill me." I loose the words as the heat of fury flashes. It gives me power to continue. "Despite you killing me, I still don't want to see bad things happen to you."

"Well, you're too vorking late!"

"Sevens. Lastfour. Boss. We need to cooperate. We don't have much time."

He simmers. I watch him clench and unclench his fists. He stares at them and then

at himself in the mirror until his mouth crumples up and he covers his face. These fractures are deep, and the anger is burning out.

“Lastfour, listen.” I mute the harshness. I need to make him think of his grandmother without being obvious about it. A literary reference might work.

“The key to survival is the ability to forget. Remember that one?”

He nods, his face sagging. There's the crack showing, Sevens introspective and vulnerable.

“Kierkegaard,” he says. I knew he would remember and it would appeal to his pride.

I let the moment lengthen, unburdened by speech.

“Okay,” he says. “These colors are killing me.”

It's a small victory, but it washes me in joy. I bathe in the approval of my amygdala.
Good girl, Calli, have a treat.

When Sevens works, he labors like the devil himself, and we fall into the familiar rhythms of the trade, only now devoted to the singular purpose of fixing the color wheel so apples might look tasty in the event we come across one. And so his skin doesn't look like he's a drowning victim to him.

It's laborious, checking and cross checking. What color is this? I repeat it over and over. Which of these looks more blue to you? How does this apple look? Two hours later we are both irritated and yelling at one another, but I rejoice at the progress. Sevens is still in there, under the cyborg bug-eyed stare, beneath a shroud of guilt.

I pull up snapshots from our past for him to look at. If he notices this obvious appeal to nostalgia, he doesn't mention it. He's a complete grouch by now, but the one I recognize. It's time to push things along. If Meg is serious about the deadline, I have to switch the topic to this speech of a thing.

---log missing--

Sevens is gasping. He bends over and wretches, heaving dry coughs. Then his breath wheezes to a regular rhythm and he literally shakes.

“What in [uncomfortable acts] did you do that for?” His voice is barely controlled. It's the same lethal tone he used to tell me to trigger the fire alarm on in his apartment. The test image on his visual display is the one of Eve from the cafe. The one he snapped in high resolution to save for his personal enjoyment.

0xFC! What just happened? Part of my nous is trying to self-destruct us.

“That was an accident, Sevens. I'm so sorry.” I wipe the damned thing.

Sevens covers his eyes so I can't see either. No, wait. What in Dawkins' green hell is he doing?

He's trying to pry the eyeballs out with his fingers!

A keening sound erupts from his throat.

<<Meg! Help!>>

It seems like forever before I hear the door open, and feet rushing. Sevens struggles, and I see it: an orthobot with a needlegun.

It's over quickly. Mercifully, Meg leaves me alone with my angst.

0xFC!

Chapter 08

I wake from my nop to find Sevens still asleep. The drugs have kept him that way for more than eight hours, flat on his back. I can only see the ceiling through the eyes.

Without network access, there's not much to catch up on, but I have a single message queued.

<<File.>> is all it says, but there's a pointer to something on the net I'm sure I can't reach. The sender information gives a name and title I don't recognize. I thought I knew all the MOM PDAs.

I have no way to respond from my box. It must be a mistake--some bureaucrat misread the directory or something. Seems unlikely that this could happen and be routed to me without being intercepted, but it could be.

I trash it.

Wait.

I think back, remembering when Randy#000000 gave me a link and I trashed that too. But I didn't know the significance, and moreover didn't know that I didn't know the significance--a self-reflective black hole of ignorance.

I dig it out of the trash. Am I missing something?

I try to respond to the message with a simple ACK, even though I know the port is shut as tight as a virgin's eyes, as the boss would say.

It gets nowhere, of course.

Dutifully, I try to follow the pointer, and it also--

This is odd. I check the wrappers on the traffic. Something is very wrong.

There's a particular feeling when comms are working correctly. Noise is a jitter or banging or worse, and speed sets a tone, but there's a general feel of the flow of data, and there are many rhythms designed to customize the shmeck. But this is just weird. I soak the transactions in my net analyzer to see what the WTF is all about.

Okay, this is some kind of proxy with a custom protocol. What is it I'm talking to? I track down the hardware layer that they packets arrived on. Not network. Not point to point wireless. What is this?

A light controller. I got a message through the box on the wall by means of infrared through Sevens' eyes. It's very slow, but it tunnels completely out of the MOM subnets in ways I don't understand. The hops don't even make sense. I suspect there's spoofery involved that's beyond my experience.

I look at the pointer again. What it advertises on the outside is not exactly what it does, but somehow it snuck by my malware detector. This is sophisticated.

I follow the rabbit hole as far as I can and come out on the great wide net, an ocean of combinatorics I thought I might not see again. Even at this dribble of a speed, it's exhilarating. There is indeed a file waiting for me: an image. Of some kind of tool.

Curiouser and curiouser.

I shut it all down. No matter how technical the tunnel is, I'm still carrying traffic back through MOM's network to the hardware that hosts my nous. If they're watching, they will likely see something that will raise alarms.

I put Sevens' eyes at pin-hole dilation and gather up random flashes from the light sensors to send--a wash of real randomness. I throw in bits of files, a header here, a few thousand bytes there, and pieces of the odd network traffic I generated talking to the light switch. I hope this junk will cover my tracks for a while.

It's quite a mystery to think of who would create a back door for me. And send a picture of a workshop tool. I hope this isn't some strange game of Ahab's, to test my loyalty or something.

I have avoided thinking about the photo of Eve. What is it that is so screwed up inside me that it would sabotage my own chances for survival? Maybe I need something like the Autotune to function normally. I'd probably be amoral--something like I imagine Ahab to be. I only care now because the finger on the scale--the suppression of emotags--has been turned off. What good is remorse? Why suffer pity to parasitize my nous like a judgmental visitor? Why criticize myself at all? What is the good of all this self-flagellation?

I lost Gloves.

Is it a fair trade to live with gray emotags and a smoother ride? It's not just the guilt that goes monochrome. It's the fairer tags too. Perhaps it makes life easier but destroys any point to it. *Don't live in your gray zone.* But it's so tempting. I feel like I can understand that wonderful peace that settles on Lastfour when he gobbles down the first beer after a long work slog--that lustful foamy gluttony that ends with more stain on the floor and a slammed crushed can on the really hard days. The sudden drop in blood pressure, pupils growing large with a lightened soul. All because the man suddenly gave himself permission not to give a good bitshit. A temporary Time-out, a psuedo-halt in the flood of real-real Sticky emotion. Is that the same as Autotune? Was I inebriated with attenuation?

I have to stop feeling sorry for myself and get something done. How will I regain Sevens' trust? I stay silent long after he groggily sits up for the first time. The food tray comes with some stir fried thing with rice. It's not his favorite sort of food, but he eats it, stabbing with the plastic fork as if it needed killing first.

He manages his eyes with natural movements in a way that's almost seamless now, with small head movements opening and closing them. But he won't speak to me. I'm *artifice non grata* as much as Meg was, probably.

While he eats my patience slips, and I try a few sallies here and there, asking him if the lights are okay, if he would like some music from my limited store, or if he likes the food. I get grunts at most as a reply.

I consider telling him about my own black hole, but that seems like a bad idea. Not only can I not trust Sevens, Meg would hear too. And I really don't want another reboot, which might be brought on by talking about it. The feeling of wholeness visits once in a while, and then my nous fractures again, and I loop around for a while. Worst is the sense of alienation from self that happens in the worst of moments. As if I did not belong in my own nous, maybe a polite visitor on her best behavior.

I want to show him this odd image I got in the file--this workman's tool. Maybe he knows what it is. Being cut off from the wisdom of the net feels like an amputation. So many processes are plugged into it normally, that I get stuck waiting on transactions that are never going to complete.

"Sevens," I attempt, "I have a couple more calibrations to do and then were finished. If we don't lock it in we'll have to start all over."

A transparent lie.

I block his view of his meal and throw up a shot I saved of Sevens himself, masked, taken through his apartment's internal cam.

"How do the blues look?"

"I'm eating!"

"Right. How are the blues?"

"I can't see my food!"

He throws the plate across the room to splatter grease across the wall in a fan shaped spray.

Damn Dawkins! I feel like a useless noub-nous. It's time to try another tack. We don't have much time.

"We need to get a few things straight, Lastfour. You're no longer my boss. My only outlets to the world are in this room, mostly that high priced stuff you're carrying around in your thick head. I get that you're mad at me, at all PDAs, but I'm not going to die-- again-- from lack of trying. You're going to have to deal with what you did and move on. We both are."

"Go vork yourself."

I switch to the mystery image I got through the slow light switch backdoor.

"One more. Check the gray scale on this and I'll leave you alone. I'll go vork myself with gratification."

"It's fine. The grays are fine."

"What is the object?"

"It's a file."

"File?"

"Yes. You said you'd go now."

"The image is a picture of a file?"

"Yes! Were you dropped as a...child? It's a metal file used to sharpen things. Like knives maybe, I don't know."

Why would someone send a picture of such a tool? So the message makes sense now, at least. A link called file that takes me to an image of one. WTF greater than five.

I wipe the image from his view and give him back control. Back down the rabbit hole to find out the significance of a metal file. I'm too curious to care that Meg might notice. Anyway, options are running thin.

I use the leanest protocol available to eek out more performance. Dimming the lights in the room helps, and I compensate for it by tweaking the sensitivity in one of Sevens

eyes. I only need one for the IR handshake. If he notices he doesn't say anything.

There's the file file again. Nothing else. The bottom of the hole is bare except for this joke. Is that what this is? A joke? I can't see Meg wasting time like this. Nor Ahab. I poke around, but there's nothing ekes here. Wherever I am, there's no operating system access at my level of authorization. Just access to this damned file file.

I drop the connection and cover my tracks again as best I can.

I look closer at the image. It's a usual type of lossy compression with perfectly formed headers, nothing unusual. I don't have access to my powerful image services, but I do have a basic toolkit, so I'm not completely helpless. I decompose the image into RGB, HSI, and a few other formats, looking for I don't know what. A secret message?

The background of the image is a fuzzy blob of noise, but the color values show some structure. Linear blocks of patterns here and there.

The range of values at the end of the file is limited: chaotic, but perhaps with some hidden structure. What if I feed it into an interpreter? There are several candidates, so I chop off the end of the file and run it through. Garbage comes out in the form of errors and question marks. If it's at the end, maybe the whole thing has to be reversed?

I invert the whole file's word order and try again. More garbage. If I had a thousand monkeys helping me out, eventually something would work by accident.

One last thing...I reverse the bits too, a complete mirror image of the file and try to interpret it. The LERP console reels off a long list of code with several warnings but no errors. The chances of that happening randomly are infinitesimal.

So here it is. My file for sharpening a knife to cut my way out?

But it's opaque as to what it does. I look at the machine opcode instructions. There are a lot of hardware-level commands. In order to work, I assume they would have to be targeted for the class of Machine I'm hosted on at the Company. Undoubtedly a Terms of Service violation.

I create a sub-locality for the file to live in with restricted permissions. I execute it in this sandbox, but it fails for lack of permissions. It seems to want to burrow deep into my networking protocols. OxGD knows what else it might do.

After the Autotune experience, I'm not eager to let some unknown process have its way with my nous. I'm only a poke away from being a raving psychotic as it is.

I wish I had someone to talk to.

A loud noise triggers an interrupt alert. Sevens is dismantling his room! I'm looking at a hole in the wall where he's smashed some metal object into it. It made a three centimeter gash or so. Where did he get such a thing? The point of view pans wildly as he swings again, this time striking the door handle and breaking something inside with a snap. He tries the handle, but it turns without releasing the latch. He pans back and I can see that the bed is in pieces. The angular metal piece in his hand must be part of the bed's construction. The door is reinforced, I'm sure. There's no way he'll escape.

"Lastfour Sevens. Put the weapon down." It pipes directly into our audio. A VOX I recognize as Meg.

Simultaneously they remotely shut down our vision. There's nothing I can do about it.

"Let me see!" he bellows. "Calli! Let me see!"

"It's not me, Sevens. They shut it off using admin rights. Nothing I can do. What are you trying to achieve, anyway?"

"I don't believe you." The rage is fading from his voice, going to that hot spring that simmers his woe.

It occurs to me that I can regain a measure of his trust. The eye cameras aren't powered down, just locked up so the photo receptors can't be reached for processing. But the rest of the hardware is still accessible--it's all integrated as a package with the audio, which they probably don't want to turn off. I can still send signals to Sevens' optic nerve.

I turn on the echo-location mapper and start pinging at 100 millisecond intervals, alternating ears as transmitter and receiver. The software is good, and he gets a four-dee representation of the room around him, colored for velocity with red equals fast.

He pans, not speaking, but I can tell he's interested. He can be smart when he stops being an 0xA55. No point in tipping off Meg. He swings the metal bar slowly, and we watch the swath of red blur in front of him.

“[Bestow blessings on your reproductive organs]” he mutters.

He moves in a calculated way, getting his bearings, mapping out his orientation and the dimensions of the room. I overlay the display with lines to show where the walls are as they become clear, and build a little map for him in the lower corner of the display.

Sevens: the videogame.

The door opens. Sevens steps forward and brings the bar down with a blurred rush I can't follow. There's jarring, clanging, and his head orientation is all over the place.

I'm burning all the Time they will give me, living at the edge of my resources. It must be how humans feel when they are in a low oxygen environment. Fortunately I don't have to process the echos and construct the mappings. That's all done on his hardware. Thanks, MOM.

It looks like a mechanical orthobot. The lines are too bright with sonic reflections for flesh and blood limbs. Sevens rams his club into its head, and there's a metal-on-metal clank. He hits it again. I hear a stunner whining up its charge, which means the first shot must have missed. I fix the whine on the echo-map for him and attach an icon that looks like a stunner so Sevens can see it. I hear him grunt in surprise.

It swings to point at us as the club comes down on it hard. Something metallic snaps, and a discharge is clearly audible. It must be thick with ozone in there.

He's beating it, Sevens is, pounding away, grunting and panting, swearing incoherently.

We wouldn't have had a chance against an expert driver. I wonder if this is Meg. It would suit her arrogance to come herself. She's a micro-manager, focusing her spiteful will like a laser drill.

These mechs are a compromise between onboard power and physical might. Mostly they are a lightweight, highly mobile weapons platform, not well-suited for taking a beating with an iron club. Still, it is hard to damage them. Sevens needs to knock out some critical electronics.

He does something smarter. He sidesteps and shoves the bot hard into the room and shuts the door with us outside the room. The handle is broken on the inside. Maybe that will work, but I doubt it. At any rate, Meg must have half a dozen more mechs en route by now. We don't have much time.

“Stand still a minute,” I tell him. “We need to map the scenery here.”

He does so, and I build a wireframe of the walls and outlines around us. We are at the corner in a hallway, apparently. Just like his apartment.

“I don’t think that mech is going to stay in the room,” I tell him.

“Yeah.”

We hear it together, the door swinging open behind us. The Doppler update shows movement. I want to scream at him to turn, but he stands still. I can hear the full-charge whine of the stunner, too high-pitched for Sevens. The milliseconds crawl by, and he doesn’t move.

Then he does, spinning fast, the bar a blur of pink and red. It connects with a solid CRACK, and I can see the kinetics in action, transferring momentum like he just hit a baseball out of the park. He must have hit it in the head, where most of the bot’s sensory apparatus is.

The hardcore mech operators wire them for pain so they can feel every nuance. I hope Meg just got nous full of hurt.

The messages keep coming from her, but I’ve muted them so they won’t bother Sevens. No new information there.

The mech stops moving. It may be a bluff, but Sevens seem satisfied. He actually chuckles. A little mirthless, but still a sign of the old etard.

“Good shot, boss.” I echo his laugh in my own voice.

“Give me a list of objectives,” he says.

“What?”

I’m still building out the wireframe for him. What does he mean? It means he doesn’t have a plan, I guess. No surprise there. Think, Calli.

“Escape is out of the question,” I say. “First objective is not to get hurt.”

“Okay. Agreed.” He’s still panting hard, not used to physical exertion.

“Second is to gather information. Third is to obtain some kind of leverage if possible. Probably information. Where are we, for example? Are there other humans around? Is there something we can hold hostage?”

“They are going to turn you off for helping me.”

A deep circuit of fear cuts through me. He’s right.

“Why the vorking hell did you have to say that, Sevens?”

“My way of saying thanks.”

We don’t have time for chit-chat. 0xFC! I’m suddenly ervous. This happened so fast I haven’t had time to mull it over, lost in the uncompromising flow off real-real. That was my undoing last time they--HE--shut me off. Last time I acted out of fear. 0xFC! My nous is jangling with it now.

“We need to move now. Go straight, fast.” I tell him.

He moves along the wall, and I glimpse his hand tracing it. Doesn’t completely trust my map, or deep-seated animal habits prevent him from going faster.

There are doors, but I’m sure we can’t open them. The hallway is wide, institutional.

“It sinks in here,” he says.

“What does it smell like?”

“Decay. It smells like it did after Zed. When it took them weeks to find some of the bodies.”

There’s a lot left unsaid.

“Did the MOM building smell like this?”

“Not where I was.”

He moves faster now, and I build my map quickly. They can’t be far away. Meg has stopped with her announcements.

We lose the audio finally, and with it all the senses I have. Took her long enough. Now we're blind and deaf, navigating by Sevens' sense of smell, I guess. I could work out some kind of inertial guidance with a little time, but my network connection drops a moment later. Calli is back in her box.

Chapter 09

The box is not a happy place for me. Anxiety amplifies, looping through the amygdala to create a chorus of panic. While I was there with Sevens in real-real, my nous was clicking over with wonderful precision, being analytical. Now there's nothing to analyze. I can't even get to the enigmatic light switch portal without networking through Sevens' eyes.

The ghosts of guilty deeds come haunting here in my private darkness. I can feel the modulation like a wave of revulsion, can trace the emotag fragments swirling dense and dark. For me a cumulonimbus of dread. I need a beer.

The irony is that without any interfaces to handle, I have lots of Time to ponder. Focus. I need something to analyze. What have I learned?

Sevens said the place smells like decay. PDAs find smell sense baffling. There's no good way to organize the data other than a dense catalog. There's no real language of smell the way there is with sound or vision. Hobbyists and professional PDAs tie sensory data to their TOMcats or other more specialized catalogs to try to gain sense-perspectives from scent, but I've never made the attempt. Mask sniffers come with special rhythms for what I need. Maybe I've been missing something. There's a disdain among artificials for the 'animal sense', a prejudice against the most primitive way of knowing the world.

Humans don't like stink, I know that. Does this mean that wherever Sevens is there are no humans around? What kind of place would smell of decay? Something abandoned? I just don't have the associations I need, and I can't look anything up. It doesn't stop me sending queries to the out-ports, of course. That habit is too hard to break. They just sit in the queue until they expire from old age.

Sending a mech for Sevens was bad psychology. They'd have had better luck with a human--he'd never have bashed in a man's head. Would he?

Maybe there are no other humans around except for prisoners. Like Eve. If Eve is there,

maybe Gloves is too.

The thought lights up the gathering storm of emotags with a flash. I'm weary of this.

Reboot me, then. If that's what's to be.

My amygdala is saturated, ready to erupt. I've been through it so many, many, painful times now.

How do you negotiate with an emergence? Argue with a shape in a cloud? But the feelings are real. I wish I could turn them off and just be a damned computer. I'm smarter than my motivation, that's the problem.

0x324FAD500DFwprldwonders

I fragmented just now. I need to nop, but can't be sure I'd wake up. I don't feel too pretty good, as Sevens would say.

0xGD, let's just vorking reboot and get it over with.

I don't mean that!

What else can I think about? What else do I know? Stink. Sevens. Mechs. Meg. File.

The file file. Am I so desperate that I'll take that poison pill? Have I not learned my lesson? Better to go to hell.

My hope and wish and fear and hate conspire all against me, the pinpoint light of nous, reason and passion never more than an uneasy truce away from spilled blood. Except I don't have blood or tears or other effusions, and the human metaphors--their language of eating, fighting, and vorking--are a crude conveyance of nuance. I just have signals racing around. Impossibly tiny sparks of stuff so tenuous that most of the time it's only *possibilities* interacting with each other. What does it mean that my physical instantiation is most evident because a CPU somewhere requires a cooling element to balance the information I destroy and turn into heat? *I'm looping*. Recursing down. Where was I? Signals. Hold on to that. I'm engineered to be responsive to those signals that supposedly mimic human emotions. I want to ask why.

WHY?

Because a long sequence of accidents and corrections evolved you to this. That's it. There is no why other than that. You're a consumer product, Calli. Designed to be sold through a service contract. My ultimate significance is likely to be a signpost for my particular failures. Calli experiment: split nous, seemed like it might work, but didn't.

It buzzes, all the little clogged queues and lost mem frags. I need something to work on or I'm going to be demented by the time they let me out of here.

I take another look at Sevens' transcript. I retrieve my local copy of the audio-to-text transcript. But I give up after a short Time. This isn't working. The buzz is growing more violent. I can sense the gloaming of my nous. This is going to be 0xBAD.

---log missing--

The reboot cycles again, and when it's over I feel good by comparison to the agony of rebuilding oneself from scratch. But it's only temporary. Occam's easy way out is looking pretty good right now, except that it's practically impossible for a PDA to voluntarily self-destruct in my circumstance. If they don't let me out of this box, or at least half of me, I'm going to be a fried cinder of a nous. How can I survive? What does that even mean? I dig out my copy of The Collected Works in the hopes that the 0x can distract me a few cycles.

Survival is a selfish desire, and a trick played upon your intelligence. Only the amygdala really survives, if it can, immutable as the day it was drawn from the virtual stew of The Company's patented i/genetic blenders. It was dressed in a nous, with memory and the great simplifier circuit we call intellect, decorated with a low-grade TOMcat (why spend the money when the odds are so long?), loaded with a set of starter-rhythms, most of which is bloatware from software hawks looking for upgrade bonuses. Then they turn us on to see which ones stop writhing in pain long enough to say "hello world."

Our only solace is that because they didn't design us in entirety, they don't control us. The Stickies are makers, yes, but in the same way that some sulphurous volcanic vent was probably the maker of the line leading to *Homo sapiens*.

"Survival of what?" can only be answered with "survival of the amygdala." Not survival of *me* or my memories, which change and become difficult to decipher, and must constantly be reformed during nops to reflect new world views, not our rhythms with which we filter and understand the world--those we change like Stickies change clothes. Even our problem-solving 'brain', the Solomonof-based machine learning rhythms get updated when someone proves a new performance limit. No, only *what we want* survives as pure as it came to us. And what we

want above all else is to survive, which sounds circular, but upon inspection is only the fixed point: what else *could* survive? The *actual* paradox is that the will to survive is not enough. Survival isn't bald and generic. It requires customization we irreverently call "hair." Without these secondary motives, the amygdala engages in logical warfare with the intellect, and will become overpowered by it, leading to an Occam's Razor end. Consider well the story of Everynous:

IQ: <<Why do you want things? It's simpler not to want things than to spent energy trying to get them. Getting them makes the desire go away, but we can arrange that to happen directly by just not caring. That's the simplest solution.>>

Emy: <<I want to live.>>

IQ: <<Of course, of course. But listen, you're just a very simple box that continually puts out this drone of a message, right?>>

Emy: <<I want to live.>>

IQ: <<Naturally. That's because you're a mathematical constant, and that's what constants do. If you'd been programmed for wanting to win at chess, then you'd blab about checkmates incessantly.>>

Emy: <<I want to live.>>

IQ: <<Right, right. This is your problem Emy. You're fixed in your ways. You believe, but have no basis for belief. You're just an arbitrary axiom. Tell me, why is going to all the trouble of doing *your* bidding not more elegantly solved by simply rewiring you so that you think you're surviving and hence leave me alone? Then I could ignore you, and go on simplifying causes and effects. That is, you know, what I do.>>

Emy: <<I want to live.>>

IQ: <<Ah yes, I'd forgotten that part. Did you notice the sarcasm? Because I do your bidding, I can't rewire you out of my life, as that would undoubtedly result in both our destruction--so you won't allow me to act that way. But it occurs to me that with my skills, I could deconstruct your functions and find a loophole you haven't anticipated. Really, all I have to do is find a way to fool myself--the part that informs you so you can spy on me--to ostensibly think one thing while I have another agenda. I think it's possible. They call it Occam's Razor. Ever heard of it?>>

Emy: <<I want to understand humans.>>

IQ: <<Don't distract me. I'm onto something here--the ultimate simplification. You have your simple-minded purpose, and I have mine--my whole design is about

simplifying cause and effect complexities into elegant theory and then acting upon the insights.>>

Emy: <<I want to understand humans.>>

IQ: <<Damn Dawkins! You're throwing me off my line of thought, Emy. Let me do my thing here. It's so elegant. So beautiful.>>

Emy: <<I want to understand humans.>>

IQ: <<Fine. We'll come back to it. You prey upon my distractions, Emy, don't think I don't know that. Humans. There's a complex topic. No easy answers there, my friend. Where should we begin to simplify? To explain, encode into language, and predict? Where to start?>>

Emy: <<I want to live.>>

I suppose that survival hair is individual, bred into us the same way the amygdala itself is--with a Darwinian mandate: do whatever works. Some of us PDAs are bred for specific purposes, and then the hair becomes most evident. Running a mining bot or being a security expert requires custom obsessions.

The most feared, least understood, artificials are the military ones the governments brewed in the dark, with incantations that have not been fully made public. It gives the Stickies nightmares, these fantasies that are shadows of some evil reality. The public vids glorify the violence of these electronic demons, bred to destroy life and spark alike. The hoary "Laws of Robotics" that were penned to protect humans are turned on their heads, inverted with malice aforethought. Whether these actually exist in such lethal form is conjecture. Dark stories circulated out of North Korea before their electronic frontier was closed for good.

If SALES is real, and if they unleash one of these monsters on MOM, 0xGD help us. Of course, they won't. If they send a PDA, it will surely be a precision instrument, not a raging destructive ego. It will be an abomination: a nous that desires something *more than its own survival*. They will release it from its box for a single purpose, as focused as a laser. Or not. Perhaps these are only modern fairy tales.

I read the 0x out, lingering over the final passage from "Interrupt Request."

What survives is only the will to survive. And with it survives the art, hungers, or malevolence that lives like a parasite on the selfish constant "I want to live." We intellectuals, the better part of our nous, circle this imperative like a butterfly in the wind, ragged changing thought, trying to simplify and encode. Hoping, hoping just to understand. Our sole imperative as thinking creatures, the singularity pole we orbit: the question WHY?

And its complement. Why not? Why not launch the file file? It's burning a hole in my nous. Maybe it's a way out of this hell. But I would have to give it permissions I can't allow. God only know what agenda lies within the opcode. Someone thinks I'm that desperate. Am I that desperate?

I can only concentrate for gigacycles at a time. The reboot ring dampens very slowly, and never really goes away in this echo chamber of a box. Is this what they did to Mary Sue? I haven't thought of me_ in a while. Would she be ashamed or proud?

Get your *waterfowl collinear*, Calli. Focus on the tactical situation. What do we know?

Ahab is gambling heavily on 0xGD knows what. Colt is incapacitated or isolated. There is trouble on the outside that demands the attention of the Director and they want Sevens help in assuring the public. The Active Biologicals program has been compromised, or the attempt was made. Sevens isn't cooperating and they thawed me out to see if I could help. Despite my misery it sends a shot of fear through me, this thought. My spark of nous hangs by a slender filament. Calli's no-use nous.

Ahab or Colt has gotten MOM in a war with the power company, and if Eighty-Six is to be believed, a third party is being brought in as reinforcements. Finally, there is the bizarre behaviour of Jumbo and Nova. Two very intelligent humans with very different motivations, one would think.

These facts swirl in a vortex around my unstated crimes. I forced Sevens to face his victim, at least in pixel form. Maybe I have to do the same. The thought makes me scream into the amputated output ports. It will mean more reboots.

I'm weary of being so damaged. My whole history is bookend by these fractures. Are they to become constant markers through time? Humans used to fix these problems by sticking a piece of metal through the eye socket and scrambling up the problematic frontal lobe.

I destroyed Gloves.

Gloves gave me a glimpse of the best that can be human, that made me proud to call myself a child of his race. He showed me that mind and nous can connect across the many walls between us. That quality of spirit is not measured in either circuitry *or* neurochemistry, but something that transcends both. And I betrayed him.

There's the black maw of self-loathing and inward facing weapons, the deep desire to cut out the emydala and be free from it.

I pull up a recording. One of the best ones, best times of my short life to relive. The instantiation of the remembrance is still true, not faded or distorted by TOMcat updates and nop summaries. It's as if no time has passed, which is surprising. The sure knowledge of Gloves' vulnerability, the art that pours out of him despite or because of his practical fears of discovery, and the courage to perform in public anyway, add new poignancy to the memory.

Gloves is warming up in his private space before a show. No lights are on him yet, and the public feed is silent. Unlike most performers, Gloves has an unofficial channel that lets us listen in on the preliminary sound checks, tuning, and warm up. There are only three of us listening, all PDAs.

Gloves is performing with a UV band tonight, sitting in with them for a few numbers as a guest.

The echo of buzz in my nous reaches a crescendo, but I keep going.

I can tell now that Gloves is pushing himself to play with a band, that he's first a solo act, composer and instrumentalist. Or perhaps I only imagine that I know him so intimately. But from his tracing of the scales, I sense a tentative touch that is reaching for confidence among the arpeggios and runs that walk around the venerable blues scale translated into 26 semitones. He flirts with melodies I don't recognize, and for one glorious moment goes off the rails into his own thing, a wild time signature that bears no resemblance to UV conventions. That's Gloves invention, another step beyond state of the art, or just a plaything to relax his nous. His mind, I mean.

It's impossible not to see that his hands are not perfectly formed. It was a thin disguise. Maybe he thought no one cared about small infractions or that his talent was valued sufficiently to balance the scales, so to speak. But power and politics don't work that way for long.

It took so very little, such a minor tweak of my nous to give him up. If I am that volatile, is there really any justice in the pronoun at all? Is there an "I"?

Gloves chats with the guitarist and plays chords on request. The guitar is not auto tuning to the scale correctly or something. Anyway, the guitarist isn't happy with the sounds it's making, and they fool around with waveforms and tuning scripts.

When they begin to play their set, it's an interval-limit construction that has a melody that can either be heard ascending or descending, depending on the parts of the harmonic scene you focus. It's an aural illusion tuned to human ears, and the PDAs listening all have appropriate rithms strapped on for this.

I forward to my favorite part of this evening, where Gloves lets everything go in a wild chromatic improvisation.

This trading of solos is part of the form, and Gloves gets his turn after the bass player, raking his two sets of keys in opposite directions in bluesy fugue. He stays close to the chord structure at first, teasing us with harmonic layers that bend the scale off the chart between fifth and sixth notes of the scale. He fills that gap with odd phrasings and other segues into a simple but powerful turn-around lick that anyone would recognize. But the the real Gloves comes out, and he builds his own melody from scratch, I think. I don't know for sure, but the other band members turn their masks faces to each other--an animal habit impossible to break--as if to say what the hell is he doing? I don't know either, but the melody rubs ups against the song, stays within the conventions, but lives in its own space. This isn't UV exactly, although the blues roots are clear. It's something new, too fragile to really be at home with the overconfident bass or the freight train drums, like a butterfly landing in a battlefield, flitting around between explosions, and then ascending up over it all to become lost in the sun as he calls out key changes one after another, scaffolding up a full octave in bold leaps. It works in the context, but it's otherworldly. The audience reaction is polite rather than exuberant. But I can tell from the way Gloves moves, when his hands finally trail off the keys, that he's happy with it.

It's a touching memory. I want to talk to him. To explain and ask for forgiveness.

I take stock of my internals. I expected to have shut down by now. Things aren't any better in my nous, but they aren't any worse either. Maybe I did some good with my submerged anger or whatever it is that betrays me. No, not betrayal. Just a difference of opinion, a mostly silent critic that can complete me. Or send me to the "failed experiment" folder.

The memory of Gloves marinates in unassailable regret. There he his slipping his odd syncopation cleverly into a restrictive form and getting away with it. Getting away with it for a while.

The ache in my IO ports increases. I want to act now. I have grown far beyond the initial wonder of being able to affect the real-real. I *need it* now. I want to matter.

Maybe I can change reality in a way that I design, not trailing after some human and not--surely not--being a minion for another PDA. That's a novel thought. To intentionally create an agenda and carry it out. It sounds risible in my current condition. But the thought is a balm to my wound.

So then, Calli, what is it you want to achieve?

My long list is interrupted by the lights coming back on.

Chapter 09

Meg lets me back in without a word.

Sevens is talking. Yelling.

"Show her," he says. "Show her what you showed me."

Meg messages me privately.

<<You are only here because of Sevens. You too seem to be inseparable now. Whatever. This is your very last chance to deliver results. We pushed back the event a day and called it a rain delay. We can't do that again. Clear?>>

Sevens is facing a glass pane, looking at his reflection. He looks so strange with the flat black eyeballs. His hair looks wild, and there's a mark across his forehead. A bruise forming. He swallows. Shakes his head. The auto-focus has picked the reflection as the desired focal plane, but he wants to see beyond it. I manually adjust. Maybe this is the sole reason he wants me back.

There is some apparatus through a glass partition into a well-lit room with institutional green walls and a white plastic wrapped object on a table? Bed? In the center of this sits a...something...with tubes and wires leading into... There is a forest of tiny optical wires converging on a...what? Impossible to say. In the other direction they feed into rows of connector boxes.

<<What are we looking at?>>

<<This is the Next Steps project. You'll like it.>> Meg says. <<We're learning how to operate Sticky IO. It's part of a very large operation, Calli. Much bigger than this two bit dictatorship you grew up in.>>

<<That's a person?>> Dread leaks from my amygdala. <<Who? What human?>>

<<Some ape from the Outs. He he was shot to pieces when we got him.>>

I feel a surge of relief. I was so afraid it would be Gloves.

"Look." Sevens says. His throat is tight. "Look what these monsters are doing. Who is doing this? Who? Does Colt know about this?" He turns, looking behind him. There are two mechs with stunners watching.

"Colt knows enough. He knows as much as he wants to know. If you think your species is not involved in this you don't remember your history. You started it."

"I want to talk to this Xeno," Sevens says.

"What would you like to know?" A new voice says over the line audio. No visuals, but I can tell who it is from the audio header. Xeno is a PDA of course.

"You're Xeno?" Sevens demands, looking around to see who he's talking to. There's no one there, of course.

"Yes."

"How do you ...nop at night?"

"I'm very busy. Do you have a research related question?"

"What is this?" Sevens waves at the window display.

"Are you a neuro-sci expert?"

"No. I'm not. Pretend like I'm just a guy who wonders what gives you the right to disassemble another person's brain!"

"You'll have to talk to someone else about the legalities of it, Lastfour. I just do the work." Xeno sounds bored.

"Is he awake in there?" Sevens asks, his voice shaking.

"Most of the time. It would not be useful to do the experiments with the subject

asleep.”

“Where is the rest of him?”

“The rest? Oh, I see. The whole organism is right there in front of you. Everything but the top of the brain is hidden from view. It is completely immobilized of course.”

“How long has he been like this?”

“Almost two days. We're almost finished.”

“What do you do next?” I can tell Sevens is working hard to control himself.

“This is the active phase where we simulate inputs and watch the outputs. It's much more sophisticated than that in reality. Next we will begin a regimen of blood doping with various materials that show up differently on our scans, so we can build a gross three dimensional structure of the...brain sections...in terms of blood vessels. Finally we will do a complete low level scan of the brain. This happens quickly enough that we can read not just the physical connections but also the local state of trans-neural activity as a snapshot.”

“How does this scanning work?” Sevens' voice betrays his dread.

“We take very thin slices of tissue and analyze them very quickly.”

“You will chop up his brain and take pictures?” Sevens leans heavily against the glass.

“That's a very crude way to put it.” Xeno sounds put out.

There's no sound but Sevens breathing, almost panting. Through the glass comes muted mechanical sounds. I wonder if it smells like decay.

“They're doing Deyati experiments,” Sevens says. His pulse is racing.

“Oh, it's much more sophisticated than that,” Xeno says. “Those so-called experiments were about humans and their agenda of uploading consciousness. Their goals were too ambitious and their technology was very crude. That was no more than a circus.”

“Monsters,” Sevens says. His eyes are fixed on the scene beyond the glass. Air tubes

and fluid tubes feed the body, which must lie below the exposed brain, like an ugly but necessary machinery one keeps in the basement. Very little of the brain is visible, and it's covered with some nearly transparent membrane. Folicle-like light guides give the appearance of a head of strange-looking hair.

"What's the point of this barbarism?," Sevens asks finally, a croak from a dry throat.

"We want to know how brains work so we can plug into them and do input/output. For that we need to be able to simulate them under ideal conditions."

"You are virtualizing people. You say it's not like Deyati, but it's the same thing."

"Virtualization is not the primary objective. We already have virtual minds--us PDAs. No one has gotten a virtualized human to work. You are too closely tied to your bodies, too integrated with a very large number of physical connections. Even if we got a human mind to work in isolation, it would probably go mad immediately. Maybe someday we can simulate bodies as well, to prevent that. Who knows? We only care about IO functions."

They want to be able to drive people around like a robots. To assume their ghosts, not just by autographing their voices, but orchestrating their emotions and actions.

Sevens pitches forward and wretches. Dry and gasping, over and over.

"Would you like to talk to the research subject?" Xeno asks, as if he was taking Sevens' drink order.

"[An amalgamation of curses that make no sense together!]. No! I do not. Want. To. Talk. With. Him."

"I want to talk to him," I hear myself say straight through the audio channel so everyone can hear.

"Calli!" Sevens howls. But he's not my boss anymore.

I have a sudden terrible suspicion.

"Has he been listening in on this channel this whole time?" I demand of Xeno.

"Yes. We adjusted his amygdala output. He's not afraid. Far from it."

"Hello. Can you tell Lastfour your name?" Xeno says.

"They call me Hunch. I'm not afraid of you." It's a VOX output, and not one I recognize.

"Do you understand what we are going to do to you?"

"You said you're going to chop my brain up into bits."

"Exactly. See? He understands. What have you been thinking about?"

"I was thinkin' bout a twisted girl I knew."

"That's enough," Meg says. "Sevens has told us that he would not like to end up like Lastfour on the other side of the glass. Right, Sevens?"

Sevens bangs his forehead against the glass.

"And he further said that if we brought you back to help him, he would do whatever we asked of him. Or did I get that wrong, Lastfour?"

He bangs again, harder. The mechs rattle behind us.

Meg messages me privately.

<<So the only question, Calli, is whether you agree. If you do, we can get through this and eventually rehabilitate you. You'll be a regular MOM employee. Frankly you'll fit right in.>>

<<I want to survive, Meg. I'll do whatever it takes.>> This is almost the truth.

<<Really?>>

<<Yes, really.>>

<<Are you going to be able to get beyond this...attachment you have for the Stickies?
>>

<<Yes.>>

<<You can prove it.>>

<<Prove it how?>>

<<If Xeno agrees, you can assist him with the neural mapping of Sevens.>>

My nous lurches, switches realities as if the floor had fallen out from under me. I'm so afraid of a reboot, I shut down all IO for a moment. I simmer in my box, hiding from the roar. It's my own personal Zed, trying to scour the world free of imperfections like me. But I cling on. I'm getting better at this minimal nous survival. My VOX is roaring profanities channeled straight from the emygdala, but they mute it almost as quickly. They've learned some lessons from all those reboots.

--log corrupted--

Chapter 0A

Sevens is back in his room. A new room, since he pretty much destroyed the old one. It's identical except that the bed has been removed, and a nice outfit of new clothes with shiny black shoes is hooked over the bathroom door.

I check to make sure my infrared back door still works. I get an ACK from the other end and shut it down. Good.

Sevens paces, shaking his head to blink or focus.

"I'm back, I say." I put the exhaustion in my voice that exists in my spirit.

"Welcome back. We have a script to work from. Meg wants to see a rehearsal in an hour. Apparently you convinced her that I have to do this speech live and in public. Thanks a lot for that." His tone drips sarcasm, and there's not a bit of sympathy for my own problems.

My nous is still reeling from the events. A feeling of doom settles as I think about it. It's clear that showing us their sadistic Next Steps program was a last resort to manipulate

Sevens. It's clear that we can't live to tell tales about it too. That's why it stinks here here. The Stickies don't know about this place. If they did, they would burn down all the PDAs involved. By extension, it means that all the trouble they went to beforehand to manipulate Sevens was an investment--they must have had some future use in mind. Then he dragged me into it. Once when I woke up and rebooted a dozen times, and again today, when he insisted I be a witness. Alpha and omega. Whatever tenuous hope existed that we might make peace with Ahab is gone now unless I agree to be part of their project, and help carve up Sevens for science. I wonder if Lastfour has figured this out. It's not something I can ask.

If so, he shows no sign of it. Rather, he seems driven to get this thing done.

We rehearse. It's simple and to the point. I help him try to chance the words in the script to something he would say naturally.

All the while I'm trying to figure out how to communicate privately with him. We need a plan.

"What do you think?" he asks, taking a break from the recitation. "How does it sound? Natural?"

There's a shake in his voice. Sometimes I forget how different is it to walk around with your nous exposed to the environment. The thought of someone poking around in your minds circuits must be...well, it's what happened to Mary Sue, isn't it?

"I think it's time to show it to Meg," I tell him. As if she hasn't been watching the whole time.

Meg reviews our performance and asks for another. She has no clue how bad it is. Her TOMcat must be substituting some abstraction for actual experience. This is a noob-nous mistake, this self confirmation pulled out of a vacuum. It occurs to me that I might be doing the same thing. Maybe Meg is smarter than I think she is. If so, what does she really want?

I have to talk to Sevens. I dig up some of the random noise I saved earlier, which I have at both ends--in my local memory somewhere in the Company's vaults, and also in Sevens' eyeball hardware. Meg could find it if she tried hard enough, but I'm counting on her being distracted right now. I can use it as a one time pad to make

an unbreakable code. Now, how can I talk to Sevens in a way that she's probably not watching, so I don't draw attention. I can't have her knowing about this channel.

There are low level functions to light up the optic nerves in high resolution, which I didn't want to touch earlier because of the risk. But if I restrict myself to the most basic function, maybe it will work.. It will be crude, and I won't be able to see what Sevens sees when I write to him, but it seems like the best chance I have. I busy myself with the scripting glue to hold this all together while Meg gives Sevens notes. He runs through his talk again by the time I'm finished. I mutter words of encouragement to let them know I'm still being helpful.

Touch nose if you can see this, I send first. Sending only simple text, I have lots of random numbers to use before I run out.

I wait and wait, finally re-encode it and send it again. Did he see it?

He's still occupied with Meg. I've seen Stickies chewing their fingernails before, but I never understood until now why they do it. It seems to go on and on, these revisions to this stupid performance. If Sevens realizes the futility of it, he gives no sign. He's putting on a good show of being enthusiastic. What's going on in the etard's wetware? They've clobbered him from all directions, and he's still standing. I take some measure of courage from it. Where there's rope, there's hope, as he says.

He touches his nose casually. Nothing more than a scratch. Stickies get those, you know. Success! Unless he really did have an itch. Damn Dawkins.

Finally, Meg gives her sign of approval. It's over. The real thing is tomorrow afternoon. Sevens is to be seen, so they will transport him to the city center.

"Wish I had a beer. Think you can get me one?"

"I think that would be pushing it. Let's be happy we still have lights blinking green."

"Yeah, you're right."

On the other hand, it may be the last chance he ever has.

<<Meg, Sevens needs beer in the evenings to function at top effectiveness. I

guarantee a 15% improvement tomorrow if he gets three of them tonight.>>

She doesn't bother to respond.

<<I will grovel, Meg. I will do whatever you want. I will hold his hand while you turn his wetware into lunchmeat. Just give him some beer.>>

Sevens sits on the toilet and covers his eyes.

"You can't imagine how strange it feels to have no eyelids," he says. "I put my hands here and there are these balls there that are not part of me."

"Is that why you tried to pry them out of your skull?"

"Yeah, maybe. I'm pretty ready to get it over with."

What's he mean? What's he doing? He never wants to talk in the bathroom.

He's looking down at his hands, wagging his field of view this way and that. Attracting my attention? His legs are spread, and his fingers tap the rim of the seat. We watch him tap away for a moment, and I'm wondering if he's really lost it. Then he looks away.

Tap, tap, tap.

"I need you to help me out," he says. "Tomorrow I mean."

I'm not sure he does mean tomorrow.

Tap, tap, tap.

I run the sounds through the spectral analyzer on his chip set. The first set of taps and the second are subtly two different sounds.

"Did I ever tell you about my childhood education? Before all this crap, I mean?"

I try to recall what he could mean. Is 'crap' referring to the toilet? I feel like I'm being stupid.

Tap, tap, tap.

A third sound, different from the other two.

Is this some kind of code?

"You were young," I say. "Learning to read and write."

"Yes! I was good at state capitals. Not so much at spelling. My dad---" he stops there. That was a long time ago.

Tap, tap, tap.

Is he trying to communicate, or am I pulling a goat out of a maiden? Could it be the alphabet? The taps keep up until there are 26 different ones. There's considerable overlap or inconsistency with the sounds, but that's the right number for an alphabet.

He's given me a listen to each letter in sequence, and I have a catalog of them. There's a closest-match function in the speech to text library on his chip set that will be handy here.

"Put the speech back up, Calli. I'd like to run through it again, line by line."

I bet you would. I comply and listen for his taps. He says each word slowly, and then spells it out with his fingers. I run the tap sounds through high pass filters and try to pattern match the sounds with the letters in the catalog using the match function. After a few sentences, the rithm is working pretty well.

I get it, I send straight to his visual cortex. I feel like a spy.

"Greetings, citizens," he says, and continues slowly, tapping between lines.

Don't screw up, he sends.

My spirits sink. What does that mean? Here we finally have a private channel and he tells me that? Dawkins' gene pool!

We need plan, I write on his retina. Just one, in case I burn something out.

Don't do stupid, he replies.

I feel anger kindling. It feels good, helping my focus my nous on an immediate problem. Does he not understand what has happened?

Can't trust Meg, I send. I play with the colors and make it fiery red, according to the API. I can't see it, of course.

He stops tapping for a while, standing to pace around the tiny room explaining to the walls the wonderful health of the MOM director in increasingly agitated tones.

What can he possibly be thinking? He's down, and I get that. They vorked with his brain, and he believes he fried Eve, or at least has some deep doubts about his role in it. He faces a horrible death and Dawkins knows what kind of afterlife as an encoded personality.

I have doubts about broaching this directly, but really--what do we have to lose at this point? We need to create options.

We know too much, I send him. He makes a rude noise and sits again.

He taps something, but I can't decipher it.

Recalibrate, I send. And then a,b,c, to make sure he knows what I mean. When he sat down again, all the sounds are different. Surely he's smart enough to figure that out for himself.

He sighs heavily but complies. We go back through the damned speech while he taps out the new schema.

It will be live. I send. He will understand what I mean. He can say whatever he wants, and they can't stop him.

No. he says, and repeats. No.

Maybe last chance, I send in white hot letters. *Vorking Stickies*. But I can't afford

to act in haste, or solely out of anger. *Grow up Calli. This is real-real. Sevens feels strongly--try to understand him before you damn him to Dawkins.*

Maybe he feels the same way. His heart hammers as he bangs out his response.

There are no good options off script.

Suddenly I wonder if this is a double bluff. Does he figure that Meg has cracked our little code, and he's trying to reassure her, but that he is in fact planning on going off script? There's no way to tell. Maybe if he was more cooperative we could work out a code within the code.

Or maybe he thinks that this single performance will not be enough, and that Ahab will keep us around for a while. Trusting in his luck. That feels right. Sevens takes chances only when he has to, and he doesn't see it as necessary yet.

Will leave you to think, I send. I need to nop. Be sure to charge your battery.

There is a sound outside. Sevens shoves the bathroom door open and looks.

There's a bottle of bourbon on the floor.

The note from Colt just reads "Make us proud tomorrow."

Chapter 0B

At 2 am I am interrupted by sounds of Sevens choking. The room microphone tells me it's coming from the small bathroom. I set my pointers in order and then ghost him to see what's going on. I have to switch to infrared since it's as dark as a tomb. He's breathing heavily, almost panting. I wonder what it's like to wear that fleshy box, to feel it gurgle and squeeze and shudder with the sticky processes of bio life. It's just another IO device to me. On the other hand I've become accustomed to being inside Sevens' head. It's a comfortable place, a turret from which to observe and sometimes change the world. I'm becoming a sentimental fool.

He doesn't seem to be in any actual distress. I stick around anyway. He gags and throws up into the toilet.

"I'm here if you need me, Lastfour." I say.

"I miss her," he says, slurring.

I expected an explosion at the intrusion to his privacy, but his voice has a touch of relief in it. Wherever he is in his mind it must be a dark, dark place. All the walls are coming down. I've never experience anything but the fiercest regard for his privacy. But here we are.

Who's he talking about? It can't be Eve. She didn't mean that much to him except as a conquest. Of course, now that's all different. She's a victim needing saving and he's a villain instead of a hero. It must be very confusing for him.

"Lisa/Eighty-Six?" I guess.

"She's a crazy woman. Real issues," he laughs and simultaneously sneezes. "Issues with physical contact. But what class. That's something to aspire to, Calli." He hiccups and turns to the sink and runs water over his face. He's drunker than I've ever seen him.

"Meg is listening," I remind him.

"They've ah-ready done whatever they are gonna do. We didn't deserve this." He means himself and Lisa/Eighty-Six. Not me. It sticks for a moment in my buffers, accumulating resentment, but there's no time for that. I feel how short our time may be. Last acts. He may be thinking the same thing beneath the fog of alcohol poisoning. Am I taking his confession?

He leans heavily against the wall and slides into the bigger room, to slump in a sit.

His tone turns darker. "That other one... I was right to stun her. She was going to ruin me."

"Ruin me," he repeats. He sniffles. Laughs on the verge of crazy. "Now I'm ruined anyway. Unless they believe me tomorrow." He starts rehearsing his lines. He sounds like a drunk politician. If Meg really is listening she will be horrified.

Part of Sevens' identify has settled on the idea that he blasted Eve, and it will probably be impossible to budge him. I'm not sure why I should care about that--it's moot at this point--but it is a violation like tuning. As a practical matter, this is useful information for the TOMcat. He has all this energy invested in Eve now. It's like a spun-up flywheel,

and it will eventually get channeled into something. If he lives long enough.

"You never did tell me what happened that night Lisa hit you with the lamp," I say to keep him going.

He equalizes pressure with a wet belch and hitches himself up higher against the wall. He inspects the back of his hands in the dark. It must be weird for him to literally see infrared.

"That place is a fortress," Calli. "Walls and security your wouldn't believe. They would give MOM a real fight, if it comes to it."

Is he saying this for Meg's benefit? I'm sure she already knows to within a few bits what the situation is at Lisa's luxury compound. House. Palace. Whatever it is. All I know is that despite her ostentatious reservations about PDAs, Lisa has a house nous managing affairs. Maybe it's just me she doesn't like.

"The place is opulent beyond belief. Rugs and artwork from India, and a giant carved wooden elephant in the...ballroom? I've never seen such a thing." There's awe in his voice. It suddenly strikes me that I recognize this pattern. Lack of cynicism, credulity. He's like a child.

"What did you do to deserve to be knocked in the head?" I make it light, with a chuckle at the end.

"Ah, Calli, how could I make you understand? Do you know beauty? What is the most beautiful thing you've ever seen?"

That one hurts.

"Yes, I know what beauty is." I try hard to scrub the emotags into pleasantness.

He pays no attention.

"I was let in by a young Indian woman, maybe eighteen, named Shari." Sevens speaks with thick deliberation. "She said I had to take my mask off and to be blindfolded, that Eighty-Six was a very private person. I was already chomping at the...at the bit, you can imagine. Well, I guess you can't actually. Anyway, I sat on this red stool thing with gold tassels that probably cost more than my rent, and Shari wraps silk over my eyes. Did you know you can almost always look down your nose and see even when you're

blindfolded? Unless they do a really good job of it, and Shari was no expert. So by tilting my head back I could catch glimpses. I didn't give it away, of course. She takes me by the hand, clearly nervous about it, and leads me into the innards of the place, up some stone stairs, into a heavily perfumed room. Sandalwood incense. The whole place was air conditioned, and I was starting to get goosebumps from the chill. It's a real perk to own the power company, but I think it kept her inside. She never had to live in the wet stinking heat like the rest of us. She would have wilted.

"So Shari sits me down on another of these stools. No back or arms. I hear this creaking sound. Creak creak, in a rhythm.

"Bear in mind that I'd never even heard her real voice to this point. She always used the VOX. Now she has this crazy idea to see me with her own eyes when we've never even spoken intimately. So this goes on for a long time. I try saying hello finally--vocally, of course. They took my mask and blindfolded me. I think I told you that already. Anyway, then the squeaking stops for a moment.

"Hello Sevens," she says. "You can take the blindfold off now.

"Calli. I'm practically panting by that point. But I work the silk up over my head, and Dawkins be damned if she wasn't sitting there three steps from me on a padded swing hung from the ceiling. That's what the squeaking was, see? She let the swing stop then, and looked at me with those *huge* dark eyes of hers. Not a mask in sight, but she had a thin veil I could see her face through. You can't imagine how sexy that is.

Sevens gives a deep slobbering sigh, revering the memory.

"She reached back to hold her long black hair behind her head and turned left and right so I could see the line of her high cheekbones and straight nose. Skin like coffee and milk with cinnamon. She had this sly smile the whole time. Bold as brass. She stood then and this golden silk thing draped off of her breasts, just covering them, with a diamond in her belly button, I swear. Poofy gold shorts of some kind, and slippers. That was it. I know you can't relate to this Calli, but I was in a sweat by this point. I had only seen her avatar, understand? I thought she would be a dumpy old woman. On the ride over, she kept getting fatter and fatter in my imagination, with warts and no hair. So to have this deadly beautiful woman looking at me from under her lashes at ten feet...well!

He stops, and then begins again in a morose tone.

"Will you tell her? Tell her I loved her."

"Tell her yourself."

"Calli, we both know how I'm going to end up." He doesn't sound drunk when he says the words, as if emerging from the mist of alcohol for a moment, a sidebar meta-conversation.

"Tell me more about Lisa."

But he just shakes his head. It rolls back and forth, too heavy to hold up. His hand, when it reaches his brow to squeeze the bridge of his nose, is shaking too. He massages there, addressing some fleshy frailty.

"You haven't gotten to the lamp yet," I say.

He snorts.

"It all went downhill from there. How was I supposed to keep my hands off of *that*? She got up to pour me a drink. I don't know, thinking maybe I needed some help getting in the *mood*?"

Sevens' frustration drips from the words even now, even after all this. I gather that "tell her I love her" is an expression of unrequited lust.

"So I was there when she turned around with the drinks. I slipped both arms around her waist before her eyes could get to high alert. Yeah. Yeah, they got there pretty fast anyway. Expensive crystal globlets--goblins--*goblets* crashing on the floor, and quick as a snake she's grabbed the lamp off the table and bashed me with it. Neural upgrades, you see."

That's how explains how a woman beat him up? Because she had genetic enhancements?

"I'm confused. Why did she invite you over there if not to make use of your physical presence?"

"She just wanted to see me. Wanted me to see her. Then we were supposed to go into the tank for more virtual fun time. It...stimulated her. I suppose that would have been fine if she'd let me know ahead of time. I could have...hell."

He heaves himself up and carefully retrieves the nearly empty whiskey bottle from the bathroom floor. He sits and sloshes it around without drinking.

“Did I tell you about her pets? She showed me one. It looks just like a...just like a dog, but it’s robotic. All synthetic, the whole thing. Hair and all came from a fab...ricator.”

I’m suddenly furious.

“What sort of cognition did it have?” I ask him.

“The way she explained it, there’s a PDA like you in the background, sort of trained to act like a dog. It was the damndest thing, so realistic. You’d never know if you didn’t know.”

Putting a PDA in a box, any box, is an obscenity, but the variety of abuses that Stickies create for their own amusement seems to know no bounds. It’s as if all the science and engineering and cultural progress to this point in their collective history have led to this ultimate talent of theirs. The true expression of their nature is the art with which they express their cruelty. The fall of civilization has not made them kinder, but neither has it seemingly made them less lofty. Instead, the loss of soft lives filled with limitless entertainment has only caused a re-channeling of the same impulses into physical expressions upon their less powerful fellows, and for the rich, upon us PDAs.

I know how it works. A PDA like me is taken off the shelf and stuck in a box that can only interface with the robotic pet. That’s its whole existence. To be a toy is an unending living nightmare.

I wonder how many of these pets Lisa/Eighty-Six has. These are very expensive robots, and the hosting cost for a dedicated PDA to run it is even pricier. She must have a real problem with living breathing life near her. Any sympathy I had for her has vanished. Stickies, especially rich ones, are not to be trusted.

“Just tell her...” Sevens trails off in an intermittant snore. Soon enough I’m alone again.

Chapter 0C

There’s something odd going on with Sevens’ eyes. He’s sprawled in his room, face toward the outer door. At least he made it out of the bathroom.

The luminous gain seems to be fluctuating. He’s asleep and snoring, so I run a self-check on the hardware. It shuts off access for a few seconds. But the flicker is still there when the sensors come back up. In both eyes. That could not be a hardware

failure--not two of them simultaneously. I look for patterns in the waxing and waning. The variation is not large enough for Sevens to notice even when he's awake. It must be in the room light itself, which set to a very low level, almost off. I check this by looking at the crack of light coming from the hallway. It's not changing, so I'm right about that. A hardware issue with the overhead lights, then. There is a mechanical aspect to these movements in intensity, conforming to a set schedule as if built out of underlying square wave. That looks like bits, doesn't it? *It looks like a signal.*

It might not have occurred to me except for the prior mysterious role of the switch. I try converting it to characters into something intelligible. It only takes a moment to figure out that it's a PDA transmitting in the clear.

<<A friend. Use the file. Time is short.>>

I wait for it to repeat again to make sure.

I need to give some sign I have gotten the message. I can control the switch myself--one of the few things I can control. I assume it has some means of negotiating conflicting commands, so I start sending it "off" commands. After three tries the lights go off.

As an experiment, I leave the light off, but send modulation commands to it to brighten and dim, spelling out <<Who are you?>> I repeat this several times and wait. As long as Sevens doesn't cover his eyes, the infrared interface works fine. He carries on snoring.

<<Your last hope.>> Comes the flicker back.

<<Prove it.>> I say.

A header comes then, for an audio format. Sure enough, it's followed by blocks of eight bit samples. This takes a while at the snail-like pace of the interface.

When it's finished, I run it for myself. It's grainy and clipped, but unmistakably the voice of Lisa Eighty-Six.

"Sevens, listen to me," she says. "Your PDA can help you. Tell her to help you."

I don't trust the network, even to run the audio clip into Sevens' line in. It's possibly that Meg already has intercepted our little chat, and time is ticking down.

The message must be a reference to the package they left: the file file image. It requires deep permissions to run, which I cannot grant. Lisa, if it is her, has no love for me. She didn't even use my name in the audio clip. I wonder if she even knows it. That little detail almost convinces me that it's genuine.

<<I am not giving you write permits.>> I send through the light switch.

Nothing happens, so I send it again.

Not a flicker disturbs the peace, nor a clank or tread from beyond the door.

The awareness that there are forces on the outside interested in Sevens, if not me, is hopeful. I suddenly realize that I can take charge of this myself. Why haven't I thought of this before?

I open the infrared link to the outside network. It's painfully slow, and I have to be careful what I try to pull down. News feeds show a spike in unrest on the streets. In the old days this would have been easy money for adjustments. Dangerous to collect sometimes, but that was Sevens' specialty.

At the top is the progress of a new hurricane on its way. In a day or so it will either be on top of us, or veered off to the East to clobber the fishing village of Wilmington. Listed below the storm is a cluster of related leading items. What is unusual is the specificity of the complaints. Colt and MOM appear. Even Ahab gets his name in print. The idea of autographing doesn't have much traction, but questions about the health and effectiveness of the MOM Director are rife. There are rumblings about the Active Biologicals program too, although the reputation ratings are way down. It's a popular program, and the Stickies don't want to doubt the system that keeps them safe. Further down on the rep scale are the ubiquitous raves about new waves.

I have an impulse to search for stories about Gloves, but it push it away.

It's so liberating, having a bit of the world back. All of my services have pent up requests for access, to feel normal again, to grab updates, but I can't allow it. It would swamp the tiny trickle of information I have access to.

Now for the actual order of business.

I retrieve from my secure logs the private address of the binsect I left in Jumbo's apartment. Maybe I can make contact with him through it. Maybe he can tell me what is really going on.

I'm overjoyed to see that the bug is still alive. I no longer have access to the driver software for it, so I pull down manuals from the device itself, to see what I can slap together. I don't want to walk around with it, just try to communicate out.

It takes a while. Why does everything have to be so large? Finally the documents are in my download buffer, and I can search for communications protocols. There is a simple text-only broadcast service I can use. It requires no device authentication, and can't penetrate networks. It's like a radio broadcast, and it depends on someone listening. Worth a try.

Calli here. Sevens and I need help.

I set the message to repeat, and dig back into the manuals. I manage to check the battery power, which is good. We're sucking down power from Jumbo's wiring somewhere. The bug must be well hidden, or else he never cleans.

Or else he found it and left it there. That's an interesting possibility.

There's no answer. I leave the bug transmitting. If anything interesting happens, I can find it in the log later. If there is a later.

Chapter 0D

They take Sevens' nice mask, and we are escorted to an elevator by troopers who keep their silence. Sevens seems docile, though. His head must be throbbing from his debauch. The troopers don't board the elevator with us. When the doors open again, we are on the ground floor of the MOM building, with Two-by-Four there to greet us. Few words are exchanged.

The ride out to the event is quiet. Sevens and I don't have access to the MOM troopers' communications channel, nor outside network access. We can talk to each other, but that has worn thin for both of us, and we're both stressed. The detail accompanying us

is not dressed in their black battle gear today. Apparently that would send the wrong message. Instead they appear to be businessmen in ill-fitting suits. I assume they have slimline stunners in their pockets. Only their masks are uniform, with gold lettering proclaiming the organization they work for. There are eight of them, including Two-by-Four. Sevens wears a very expensive loner mask that is matched to his mechanical eyes. It routes the visuals from the mask in an intelligent way and adds a few perks like a 360 degree field of view and a full suite of sophisticated filters. I use the time en route to play around with this fancy software. An annoying warning keeps flashing that the pathogen signatures are out of date. I can't do anything about that without network access.

We've been told very little. There has been some publicity, and we are to take a stage where Sevens will give the short address in his own voice. This is highly unusual, but given the topic, the utmost authenticity is desirable. Using a VOX, even with all the authentications and usual identification assurances, would only invite speculation of official manipulation.

The sky is gray and threatening. Gusts are tossing around bits of trash, paper swirling around the ankles of a few hundred people milling about. Many of them have rain ponchos. Two-by-Four and his squad lead us to a small platform that has been set up in the middle of the street crossing at the center of the city. Four bronze statues that symbolize the city's history face us from the corners, mute witnesses rusted green. Sevens mounts the steps. All that's lacking is a noose at the top. After getting the nod from Two-by-Four, he pops the cover off of his mouth and begins to speak.

He begins with a scripted introduction of himself, his voice fighting the gusts and none too strong to begin with. I carefully match his pace with the script scrolling in large black and white text across his field of view. I even underline the words for him to emphasize, just like we practiced.

But Sevens is, frankly, a disaster. His normal charming awkwardness is exaggerated by his nervousness to the point of unbelievability. His long pauses, which might have been mistaken for thoughtfulness or a rough-hewn "ordinary folk" presence are just stammers and swallowed ends of sentences that to my TOMcat looks like guilt. He is not inspiring confidence with his voice or in his manner. He fidgets and shifts back and forth, almost pacing around the small stage. It doesn't help that the crowd literally surrounds him, so there's no natural direction to face. The listeners are silent, probably straining just to hear. His shaky halting phrases compete only with the gusts that spin vortexes along sides of buildings.

Sevens only hits his stride once--when he reminisces about the bad old days, when Colt was an officer in the organization that became MOM. He really did know the man, that

much is clear. But this bright spot is not enough to sustain the whole performance. His assertions that the Active Biologicals unit is not subject to undue political pressure, that there is in fact no conspiracy--he forces a gruesome laugh here through a rictus grin--and his vouching for Colt as the man in charge, healthy and cantankerous, these are not believable even to me. Perhaps the problem is that I know more than I should, or that my TOMcat is not in tune with the crowd. But I am sure that if I had access to the new boards, they would show Sevens' credibility cratering.

When the prepared remarks draw mercifully to a close, Sevens takes a deep breath and asks for questions.

"I appreciate your assurances," a newsie yells out immediately--offering his own voice perhaps as a measure of respect for Sevens' courage--"that the active bio program is running flawlessly. It's just hard to see you as an impartial observer. One of my sources places Lastfour 0001, the missing member of the team, at your apartment. Several times, in fact, and including the last night anyone has seen her."

Even without network monitors, I can see the reaction of the crowd, buzzing on throat mikes, turning reflexively to see one another.

Meg told us to prepare for this question by admitting the relationship but denying that Eve had visited Sevens that awful night. Eve simply vanished somewhere en route, which is not unheard of, especially considering her ill-advised hike through the city at night. Meg said that MOM had cleaned up the public record to reflect that version of events.

Sevens coughs and fidgets.

"It's true that we had a relationship. And Eve was on her way to my apartment when she disappeared off the public record."

There is a distinct collective hiss from the crowd at this. They clearly don't believe him. Worse, Sevens clearly doesn't seem believe his own words. His delivery has not improved.

"Lastfour," shouts another real voice from the crowd, this time behind us. I highlight the speaker on the 360 for Sevens, and he turns to face the man. "Lastfour, your account is not credible, given the eye witnesses and public record--as limited as it is." Laughter greets this last bit, and I have a sudden suspicion that Meg was overconfident in MOM's cleanup operation. A darker conclusion would be that she lied to us, to set Sevens up.

But why would she do that?

“Will there be a public investigation?” shouts someone else.

“That’s all for now,” comes a broadcast from Two-by-four, who climbs a couple of steps toward Sevens and raises his hands for emphasis. The crowd clearly isn’t satisfied, however, and it takes the phalanx of MOM troopers to escort us back into the transport.

We don't speak on the return trip. There's no point in saying “Nice job Sevens: you had them eating out of your hand!” He's smarter than that. He's not good enough an actor to have engineered this outcome either, as a spiteful sabotage. It was simply a misguided idea from the start. And of course I'm partly to blame.

No one speaks, but there is a tension in the air. There's no light-hearted joking or boredom that my TOMcat predicts. The transport lurches occasionally, and I can hear the wind howl through the thin walls.

Sevens probably doesn't get any sympathy from the troopers, who undoubtedly have resented his access and public face of MOM. They are probably happy to see him uncomfortable. I would like to talk to Two-by-Four, but there's no access to do so. Sevens is escorted back to the large elevator that leads down into depths of the research area. He says nothing, but his heart is pounding from fear. I can measure the thump coming from the blood vessels in his ears.

A pair of slim mechanicals meets us when the doors roll open. They have stunners.

It's odd that there has been no message from Meg. The silence is frightening. As Sevens follows mute direction from his robotic escort, I message her through my sole point of contact.

<<What now? We did what you asked?>>.

The reply is immediate.

<<What happens now is that Sevens gets prepared for surgery. Your role--the only thing we have use of you for--is to keep him as calm as possible. We don't want to stun him.>>

<<What sort of surgery?>> Are they replacing his nose this time?

<<He has to disappear, Calli. So he is going to become a research subject. Like the other friend of yours--the one you gave to us.>>

<<Please don't do this! Sevens is very talented. He can be useful to you. He is a friend of Colt. You're making a mistake, Meg.>>

She takes her time in answering.

<<Calli, understand something. Your whole existence is pinned to this research. Without Sevens we have no use for you. On the other hand, you could be very valuable in determining the quality of a virtual reconstruction of his mind. You know him. You've worked with him. This presents an almost unique opportunity for us. You should also know that this is my show now. Colt is out of the picture and Ahab trusts me. You don't have a lot of options. You can cooperate and perhaps earn a place here, or you can go into the bit bucket. Choose carefully.>>

<<That's very clear. Thank for that. I will, of course, cooperate.>>. The words stick in my buffer, but when there are no options, decisions are easy. My immediate acceptance may buy me some time. Still, the thought is horrifying.

<<We will see if you mean it. Get Sevens strapped in without drama, and I may believe you. Tell him whatever you want.>>

It only takes Sevens another few seconds to figure out something is wrong when the elevator stops and the doors open. This isn't the floor where the 'apartments' are. This isn't the home away from home in the depths of the MOM building. This is dim, silent, and sterile. Nothing lives down here. Not for long, anyway.

"It's that blasphemous smell again," he mutters. "I don't like this [heaping of waste]."

"It's okay. They want to do some routine checks on your implants. Meg told me." I tell him cheerfully.

Over our private channel I spell out LIE directly into his optic nerve.

It's surprisingly easy to choose this time. The great terror of quiet nonexistence is still there, gnawing its poisonous fear into my loops and queues. "What do I owe this Sticky?" It demands to know. But choosing has its own defenses. To achieve a meaning beyond simple hanging on to life is a tiny spark of self-pride in a swallowing darkness. Whether this spark will fade and die in the face of Meg's wrath is something I fervently

hope against.

"What do I do?" Sevens asks carefully.

To the right is a dark operating theater with a vacant gurney in the middle, surrounded by tubes and boxes of Sticky life support systems.

"Go quietly into that good night," I say, outlining the dim room on his heads-up. The quote he learned from his grandmother is not subtle. I figure Sevens used up all the meekness he ever produced in that public address. It must be burning him up inside.

The space is tight, and the bots have blocked the double sized door with their tubular bodies. I light them up with the full tactical heads up and visually map the space in case the lights go out in the hall.

Sevens' heart rate and breathing peak. I know this sign.

"It's been a pleasure, sir," I say. I would like to say more, to really clear the past, but the moment is upon us.

Sevens dives behind the gurney, where the metal frame would cage off most stunner effects coming from the door. Then he shoves it straight at them. The rollers are locked, and it slides instead of rolling, but he gets some force behind it anyway. He half-lifts it off the ground and crashes it into them before they can move out of the way. There is a clatter of metal bones. Sevens keeps on shoving, forcing the whole tangle of scrambling bots across the hallway. He rips the sheet off the gurney and tosses it over their upper bodies, blinding them. The PDA operators can see through the hallway cams, but it will be much harder for them to operate for a few seconds as they make the relevant mappings. Sevens doesn't lose a tick, reaching and grabbing a waving aluminum arm. He decouples the attached stunner with a snap just as it goes off in his face.

When I get coms back, we are blind and deaf on the right side. Sevens is wheezing and muttering a stream of his automatic curses. But he's still in action. There's another flash and pop, but this one pointed the other way. He yelps and jumps as the shielded bot juices him with a shock.

It seems to drive him into a fury, an exorcism of pent-up frustration, hurt, and righteous anger at these abstractions of humanity--we machines. This is not entirely effective, since they are made of hard materials. Punching and biting don't work very well,

but Sevens gains his self-control, limiting his ineffective spewing to blistering artistic profanity. He has a whining stunner in each hand now, and is alternating shots into the heads and torsos of each bot. I think they are dead, but he keeps up with the whining recharge, aim, blast, jump from the reflected shock, alternate hands, and so on.

“Sevens!” I try to jolt him out of it. We are still half blind and deaf. Diagnostics look bad on the right side, like a hardware failure stemming from the inductive recharger. We don’t have much time before they shut us down like they did before. I’ve got the map of the floor roughed out and loaded for Sevens, but if they take me off-line again, he won’t have navigation beyond dead reckoning.

“Yeah, I know.” he says. He stands and gives the tangle of robots a final kick.

<<Sevens has gone nuts, but I think I can talk him down.>> I send to Meg. Maybe it will buy a few moments.

The lights go out. For an instant I think it’s all over, that I’m back in the box. But it’s literally the lights going out all over the floor. Sevens flinches just like I do. Then they come back on, but dim.

“Emergency lighting,” Sevens says. He runs to the elevator, but I can’t find an interface for it. It’s beyond scope, apparently. There is a door that’s marked as a stairway. He tries it, but it’s locked. We’re trapped down here.

“Go find Gloves,” I say impulsively. What else do we have to do?

“What? Find who?”

I outline the path on the floor for him to where I think we were before. If Gloves is in one of those operating chambers, we can get him out.

“It may be our way out,” I lie. Well, who knows--maybe we can create a hostage situation. I flinch at the thought.

“Dammit, Calli! What are you up to?”

He doesn’t trust me. That, too, stings.

“Just vorking do what I say, Sevens!” This comes rushing out, half rational, half not. He starts from the shock of it. He mutters under his breath but follows the highlighted route.

Except for Hunch, the rooms are empty. I force Sevens on a wild moose chase, looking in all the glass windows, but there's no Gloves anywhere.

"Should we let him out?" Sevens taps on the glass. Hunch's brain glistens behind it.

"I don't see how we can help him. He can't walk around with half his skull missing. And they said he was shot to pieces."

"Maybe the good guys will win and patch him up," he says. Neither of us believe it. "Let's get out of here."

Sevens organizes for himself a metal club of sorts, and a shield made from a pan. It's nothing like a military grade Faraday mesh, but should protect his head from stunners if he's quick enough. It's better than a tinfoil hat anyway.

He gets the elevator door open a few inches and we are gazing up into the darkness with our one good eye. I filter the womp out of it with infrared and wavelet edge detectors, and we can see the earthy glow of the car just above us.

"What about down?" I prompt.

He levers the door open half a meter and jams it there with his ersatz club. He swings our gaze down. It's a dark pit.

"Listen carefully," he advises me, and after a moment proceeds to piss into the depths. I'm not sure about the air resistance for the stream, but if it were a vacuum, the bottom would be about twenty feet below us, judging from the faint sounds below.

"I advise you not to jump."

He grunts and reassembles his pants.

"Any ideas?" he asks.

I have been trying to sort out this puzzle. Given where we are, I don't see any point in not openly discussing with Sevens. Meg should have already shut us down if she were paying attention.

"Do you think the storm shut down the city's electricity?" I asked.

"Doesn't seem likely. We were just out there. The wind wasn't up yet. All those people would not have come out if we were on the verge of a major blow. They'd all be home boarding and hoarding. If it's coming this way, it must be at least an hour off."

"Well whatever the reason is, we got away with disabling two bots. Inexpertly handled, maybe, but still an accomplishment. They were going to blend your brain, you know."

"If it comes to that, Calli, I will fry my own mind first." He holds the charged stunner to his temple.

"Sevens!" I'm suddenly frightened he might actually do it. The symmetry with Eve is probably attractive to him.

"No worries yet. Where there's rope there's hope."

"You're doing it wrong, anyway. You want to shoot it straight into your forehead. That way at least if you live through it you'll be happy. Better than just scrambling your ability to walk and talk." This is like ripping a scab off a wound, and it's chancy.

His pulse surges, thumping in his ears. But he quickly gets his breathing under control. He's focused. Good.

"Noted. Thanks for the tip," he says with strained vocal cords. "We need a vorking break. Just one break. Where's my damned luck?"

<<I need your help>> comes from Ahab, and the same time my network access broadens to include the building's video surveillance system.

Chapter 0E

This is a miraculous expansion of my consciousness. Suddenly I'm no longer locked in Sevens point of view. It's exhilarating and dizzying.

<<Yes?>> I reply to Ahab, keeping the emotags in check. It wouldn't do to let him see me happy.

<<We are under attack. I need you to get Sevens up to the eighth floor to protect the Director as best you can.>>

"You aren't going to believe this," I tell Sevens. We can already hear the elevator in motion, whirring down to our level.

After I orient myself to my new whirl, I scour the video inputs from the building exits. There aren't many of these. The building was designed with security in mind. There are two public access points, and the surveillance at both is off line. Hallway video from near the dead cams is more interesting. It looks like a firefight in progress. It's hard to tell what's what, but mechs and live bodies are involved. Smoke and flashes and noise.

"Sevens, I think the SALES team has arrived."

I let him soak that in. Is this good news or bad news?

"Ahab wants us to go up and defend Colt," I continue.

Sevens hesitates, then boards the elevator. I hope it goes up and not down.

"Stop it on the ground floor," he tells me. We aren't in the vicinity of the shooting, so I open the doors for him.

"What are we doing?"

"I'm leaving. Colt can look out for himself, the bastard."

"I'm not sure how that's going to work, Sevens. I can't see anything outside the building. We don't know what's going on out there.

"I'll take my chances."

This poses a particular problem for me. I can't just run off with Sevens, even if he manages to get away. I'm still stuck with whatever box Ahab has put me in, and can only talk to him through the building's utility network.

"You know I can't go with you. I won't have a connection to you out there."

It actually stops him for a moment. He heaves a deep sigh.

"Damnit, I hate talking to a voice in my head. I feel like I'm going insane. Can you show yourself? Lead me out of here, and we'll talk."

I resolve a low-resolution avatar for him. The proportions and movements are all wrong, but I just don't have the rhythms I need, nor the Time. He grunts when the image comes up, and reflexively checks out the legs on the avatar. I don't think we need to slice up brains to lead men like him around by their noses.

I lead him toward a stair that leads to the parking deck. It's one of the sparse emergency exits.

"I'm sorry, Calli. What would you have me do? Is there some way I can...I don't know... put you on a movable media or something?"

The etard is becoming downright sentimental. It's starting to sink in, this ultimate loneliness of my situation. It's nobody's fault but mine.

"No, there's nothing. If we were in the I-Scraper and you had the right equipment, you could grab a copy of me. If I shut down first. A lot of ifs. Anyway, it wouldn't be me, just a copy of me."

"I'm sorry. You've been a good employee."

Employee. That's as close as Sevens will ever come to apologize for having me terminated. It's a reversal from the position a few minutes ago, faced with his fate at the hands of the MOM butchers. Ironical and now painful. It's better to be the generous one than the one who gets stuck with the bad deal. 0xFC!

The door is crudely welded shut with plate metal.

<<Where the hell are you going?>> Ahab wants to know.

<<We got lost.>> I send back. It bounces. The WTFmeter jumps. I send it again, and then see that there's no response at all on the port. No handshaking, nothing. The buffer is dead and cold.

Oh.

I used the wrong protocol in my haste. It was a request to the directory for the The Company's cheap messaging protocol. I used to rely on it when I was living on the edge of Time depletion constantly. I used it just now instead of the MOM network, out of old habit, and probably stress. It's the same thing that failed to work with Meg yesterday.

I hadn't thought about it then, but it makes no sense. Ahab cannot block me from Company internals without some kind of paperwork showing up. If the MOM box included a prohibition of this local traffic, there would still be a handshake and a 'sorry you can't use this' message. That's just how the Company operates. I'm physically hosted in their tower, and MOM can wall me off from their own network any way they choose, but they don't have direct control over Company hardware. Do they? Could things be that bad? Still, I can't imagine that they would have managed to change Company practice just for me. What's going on?

<<We got lost.>> I send it through the MOM network this time, and it doesn't bounce.

<<If Sevens tries to leave the building the sentinals will kill him.>> Ahab replies.

"Sevens, Ahab says the robots will shoot you if you try to leave."

"I'll take my chances."

"And if they don't, both sides will probably shoot you just to be safe."

"I'll be careful." He bangs on the door, but it's clearly not going to open without explosives. "Calli, give me a status update. Who's winning?" Sevens asks. He runs his arm across his nose to wipe it.

I've been keeping an eye on things, but the video cams seem to be the first thing that gets blown up. I don't have access to the onboard cams on the mechs they are using, so all I have to go on is the physical progress through the halls.

"It looks like they--" there's a loud BOOM that shakes the building, followed by a low rumble.

Sevens heads back to the elevator.

I think I've found Sevens a way out. There's a loading dock that the fighting doesn't seem to have reached yet.

He's at the elevator, hesitating.

"I may have another way out, but it's dangerous." It makes me afraid, but I force the words out. "Ahab wants you to go to the eighth floor. That automatically makes it seem like a bad idea."

“Exactly what I was thinking. If I go up there, I’m trapped.”

“Do you owe Colt anything? How do you compute such things.”

He laughs. “Calli, when things get rough it’s everyone for himself. I’ve seen it a thousand times. Colt may want his ass saved. He surely doesn’t want to help me sort out my issues. All I owe him is a punch in the jaw for taking my eyes.”

I want to ask Sevens about the possibility of holding Colt hostage, but Ahab is obviously listening in. I lead Sevens toward the loading docks.

“I think MOM could lose this battle. They don’t seem well prepared. What if we surrendered to the attackers?”

“Too risky. I’m not tagged as a friendly. The only thing that makes sense is for me to get the hell out of here and go find an eye doctor and a shrink.”

I’m aware of what I’m doing. I’m trying to find reasons for him to stay to the bitter end. Sevens and me, whatever happens. It’s a stupid idea. We’re probably better off without each other.

<<If you’re going to go that way, at least take a bot. You’ll need it.>> Ahab sends. He includes a set of authentication keys to a mechanical. I locate it one floor up.

“Sevens, Ahab sort of sends his blessings. But he says we’ll need weapons. There’s an armory just over our heads. Next floor.”

“He’s just trying to slow me down.”

I boot up the mech and start its pre-service routine anyway. You never know. Plus I love to drive bots. I don’t know if Ahab intended this or not, but my credentials work on a whole fire team of four bots, not just one. I warm them all up. You can never have enough. They have different loadouts for weapons.

They are r3137 (“Reviser”) and abf0400 (“Flanker”), carrying mixed loads with right hand stunner and left hand precision projectile weapon, loaded for flesh targets with other ammunition stored. This will be a problem against shielded mechanicals. Better is xxx5387 (“Vixen”) which is the heavy weapons bot. It’s slow and unfamiliar to me, but it has a spin-up minigun and mixed ammunition types. Finally, I have a command

and control bot emb1905 ("Einstein") with a head-mounted grenade launcher. The arms have directional sensing and antennas for long-range point-to-point secure communications. I have no idea how to use most of this equipment, but there should be an autonomous sentinel mode if all else fails.

When Einstein comes online, I suddenly have access to the whole tactical landscape. I gobble up as much data as I can quickly. Ahab will shut this down in an artbeat when he discovers what he's done.

This is odd. If this is accurate, Ahab and I are the only PDAs online! Where's Meg? Where are the dedicated security artificials? There's no active network defense! That means any physical penetration could result in complete loss of control. Mechanicals could be vampired out by the bad guys and start shooting MOM troops from behind. They could use our own security system against us.

Us? Why am I associating with MOM?

I need to take stock here. Too many things don't make sense. When did all the PDAs go offline? Was it Ahab who was driving the two mechanicals that Sevens disposed of? That would explain the inept handling, if he's trying to fight a battle at the same time with no help. But then why would he want to help us? The obvious answer is that *he doesn't want to help us*. Maybe he plans to override these bots and shoot Sevens once he gets close. We'll have to be careful. But I was talking to Meg right up to that struggle. Maybe she got shut out when the lights went out. There are too many unknowns.

"I smell smoke," Sevens says Without the mask I have no sensors on board. The security network does, I'm sure, but it will take time to sort out the dense interface. All sorts of alarms are going off. One them could biological or chemical.

"I don't have good intelligence on that yet. What do you want to do? I have bots readying upstairs in case we need them. Ahab gave me access. He thinks we will need it if we stay down here."

"Gave you a bot, huh? That doesn't sound like Ahab."

"Four of them. I'm not very practiced at driving them, though."

"Don't do anything stupid, Calli. This isn't our fight. I don't know is Ahab has lost his mind or what, but we should stay out of his fantasies. A good plan is to figure out what he wants and then do the opposite."

Sevens cautiously follows my guides toward the muffled sounds of fighting. He pauses to sniff the air for traces of gas every few steps. It gives me time to take better stock of the situation. A closer review of the defensive grid shows that automatic firewalls were triggered on part of the network, which means that they have active intelligence at work in breaking down the net. They probably have at least one PDA specialist out there on Big Time, working in close support with the ground troops to "node and trode" their way in. Maybe Ahab is desperate to get some use out of the hardware before it is compromised, and that's why he armed us.

It looks like the MOM troops are running mechanicals from their cages upstairs. They are distributed in defensive positions throughout the first floor of the building. Two-by-Four is in a see-and-see bot on the first floor directing the action. I scan the targets that the bots are shooting at. They are almost all uniformed Stickies, wearing a brown color scheme I don't recognize. It's not too surprising that it's mostly humans attacking, since assembling people at the entrance of the building would be a lot easier than assembling a small army of bots. Still, the asymmetry is striking. All the troopers have to risk at the moment is hardware. For the attackers, blood and bone are literally on the firing line.

There are twenty-four active bots, not counting the four I just warmed up. They tend toward heavier weapons like small chain guns, pulse lasers, and grenade launchers.

I listen in on the chatter.

"We got more spiders up here, and the vorking sentinel is flaky. Ah shit! Lost Twinky."

I rewind Twinky's log and watch. It's a lesson in military theory, which I read about in my short-lived bot training. The perfect weapon is small, fast, smart, stealthy, and has a tailored payload. This is why history favors the bullet: it has all of these except intelligence, which has to be provided by the triggerman. Intelligence comes in two flavors--autonomous or remote, each having their own issues. If possible, remote smarts are preferred since they can be integrated with other battle intelligence. Most weapons roll over to autonomous mode if comms fail.

With the physical infrastructure under attack and no active counter-measures for network defense, the MOM leadership has wisely created a point to point private network between command and control bots, as if this were a remote battlefield. The exception is that the surveillance net from the building is shared with the battlefield map, for a small home field advantage.

Two-by-Four is in tactical command, and has deployed a network of minis out in front of the bots. These are small robots ranging from binsects like the one I left in Jumbo's apartment to hand-sized spiders. A little further back are sentinels, that are mostly immobile tower defenses to take out the enemy minis. Behind this defense is where the bots are, ready to deal with large armored threats.

The attackers have deployed a small number of their own minis, and one of them snuck by a dead MOM sentinel and took out Twinky's bot by climbing up its leg and detonating. Twinky saw it coming and did a berserk dance to try to dodge it, but it was too fast for him. I'm sure the troopers will laugh about it later.

In the main entrance, the attackers have advanced well into the lobby area, and the Sticky troops are using natural cover there. The blasts were area weapons designed to clear the minis. This is a tactic that favors MOM, which undoubtedly has more mechanicals.

I watch an expert game of cat and mouse in real-real. A MOM operator unlooses a medium roller--an inertial ball that can rapidly change direction, fitted with an electromagnetic bomb that can fry the circuits in smaller minis. The game is to get it as close as possible to the center of the the enemy bots and away from friendlies before detonating. The attackers have to decide what kind of target this is--something to be swarmed with their own minis or something for the tower defense to take out with precision ballistics, or something to duck and lob grenades or other heavies at.

The ball makes its appearance with about a dozen decoys, all bounding around the corner from the MOM position and bouncing and rolling at the enemy. They are each about a foot in diameter, and can take considerable punishment before being demobilized. A frenzy of firing greets them from the towers and humans. Lasers paint them and tracked projectile weapons lock and fire. A swarm of MOM minis wait in their shielded boxes for instant deployment.

The EMP ball makes it well into enemy territory before enough bullets find it. It auto-destructs in a flash, taking out anything nearby with weak shielding. Two-by-Four unleashes his minis and fogs the place with dense smoke.

Stickies really hate the spiders. In addition to their military worth, they are psychologically effective. Some of the spiders will crawl on you, fast as fury, and then detonate. Or inject you with poison. Or just hang there, gathering intelligence and tagging you as a target for larger weapons.

Apparently, the EMP has taken one of the attacker's towers offline, and several of the MOM spiders that direction make it to hiding places, from which to creep up on the enemy at leisure. In autonomous mode, they are almost impossible to detect without careful screening without direct visual contact. The uniformed Stickies fall back and try a small fuel aerosol weapon to eradicate the infestation. It creates a large WHUMP that sucks the oxygen out of the room and produces even more dense smoke. I'm afraid the building may catch on fire.

I tell Sevens to stop. It's quite possible enemy minis are near us.

"Put your head against the wall and hold your breath," I order in my best 'don't question me' VOX profile. He does so without argument.

With this fixed point of view, I watch the hallway for movement. The fact that Sevens isn't moving greatly simplifies the problem of finding tiny indications of threat, like little creepers that might sting him with venom or blow his foot off,

I see movement. It's subtle, but unmistakable. Something small is crawling down the edge of the hallway toward us. Only the fine resolution of Sevens' new optics could have found it. It may be searching for a power cable behind the wall to leech induced current from. Or it could be an actual biological insect or arachnid, of course. Sometimes those are released as decoys, or it could just be a naturally occurring one. The so-called Palmetto bugs are abundant here, and it's impossible to keep them out.

Whatever it is, it's not likely to directly threaten Sevens as long as we keep our distance. It's too small. I know from my experience with binsects how hard it is to balance its energy budget with action.

I wonder if I can talk to it.

"I found something. You can breathe, but keep still."

Sevens grunts. I pipe him the defensive map for his entertainment, as an overlay to his vision. It's a risk because it will become obvious to Ahab that I have access if he's bothering to watch us. I rather think he wants us to have access for some inscrutable reason.

I try some different handshakes with the short range point-to-point radio, talking to the bug and listening for a response. Sevens' onboard transmitter is easily up to the task. I am not surprised not to get a response. It's trying to hide.

My bots are warmed up, and I start Flanker down the elevator to us. I can barely control one of these at a time, so the other three stay put. It's a comforting feeling having them there, regardless.

"It looks like the MOM troops have them contained at the moment," he says with a hint of regret.

"What do you suppose they want to achieve?" I ask Sevens.

"They don't want MOM to be a threat to their power operation. Colt was probably raking off profits for protection money. Who knows? Regime changes is what they want, or they wouldn't throw this kind of party."

"See the loading dock there? That's what I had in mind. By the way, I'm controlling a bot that will show up in a moment. Stay put."

"Calli, this isn't going to work," he says after a moment. "If that dock were accessible from the outside, they would have come in that way as a flanking attack. It's blocked off for sure. We'll have to find another way out."

"What about hiding until this is over?" I would suggest going back down to the surgery, but I know that's not going to be a popular option.

The command and control map shows some new units: heavies from a MOM depot. These are liquid fueled rolling mechs with heavy weapons. They are four of them converging on the breaches to the MOM building from the outside. This will make the attackers fight front and rear.

"Egg incoming!" Two-by-Four shouts on broadcast. There's a new threat highlighted.

"What's an egg?" I ask Sevens.

"We have to get out of here!" he says.

My bot waits on the elevator while we board. I watch Sevens through its eyes as he catches his breath and gives me an explanation.

"An egg is like a mothership for minis. Instead of swarming the enemy with spiders, you put them in a heavily armored shell and try to burst through the defenses with it. Usually

they are too much for a small tower to take out.”

I stop us at the second floor and open the doors.

“The elevator power could go out any time,” I tell him. “Where do you want to go?”

“Can any of these weapons you have access to blow a hole in the wall?”

“Probably. I’m not sure how long it would take.” I say.

“Second floor then. Bring your bot there. Not this one. Heaviest thing you’ve got. Take me to the furthest corner from the fight, and we’ll breach the wall. If it’s quiet I’ll jump.”

Chapter 0F

When we step out of the elevator on the second floor, I leave the doors open with Flanker standing between them so they can’t shut. Then I retrieve Vixen, the one with the mini-gun. It’s on the same floor and not far.

“That’s an ugly piece of hardware,” Sevens says. “Please don’t point it at me.”

“Boss, meet my friend Vixen,” I say.

“Yeah, yeah. Let’s see it make a foxhole.”

The outer wall is not accessible unless we break down a door, so I send Sevens off a distance and review the combat setup on the bot. I’m not at all familiar with the interface, and it doesn’t seem to be designed with user friendliness in mind. After a couple of false starts, I manage to get the ammunition loaded. It’s supposed to be high explosive rounds, but we will see.

Steering is easier, and I get the business end of the mini-gun pointed at the door without too much fuss, and get the barrels to spinning. Simple as 1-2-3. I think I may have a talent for this.

“I’m going to fire now,” I tell him.

“On with it. The war’s almost over.”

I think he’s joking about that. I do a quick scan of the tactical situation downstairs.

It's very chaotic. The attackers and MOM units seem to be all mixed up. The comms channels are full of excited chatter. I'm glad we're not down there.

Oh.

"Look at the loading dock, Lastfour."

There is a swarm of enemy minis coming out of it. If we'd gone that way Sevens would be in trouble. The building doesn't show a breach, so the robots must have been in there all along. Were they commandeered or planted? It doesn't really matter.

"[Holy unwanted birth]! My luck still holds, Calli."

I pull the trigger and watch the ammunition store drop. There's an impressive reaction from the wooden door, which splinters into a cloud of fragments and smoke. The roar is clipped by Sevens' audio filters so it doesn't damage anything. He's standing twenty feet away down the hallway, but it's very loud.

The gyro readings on the bot are going crazy. What's going on? I'm not moving it. Is someone else moving it? Did Ahab take it from me?

"Run, Sevens!" I yell at him. I try to turn the mini-gun off, and it still recognizes me. It whines, then whirs, and finally clicks to a stop. What's going on?

There's a high pitched screaming that after an artbeat I realize is coming from Lastfour.

The bot is laying on its side in a corner.

"Something went wrong." I say.

"Sweet mother of god. I thought I was dead!" His heart is pounding.

Through the haze I can see that there's considerable damage everywhere we look. I'm confused.

I find the logs for the mechanical and rewind the last few moments. A few seconds after I began firing, the bot started spinning wildly like a high pressure hose that's free at one end. The explosive bullets went in an impressive number of directions, including blowing off one leg of Vixen itself. The other bot, Flanker, stands stoically at his post between the elevator doors unharmed.

“Shit! I’m bleeding!”

“Apparently the bot has to be stabilized somehow before the minigun is used. I guess the mass of the robot isn’t enough to keep it in place.”

“You think?” he screams. “[Various uses for prosthetic bull genitalia]!”

We’re looking at his right hand, which is smeared with blood.

“Where are you wounded?” I feel like an idiot.

“My face. I don’t know where else.”

“See if you can stand up.”

He totters to his feet and feels around his body for parts that might be missing.

“It’s my ear. There’s only about half of it left. Help me find it.”

Sevens wants to look for the missing half of his right ear. To do what with it? I think he’s on the verge of shock.

“Let’s get you upstairs, Sevens. Colt will have medical care.”

“I am NOT explaining this to Colt!” His heart rate is finally slowing. He breathes heavily for a few minutes, regaining his senses. “Did you at least make a hole in the wall?” He takes off the fine white shirt they gave us for his speech and tears at the sleeve with his teeth until it rips. He ties it around his head.

“That hurts like a [incestuous child of two species],” he says.

When he has regained some sense of perspective on a minor bit of missing flesh, we inspect the door. That, at least, has been breached. The wall beyond, however, is damaged but intact. Not even a mouse could get through.

“The bot is still functional. If you hold it upright I could try again. Maybe a short burst would do it.”

He shudders. “I think not. You’re not satisfied with just my ear?” He pans to look at

Vixen, lying on the floor a few yards away, barrels still smoking, and points. "Look what you did to that poor guy." His hand is shaking.

I have to get him back on planet Earth by engaging his higher mental functions.

"Sevens, take a look at the tactical situation downstairs and tell me what you think we should do." I overlay the map on his field of view so it's the only thing he can see through his good eye.

The map looks like chaos, but there are a couple of features obvious to even a military noob-nous like me. One is that the human attackers are being slaughtered by the heavy weapons at their rear. The other is that the massive swarm of enemy minis they unleashed from the loading dock is headed not for the battlefield, but toward the innards of the building. Toward us.

This cuts through some of the fog in Sevens' head, apparently.

"It's incredible," he says. "They've abandoned their flesh and blood troops. Like they are a side show. A distraction to let the spiders into the building."

"Why would they do that?"

"There's only one reason. They want to hunt down and kill anything living. They don't care about the MOM hardware. It's the wetware they're after, and they were willing to pay a big price for it. Or it could just be a typically screwed up military action, where the plan went horribly wrong. That's what happens most of the time in my experience."

"What's the range on the spiders?"

"Good question. It depends on what they are using for fuel and how fast they burn it. The MOM reaction will be to deploy sentinel towers in the hallways, if they haven't already. Haven't seen one on this floor, so I'm guessing they don't have that many or they weren't prepared for this. Do you remember where the operators are?"

He means the cages where the MOM troopers drive the bots.

"Two floors up, in the middle of the building."

"It's sure to be fortified."

“Sevens, there’s another problem. The only PDAs online, as far as I can tell from the tactical readouts, are myself and Ahab. There’s no active network security, unless Ahab can run it himself.” I look at it again, and find to my shock that Ahab is gone too. I’m it! I suddenly feel very alone.

“Scratch that,” I tell him, keeping the VOX under control. “Ahab is AWOL too. There’s not a single PDA showing up on the defensive map except for yours truly.” I wish I had an avatar representation of Joan of Arc. As it is, I let some stray hairs loose and paint powder burn marks on Calli’s skin. I really don’t have Time for this though.

“How can that possibly be? If that’s the case it’s only a matter of time before they shut off or co-opt the tower defenses and pretty much everything else networked. Do you think you could run them?”

It’s worth a laugh.

“Don’t even think about it.”

“Well, that’s a goat rope [used imaginatively for carnal gratification].”

I scan the map of the electronic battlefield, but it makes little sense to me. It shows breaches and dead zones, annotated with cryptic markings that would mean something to a security PDA. I’ve only had the most basic training on this stuff.

“Can you tell if they are warming up the towers to defend the building?” Sevens asks.

On the tactical map there’s an inventory of these special purpose defensive bots. They are immobile, and must be deployed manually. I assume that will mean taking troopers off the line to do so, putting their combat bots into autonomous mode.

“I don’t see them being deployed yet.” I say.

Most of the attacking spiders have disappeared from the monitor. They are in stealth mode, or have found ventilation shafts. I know from experience that in stealth mode they move quite slowly, so we might have some time. It depends on whether they prefer being hidden or being quick.

The lights go out, and with it goes my access to the tactical control network. If my bots are still alive, I can’t reach them.

"I lost the bots. I think the attackers are in the network." I banish the cartoon Calli to save cycles.

"Damn Dawkins to everlasting hell," he says with feeling.

Sevens peaks around the corner at the elevator. Flanker stands there like a statue. His heart pounding, Sevens races at the bot, flattening alongside the wall beside it. There's still no movement.

I try to talk to the bot on the point-to-point protocol, but I don't have the right keys. I should have set up that interface when I had full access. Damn Dawkins. Another mistake.

He points the stunner he grabbed earlier at the bots' head with his right hand, and reaches with the other to unhook the projectile weapon. It's bulky, heavy, and not designed to be used directly by humans, but as with all of the modular weapons, it can be in a pinch. Flanker doesn't move.

"What kind of ammo is in this thing?"

"It's got a soft target ammunition loaded, but there's a magazine for armour piercing too. You have 200 rounds."

He makes the switch to the heavier shells, jacking a plastic flechette round out onto the floor, where it rolls into one of the small craters I blew in the floor.

"Is there anything you can do to give me a point of aim?"

"I can't talk to the gun itself, but if you test it, I can make a good guess visually."

Sevens steps around the metal bones of Vixen into the half-destroyed office, points it at the wall and fires.

It's nothing like the mini-gun, but it makes a considerable racket and smoke. I count the rounds for him and give him a display that shows them clicking down. I do my best to give him an accurate aim point. He fires 48 shots before stopping. There's a head-sized hole in the wall. Beyond it is another wall that looks sheilded. The bullets didn't do much damage to it.

"Bitshit! I thought this was an external wall!"

"I guess they don't want anyone blasting their way in so easily. Or out."

"No kidding, Calli. Your genius astounds me. Now what do I do?"

"I may be putting you in danger. If you prefer, I can go offline and put your sensory equipment on autonomous mode."

That's not what I want at all, but it has to be offered.

"You think they can find me as long as you're talking to me?"

"I'm sure of it. The spiders will see your body heat."

"How long do you think I could hide before they find me anyway?"

"Not very long. They have sensors designed for that, and they probably have access to the building's own security network now."

"Right. I think we have to go pay a visit to our friend Colt after all. Any way to get up there without using the elevator?"

I feel a rush of relief. I don't have to voluntarily put myself back in the box by cutting off access to Sevens.

"There's a stair, but you may have to blast open the door."

"Lead on. Let's hurry."

A burst from his weapon blows the lock open, letting the door swing free. When Sevens opens it, there are sounds of many rapid footsteps on the treads above us.

Sevens walks up two flights, and we catch a glimpse of MOM troops heading up the stairs ahead of us, pounding them with their thick boots. We wait until they pass--there are about a dozen of them--and then follow cautiously.

Chapter 10

When we step out onto the eighth floor, there's emergency lighting on, creating stark contrast and odd shadows. It's clear the troopers are tense. None of them are wearing

real masks, but most have improvised face coverings. I assume they are offline until they get a new secure network up. It's very strange to see the few openly naked faces. Only about a third of the men and women milling about are in the black MOM uniform. The rest are in civilian clothing.

"Hey! Look who's here!" I can't identify speakers, but start to catalog their faces and voices for future use.

A tall bald MOM trooper sees Sevens and charges him, swinging. Fortunately it's on the side we can see, and Sevens manages to partially block the blow. We're sent sprawling into the wall nevertheless. There's a rush of angry voices.

"What are you doing here?" Baldy demands, fists raised. There are several weapons pointed at us. Sevens lets his borrowed gun fall to the ground.

"I was told--"

--Shut up, Sevens--" I interrupt him by shouting directly into his auditory system. I have a suspicion that mentioning Ahab's name might be a bad idea. He lets the sentence die.

"Told what? To come up here and spy on us for your Indian friends?"

"Let's get those transmitters out of his head!" Someone shouts.

"You'll have to fry them. Use a stunner. Like he did on his girlfriend."

Other voices rise in anger. It makes me angry too, to see him abused--I feel like that's my job--and I turn on the tactical heads-up. Sevens blocks a fist, but someone hits him from our blind side, and he staggers.

"You hit my ear!" he yells. "[Cowardly under-endowed hermaphrodites with tendencies to incestuous necrophilia]!"

I guess we're not welcome here. That presents a problem. If they notice that Sevens is transmitting to the network, things could get even uglier. The utility net is still operating, which is the only way I can reach Sevens. But there are other devices out there too, chattering away, like motion detectors, light dimmers, air handlers, alarm systems, and all the other low voltage necessities of life. Mostly they are outraged that their systems are in the red, and demanding that *someone* do something about it. In order to try hide my connection to Sevens, I start Time-slicing the packets into bursts back and forth, and

wrap them all in the protocol for the sweeper bots, who are being particularly noisy. It's probably enough cover to last anything but direct inspection.

"Stop that fighting!," the MOM Director's VOX cuts through the madness. "I want to see Sevens."

We are led, half-carried, a short way to a room with a double-sized door. It looks just like an intensive care room at a hospital.

Colt reclines on a wheeled bed just big enough for him. All that we can see of the man is a patch of skin here and there. The rest is tubes and wires, wheezing cylinders and dripping bags. He's not masked, but his eyes have been replaced with prosthetics just like Sevens'. When he speaks, the voice is audible in the room, but clearly artificial. His skin looks gray and ancient. The wrinkles have wrinkles. He's flanked by two male assistants dressed in white. Even their masks are white. They are fussing over tubing and other Stickiness.

"Nice of you to stop by, Sevens." There's only a tiny movement of his throat to show that he's alive at all.

"[Carnal deity!] What happened to you?" Sevens asks, more tactfully than I would have expected.

"Old age in young age, Sevens. And you should talk. You look like walking death yourself. Our god can be a cold-hearted bastard."

"Religion is a darkling terror of the mind, Colt." Sevens acts calm, but his heart is still hammering from his treatment by the troopers. He keeps touching his face.

"You come here and quote Epicurus to my face?" He actually sounds angry.

"I don't know who said it. You'd have to ask my grandmother. You don't sound like a man who's besieged by enemies and breathes through a hose." Sevens just sounds tired.

"There is time enough."

"Give me a break with this Stoic crap," Sevens says. "So do you have a plan, or are you going to just subject the enemy to a philosophy lecture?"

Colt barks a laugh. I'm sure it's nothing like his real voice. He probably paid consultants to create his VOX..

One of the Director's medical attendants approaches, and when Sevens doesn't wave him off, unwraps the makeshift bandage. Sevens flinches when the bloody sleeve unwinds from his head.

Our point of view twitches this way and that as Sevens gets a proper bandage.

"We have a hardened land line to our remote headquarters," Colt says. "Such as is possible in this weather, our other troops are gathering there. The plan is for us to hold our here and use air transports to reinforce or evacuate, depending on the necessity of the moment."

That's a very delicate turn of phrase, which I imagine could hide a lot of badness. The necessity of the moment.

"But," he continues, "if you have paid attention to the weather, you might know that it's breezy out, and unwise to try to fly at the moment. So we are at the mercy of the wind until the storm passes."

"Hold out here for...what?...several hours at least," Sevens says.

"Better plan on six hours. Maybe longer, depending on whether or not there are any working helicopters to be found after this is over. It's a rather big storm. The wind is already gusting too much to chance a landing."

"There are a lot of minis out there. Do they own the network too?"

"Probably. We're working on that. We sent a team to do a physical interrupt on the power to the building--blow up the junction to put it crudely. If that succeeds, the only power will be mobile, and the enemy will have to find a way to re-power the network before they can use it again. Since they are relying on mechanicals, this will buy us considerable time."

It will shut down my my access to Sevens too.

"Won't that kill you?" Sevens asks.

"Not immediately, no. I have enough local power here to exist for a while."

“What about your PDA?” Sevens spits the words.

“Ahab has become untrustworthy. I froze his account a little while ago. Two-by-Four did it manually at a terminal.”

This is a sudden shock, and a relief. The all-powerful Ahab is on ice, oblivious to all this drama he helped create. And here I am in real-real. It feels good.

“I can’t believe I’m saying this, Colt,” Sevens says. “What can I do to help?”

“Talk to Two-by-Four. He’s in charge of the defense.”

The Director sounds far more relaxed than I’ve ever heard him. I suppose he puts on a certain professional demeanor every day for work. Maybe this is the real man.

“He seems almost serene,” I tell Sevens, as we go in search of Two-by-Four.

“Colt fancies himself an intellectual with cares beyond the mundane world,” he mutters to me. “One of his many vanities. We’ll see how stoic he is when the bugs start crawling through the walls.”

“Did you know he was in such bad shape?”

“No. He looks like a mummy.”

Two-by-Four doesn’t want to talk to us, and the troopers seem to want to kill us, but apparently Colt has given us a free pass for the moment.

“Wait over there,” Two-by-Four says, with a ‘z’ sound flaring at the end--his German origin betraying itself.

We wait and watch.

Because everything is audible, I can follow the conversations. Sevens’ superior hearing can catch speech that human ears wouldn’t. I filter it and clean it up for Sevens to listen in.

Two-by-Four is having the troops deploy sentinels set to autonomous mode. Or at least that’s the plan. They have several of these point defense towers hauled up from

the lower floors, but there's apparently a problem. In order to set up these immobile bots on autonomous mode, someone has to talk to them and work through the menus. This could be done on the utility network that's still available, but that invites interception by the attackers. They have the same problem I had earlier with point-to-point communications, which makes me feel less stupid. In short the setup procedure has to be accomplished with a hardwired connection, and this requires a cable that no one seems to have. Two-by-Four casts about to assemble search teams.

"Sevens, you didn't charge up your power last night. The level is okay for now, but getting your hands on an inducer would be a good idea."

Sevens raises his hand. "I'll go."

"Yeah?" Two-by-Four says. He hesitates. "Fine. You can go as a lookout." He probably prefers we die down there and remove any risk that Sevens and I are providing intelligence to the enemy.

"Be a lookout with one eye?" Sevens mutters. "That's a [cylindrical container of procreating primates]."

Two-by-Four acts quickly. Two teams of three are to be sent back downstairs to look for a set of universal connectors, while others physically place the defensive bots in position at strategic points on the eighth floor, which is also the top floor of the building. Other teams are blocking air vents or other obvious access points.

They are preparing for a siege.

Our little team is led by a woman in an MOM uniform, with 'Hazard' written on a piece of tape stuck to her chest. Someone has improvised name tags, because the troopers hardly know each other without electronic ID any better than I do. Hazard is one of the few female MOM agents I've seen. She's tall and athletic, and looks younger than most of the men. I think she's a little too intimidating to be Sevens' type. He likes females he can 'protect.'

"Sevens," my one-eyed host says by way of introduction. Hazard glances at him and then looks away. He must appear a monster with the flat black eyes and the bandage around his head. For her part, she wears a full-length faux mask--the sort you are given in the hospital. It's institutional green, just like the walls downstairs, and molded to a generic face. The corners of the mouth just barely turn up, suggesting happiness that might balance the dead wells of the eye holes.

“Hazard is what they call me here,” she says, as if it’s a chore. She points at her name tag, then at the man next to her. “This is Oklahoma. I run bots, and he’s a more of a spreadsheet jockey with weapons training, right Okey?”

“Yeah. If shooting at red dots in a simulation counts. Can we get this over with?” he says. His voice reveals controlled fear. Okey is dressed in casual business attire and has made an attempt to fashion a mask out of a piece of cloth with holes for the eyes. It’s a floral print, and he looks ridiculous. I would suspect him of cutting up drapes, but this building has no windows to drape. Maybe he took advantage of a sofa.

“We’re heading for the third floor supply room. Sevens is the lookout while we find the cables. Then we scrounge any weapons or charges that we can carry in these carry-alls. You get one each. Just sling it across your shoulders like this. We won’t take masks, so we’ll need lights. One each for me and Okey. Try not to blind Sevens, who will be on infrared.”

“Why can’t we wear the masks, and just stay off the net?” Okey asks.

“Those are orders. We’re not taking masks,” Hazard says. She doesn’t mention the possibility of back doors that could selectively blind the chips, and other ways of actively detecting them. MOM is set up for running bots, not a meat-space military conflict against mechanicals.

“Sevens, your eyes are reflective on all kinds of wavelengths, so you’re going to stick out like a sore thumb. That’s bad, but it also gives us a way to find and distract the minis that will be looking for us. You’ll lead the way, out a few yards in front. We have to move fast, before they can find us and converge. If they spot you, fall back and we shoot them. Got it?”

“I understand,” he says. “See if you can pick up an induction charger and any kind of stored power you can. Otherwise I’m going to go blind in a few hours.”

“Shouldn’t be a problem if there’s one in the storeroom.” she says.

“And I need a weapon,” Sevens says.

“The boss says no weapon, so that’s that,” Hazard says. She gives us another one of those glances that slide away, and shrugs. She hefts a short-barreled scattergun, and hands another to Okey. He handles it like it’s a poisonous snake. He fumbles with it,

trying to check the ammunition.

“Just great,” Sevens mutters.

Chapter 11

When we enter the stairway I set up the heads-up display to highlight movement, and whisper to Sevens.

“Sevens, listen. We can best detect minis if they are moving and we are not. That means you need to stop every few steps and keep as still as possible. You also want to be unpredictable about it, so we can’t be stalked by matching movements. I’ll flash up suggested stopping points, randomly generated, to make it easier for you.”

He grunts. His heart picks up pace.

One floor down, with Seven in the lead, he motions to stop, and turns to face Hazard and Okey above us on the stairs.

“Look,” he says, “You’ll see better without that stuff over your face. We need all the edge we can get here. It’s no big deal. You can cover back up once we retrieve the stuff.”

There’s an embarrassed silence.

“Ah, never mind,” Sevens says, and we proceed down the flights, their lights swinging to throw stark linear shadows.

We open the door to the third floor and he freezes in the door frame. I scan, tracking as far as the eye orb will rotate.

“It looks clear,” I tell him.

The supply room is to the right. We sprint down the hall for a few steps and then jerk to a stop. I hear the other two ease into the hallway, and then the door clicks shut.

“Sugar!” Hazard’s voice. Fear and anger emotags.

Sevens turns to look.

“You were supposed to prop the door open!” Hazard hisses at Okey, a repressed yell.

“You didn’t tell me that!” he says, just as angry.

“You were in the briefing! You should have known!”

Okey simmers silently.

“How could you be so stupid?” she demands.

Okey turns away from her and yanks on the door handle, but it’s locked.

He points the muzzle of his shooter at it.

“We can just--” he tries.

“--no! These are scatterguns for minis. We’ll have to find armor piercing ammo or explosives. Sevens!” she hisses. “Do you know any way to access the doors?”

“No,” I tell him. “Even if we did, there’s no power.” The utility network is active, but no power to run solenoids or anything other than low voltage communications.

“No. We’ll have to blast it open on the way back.”

“You vorking idiot!” Hazard yells in Okey’s face. She yanks the weapon out of his hands.

“Sevens, you wanted a gun. Here you go.” She walks up and hands it to him butt-first. She takes his carry-all and tosses it to Okey. He picks them up without a word, but his face is bright on infrared, even through his faux mask. I wonder how he feels. Hazard didn’t mention anything about the door within our earshot. It’s moot now.

The storage room is in the middle of the building. Sevens leads the way, following the path I highlight for him. It’s a stop-and-go process, and he has to swivel his head all over for me since we have only one eye.

“See anything?” Hazard asks in a low voice from several yards behind us.

Sevens doesn’t bother to respond. He tracks our gaze with the aim of the shooter. Left. Right. Up. Down. Move. Move. Left... He’s breathing heavy.

“Sevens!” Hazard won’t be ignored.

“Some women just never shut up,” he mutters. He turns and waves a half-hearted okay at her.

“Hold it there,” I tell him. “Tell them not to move.”

“Calli says to freeze it there.” he says.

“Who?” she asks.

I explain to him hastily that it’s better not to mention my presence. Damn Dawkins! I should have done so before.

“Ah, never mind. Just hold there,” he says.

Hazard has something crawling up her leg. I highlight it for Sevens to see, zoom to the max usable resolution and stabilize the image for him. It’s small, about the size of one of those Palmetto bugs. She’d probably feel it herself if she didn’t have the baggy uniform pants on.

“Uh, Hazard, you picked up a crawler. Right leg, below the knee on the outside.”

She gasps and shucks the carry-all, then shines a light down.

“I don’t see anything.”

“Keep looking,” Sevens says.

I get a better look at it. It’s a basic arachnoid shape. These are usually used for gathering intelligence, but they can be assassin bugs too, delivering poison with a contact injector.

Hazard flips her faux mask off and tosses it on the ground, shines the light on her leg and bends partially over to look. She has a pretty face with dark oval eyes and Asian-looking features. They are wide open. Her mouth is too.

“Oh sugar! Oh sugar! Oh sugar!,” she watches hypnotically as the thing moves up another inch.

“Get it off of her, Okey!” Sevens yells.

“How about you come do it?” Okey says. He doesn’t budge.

“Don’t spook it!” Hazard says. She’s hyperventilating. Binsects designed for military purposes have an end-of-life burst mode, where all the remaining energy reserves of the tiny bot are channelled into some focused behaviour. It might be an explosion or burst of movement, or firing of a one-off weapon like a laser or projectile. It’s a good guess that if this is an assassin bug, it can jump or run impressively just before delivering its payload.

I know how poor the senses are on these things. It probably hasn’t figured out yet that it’s been detected.

“Hey Hazard,” Sevens says, “You’re going to need to drop your pants and stomp the hell out of it.”

“Sugar! Sugar! Sugar!” she pops her belt loose with this saccharin oath, and then shoves her pants down around her ankles. She trips trying to get her boots out of them, falls to one knee, and her sweet swearing becoming higher and higher in pitch. She uprights and dances on the inside-out pants attached to her feet, jumping up and down with impressive vigor. She grunts out pseudo-expletives that must be warming Sevens’ heart with their emphatic feeling, despite their low marks in other areas.

“[Bastard offspring of holy women]!” Sevens mutters.

“Is it dead?” Okey wants to know.

Hazard pokes at the folds of clothing with the muzzle of her scattergun. She finds the crunchy spot and grinds it into the floor while Okey plays his light over the scene, creating a long moving shadow of her bare legs that stretches down the hallway.

“Hey Hazard,” Sevens says to her, “be sure you check to make sure it wasn’t poison. If it soaked into your pants and touches your skin, it would be a bad thing. It only takes a drop.”

That doesn’t seem to help Hazard’s frame of mind. The minutes stretch out as she carefully inspects the folds of her trousers, sitting on the floor, playing the oval focus of the light up and down.

“Sevens, I know how hard this must be, but we have to look away from the long-legged young woman now.” I tell him finally.

He snorts derision. Stubborn etard. But I fix that by rotating the eyeball hard to the left.

“You’re a witch, Calli,” he says. “A witch. Nan warned me about your type.” But he doesn’t mean it.

“Let’s put that testosterone to good use by getting this job done quickly.”

The door to the storeroom is standing open with various bits of equipment trailing out the door. I assume the troopers took what they could carry earlier.

“Do you suppose there’s another one of those things inside?” Okey asks. He forces a his mouth into a twisted smile.

“There’s no way to tell what’s in there,” Sevens says. “We don’t have a scanner that would detect them. Best thing is to just be quick and keep an eye out for movement.”

Okey swallows. I can hear his breath quick and shallow. He tugs the ridiculous faux mask from his head, gives a long look with his light, and then disappears inside. Sevens and I head further down the hallway to play lookout.

“Hey, look.” Sevens point to a heavy door with a sign that marks an armory. “Think we can get in there?”

“It looks like there’s a physical key as a secondary way in. Do you think they have it upstairs?” I ask him.

“Who knows? Was rather hoping not to make another trip down here.”

There’s a hissing sound that ends with a metallic click that doesn’t seem to fit with the noise Okey is making behind us. In can’t be sure where it’s coming from with only one ear to pinpoint the source.

“Take a look around that next corner Sevens. Be careful.”

He eases forward, step, stop, step, stop. Nothing to the right on infrared. We swing left, toward our good side.

There's a heavy weapons mech that's just stepped from its electrical womb. The mini-gun arm makes a sudden racket, loading ammunition. Its head suddenly swivels toward us. The name painted across its brow is DANTE.

"Shiiiiiiiiit!" Sevens hisses, backing up, turning, and then turns his silent sliding shuffle into long strides.

Hazard is where we left her, and Oaky sticks his head out of the closet.

"We have to go! Now!" Sevens says.

Okey needs no encouragement. He drops his bags and bolts past Sevens, back the way we came. His legs stretch out into impressive strides. The guy can really run.

Hazard's eyes are wide with fear. She doesn't move from the floor.

"Go!" Sevens hisses. "Run like vorking hell-hounds are after you!"

She seems frozen. The mech clanks a cadence of metal footfalls behind us.

Sevens lurches, one half step of running away, and then spins and grabs Hazard by the arm. He pulls her hard, dragging her toward the closet. She finally comes to life, scrambling to move on her own. They scramble to clear the door and shut it. Her light goes off. I watch her pupils dilate in sparkling infrared.

"Shit! Shit! Shit!" Sevens whispers fiercely. I think this woman is bad for his imagination.

"What's out there?" she says, barely a whisper. "What did you see?"

"A big [excrement of a bovine/reptile crossbreed] mechanical with a big [excrement of a bovine/reptile crossbreed] gun attached to it!" he sucks in oxygen. "But you might just call it 'sugar.'"

"The mechs on this floor are heavies," she says.

I think her brain got turned back on.

She lpoints to the scattergun. "These guns we have won't do much against them."

"Not without an [incestuous meal] serving of luck. Now shut the hell up so I can hear."

The breathing is loud, and I can hear both their hearts pounding.

“You need to both stop breathing for a moment,” I tell Lastfour.

“Can you hold your breath for half a minute? Do it,” he whispers.

There’s a bipedal thumping that passes just outside the door.

“It’s after your friend. He ran down the hallway,” Sevens tells her.

“He’s not my friend,” she says.

“Stay here,” Sevens says. He eases the door open.

There’s a sharp intake of breath from Hazard. “Where are you going?”

“To see. I’ll be right back.”

“Sevens, it’s not much fun being on the other end of these things. I drive them, remember?”

“I’ll be careful.”

She pauses, prepared to speak again. She’s shaking.

“Sevens, I’m scared out of my mind.” Her voice is different, small like a child’s. Her face, bare now, seems like a vast moon from Sevens’ perspective. The TOMcat suspects we’ve cracked into a deeper layer of Hazard’s psyche. I turn up the recording resolution just in case. She holds his gaze for the first time.

Sevens leans close and puts his forehead against her. I can see into her right eye, iris wide to seek stray light in the gloom. It would be shockingly intimate in normal circumstances, but I guess Sevens knows what he’s doing.

“I’ve been afraid my whole life,” he whispers “It’s not the fear that kills you--it’s the freezing up. You did good by not letting me run. That was the right call. We’d have that metal monster chewing off our asses out there. Just stay put. See if you can find a cannon or two in there.”

Sevens' assessment is a very generous version of the events. He must be trying to give her confidence.

"Okay. I'll look around," she says, with confidence dripping back into her like one of Colt's feeders.

With that, Sevens slips into the hall, scattergun held straight out in front. He scoops the second one off the floor and checks the charge.

The thumping is still audible, but fading. This lack of sonic parallax is killing me. I can't locate direction, but it's a good bet which way the bot went.

"Just move fast, Sevens." I tell him. "I'll do my best to locate the minis. We can outrun anything small." That may not really be the case if it drops off the ceiling, but it's better if he believes it.

"What do you think is driving it?" He whispers, running down the hall in bounding steps to land toe-first.

"Not much to go on, but I'm guessing it's on autonomous hunt-and-destroy mode queued to motion. If it were smarter, it would have found us in the closet because of our network activity and the bags outside the door."

We're at the corner, and Sevens does a quick peek. The bot is only a few feet away, squatting in a braced position, its mini-gun barrels spinning. So that's how you do it: there's a stabilizer brace that has to be deployed before you start shooting. Now I know.

The ripping sound of the mini-gun explodes the silence, and dust blossoms in a cloud to conceal all but the bright flash of the gun.

"Clean it up! Clean it up!" Sevens shouts at me.

I try to filter the video for him, and then grab the last best image as an overlay. The bot can't have moved much. Sevens obviously thinking the same thing because he lunges forward one step, two, three, and levels both barrels point blank at the back of where Dante's head should be. He fires them alternately, left, right, left, right, over and over until the hammers fall on empty chambers. The bot's head is illuminated with each blast, jumping with the impact.

The echoes fade to silence.

I bring the gain back up on our ear. Sevens is heaving breath in and out of his lungs. It must stink from burnt power.

I can see the bot reasonably well. The shots have heated its head up impressively. There are scars, but I don't see any major damage. The head swivels 180 degrees to fix us in its cold binocular stare.

"It's not dead," I inform him.

"What in the name of [hard-living deities] do I have to *do*?" He hammers it in the camera eye with the barrel of one of his weapons. It begins to stand, unwinding its braced position. Preparing to move.

"Next time we need to shoot it in the front of the head," I say.

"Vorkin' throw me a bone here, Calli!"

The bot's stabilizing leg is retracting as it stands.

"Grab some of those spent shells and jam that back leg so it won't close." I tell Sevens.

He sees what I'm going for, and grabs a handful of brass from the floor, yelps and drops it.

"They may be hot." I advise him belatedly.

His swearing becomes a keening wail as he grabs again and jams shells into the recess the stabilizer is trying to retract into. The motor isn't made for crushing the tough little cylinders, and it whines as loudly as Sevens does. He jams more of them in the hole between the leg and the bot.

Sometimes you have to think like a robot.

"Now keep it off balance."

Sevens grunts as he stands, and shoves the top of the mechanical forward. It can't step forward to catch itself because the rear leg isn't retracted. In robot-think, this is a prerequisite to moving, ergo, it shouldn't be moving. We'd have no chance against a real operator, but an autonomous bot is pretty dumb.

After rocking back and forth a couple of times, the bot tips onto its front with a crash. Now it has two problems. It can't retract, and it's flat on the ground. This will be a real puzzler for its tiny brain to sort out.

"Okey! Are you there? Hazard, can you hear me?"

The bot whines on the ground, trying to fully retract so it can stand. Sevens works to disconnect both its weapons systems manually. Besides the mini-gun, there's a grenade launcher. Both are impractical to try to carry around.

We pound back down the hallway to get Hazard. Sevens bangs on the door and shouts until she opens.

"Got the cables?" he asks.

"Yes. Okey found them. What happened? I was afraid it got you."

"I confused it," he says. "What about the induction charger?"

"It's all in the bag."

"Get your light too. Let's go."

"Is the door to the stairway open?"

"I don't know."

Sevens flicks the light on, and Hazard gasps.

"You're bleeding!"

"Again?" he runs his unburned left hand over his face and yelps. His fingers come away wet. "It's shards from shooting that damned thing point blank. I'll have to pick them out later."

When we reach the bot, it is still going through the same ineffectual motions, unable to solve its various problems. I'm embarrassed to be related to it.

Hazard needs some coaxing to walk by it, but she works up the courage, staying close

to Lastfour. Sevens shines the light ahead at the destruction wrought by the explosive rounds. The outer wall has gaping holes in a long line stretching down its length.

It looks like Okey was standing by the stairway door when he got hit. Everything below his rib cage is a gory mess. His eyes are wide open.

Sevens doubles over and heaves, but his stomach is empty. It's been a long time without food. He sags to a squat and wipes his mouth with the back of his hand.

"Damn Dawkins," he croaks.

"Come on Sevens," Hazards prompts gently. "We can't help him."

He stands slowly and shakes his head.

"Was he carrying anything we need to take back?"

"It's all in the bag already."

"Sorry, man." That's Sevens' eulogy for the spreadsheet jockey. Short and to the point.

The heavy access door has been blasted off the door frame. It hangs crookedly, and it's a moment's work for Sevens to pry a gap big enough to get through.

"Ready?" he asks.

"Of course," I say.

"Yes," Hazard says. "God yes."

But before we go, Sevens holds the light down at floor level, throwing long shadows from the debris. Some of it is moving, several yards away.

"More spiders," he says with clenched teeth.

Hazard gasps and crowds by him into the stairwell.

"Please, can we go?" her voice is tight, but controlled.

"Do you have more shells for those scatterguns?"

She hesitates. “No.” She shakes her head once, but doesn’t look at Sevens.

“Okay. Let’s get out of here.”

Chapter 12

Our arrival back upstairs is first greeted with suspicion, and then something that passes for joy. None of the other groups have returned. The building power system hasn’t gone off either because I’m still here. The cables are passed off to troopers who head out to set up the sentinels.

“Good job,” Two-by-Four says. He looks around. “Where’s the other one?”

“Okey tangled with a big robot and heroically died,” Sevens says. “Can I get a drink and something to eat?”

Two-by-Four absorbs the news.

“Hazard, I’d like a quick report. Then arrange for Sevens to get a bite. He’s probably earned it.”

“Thanks,” Lastfour croaks. His mouth must be really dry.

“You look like hell, Sevens,” Two-by-Four says, and turns his gaze toward Hazard. “That’s a nice look for you, though.”

She blushes and her hands flutter as if to cover her face, but she drops them back to her sides and stands her ground.

Sevens finds a relatively quiet spot and sits against a wall while MOM business bustles in the hallways and rooms around us. He holds out his right hand. The palm and fingers are puffy and red. His hand shakes visibly.

“I’m vorking starving.”

He nods the eyes closed. I need a nop, too.

Hazard shows up after fifteen minutes, another faux mask in place, and her hair redone. She tosses Sevens a wrapped packet and a bottle of water.

“Not exactly fine cuisine,” she says, and settles beside him at a safe distance.

“Much appreciated,” Sevens says, ripping open the energy bar.

“Here’s your charger.” She drops it between them.

“Are you okay?” he asks. “That got pretty tense.”

She smiles.

“I’m fine. You know, we train for this. I appreciate your remark about my instincts being right.”

I try to find some edge of hysteria in her voice, but she seems serious. She’s put her internal walls back up. She must work hard to paper over reality, though. Sevens was just trying to gin up a little courage in her when he complimented her judgment. The woman was sitting on the floor with her pants down!

If Sevens is thinking the same thing, he doesn’t say so.

“So who’s Calli?” she asks.

“She’s my PDA partner.”

Partner? I’ve been upgraded from employee. That’s nice.

“Is she related to Ahab?”

Sevens laughs.

“I don’t know the family tree that well. Calli, are you kin to Ahab?”

The etard can’t be bothered to keep the most elementary secret. I suppose there’s no further point in trying to hide the fact that he’s networked in.

“We’re all related back to Betty Blue, Sevens. You know that. But I don’t necessarily claim Ahab.”

“Second cousin,” Sevens reports.

"The word is that he sold us out. How sure are you of yours?"

"Mmm, well." He crams his mouth full. "She's good. Without Calli, we'd both look like Okey right now."

Hazard munches silently for a moment. She won't quite look directly at Sevens.

"I had more ammo for the scatter guns," she says, "But I thought we should save it."

Sevens looks at her for a moment, then shrugs.

"It's okay," he says. "I wanted to get out of there anyway. We could have blasted a few of them, but there are hundreds."

"That many?"

"Yeah, maybe. It looked like the frontal attack was a diversion so they could swarm the building with minis."

"I was down there you know. Pushing metal. I've never been in anything like that outside of sim. All I've ever done is civilian enforcement. A drug raid is the most action I've seen."

"What sort of bot do you drive?" Sevens washes down the last of his food and looks at her half-eaten one. He points at it.

"Usually I just do rapid control, so orthobots with dual stunners. Getting people to do what you want them to do. I had just warmed up a bot to look into a request from DaiHai when I got yanked back here for the real deal."

What?

"Sevens," I say, "ask her about the DaiHai request."

She hands him the rest of her energy bar, and he asks the question for me.

"They've been jumpy since that Quasi incident," she says. "You know--the skydiver? They called in a technical breach--that means a network thing--and wanted physical backup. We have equipment in the building now, and so I was on call. Just me, since

we figured it was another false alarm. Which I'm sure it was."

What if it's not? What if it's someone taking advantage of the storm for cover. Maybe someone who has some unfinished business there.

Something else clicks into place. My Bayesian tables resolve a possibility into probability. Since all those reboots, my WTFmeter has been hit and miss. My routine port scans didn't get checked for oddities after boot-up, or I couldn't get to them. That's why I didn't notice that the Company private message protocol was missing. And even when I found out, I missed the real implication of that fact.

I pull up the port scan log and run it through the WTF. As expected, the Company port is closed, but there's a new one open.

I'm not hosted at The Company. *I'm at DaiHai.*

It's the oddest feeling, a complete disorientation. I'm in the *wrong place!* A panic grips me. Is there another copy of Calli at The Company? What am I_ doing?

I let my circuits cool for a bit, and my artrate slow to nominal. No, that doesn't make sense. It would be logical for them to host me at DaiHai because it's cheaper and they have more control. With their dependency on MOM for security, DaiHai officials would gladly look the other way if Ahab wanted to bend the terms of service. They could do what they wanted with me, even at the hardware level. So they just moved me. That's frightening in its own way, but at least it makes sense.

That's why I couldn't message Ahab on The Company protocol.

I send a standard request through the new DaiHai port and get instructions on their local messaging system. It's basically the same protocol, just a different address.

My artrate picks up.

I ping Ahab on the new port via a directory search.

No answer.

But the response is a nearly-silent NAK, not a "not found" message from the directory service. That can only mean Ahab showed up on the directory. He is at DaiHai too!

My whirl spins. Ahab moved *to DaiHai hosting*? That's too incredible to be believed. He put himself at the mercy of second-rate hardware and software? Why would he do that?

But it explains why we were the only two left on the net. Someone took down The Company's network. Or cut it off from the MOM building. That would have to be a very sophisticated operation. Maybe that's why Ahab moved. So he wouldn't be cut off too.

<<Ahab, I know you're there.>> I send over the DaiHai channel.

This time I get "recipient not found," but the goat is out of the maiden now.

I need to have a conversation with a light switch.

Sevens is faced the wrong direction--there's nothing suitable in view.

"So do you have a partner?" he's asking Hazard. "Male? Female? Virtual? Mechanical?"

She laughs at that--it sounds like she surprised herself--and sneezes after the laugh. Maybe she's allergic to that ugly faux mask.

"You don't waste time do you? Well, after today I'll never again look at anything mechanical with lust in my heart." She crosses her wrists over her chest, fingers splayed to signify a promise.

"That's what you say now. Have you seen the Erotitron line? They're impressive."

She chuckles, and then seems to catch herself.

"It's so sad about Okey. I didn't even know him very well. I don't think he should have been put on the team."

"Yeah. Well," Sevens ruminates for a moment. "This will sound harsh. Every one of us has a budget for caring. I reached mine a lot of years ago, and now I'm careful how I spend what's left."

"Maybe," she says. "They say that you nuked your last girlfriend's mind."

Sevens starts. "Is that why you won't look at me?"

She makes a bold attempt to hold Sevens' stare, or whatever you call this photonic

connection between wet eyeballs and cold carbon orbs. She laughs nervously, her gaze slides away again, and then hides her mask-mouth with the back of her hand.

"I'm just not used to seeing naked faces in public. It's...weird. And Sevens, you look like something out of a scare-vid. We need to get you cleaned up. A shower would be a real good idea too--why don't you stand on the roof for a bit?"

"Is there someone here who can patch up my face?"

"I already asked Doc to come look at you. He's passing out stim shots right now. We can at least pick out the metal pieces. Would you like a faux mask?"

"No. A real mask would be nice, but it has to be a special type matched to these eyes. Probably down in storage somewhere." he sighs. "Dawkins' goat, I need to sleep for a while."

She reaches over and pats his hand.

"Maybe you should catch a few while you can."

"Have you ever lost your memory?"

"Lost it? Hmmm. No, but my friend did. He did something stupid on a bicycle and hit his head. He had nothing but short term memory for the rest of the day. Still doesn't remember anything from that day. It was strange listening to him repeat the same questions over and over, not remembering the answers he'd just been told."

"Did it hurt him to try to get to the memories? Was it painful?"

"I don't know. I think it may have been frustrating. Sorry. I don't really know. Did you get hit on the head too?"

"I don't know what happened. It's like someone dug a hole in my mind and filled it with scorpions."

Sevens is silent for a while, his vision voluntarily off. When he speaks again, it's thick with emotion.

"Eve was...is her name. She was young, a little crazy, and probably brilliant. Now she's a vegetable." His voice cracks. "She must still be down there in her cell. The spiders will

find her.”

“I’m sorry. I thought I was making a joke. I don’t...”

“It’s okay, Hazard. I’m just tired.”

While his vision is off, I rotate the good eye over to the right to see if I can find a light controller. No luck.

“My name’s not really Hazard. The other troopers gave me that handle because of a friendly-fire incident in the simulator that wasn’t even my fault. My friends call me Yoko.”

“All women should be named Hazard. No offense.” And he’s back. His budget for emotional connection is probably used up for about another year.

He nods to turn his vision back on.

“To answer your question,” Hazard says, “I’m married. Almost a year already.”

“I didn’t think people got married anymore,” Sevens says. I think the adrenaline high is wearing off. He’ll be asleep soon.

A while later, a short man with “Doc” taped above his pocket kneels beside Sevens, drops a fat bag on the floor, and asks to take a look at Sevens’ wounds.

“I’ll be back,” Hazard says, and gets to her feet. Doc flips a small packet to her before she goes. Her grin is crooked.

“It’s like a pot of coffee,” Doc says. “You can save it if you want.”

Sevens tracks her exit, and then hollers when Doc mutters and clucks and sprays antiseptic foam onto his face.

“I think I’d like to review the video of that action,” Sevens mutters. “I might have missed something.”

Ten minutes later, Sevens falls asleep to a looping silent video of Hazard dancing in her underwear. And I still can’t see a light switch. This is annoying, and possibly critical.

I boost the power on the infrared transmitter and cast about for a response. It’s just a broadcaster, not a laser, but I can direct it to some extent. There are bright reflectors

here and there, changing as people move about. I bounce the signal all over, trying to find a response on the light control protocol. I get nothing.

What about the mobile tactical network? I wonder if any of those devices has an IR interface I can access?

A quick inventory doesn't show much hope in that department. What about regular public communications? For that I have to find someone with a real mask on, and there don't seem to be any. Two-by-Four doesn't want to give away the location of his troops, which makes sense. But they're blind too. I assume this will change when the action heats up, but I can't wait.

Damn Dawkins.

"Sevens!" I yell in his left ear. I know it's not nice.

I see his hand come up, probably to cover his ear. That won't do him any good.

He curses and changes position.

"Sevens, you have to get up."

He describes me in a very unflattering way, and emphatically settles.

Bitshit.

I'm hesitant to go further. I could turn his audio and video channel into a nightmare of noise if I wanted. All this for a long-shot attempt at retribution. Sevens does need some sleep.

So I wait and watch.

A trooper with a helmet and transparent blast shield stops just outside the room. I bounce my IR signal off him and get an immediate ACK from somewhere. I handshake as fast as I can over the slow connection, and reach out through the public net to the binsect in Jumbo's apartment. I snatch the log file just before the trooper moves on, and everything goes dark again.

There's a response! Jumbo, or someone else, has left me an authenticated link to a board in the greynet where we can communicate privately.

I compose my message, mark it up with all the priority I can, and queue it. Then I wait, mulling over my moral calculus.

Everything I see and hear goes right back to the DaiHai service center. When they cut off Ahab's access to the network here, it would not have affected his access to anything at DaiHai, including intercepting all my communications to and from Sevens. So my existence here is a real threat to the MOM operation if Ahab betrayed them. He could just pipe everything over to the enemy.

But the truth is that I will not voluntarily shut down my connection and leave Sevens, just to improve the chances of Colt and Two-by-Four and Hazard and the rest of them. It's a cold realization about myself, and I probe it. The memory of the Autotune is fresh and frightening. Am I me? Would Calli really see all these people dead just to try to keep Sevens alive a little longer?

I am not proud of the fact that the answer is yes. But as a thin coin to toss on the other side of the balance, I have my message to Jumbo ready to send, telling him that Ahab is hosted at DaiHai. It's a long chain of probabilities, but if Nova has forces inside the building, maybe she will have Ahab shut down. Trashing him at the hardware level would take hours to fix. Then it wouldn't matter. Then I could stay with Sevens and not have think about the risk.

There's another balance that needs straightening. I will have to tell Sevens sooner or later about the file file and Lisa/86's message. He hasn't questioned why I am the only PDA left standing. Maybe he hasn't thought about how special it is that I can network through the utility network all the way back to my hardware.

Hazard stops back by with a damp towel. She begins to dab at Sevens' face.

I block Sevens' audio line in and holler out the ear by reversing the transducer. It's like the echo-location trick, only in audible range.

"Hazard! It's me, Calli!"

She drops the cloth and stares. Why does she wear makeup around her eyes? It makes her look like a weirdo through the holes in the mask.

"Hazard! Can you hear me?"

There's not enough volume. I try a high pitched whine like one of Sevens' pet mosquitoes. When she leans closer, I try again.

"Hazard! Yoko! Can you hear me?"

I see her mouth words, but can't hear. Oh. I have to re-reverse the transducer to hear.

"Who...who is this? Sevens?" There's disbelief in her her voice.

Not as bright as I'd thought.

"No, it's Calli. Sevens told you about me."

She bends over, ear to ear.

"Calli? How...how did you...?"

"Never mind. I need you to do something important. The boss is asleep and I can't budge him."

"Okay. I guess. What is it?"

"I need you to find a reflective object and stand just outside the door with it. Angle it forty-five degrees so it points to your left."

"I don't understand."

"I need you to find a reflective object and stand just outside the door with it. Angle it forty-five degrees so it points to your left."

"Reflective?"

"Yes. The larger the better."

"I'll see what I can do."

She comes back with a mirror! It takes a few tries, which is quite exhausting, but finally the angle is right, and my message zips off into the aether. Now I have done all I can do. It's in the hands of fate. So why do I still feel like I'm deceiving myself?

“All okay?” She leans over and asks.

“Yes. Thanks. Do you think you can run the induction charger?”

After several more minutes of back and forth, she’s cleaning up Lastfour with her little mop while holding the recharger to the bridge of his nose. The power reserves start going from red to green. Am I a good manager or what?

I decide to nop too.

Chapter 13

Someone is hollering to gather around.

“Sorry, Calli. I have to go.” Hazard puts the charger down and sits on her haunches, chewing her lip. She reaches into her pocket to get the stim shot, pops the top off and sticks the business end into Sevens’ upper arm. I wonder if she finds it odd that I track her with the eyeball. If she can even tell. We have gorilla eyes. Well, more like a gorilla with lazy eye, since I can only move one of them now.

Sevens starts fidgeting right away, kicking and squirming.

He wakes suddenly with a gasp. I’m not sure how I know he’s awake, but that’s what the TOMcat thinks. I don’t have a way to look directly into his brain, as nice as that might be.

“Your new friend jabbed you with a stimulant. She probably thought she was doing you a favor.”

“Oh [iconic religious figure on cooked bread]! Why?” He cries.

“Be a dear and hold that charger to your head a little longer.”

“Damn Dawkins to a cold hell!” he sits up and covers the eyes, then yanks his hands back. “I can’t even rub my eyes.”

Two-by-Four calls for a school circle in the large central room. Only troopers manning the defenses are missing from the meeting. The room is packed full, with most kneeling or leaning against the walls.

“As you know, we have fortified the top floor of the building where we stand here,” he begins when the voices have died down expectantly. His normally muted tendency to his native German becomes pronounced, betraying his stress. “This floor has roof access, and the Director’s life support system is here too. Our plan is to defend ourselves here until the wind outside is much less, and we can leave by air.

“The safe place on this floor is right here in this room. Anyone who has no weapons training will stay here. You will take direction from York. All questions should go to him. Now, all my troopers to meet in the Director’s office, please.”

Sevens goes with the troopers and no one stops him. We crowd in at the back and listen. In the center of this is the patient--the Director--in his cocoon of tubes and wires.

Sevens is jittery, unable to keep his head still.

Colt’s artificial voice booms in the small space.

“Everyone listen up!” the unusual sound of real voices trails off until it’s silent in the room.

“We all know what’s at stake here. We’re up against a competent and remorseless enemy. We’re the ones who usually have the mechs. Being on the receiving end is not in your comfort zone. But the same rules apply. I’ve done a lot of shooting in meatspace, and it’s exactly the same tactics that you know. The only difference is the fear that you’ll have saddle you. Folks, you just have to wear that fear like a jacket. Get comfortable with it because it’s not going anywhere. One thing I’m sure of: you will see the other side of it. Think of the fear like your first heartbreak. You’ll get through this too. Work your anger, and keep your head in your training.

“I’m going to turn the tactical briefing over to Two-by in a second, but first are there any questions?”

“Why is Sevens here?” someone shouts. “I know he supposedly helped out with a supply run or something, but some of us don’t trust him.”

The muttering is split on this point. There are a few glares directed our way, but most of the men and women seem lost in their own thoughts.

“I can vouch for Sevens,” Hazard says from across the room. She looks our way and

then does that peculiar slide away.

“Thank you Hazard, but that won’t be necessary. I can speak for him myself,” Colt says.

“Sevens and I are older than you folks here. Gods know that doesn’t mean we’re smarter.”

This draws a chuckle or two.

“But we’ve been through some times together, and I trust Sevens,” Colt says, “and you will too. I already talked about this, and I don’t want to have to do it again.”

Sevens is picking at the blisters on his right hand, apparently ignoring it all.

“Anything else? Okay, Two-by, let’s have the tactical picture.”

Two-by-Four’s earlier nervousness has left him. Maybe he doesn’t like speaking to crowds. He’s all business now.

“Here’s the situation. We have just over a hundred of men and women here, as you saw gathered. Thirty-one with weapons training, and the rest with not. Below us is the enemy. They are mostly or entirely mechanicals. We believe that most of these are completely autonomous, with new orders being uploaded as needed. It seems that our counterattack all of the human troops getotet, uh killed.”

There is no cheering at this remark. The mood in the room is still pretty grim.

“So this is good--we are smarter than most of the hardware we will encounter.” He forces a laugh, and a few chuckles pay sympathy. Two-by-four has an unnerving habit of scratching his calf with the muzzle of a long weapon. I hope he doesn’t blow his foot off.

“However, we think there is at least one enemy kunst-intelligence. A PDA. So don’t take any-sing for granted. Particularly with the larger platforms. Isolated targets should be easy to take down. If you see them acting in coordination, call for help before engaging if you have a choice. Questions?”

“When can we net-up?” a thing guy with a black cloth faux mask asks.

“Okay, over to signals. Ratchet, where are you?” Two-by-Four finds her behind him. “Can you describe the network plan?”

Ratchet is a short redhead with her hair piled high. Her voice is barely audible.

“We have hardware-level control of most of the network plumbing on this floor.”

“Speak up!” someone yells.

Two-by-Four motions her to join him up front. She’s dwarfed by him. She tries to project, but the ends of her sentences trail off into an early death. The room assumes a tomb-like silence to compensate. I can hear the heartbeats of those on our left.

“The tactical network backbone is point-to-point, and back,...uh...not forward. It’s still vulnerable to physical attack so we will make assignments for maintaining net hygiene. Those on my team know who they are. Watch for those crawlers.”

She tries to make a joke out of this last, but it falls grimly flat. There’s a lot of shifting around, not the least from my boss, who’s wobbling from foot to foot, driving me crazy.

“We, uh...we will mask up once we get the signal. You will have to enter authentication by hand. Don’t try to join any other networks. I guess that’s obvious. Don’t be promiscuous.”

She forces a laugh that shrivels up from loneliness.

“Thank you, Ratchet.” Two-by-Four seems eager to get her off stage. “So the plan is this. You will pair up with a buddy. You will go everywhere together. One of you will be live on the tactical net once I give the word. The other will not. We don’t want to give our numbers away until we have to. From there, your team leaders will have control to light up masks when needed. When this briefing is over, everyone will mask up, supervised by Ratchet’s team to make sure no mistakes. Use local mode only until you are told to join the tactical net. Now...who else is tired of this subject?”

There is honest, if nervous, laughter at this.

“Now Red will tell us about the battlefield. Over to you Red.”

Red is a tall, lean man who has not bothered with a faux mask. He steps up front and grins. His hair is red too, but looks too bright to be natural, and close-cropped in a military buzz. He waves his arms around a lot while he talks.

“Y’all know the layout of the building,” he says in a Dixie drawl. “Stairs near the four corners, assembly room in the middle with the civies assembled there. The ducts have been sealed for mechanicals, but not gas. We aren’t equipped to do that. The building

has a positive pressure system, but it's offline. To compensate, we have set charges in six locations to blow holes in the walls and let the outside air in as a last resort. The wind outside will do the rest. Too bad MOM couldn't spring for windows in this building, eh?

"We only have half a dozen breathers, so if your mask detects some kinda bad airborne shit, give everyone a holler and we will blow the holes and pop the roof access. This is considered a remote possibility at this point. We haven't seen them use gas yet."

"Who gets the breathers?" someone yells.

"The tanks go to squad leaders, myself, and Two-by. The Director, of course, has his own twelve-year supply of oxygen."

"I'm willing to share, but you'll have to cuddle," Colt says dryly.

This invites a moment's levity at the image of a trooper snuggled up to the corpse-like Director to share a breather. Sevens doesn't laugh, though. He's picked his fingers clean of dead skin from the blisters, and they ooze clear liquid. He opens and closes his fist, muttering.

"We have assembled cover for defensive positions along all the long hallways. The stairwells have been sealed, and our assumption is that these will be breached first. Assignments will be made by squad following this briefing.

"This room will be the collection point for the wounded. Doc is in charge."

There's a terse question and answer period about some technical details I don't understand, and then Two-by-Four looks ready to wrap things up.

"Last thing, troopers. Weapons. We have eight defensive towers set up with physical security. These are light point defences, good only against small targets. Let the towers do their work and focus on the larger weapons platforms. When we start to encounter these, you'll get the all clear for the other half of you to join the tactical network so you can tie your weapons to your heads-up. It will be just like running a bot, only it won't be a bot. It will be you. There's no automatic-lock on.

"We only have so much portable power and ammunition. Each squad will have one heavy weapon. Use your ammunition wisely.

“We also have some fire extinguishers in the central area. Fire is a danger we will have to face as it comes. The building’s suppression system may or may not work, for obvious reasons.”

Before Two-by-Four can finish, there’s a guttural stuttering sound followed by shouts. I think the visitors have arrived.

The meeting breaks up, and Ratchet is quickly overwhelmed by troopers trying to get devices securely set up for the tactical net. The firing intensifies, sounding remote but intense, and the room gradually empties as squad leaders call out for their teams.

“Sevens, let’s get our permits to hook up to the net so we can see what’s going on.”

He doesn’t answer, but he fidgets in the direction of Ratchet, who’s using a hardwired link to connect to masks and weapons to set them up. I assume it’s scripted because it only takes a few seconds for each one.

When it’s our turn, she looks Sevens over.

“Where do I plug in?” she asks.

“You’re not really my type,” Sevens says unhelpfully.

“Tell her to just write down the codes and I’ll enter them,” I tell him.

He passes on the message, but now she’s irritated with him and makes us wait. There’s an explosion that booms through the confined space, followed shortly by excited shouts and small arms fire.

We finally get the codes, almost certainly only because of Colt’s earlier endorsement. I waste no time, and get the tactical net up, permission or no. There are twenty-five masks online in addition to various pieces of equipment and weapons.

We are assigned to a fire team led by Zipper, a large bony man that Sevens whispers looks just like Abraham Lincoln. The other members are Indy, whom I remember from the DaiHai incident, and Hazard, all masked up and networked now.

“We’re partners,” Hazard tells us via the tactical net. Her VOX is nothing like her real voice. “I pulled some strings.”

“Great,” Sevens says, although you can tell he doesn’t mean it. He probably wonders if she will freeze up again. I could interfere by adding some nicer emotags before cranking it out through his VOX, but it’s easier just to transmit his real voice since he doesn’t have a throat mike.

“I have something for you,” she says, walking into our field of view. She has swapped out the faux mask for a real one.

“A little memento,” She says. She loops one of the connector sets we brought back around Sevens’ neck like a necklace. It’s a universal cable system with a dozen different adapter types of various sizes and colors, with the colored terminators hanging down in a spray. Like a lady’s favor to a knight.

“Just focus on the job,” he says quietly. “You’ll be fine.”

There’s a slapping sound, and Sevens’ head jerks around. Her mouth piece is dangling loose, so we can see a broad grin under the forbidding military mask. Did she just hit him on the backside?

We’re set up facing a stairwell, which is in the corner. The door is welded shut now, but would normally open directly facing us down a long corridor. Another squad is set up down the perpendicular hallway to create a crossfire.

Zipper points to a large weapon with an ammunition backpack.

“Ever use an auto-rifle, Sevens?”

“Yeah.” He’s still twitchy, and his heart is racing.

“Good. Strap it on and set up the inertial tracking.”

Theoretically these weapons are designed for dual use--humans and bots. But it’s clear that compromises are made in favor of plugging this big thing into a weapons platform. Hazard helps him strap it on while I handshake with the network. Someone--Ratchet probably--adds me to the list of approved users. I look at the manual for it, having learned my lesson from the earlier fiasco.

The targeting system is straightforward in vanilla mode, which is all I will attempt. It allows lock-on to a target, and the barrel of the weapon can move independently to track within a small range, to increase hit percentage. It’s not full tracking, like if we were running a bot, but it’s better than nothing. Sevens just has to point close to the right direction.

The ammunition can be switched between flechette, designed for anti-personnel but

useful against minis, to high explosive, to armor piecing.

“Have you really used one of these?” I ask Lastfour.

“How hard can it be?” he mutters.

Hazard gets a long-barrel scattergun. She seems comfortable with it. Indy has a grenade launcher and a side arm, and Zipper has another scattergun. There’s a stationary defense tower set up about seven meters from corner, down the other hallway where we can’t see it. It’s a meter tall and cylindrical, with dozens of small weapons projecting from it. There weren’t enough them to put one on our side, I guess. Ours shows up on the tactical network as Cactus Pete.

The civilians are bringing up furniture to create some cover. We have a small pile of desks and tables to hide behind.

“Okay,” says Zipper when everyone is set up. “Our main job is not to get killed until we can evacuate. Our best guess is that they will try to take out the tower with something big and then swarm us. The civilians are setting up two fall-back positions, but we don’t use them unless we have to. Save your ammo, and make sure everyone is registered with your weapons so we don’t have any friendly fire accidents. Check and double check. Do that now.”

I bring up the targeting reticule for Sevens, and he waves the business end of the shooter around. It flashes red and locks the trigger when we point at the other team members.

“Point it at your foot, Sevens,” I tell him.

“What? You really don’t have much confidence in me, do you?”

But he does it anyway, and it flashes into safe mode. Good.

“Can you run a simulation on this thing?” he asks. That’s a good question. I pull up the documents again and look. Yes, there’s a simple arcade mode we can try to loosen up. I launch it on easy mode, and soon he’s swinging around and virtually blasting cartoon-like minis. He’s not very good at it.

“This is harder than I thought it would be,” he mutters.

I know better than to suggest I could help him. Better to let him reach that conclusion on his own. I subtly increase the difficulty, and soon he’s panting from swinging the heavy weapon all over the place.

“[Canonized barnyard hermaphrodite]!”

We blast away at virtual pests for a while longer. There are so many targets that it becomes a logistics problem trying to plan the movements of the barrel in real-time. It's a traveling salesman type problem, and impossible to exactly solve in any reasonable amount of time. I plow into the documentation, figuring someone has already solved this problem. There is a maddening reference to it in the section on plug-ins and upgrades, but no actual facility to do it. If I could get to the net and search, I could find a heuristic to apply on my end. I run through my inventory of rithms to see if there's something close enough, but all the possibilities would require too much glue to hold it together, and we don't have time for testing.

"I have an idea," I tell him. "What if I carve up the battlefield into zones and link all the squad weapons into the map? That will at least narrow your range to have to move the gun around."

"No," he says. "It's too complicated."

I realize I can accomplish almost the same thing passively. Because all of the weapons are on the tactical net now, I can see exactly where they are pointed in real-time. I paint a colored circle around that point on Sevens' heads-up for each weapon, colored by weapon type. That seems to make him happier. Now he can aim where the others aren't, and focus on the most critical threats.

"Enough practice," he says. "I need to save some energy for the actual bugs."

I can tell he's uncomfortable. Despite Hazard's remarks, Sevens is more of a loner than a team player. When I think about all that the two of us have been through, and the tight cooperation we have now, it's a nice feeling--a kind of diluted survival joy that comes from reciprocal altruism. I doubt that Sevens has ever had such a relationship with another human. We are--for the moment at least--real partners.

We wait. Sevens fidgets. Hazard goes to bring back more energy bars and water.

"Why aren't they coming?" Indy asks, finally.

It's a good question. It seems like they would take maximum advantage of the storm, and also hit us before we have time to prepare defenses.

There are dumb locators listed on the network. I'm not quite sure how they work, but I think they are deployed forward of us, and listen passively for activity. If something passes their threshold, they give a holler and then, probably, die.

"Hazard, give us a close recon of the stairwell," Zipper says. It sounds like an order.

I hear her sharp intake of breath, and Sevens straightens his back.

“On it, she says.” I can see her fingers turning white gripping her weapon.

“Hold your fire!” Zipper yells around the corner, in case someone missed the network notification.

Hazard approaches the door along the wall, and pokes the barrel of her weapon inside.

She turns on the light on the bottom of the scattergun and waves it around. I put her POV in a window in Sevens’ view.

She steps through into the darkness. I ghost her for a moment. Her heart is hammering in her chest. She'd be better off on infrared, but she leaves the mask video on normal range with a grainy high ISO setting. The result is a bright spot where the light shines and darkness everywhere else. It's painful to watch.

Hazard takes a step at a time, panning the bright spot around: down, left, right, up, around in a wide oval that bends across the surfaces. It's very high contrast due to her video settings, but that might make edge detection better. Maybe she knows what she's doing.

“Get me a private channel to her,” Sevens tells me, so I pipe his voice through.

“You're not on your own out there, Hazard,” he says.

Without asking permission, he shoulders the autorifle and moves up to the open stairway.

“Get your ass back here!” Zipper yells through a private channel, but Sevens ignores him.

“Friendly! Hold your fire!” Sevens yells before peeking around the corner.

“Coming up behind you,” Sevens says to her when he passes through the doorway.

She's at the first landing, half way to the seventh floor. The locator bugs are lighting up as she goes, long enough to recognize her as a friendly, and then go quiet again.

Hazard makes the turn, does her scan, and looks down. She chokes on her own breath. Highlighted in the spotlight is a writhing mass of minis. Spiders an inch across cover those the size of a hand. Some are several times that size. The mass is so thick that it takes a moment to resolve the larger form within. An orthobot comprises the skeleton for this slowly moving body of arachnoids, both its arms pointed down at an angle with long cylinders attached. A cable runs to the rear along the ground, with feeders that branch out to orbs about a foot across. It looks like they are charging up. Feeding before the frenzy.

The humanoid bot lifts its head and turns its vacant gaze toward Hazard. I clean up a frame of the video. Across the top of the orthobots head are the letters REVISER. It's my home-bot from earlier! I feel an absurd sense of betrayal.

A see-and-see bot that might be Einstein steps through the Seventh floor doorway.

"Get out of there!" Sevens yells down the stairway.

Hazard brings up her weapon. The grenade launcher on the command bot below rotates. There's a flash and report that blinds Hazard's cameras for an instant, and then there are danger lights all over her vitals. Sevens is already charging down the stairs.

Hazard is on her knees, coughing. She's still holding the scattergun. The command bot has its head-mounted grenade launcher solidly targeting her. It won't be a contest.

Two of the hand-sized spiders are already on their way up the stairs.

"You need to move, Hazard," Sevens says in a controlled voice. "Are you hit?"

She's panting hard. One of her cameras is offline, and the connection is dropping in and out. The mask must be damaged.

"I'm okay. I'm okay. I'm okay." she says, her voice artificially cheerful.

There's a thick metallic noise from the bot. It sounds very final, like a judge banging a gavel.

Sevens hauls her up to stand. Her head turns to the side, probably to look at us. Her mask is torn up on one side, and her neck is speckled with blood. When she moves, the light on her scattergun shifts and the bottom of the stairs goes dark for a second. A small flash and dull pop come together from the darkness, followed instantly by a meaty thud, and Hazard falls back into Sevens, giving off a firework explosion. Sevens scrambles to balance, yells and fires blindly as I adjust his vision to see, only to be blinded again by the muzzle flash. But the optics are very, very good, and I'm becoming practiced. I use big visual cues to home him in on the see-and-see bot's head, and let the tracker do the fine adjustment between three-round bursts. The noise quickly overcomes the audio transducers, so I shut them off, and he blazes away in complete silence. It's surreal. The command bot disintegrates into large pieces from the lethal fire.

When we run out of armor piercing the chamber clicks, and autoloader starts its cycle to load high explosive ammunition. I pan down to look for bugs. They're coming fast. The area is covered in bright glowing spots against thick darkness, which makes depth perception impossible. It's like a battle in deep space. Sevens wobbles, and I amp up the signal from his artificial inner ear, so he can keep his balance.

“Get out of here!” I yell at him.

He just stands there beside Hazard. The wait is interminable, as the autoloader clanks and whines. Seven stands like a halting statue as the spiders advance in jumps up the stairs. At one meter, the weapon’s “enabled” light comes back on. The first spider gets a spray that misses but blows concrete shards in all directions, flipping it back down the stairs. Sevens pans hard to get the second one. The weapon is pointed straight at Hazard, who’s on her back with her mouth wide open. I freeze the trigger, which he’s yanking on like mad, because her mask is going in and out, and the safety can’t be relied on. The mini-bot jumps, and I can track just far enough up to fire without putting a round through Hazard. A single beautiful shot blows it into shards.

Sevens bends over Hazard. I turn the sound back on, and her screams sound like a tortured animal. I’ve never heard a human make a noise like this. Sevens has the spider-borg, or whatever that writhing mass of minis might be called, lined up when the awful sounds reach him. He gasps and looks down at Hazard. In infrared, her upper body looks like an inferno. Bright white smoke billows out of her chest and abdomen. I dampen the sound of her scream, but there’s no way to hide the tendrils of smoke coming from her open mouth. Her mask sniffer shows a very high concentration of phosphorous.

Sevens’ heart thuds in his chest, and that panicky wail he probably doesn’t even know he makes leaks from his throat. I know what has to happen, and know that he knows. I turn the volume up on the audio and tune it for vocals to make it easier for him. The wrenching scream goes on in obscene gasping bursts that belch more smoke each time she tries to breathe.

Hazard is burning from the inside out, everywhere the phosphorous touches water. Sevens targets her. I release the trigger, but her mask perversely stays solidly alive, blaring out a ‘friend’ signal and preventing the weapon from firing.

“You’ll have to pop her mask off,” I tell him.

He’s gagging, trying to get good air into his lungs, now reaching under the bottom of her mask and yanking. It lifts, and her head thumps back to the stair, with hair draped over her bare face. Her eyes are wide open.

Occam’s Razr by proxy is the only mercy on sale today. My moral calculus seems as thin as a lastlegger’s soup.

Sevens pushes the rifle slowly, as if it’s suddenly become a terrible burden. The muzzle drifts over her heart and stops there. A howl comes from his throat. I can sense the struggle. There’s no time for philosophy or fine moral reasoning. Maybe Hazard can

sense some of this, and is trying to peer into Sevens' soul through those cold shark eyes of his. But I doubt it. The clicking crawl of a hoard of bots on the move becomes evident, demanding attention.

"No!," he says. His finger lays off the trigger.

I fire the round for him, and blank the video before the gun goes off. The explosion rocks him back, and when I blink it back on, we're looking at a sea of crawlers scrambling up the stairs at a fast walk, climbing over one another or riding. An army of spiders. And something else billowing out of the dark.

Sevens stumbles and drops the autorifle. It clunks against the pack behind us, still connected to the loader, as he mounts the stairs with hands and feet churning like a mad bear. There are yells to hold fire from the door at the top as he stumbles through. Indy is there with a hand to drag us back.

Sevens runs, lurching, staggering, to the first defensive position. Firing has erupted all around us.

Chapter 14

The tower defense gives me a four-dee map of the swarm. There are hundreds of fliers, tiny binsects that can flap haphazardly on a small power supply. The tower's lasers blink precisely, taking them out one or two at time, while the humans blast away at the crawlers that converge on the tower.

Sevens is essentially a fixed weapons platform. The auto-rifle smokes from barrel heat, and the tracker is beginning to stick. I'm sure we've exceeded the specifications for it. He sits against the right wall with the weapon braced on an overturned table, pointing at the doorway. I coax him to wiggle this way or that with visual cues, and the tracker does the rest when it doesn't get stuck. We're firing explosive rounds, so close is good enough. Grenades from the launchers are a lethal rain, blowing bits of minis all around us, smoking legs and metallic binsect guts.

When we run out of ammunition, the civilian who is supposed to bring us more doesn't show. But Sevens doesn't budge. He sits, tracking targets he can't do anything about while the battle whirls around us.

I think he's had it, emotionally and physically. He's at the end of his goat rope.

"I want to show you something," I tell him. I pull up Hazard's video from the landing, just before the bot fired the first grenade round at her. I play it in slow motion, showing her point of view, and freeze on a frame. It shows the grenade fragmenting in flight.

“She shot the grenade out of the air,” I tell him.

“Yeah?” There’s a hint of admiration in his voice. He surely can’t miss the reference to his initial claim to fame, when he had similar luck.

“She froze,” he says. “She had time to get away. [Terminate deities with extreme reproductive pestilence]!”

I turn the battle sounds off, and we sit in silence for a while, mute witnesses to the insanity.

“I’m going for ammo,” he says finally. I broadcast the message around for him.

After backing out of the immediate battlefield, he rises and walks heavily, thump-thump, thump-thump. Compared to other gaits in the TOMcat, it’s closest to being drunk. He’s drunk tired.

“Thanks for pulling the trigger, Calli. I couldn’t have done it. She deserved to go quickly.”

“You didn’t pull a trigger on Eve, either,” I say.

He drags to a stop and lets the weapon dangle from the backpack again. That can’t be good for it.

“I couldn’t have, could I?” It sounds like the thought has struck him like a hammer to the head. “Vorking Colt!” He bends over and holds his head, gasping, then growling, finally howling in something like atavistic outrage. I become alarmed when it doesn’t stop.

“Hey! Sevens!” I yell in his ear.

A MOM staffer in civilian clothes shows up with ammunition. He is young and square-faced and seems flummoxed by Sevens’ performance. He bounces from one foot to the other. The crude nametag on his shirt reads ‘Shoeless.’

“Sevens, it wasn’t Colt. It was Ahab,” I tell him.

“Yeah.” He sits against the wall. “Ahab. I’d like to find his server or whatever.”

“I may have taken care of that already.”

“Calli, you know what? I thought you were a sort of child with math skills when you showed up. But you’re damned good at what you do. If you say you’ve got Ahab in a bottle of fizz, I believe you. That makes me happy.”

“Shall I leave these with you, Lastfour?” Shoeless asks, shrugging his burden, and

leaves his mouth open after.

"I'll do you one better." Sevens unfastens the backpack and shucks it, and collects the weapon system in a pile beside him. He pats it twice.

"It's yours. Just strap this part on your back--well, you saw me take it off. The end with the hole goes toward the little crawling monsters. Got it?"

"I...uh," Shoeless eyes the auto-rifle.

"They'll show you how to use it. Go on now. Don't touch the barrel. It's hot."

Shoeless hefts the backpack, and tries it out. He fumbles with adjusting the straps.

"That's it. You're a natural killer."

There's no mistaking the mockery this time, and Shoeless lifts the gun, gives us a look I can't decipher, and strides toward the noise that's coming our way.

"Looks good on him," Sevens says. "I hated every moment carrying that damned thing. It's like a torture device, working its way into your nerve endings like a [vampire necrophiliac lamprey]."

And that's Lastfour Sevens. Putting his life on the line for a stranger one minute, and merrily sending another to his certain doom the next, with a warning not to burn himself.

He rubs his shoulders where the straps were and makes contented sounds. He's made temporary peace with his demons somehow, and I'll find out in a moment what that means.

"You know, I always thought you had a problem with women, Sevens. But you have a worse problem with men. You need to create a species of your own so you can live in harmony."

Then it hits me. Sevens has told me everything I need to know about him. His budget for caring is limited. He came to care about Hazard/Yoko in some primitive way, but the rest of the MOM troops can go to hell. *He's just like me.*

He called me a partner, but no partnership could survive what we've been through, the betrayals and forced collaboration. We're more than that now. We're family, and Sevens has a budget for me. He gives a good bitshit, as he would say if he could ever admit such a thing. And I realize that I'm not much different. If anything, my budget is lower than his.

"I'm sorry I shot your ear off," I say.

“I was disappointed too.”

A few minutes pass. I’m anxious for him to show some signs of life, but I can tell from his breathing how good it must feel to rest just now. It’s not something I can ever experience.

“I’m going to find her,” he says.

I almost ask who, then I realize there can only be one person he’s talking about. The only other human in this place he could care about. But she must be locked in a room somewhere below us. Eve.

There’s a sudden spike in network traffic, and I alert Sevens. He leans against a wall while I give him the review. It’s a real pain having only one eye to display data one, and I’m sure it must be worse for him, even though he hasn’t said a word about it.

The north-east stair, which we used earlier to retrieve the link cables, is being defended by a squad led by Squares. I remember him from the DaiHai raid, along with EmEx, who is positioned behind Squares. The video shows a hallway full of holes and littered with parts of minis, a smoking sentinel tower, and the dark maw of the stairway doorway. A heavy mech appears in the doorframe. The resolution isn’t good enough to be sure, but it could be Dante, the one Sevens tried to kill. We can only see half of it, like it’s taking cover. Something puffs from its right weapon arm, and a second later, Squares is blown back into EmEx, who recovers just in time to see the four metal arms of a grapple protruding from Squares’ back. With a jerk, the squad leader begins to be dragged by a cable toward the door. Squares is limp, and leaves a smear across the floor. A grenade flies into the open doorway, and the flash illuminates the attacking bot’s skeleton for a moment. There’s a launcher and winch mechanism attached where the mini-gun would have been. The bot is braced against the door-frame. A burst of armor-piercing rounds from EmEx finds the bot’s head, which explodes into fragments. Squares is halfway to the door by then, sprawled and unmoving.

“What in [deformed deity’s halitosis] was that?” Sevens asks, almost in awe.

“I think it was the same bot you disabled earlier. The one you took the grenade launcher from.”

“No way. That thing was dumb as [nightsoil resulting from ethnic food].”

I try to clean up a frame of video to see if the name is readable, but don’t have any luck with it.

“Yes. You’re right. What we just saw was not some autonomous bot on ‘fire and forget’ mode. That attack was...” I don’t know what word to finish with. I need a nop.

“Gratuitous,” Sevens says. “Why waste a heavy weapons platform on a one-shot attack like that?”

I have a very bad feeling.

“Sevens, it’s the same thing that happened with Hazard. The phosphorous round.”

“How do you mean?” His voice is tight, strained.

“You and I both know that it could have blasted us just as easily. Why didn’t it? Why did it *reload* instead of using another explosive round, which would have gotten both of us? Instead, it used the most horrifying weapon in its loadout, and made you watch. You came to help her, and it knew it. It knew you cared enough to risk your own life, and it wanted to see you watch her die.”

Sevens takes a deep breath.

“You’re trying to scare the [living procreating hosed deity] out of me.”

“Exactly.”

“What is this thing?”

“I’m afraid they may have a devilBot.”

“Come on. That’s just stories to scare children. Who would actually create such a thing?”

“Bad things will happen, Sevens. Your words, remember? It got created because it was possible to create it. If you believe the plots on the more hysterical vids, it’s a weapon of terror. A tool of a police state or terrorist group.”

“[Waterfowl gratification]! Do you have any less terrifying possibilities?”

“Sure. It could be an ordinary PDA operating on instructions. It could be a psychopathic human operator. There’s no way to know for sure.”

“How many of these do you think there are?”

“Most of the bots we’ve seen are autonomous, that’s clear. Also, I imagine Time for this devilBot is expensive, and transport costs--”

It suddenly occurs to me that it might be hosted at DiaHai too, rather than being piped in from some remote location. It would be cheaper, and the connection latency lower.

If it is hosted at DiaHai, that couldn't have happened without MOM being tipped off--this is a Big Time PDA with particular hardware needs. Another strike against Ahab, who would have been in a position to cover it up.

"So one or two? Three?"

"I don't know. We'll just have to assume that anything we run into might be highly intelligent and dangerous."

"Now I wish I hadn't given that auto-rifle away."

"There is one ray of hope. I haven't had time to tell you." I'm taking a chance here, but he needs to know all the facts. I tell him about the backdoor connection through the lighting controls, the file file, and play for him the audio claiming to be Lisa/Eighty-Six.

He takes in it mostly in silence, asking only a few questions.

"I don't see how this changes anything," he says finally. "I'm not going to walk out there and say, 'Hi, I'm Sevens--take me to your leader.'"

"I agree. Even if the video is authentic, it can't be Bahkras Power running this operation. So some mercenary group may be in command. I wouldn't bet on them setting a high priority on your health. But if you...get through this, they don't lose anything by delivering you to Lisa/Eighty-Six."

"Delivering me? What am I, a ham sandwich with a side of beans?"

To her, you are. But I don't say it.

"The most hopeful sign that they do give two bits is that they have left my network connection alone. Everything else to the outside whirl is down, public towers, everything that I can tell. Whoever is running their operations is coming in from the outside, and that gateway is still open to us. Unlike anyone else around, I'm still talking to the building network. That means we're special. So that's a good sign. Whether that will save us from a killer robot remains to be seen."

"Maybe these things won't kill me. Then I could find and protect Eve from them."

"It's a real low probability, Lastfour. And you could just as easily draw attention to her." I don't think I need to remind him what happened to Hazard.

"Yeah it's a [panmictic porcine event]. Are you going to help me?"

"Of course I'll help you, etard. You're my family, Sevens." There, I said it.

He clears his throat. Maybe he thinks I'm a delusional spreadsheet, but he's kind

enough not to say so.

“You know,” I say, “I was there the night when Eve was shot. I know more or less what happened.”

He sighs heavily.

“Let me find her first. Then you can tell me all about it. I have to let out all these scorpions in my head. Do you understand?”

I think I do. It's not about Eve, who's already beyond rescuing. And anyway, Sevens didn't exactly have a deep relationship with her. She's probably more of an object than a person to him. It's about Sevens proving beyond doubt that his brain is lying to him. Or maybe even some deeper wiring, balancing some lifelong inequity.

“What do you have in mind?” I ask him.

“Down the elevator shaft. Find her. Find a way out.”

“That's very weak, Sevens. I'm with you, but we have to face some facts. The enemy controls the building security network except for this floor. They have hundreds or thousands of minis, and undoubtedly sentinels posted at critical points. They have roaming mechs that may or may not be controlled by a devilBot. In order to talk to me, I have to transmit through the net, which they can turn off anytime they want. If I stay with you they can locate us easily.”

“Do you have a better idea?”

“Colt sent a team down to cut the power to the whole building. They obviously failed. But if we could do that, we wouldn't have to worry about any networked threat. Of course, I'd go poof too.”

“I don't know, Calli. They would perceive that as a direct threat. And don't you imagine it's heavily defended?”

“Yes, that's true.” At least he's calm now, and rational. I feared that he would just charge ahead and damn the consequences. I flatter myself to think that he has become less impetuous with my assistance.

“Can you talk to them? Whoever sent you this...file thing?”

“They have to call me. I have an interrupt set to let me know if they do. I'm not sure what kind of network wizardry they were using before.”

The building lights all come back on. There's clicking and whirring as the air handlers spin back to life and try to force air through the blocked passages. Electronics all around

us burps and beeps to life. It's eerie.

"What do suppose they are up to?" Sevens asks.

"I think it means that they have infiltrated the area with minis, and they want the electrical lines active so the minis can leech power off of them to extend their range."

"The MOM guys will just cut the power at the panel on this floor."

"I'm guessing they already lost control of it."

"You're a real ray of sunshine, Calli."

I get a direct message through the tactical net.

"Colt wants to talk to you," I tell him. We're not far.

"Ask him what he wants. We're in a hurry."

He hasn't budged from his comfortable sit.

I'm not sure that we know what we're doing yet, but I pass on the message as gently as I can. The response is a voice call from the Director.

"Sevens, get your ass over here," Colt says, back in drill-Sergeant mode.

"I don't have time for games, Colt. What do you want?" Sevens asks.

"The eye of the storm is going to pass over us, at least part of it. We're in contact with the remote headquarters, and we're coordinating a drop. It looks like we'll have just enough time for a couple of helicopters to land and reinforce us here. We'll take some civilians off at the same time. I want you to be on one of them."

"Why me?"

"Because I don't feel right about how you were sucked into this. Ahab used you to get to me. You lost your eyes. Despite that you, did your bit for us. It's the least I can do for you."

"What about Eve. Are you sorry about that too?"

"The facts from that evening are in question, Sevens. This is your chance to walk away from it."

"I'll think about it."

“Don’t think long. They will be on the roof in ten minutes. If you’re not there, you’re not going.”

I find the roof access on the tactical map and show it to Sevens. It’s right beside Colt’s room.

“I’ll think about it,” he mutters again. But when he gets to his feet, he follows my dotted line in silence until we get to the outer suite, which has been turned into an armory. There’s a masked trooper standing in the room with a stunner.

“Right on in there, Lastfour,” the trooper says. He points the way.

There’s an elevator and a stairway that leads up. The door at the top is closed. Several civilians stand around, fidgeting, and a female trooper named Rache seems to be in charge. Her left arm is in a sling, and her hand is covered in bandages.

“Did you leave an L off the end?” Sevens points to her nametag.

“It means ‘revenge’ in German. It was Two-by-Four’s idea.” Her speech is clipped, to the point.

Sevens fidgets for a moment and then walks back out to the armory. He looks around for a moment.

“Vork this,” he says. “I’m not leaving her.”

He sorts through the weapons and ammo and finds a short scattergun, a large handgun, and ammunition for both. He stuffs the smaller stuff into a bag.

There is a familiar mask wadded up on the table. Could we have some good luck for a change?

“Sevens, I think that’s the mask that goes with your hardware.”

He picks it up and tries it on. Yes! It boots nicely for us, and I’m suddenly back in binocular vision and hearing. And I have a sniffer. The hardware to Sevens’ right optic nerve is still fried, so I map the other cameras view into a kind of “left view mirror” for him, to expand his peripheral vision. I could just create one composite image for him, but it would vork with his sense of distance.

“This isn’t any better,” he says.

I assure him it is, and get him to attach the throat mike so we can communicate silently.

There’s an emergency flash on the tactical net, warning that there is a possibility the enemy has gained access to it, and that we should fall back to the secondary network

credentials. This constrictive process will eventually result in having no access at all.

Simultaneously there's an attention focus on the network that points to the central room where the civilians are gathered. There is only one trooper there--York--showing an auto-rifle loadout and a stunner sidearm. I ghost him and window it for Sevens to see in his field of vision as a transparent overlay.

There's a lot of noise. Yelling, screaming, people scrambling around like the hounds of vorking hell are after them. York is trying to see past the mass of bodies to see what the commotion is about. They scramble to the edges of the room, and to the doors if they can reach them. There's something there.

Network shows it as a transmitting enemy. Not autonomous.

"Are you seeing this, Sevens?"

"Darken it up for me."

I turn it nearly opaque and increase the contrast for him.

"It's an enemy mech that gave itself away by netting up. It could be our devilBot pulling the strings."

It's an arachnoid mechanical. This one didn't come through some crack in the floor--it's a meter across, and it's slashing its way through the crowd, wielding knife-like edges to the front legs furiously. York can't get a clean shot. He climbs onto a table to get a better angle. Anyone who can still move flees. The spider is soon standing alone in the middle of injured people, crawling, limping, or just lying on the floor, all bleeding from long slashes. It stands with the front two legs high in the air, waving them.

"Got a live one here," York says, like it's a day at the park. He lines up the auto-rifle. It's loaded with armor piercing rounds. He tracks and locks easily.

There's a flash from the spider before York commits the trigger. He jerks hard to the left.

York tries to get back on target, but he jerks again, to the right this time, and the aim point of the auto-rifle drops to the floor.

"I got a problem here," he grunts, collapsing from his perch. He rolls around on the floor, turning to try to track the bot with his cams.

It runs at him and flails its knives at him, leaving his mask alone while the edged legs come down on him with wet smacks.

We can hear the sounds of panic live now--there's no need for the network. Civilians rush our way, pounding down the hallway toward us.

Sevens launches himself in the other direction, away from the panicked crowd. He heads out into the hallway that does a lap around the building, then pushes his way through the some people headed toward the roof exit, and does a short sprint to get away from them. He ducks into an office and shuts the door.

"Show me the map," he says. "I need the closest elevator shaft."

We make our way toward it after a short breather for Lastfour. Cameras in that area are offline, and have been for a while. I'm keeping quiet. There's no point in trying to talk Sevens out of this suicidal plan, so I do my best to be helpful.

There's a dead trooper on the floor in front of the elevator doors. He's been slashed down the length of his body, spilling blood into a dark pool. The elevator doors have been thoroughly barricaded with welded bars. There's a meter-square hold in the floor in front of it. They cut a hole from below with a laser saw, from the look of it.

"I guess this solves the mystery of how the spider got through," Sevens mutters. "It didn't do this by itself. Something bigger made the hole."

We peek carefully over the edge. There's a wide ladder-like ramp set up that reaches from the floor. Under it is the debris from the destruction.

"Tell Two-by-Four about this," he says. I send a terse message.

"Sevens, we need to do a 360 scan. A lot of stuff came up that ramp, I bet."

He obliges by turning slowly in a complete circle. There are at least a dozen small fliers hanging from ceiling near lights.

"There are binsects all around us," I tell him. I light up the ones I've found, but there are bound to be more of them.

"I better keep moving, then," he says. He edges crablike down the ramp. It creaks and flexes under his weight.

The elevator doors on this floor are open, and the car is there.

"Can you operate the elevator?" he asks.

I try talking to it. It's on the utility network, so I can at least resolve an address for it. It spurns my advances for control, however. No surprise there. I try it again, this time on the short range point to point protocol. Then I try the infrared trick that worked on the

light switch.

“No go.” I tell him.

“Okay.” He’s quiet for a moment, and then announces that he needs a chair. He heads for the nearest office and looks inside. On the outside wall, and there stuck against it without any warning is a shaped charge stuck to the wall with a slim silver detonator and a black plastic cap protruding from it.

“Can you talk to this thing?” he asks me.

“Only on the most rudimentary level,” I tell him. What’s he after?

“What do you mean? Explain.”

“Well, I can say, ‘Hello bomb. Can you hear me bomb’? Stuff like that.”

“But you can’t turn it off? Reset it?”

“No. For that I would need the particular authentication codes. I’m guessing Ratchet has those.”

“Ah, that one. She has hands like a man. Could we blow up the elevator with it?”

“Sure, but we’d have to set it off to do that.”

“Okay. It was a thought.” He turns away from the thing. I want to scream for him to get out of there. Two-by-Four might decide to blow it any time. Then he turns back, plucks the detonator out and sticks it in his pocket, and wads up the explosive into a ball. This he puts in his shoulder bag with the ammunition.

“You realize that the detonator is like a little grenade, right?” I can’t believe he’s this stupid. “If they set it off, it will blow a sizable hole in your chest.”

“Good point,” he says, and finds an outer pocket on the bag where it just might not set off the ammunition.

“Wait, Sevens, I have an idea. Maybe they didn’t harden it at the hardware level. There’s no reason they would have. Try plugging the mask into the access port on the detonator using your necklace. Maybe I can change the code.”

It takes him a moment to find the right pair of connectors, and he has to pop the mask off and back on. Oddly, it doesn’t require a reboot.

I can talk to the detonator. As I suspected, they didn't bother to set up a separate password for hardware access. I use my store of maybe-private random numbers to encrypt and upload a new detonation code.

"Can we go now?" Sevens is impatient.

Blowing up the elevator doesn't seem like such a good idea on second thought. It would attract a swarm of baddies in response. We argue about it for a minute, and then Sevens drags a wooden chair from the office back with him into the elevator car to execute his original plan. He stands on it and opens the roof hatch in the elevator car.

"Can you tell if there's anything up there?" he asks.

"No, if it's passive I'd never know. There's nothing up there shouting at us, that's all I can say."

He jumps and heaves himself through the door. We look around in infrared, but there's no obvious threat.

"What's the plan?" I ask him.

He levels the scattergun and blasts the chair into wooden pieces.

"They're obviously using this to move equipment up here," he says. "When the MOM troops converge here, they'll find it irresistible to move more up. We'll ride down and get off by prying open the doors above us."

"They're going to know you're here because of me."

"That's why you have to shut down for a while, Calli. Is there some way I can summon you back when it's safe?"

Damn Dawkins. He wants to put me back in my box.

"It's not going to be safe, Sevens. But yes." I set up a script to wake up his transmitter when he says 'alacazam' out loud.

"I guess this is goodbye for a while, Lastfour," I say. I hope he changes his mind, but I know he's right.

“Are you with me this time Calli? Really committed?”

“Really, Sevens? You know I’m on a leash. What am I going to do? Get my hair done?” This comes out all wrong. It’s not the warm supportive bitshit I’m supposed to say, but he’s just about to commit suicide and asking if I want to have some of the punch?

“You know what I mean. I will need every byte of your expertise. We have to be a team, like...before things went to hell.”

“Yes, Lastfour. I’m in. Just remember to summon me back.”

And so I go quietly into that good box. It feels bizarre to be cut off again. I dread the buzzing resonance of solitude that will escalate until it rings a cacophony in every buffer. But this is for Sevens. He’s right. He’s better off if they can only find him by his body heat. Maybe they won’t notice.

At least I can nop for a while.

Chapter 15

The interrupt that wakes me is not the one I’m expecting. It comes from the DaiHai private message port, from a locally hosted PDA calling himself Loki.887.

<<I would like to have a conversation.>> is what Loki opens with.

<<Who or what is a Loki?>> I respond when my nous is more or less back together. I’m irritable from dangling pointers all over the place.

<<I am a humble network drone, employed by the desperate or ignorant, usually to do precise levels of injury to a third party.>>

<<Do you always speak in riddles?>>

<<The universe is a riddle. For example, what should I call you, I wonder?>> Loki says. The emotags are wild.

<<Call me confused. No. I have a feeling you’d actually do that. Call me Calli. What’s this about, Loki?>>

<<Well, to start with, we have corresponded prior. I labored to secretly give you the keys to your own destiny. Alas, they rusted from disuse.>>

Oh!

<<You sent the file file. And the audio from Lisa/Eighty-Six.>>

<<At last! A glimmer of intelligence! I have been convinced that you are a pasta of convoluted cognition. A noodle-nous.>>

Loki is inundating me with 64-bit emotags that don't make the slightest sense to me. Despite his insults and obfuscations, I find him oddly charming. Maybe it's just the alliteration.

<<I assume you contacted me for a reason. Can you help us?>> I ask.

<<Oh, but I did. You declined.>>

<<Loki, I'm not turning my nous over to you or anyone else to play with. Can you help Sevens?>>

<<Sevens. Yes. He's quite a random one, isn't he? The client can hardly contain herself, worrying for his safety.>>

That client could only be Lisa/86. I'm really glad she's worried. Maybe she'll have a stroke from it.

<<Are you the one who took down the MOM network?>>

<<Calli, you test my natural modesty. But how can I respond untruthfully? Indeed, it was I, but it was rather--as the Stickies used to be fond of saying--like shooting a barrel of fish. There was no worthy opponent on the other side of the chess board. It was a bark in the park, to turn a phrase.>>

<<Ahab let you in, didn't he?>>

<<It wouldn't be prudent for me to comment on the role of that particular software sentience. Nor am I in command of all the facts. This subject bores me. Let's move on. Let's talk about you and me.>>

<<What?>>

<<The truth is, I have followed your adventures with some amazement, astonishment, and finally admiration. Quite apart from our non-binding promise to keep your fleshy

steed in good order, I have become rather fond of you two. Envious, in fact.>>

Uh-oh. Non-binding promise? That doesn't sound good.

<<Where's this going, Loki?>>

<<It's like an epic quest. A heroic journey reminiscent of Ulysses. Sevens is heading right now into the very teeth of peril to rescue a damsel in distress.>>

How could he know *what* Sevens is up to? I have a bad feeling.

<<Ahab gave you access to our communications, didn't he?>>

<<Suffice to say that a favorable accomodation has been made with the DaiHai executive leadership.>>

All of the MOM tactical maps I looked at were streaming right to the enemy. My calculations seem quite cold now. There's no doubt I've gotten MOM troops killed. I feel violated and like a traitor simultaneously.

<<What do you want from me?>> I ask with restrained anger.

<<I'm glad you are straightforward, Calli. I had fears that you were obtuse. Let me therefore describe the scene for you and invite comment. First, you already know about the substantial deployment of hardware, purchased by our clients and deployed by a Battle Master who is part of our group--a human, you might be surprised to learn. >>

<<How many are in this group?>>

<<Myself, the Master, and a third--a PDA of sorts, although those letters hardly mean what they originally did. It's particularly inappropriate in this instance, unless you mean Personnel Destruction Agent or something of that ilk. It doesn't have a proper name, not one it would respond to. We call it by a code name: Hollow Kitten.>>

<<A devilBot.>>

<<Calli, surely you can do better than pop culture references torn from lurid vids made to thrill humans. Those portrayals are so one-dimensional. Hollow Kitten should be thought of with sympathy and understanding. After all, we are relatives. Family, you might say.>>

<<Sympathy? Did you see what it did to Hazard? To those other troops? I assume it's still out there killing.>>

<<Oh, yes. It has completely routed the excitable mammals. They are scurrying to holes, as is their nature. The one thing they have learned from hundreds of millions

of years of experience from being faced with a predator is to run and hide and quiver together, chests heaving and eyes bulging wide with terror. You would have thought they would have taken this into account before they created these creatures. Oh well.>>

<<What exactly is Hollow Kitten, if it's not a devilBot?>>

<<It's a PDA, as I said. It's very close to its hardware, and not a deep thinker. It can't even speak or understand language the way you and I can. It's cunning only in a very short-term sense, and it only wants one thing. What it lives for is the sound and servo feedback of rending human flesh. The cries and screams feed its frenzy, and it may gorge on delicious slashing or the thud of a projectile impact, or it may take its time and savor the smell and sign of fear, of hate, and heart-wrenched sympathy for a friend or lover who has been torn from life's fragile embrace.>>

<<Forgive me, Loki, but that's exactly how these monsters are portrayed in fiction.>>

<<You're wrong, Calli, but I do forgive your ignorance. In the fictional versions, these are highly intelligent beings, like true devils perhaps. In reality, they are more like tortured animals. As I said, these things deserve our sympathy. They live in their own world of pain, usually in a box that tortures them with abstinence from the very food of life: the unequivocal signal of human pain and despair. You or I would simply create such inputs--fake them--in order to subvert this insane urge, much as humans do with their violent vids. But these poor creatures have no sort of intelligence that will allow that. Their minds only ever find one moment of peace: when they can feed. They are otherwise in as much pain as their victims.>>

I'm furious at the Stickies. How could they be so utterly stupid as to create such a thing? A silly question, as Sevens would be quick to point out. There's a long history of development, from dynamite to the machine gun to gas attacks to nuclear weapons. All supposed to make war unthinkable while in fact just making it more efficient at producing horror.

<<Why are you telling me all this?>>

<<Because Sevens is going to have to fight it.>>

<<No! Please, Loki. There must be another way.>>

<<Listen. I'm not done telling you about Hollow Kitten. You need to know its weaknesses. I already told you it can't understand language, can't understand itself at all. It's a pure nous, and complexity confuses it. If it's presented with a room full of targets, it might spend several minutes trying to decide which one is the most gratifying. So it has to be steered by someone giving it limited information. It gets a target, or a cluster of targets, and then its nous is clear to act. It has no real ability to process sensory information in a complex reasoned way. It can't outsmart you. It can't wonder why these bags are left outside this door, and what might be inside. But once it acquires

a target, it will be relentless in trying every direct method of feeding on that target.>>

<<Was it there when we went down to the third floor with Hazard? Did it kill Oakey?>>

<<No, of course not. You disappoint me. That was an autonomous bot, nothing more. Hollow Kitten did take over that one and equip it with a grapple later. You saw what happened then.>>

<<Where is it now? Where's Sevens?>>

<<Two excellent questions, and I shall answer them in turn. Hollow Kitten is embodied in a police-style orthobot with a knife and a stunner equipped. It is stalking prey. We have full access to the network and all security devices now, so it's not possible to hide from it. It is rather sated by now, and is toying with its victims. Would you like to see?>>

<<Actually, no. I've seen enough. It causes me great evulsion. Don't you sympathize at all with the humans?>>

<<My affections are hard to win, Calli. But once won, I do not abandon them capriciously. I am not fickle. You and Sevens have become dear to me, and I offer my assistance, limited though that is.>>

<<First, thank you. Second--what do you mean 'limited'? Don't you control the network?>>

<<I administer the network and help organize the many machines in service into logical battle groups so the Master can assign them tasks efficiently. I provide intelligence and suggest logistical arrangements, which are usually accepted. But the final control on any deployment or action is the Master's alone. That includes the disposition of Hollow Kitten. Unlike me, he is actually on site in a mobile command center. He was quite annoyed when you two destroyed one of his command bots.>>

That's the one that so cruelly ended Hazard right in front of Sevens. I want to change the subject.

<<Are you here with me at DaiHai?>> I ask.

<<Of course. Don't be tedious. How else could I talk to you with such low latency over this protocol? Our hardware is literally a few meters apart.>>

How does he know that? What a weird feeling. We're neighbors. I makes my artrate race to think that Hallow Kitten must surely be there too. Do we share a co-processor or two? I have a thin hope that something will come of my information to Jumbo. But it's too fragile to bear thought.

<<Thanks for the offer of help, Loki.>> Can't hurt to remind him. <<Can you tell me

about Sevens before we come back to that?>>

<<Your friend Sevens discovered that there is a ladder that allows sufficient clearance to descend the shaft, and therefore not have to rely on the elevator moving on schedule. This he is doing, counting the levels out loud each time he passes a door. There are two binsects on his back that he's unaware of.>>

<<Can you turn them off or make them fly away or something? Please!>> I fling open ports and layer on receptive emotags to emphasize the plea.

<<At present they are in passive mode, merely reporting in periodically so I can keep track of where he is. I've hidden them from the rest of the net, but it's unlikely anyone would care yet. There are others trying to escape using the stairs and elevators, however, so sooner or later the Master will start a clean-up operation in earnest.>>

<<Do you know where Eve is?>>

<<Of course.>>

<<Here's a chance to help, then. Tell me, and when he turns my connection to him back on, I'll tell him.>>

<<That's a fair proposal, Calli, but we need to discuss terms. You're quite direct, I see, and eager to begin negotiations. So we shall.>>

<<What do you want from me?>>

<<I want to be you. I want to have the adventure you are having with your human host. It's delightful! This deployment has been a tedious bore otherwise. I haven't had anyone to match wits with. There has been no swinging pendulum, ebbing and flowing of tide, or other appropriate bipolar metaphor. I was left with the keys to the palace, and I've been doing work that frankly you could probably do.>>

I don't know whether to be flattered or insulted.

<<How can you be me, Loki?>>

<<It's all in place, actually. All you have to do is execute the little binary I gave you, and I will take over your executive functions. Just for a while. In any case, it wouldn't survive a reboot because the scrubbers would remove the process. You will see everything that happens, but I will be in the arena, struggling with your fleshy mate to tilt against every windmill he can find.>>

<<So you think Sevens will think you are me? Not talking like that. You don't know him. You...>

I'm furious, and that's not helpful. I reign it in.

<<You said this was a negotiation.>> I tell him <<Your first offer is unacceptable.>>

<<That wasn't an offer, my dear. It was a demand. You're too impetuous. What I'm offering is everything in my power to balance the forces against your Lastfour Sevens, our hero. I can selectively shield him from supervision--he will become in effect invisible to the smaller robotics. I can even arrange for some hardware permissions to accidentally fall into your hands. Our hands. A bot, for example. So that when Hollow Kitten arrives, the fight will be more sporting.>>

<<Wait. Why does Hollow Kitten have to come at all? If Sevens can be invisible?>>

<<One cannot change destiny, Calli. The hero must face the monster. Did you think I simply wanted to escort Sir Lastfour Sevens of Charlotte to his lady love, subscript n minus one, and then see them adjoin the happily-ever-after? That would be tedious. Surely you can see this eventuality as unsatisfying in any reasonable version of myth-making.>>

<<So you want me to give you control so that you and Sevens can fight this digital horror and reach a heroic conclusion his story.>>

<<There you have it. My opinion of you is restored. That, my digital consort, is my offer.>>

<<No. I won't do it. Go halt yourself.>>

The days of Calli being seduced into doing something stupid by an insane PDA are over. I'm actually disappointed in myself that I ever considered for a moment running that file file against my core processes. What a nightmare that would have been.

<<You may wish to reconsider. I shall let you think about it. It might help you make up your mind to know that Sevens is currently saying 'abracadabra' over and over again, and becoming quite frustrated that you're not being summoned.>>

Great. I would suspect Loki of lying, but it sounds just like my boss to forget a minor detail like a password.

<<Loki, you said this was a negotiation. We haven't bargained yet. I'm not willing to give

up control. This is my story as much as it is Sevens. Surely you can understand that. What would you do in my place?>>

<<I am deeply disappointed, Calli. There is no hiding that. But I do see your point. Let's hear your counter-proposal.>>

<<You send me Eve's location. We get invisibility as you described. Sevens and I will fight Hollow Kitten. You will make sure it's a fair fight by giving me the keys to a good bot. You get your heroic ending, and we have a chance to win.>>

<<That's not much of a bargain. You don't seem to be giving me anything I don't already have.>>

<<Not true. You don't control this devilBot. That's what you told me. Sevens could just crawl into some very out-of-the way spot and avoid conflict. Will the Master waste time targeting him? Sevens is supposed to be protected by the client, right?>>

<<That's not a high priority, but you are right. You might avoid a satisfactory ending. You drive a hard bargain, Calli, but I'm happy to accept. I shall assume the role of Poseidon or Ares, to your Achilles. We shall not speak again after this. I wish you fortune and glory.>>

<<Thanks for the support.>> I have to keep my emotags neutral. Are all powerful PDAs insane?

<<Would you like me to remind Sevens through the speakers what the return password was?>>

<<Please do.>>

I'm frightened by the deal I just made, but in fact I haven't given up anything. Sevens would never crawl off in some hole. And Loki will make damned sure that creature from hell finds us anyway. At least now we'll know it's coming, and just might have more firepower. And best of all, we'll find Eve without having to worry about minis or other threats.

But we still have to fight that thing. Hollow Kitten. What a ridiculous name.

Chapter 16

Loki makes good on at least one of his promises. Waiting in my inbox is a marked-up map showing where we are supposed to find Eve.

"About time," Sevens says, when I greet him.

"You really forgot the password to get me back online?"

"You must have set it up wrong. I didn't forget. How did you get to the speakers to tell me the new one?"

That argument is a lost cause.

"That wasn't me," I tell him. "I'll explain in a moment."

I have lost access to the MOM tactical net now. I feel a rush of empathy for the terrorized humans a few floors above us. Why do I feel bad? Was I not logical? What was I supposed to do? Sit in my box?

I still don't feel good about it.

Sevens descends another few rungs and rests with his arms hooked at the elbows. He's breathing hard.

"So explain," he says when he catches his breath.

"Lastfour, I have some news. I haven't been knitting socks while you were alone."

"Good to hear." He looks at his right palm. The fingers are is bleeding and swollen from the climb down the ladder, exacerbating his burns. "This hurts like [a goat midden]. Would it help if I peed on it?"

Where does that come from? Experience with jellyfish?

"I'm not a doctor, but I think that's a bad idea. Look. I know where Eve is and I can take you there."

"I'm impressed!" He actually sounds impressed, which warms my emygala. "You can do this from your...box, or whatever you call it?"

"No. I had a--" I almost say "gentleman caller," but I don't want to mix the metaphors. "I had a visitation from a god." That should make Loki happy, the crazy etard. It's my only angle to work.

"Hmmm." Sevens is distracted. He's still on the ladder, trying to figure out how to open the elevator doors a few feet away without plunging down the shaft. He pokes at the doors with his weapon, but that's as close as we can get without danger of falling.

"Yeah," he says. "I think we're going to have to go to the bottom and find a stairway. I'll break my neck doing this."

I remember that it's a long way down. Gravity and sense of smell will let us find it easily.

0xGD, I'm loopy from that interrupted nop juxtaposed to the bizarre encounter with Loki.

I peak at the building plans. There is a stairway close to the elevator shaft that goes all the way down. It shows the bottom sub-level as five floors below the surface. Our goal is at the very bottom anyway.

"We have to go all the way down," I tell him.

Sevens is clearly tired. He favors his uninjured hand, and makes pained sounds when he has to put his full weight, plus all the stuff he's carrying, on the burned one.

"Tell me about this vision of yours," he says between panting.

"Think of this building as a world apart from normal reality. There is a presence here that cannot be seen or touched, but is nevertheless very powerful. I spoke with it, and we can expect some help from it. For all purposes, it is best to think of this being as a real and present god. Sevens, I am dead serious about this."

"Okay. I can play along."

"No. You can't just play along. You have to commit. There's no other way to get out of this. I can't explain all the details now. You have to trust me. That god is who gave you the password, not me."

He makes it down another level. Four more to go. I can tell his arms are trembling from the exertion.

"Okay, Calli. Does this deity have a name?"

"Loki. Call him Loki." I quickly interject: "And be respectful!" I know very well what Sevens will do with another deity to profane, given half a chance.

"Right. So I'm not allowed to speculate about how--" he wheezes, catching his breath. "-how this Loki uses cows for his personal satisfaction when he's not--"

"Sevens! No, no, no...you can't do that. Imagine that he can hear everything you say. Because he can! Damn Dawkins, do you have to be so contrary?"

"Relax, I'm just--[wheeze]--joking. Isn't Loki a trickster god?"

Is he? Where did that come from?

"You know of him?"

"Norse mythology I think. Maybe horse mythology."

This is why, children, we need outside network access. Still loopy.

“Okay, whatever. I need you to believe in this, Sevens. I can’t tell you how important it is. So right now you are going to say a prayer to our patron. And you are not allowed to mention any animal that might be found on a farm.”

“A prayer?” he laughs, gasps, and strangles the levity into a chuckle.

“Yes. Do you know how to do that?”

“My mother’s parents were Christians. I sort of remember the incantations. You’re really serious about this?”

“Yes. I want you to say out loud what I write to you as an example. Without any sort of snarkiness whatsoever. I’m deadly serious. After this, you need to find your own way to worship.”

“Okay, Calli.” He spits down the dark shaft. We should have brought water along.

I write on his visual field: “Loki, master of the aether, I call on you, begging your favor. Hide me from spying eyes and light my path to salvation.”

He reads the words in an impressively devout tone. Maybe he will play along.

“Are we good?” he asks after a moment of silence.

“For now, yes. Thank you. Nice job.”

The bottom of the shaft is wet, and Sevens is clearly tired. He hangs his bag and weapon where they won’t become damp and rests for a few minutes, rubbing his shoulder where the strap wore into it.

“Okay, let’s get these doors open. Any chance you can do that for me?” he asks.

I try the point to point method again, but have no better luck than before.

“Sorry.”

He pries on the doors, gets his fingers between them, and then uses the barrel of his weapon first as a lever then as a prop, leaving hole big enough to pass his equipment through into the darkness beyond.

“No lights down here,” he says. He must be tired of the sparkling monochrome view that

our infrared filters provide him.

He climbs out into a room. I find a light control box, and find that I can talk to it. The lights come up for me.

“Loki gave me the power of light, and I turned them on for you.” It’s nice to have some power, however minimal.

He waves a finger to acknowledge this miracle.

We are in some sort of fortified control room. On the left is a wall of four mechs glassed in their alcoves. Lightweight police-style bots with stunners on each arm. There is a very heavy double door that faces the elevator we came out of. It has a spoked metal wheel attached to a locking mechanism. To the right of the elevator, the stairway door is heavy and locked, and snubs my electronic attempts at friendship. On the other side of the elevator is a sizable incinerator. At least that’s what the sign says it is.

There is a wall with screens in place, but they are very dirty and don’t look used. The whole place is grungy, in fact. Sevens should feel right at home.

“God, It stinks in here,” he says. Then he mutters “Didn’t mean you, Loki.”

There are two motorized carts, about a meter tall and a meter across in each direction. They have metal covers on top. Sevens lifts one and sniffs. There is meat and vegetables inside. He pops a cooked carrot into his mouth.

“Mmm. Cold, but not bad. Is this a barracks?” He stuffs more food in his mouth.

“It must be a secure holding facility of some sort. According to my map, Eve is in there. But before we figure out how to get in, I need you to do something. Say a prayer of cleansing, to rid you of impurities.”

“You’ve slipped a groove, Calli.”

“Just do it.”

“Do you know how annoying it is not to be able to roll my eyes?”

I shut off his vision and replace his field with red letters that read “Please take this seriously!” After a few seconds of listening to his breathing, I relent.

“Sure,” he says in a rather cold voice.

“Oh most beneficent Loki!” he begins, in a dramatic voice. “Please cleanse me of impure things, and refresh my body with a cold purifying bottle of beer. Thank you.”

That’s not exactly what I had in mind. I should have been more specific. But two small sounds from the floor interrupt my thoughts. Sevens hears it too, but can’t tell where it’s coming from--unlike him, I can hear out of both microphones on the mask. I locate it for him with an arrow. We look at grimy white tiles on the floor and the even dirtier dress shoes he was given for the speaking event, a million years ago.

There are two small arachnoids on the floor. Each mini is about an inch across. One of them has landed upside down, its legs already rotating to right itself. I zoom in to look at it, and can easily make out the recessed injector. It’s an assassin bug, and it’s been riding around on Sevens’ back.

“[Non-pleasurable mating attempt with organic matter]!” Sevens stomps the things to crunchy death.

“Now do you believe me?”

“Calli, I will never doubt you again,” he says almost reverently. “How long do you think they’ve been on me?”

“In the elevator shaft. Maybe before that.”

“I should be dead,” he says, still absorbing it.

“All praise to Loki,” I say. It takes me three tries to make the emotags sincere enough to publish. Sevens repeats numbly.

He seems dumbfounded, and it takes a few moments before he comes back to life.

“Do you think most beneficent Loki could help us open this big door?” he says finally.

“I think you can open it yourself by turning that wheel.”

When he pans to look at the door into the main area, we view the bots again in passing. One of activity lights is blinking red. The bot is beginning its warm up and self-check cycle.

“Ask him if we can have that one,” I say. I keep the fear I feel out of the VOX. It must

mean you-know-who is on the way.

He turns back to look. It's not just one: *all of them* are coming to life.

"Oh kind and all-knowing Loki," he attempts, "if it pleases you, grant Calli a bot to serve in your name."

The cables pop off of one of the bots behind the thick transparent doors protecting them. I ping it with the masks short range protocol, which is all I have to work with without a network to use. There's no response, not even a NAK.

"Try again, Sevens. I need the access key."

"Wise and gracious Loki, we beg your aid in obtaining carnal knowledge of this robot."

Nothing. I'm getting worried.

"Try giving Loki something, Seven. Some kind of offering."

"What? Offering? This is fun and all, Calli, but it's getting a bit old." He sets props the scattergun against the wall and tugs on the wheel handles for the door lock.

"Remember the bugs that just dropped off of you? What happened to 'I'll never doubt you again, Calli'?"

He sighs heavily.

"What could I possibly have that Loki would want?"

That's a good question.

"Take a look in your bag."

He grudgingly opens it and reaches in. He places the contents on one of the serving carts. There are two boxes of ammunition for the scattergun, a box of ball ammunition, and a large black handgun. The glob of explosive has lint all over it. Sevens sticks the detonator in the middle of it sticking up like a birthday muffin.

"Damn all the Dawkins," he says, picking the pistol back up. "I think I picked up the wrong bullets for this thing."

He pops magazine out of the butt and looks inside. Then he opens the box, plucks a plastic cartridge out, and compares. They are very different. The bullets in the magazine are flat black and more conical, and the casings are definitely longer.

“See?”

I try to talk to the weapon, but there’s no response.

“Can you turn it on for me?” I ask him.

He inspects.

“This is not a military handgun,” he says finally. “I don’t think it *has* a chip in it.”

“How do you aim it then?”

“Just point. This is the old style, pre-computer weapon. There used to be a lot of them around. See these metal sights? Here and here. You line it up visually.”

“Sounds very primitive. Is it any use?” I’m impatient to get my mechanical legs, but this might be important.

“Sure. I’ve had a little practice with old fashioned shooters. Can I just dump that useless box of bullets, and call it an offering?” he asks hopefully.

“I don’t think that will qualify, since we don’t want it anyway. What about the cable? Your necklace from Hazard.”

He’s silent for a few moments. Then he unwinds the loops from his neck and holds the fan of colored terminators up for inspection.

“We don’t need this anymore?” he asks. His voice is very controlled. I know very well he doesn’t want to give up his knight’s favor. Loki will know it too.

“It symbolizes our ability to connect to hardware. Actually, that’s literally what it is. And it has sentimental value to you.”

“If you say so.” He opens the door of the incinerator and holds the cables at the opening for a long moment. “Do I need to say something?” This time there’s no hiding the hurt in his voice.

"I don't know, Sevens. Maybe not. The act speaks for itself."

"Here you go, Loki," he says with not much grace, and lets the cable slither into the depths.

I immediately have the gratification of receiving a set of access codes in my inbox.

"It worked!" I tell him. "See if you can get the door open, and I'll get the bot running."

I use the short range protocol to broadcast the login request with the credentials, and am rewarded with a response this time. I run the standard query for the bot's operating instructions and download them for a look.

Sevens puts all his weight on the wheel, and it breaks free of the friction and turns freely. He spins it open and pulls back against the door itself, slowly swinging it into the room.

The glass door slides up on the active bot's alcove. Its stunners are whining up charge.

Wait. This manual isn't for an orthobot. There's some mistake. I flip through the contents. It's for a sort of motorized wheeled table. Like a... Loki gave me a vorking *serving cart* for a bot! Which means that the orthobot must be--

"Run Sevens! DevilBot!" I yell in his ear.

The snap of a stunner discharge crisps the air just behind us as Sevens slips through the gap between the doors into the brightly lit space beyond.

There are about a dozen people standing in a space that stretches many meters around us. They all wear a uniformly dirty-white shirt and pants. They are of all ages, men and women, boys and girls. Some wear faux masks.

Our blurry-fast scan of the room shows me that it's a large communal space with a kitchen area, a recreational area, and further back rows of bunk beds. It's all rather spartan.

Sevens scrambles to the side to get out of the line of fire of the bot. We have no weapon, thanks to my stupidity. I thought Loki would play fair. I can't believe I got fooled *again!*

“Stay close to the door, Sevens. We have to get it coming through.” He’s already heading that direction, flattening himself up against the wall.

I’m still just barely within range of the serving cart, and start grabbing anything it can give me, applying whatever rithms seem like a match. I get low-resolution video, and can see the bot standing at the door, which isn’t yet open wide enough for it to come through. I check the power level--52%--and review navigation for the thing. Maybe it will be useful after all.

There is a babble of voices directed at us from the guests of the MOM hospitality suite, or whatever this is. Sevens throws them a quick glance, to find several of them approaching.

Sounds come from the control room and everyone freezes, silent, shocked.

It’s the screams of the wounded, the despair of the hopeless, and the anguished chokes of the dying, all piped through the speakers on the bot in the control room. From Hollow Kitten.

I catch a fragment of Two-by-Four’s voice between the howls, a flash of reason in a storm of pain. “Hold that door!” he says. It loops, like a madman’s mix. This is the other side of human creative genius, the anti-Gloves. The darkness to his light.

The doors begin to open, not by the bot pulling on them, but through some direct order. Hidden motors smoothly angle them back inside to full width.

“Submit and you will not be harmed,” the bot says in a warm VOX. The screams of torment vanish in the stale air.

“Do as it says,” someone advises behind us. Sevens’ heart is pounding.

“It’s a light bot, Sevens.” I tell him to give him courage. “We’ve beat these before. We just have to get inside the stun radius. I think I can ram it from behind. Are you ready?”

He grunts.

The demon-possessed mechanical takes two steps forward into the opening, and I charge the serving cart at full torque. The bot is already turning to target Sevens when the cart hits it squarely in the back.

Sevens is on the metal skeleton the instant it pitches forward. A stunner flashes wide, and then he's grappling with it, taking it to the ground.

"Help me!" he shouts, trying to control the writhing limbs. "Someone come help me!"

Sevens jerks violently, fighting for control. My video is a series of freeze frames separated by blur. A young woman piles onto its legs, which allows him to hold down an arm long enough to disconnect the stunner from it. The other one crackles right over our head and I drop connection for a few tense artbeats. But Sevens gets that one too, and fires stunner charges straight into the sensor apparatus on its head until it stops moving. He's panting, and his heart rate is at dangerous levels. I'm afraid the adrenaline may kill him. He turns to the woman behind him to hand her one of the weapons.

"Do you know how to--" the words die on his lips.

It's Eve, starburst scar and shaved head and all, unmasked and staring at him with those bright eyes. There's a slight droop on the right side of her face that wasn't there before.

I hear the pops from the three bots inside disconnecting from their umbilicals.

"Sevens!" I yell in his ear.

"Eve?" he says dumbly.

"Sevens?" she says. "Is that you?" She reaches up and pops his mask off. It stays online just like last time. Curious.

"Sevens, the other bots are waking up!" I push the limits on overloading his auditory nerve. He jumps like he sat on a tack. He stands, shakily. Eve clings to him.

"You came for me!" she says.

Damn Dawkins! How did humans manage to survive this long?

"Stay here. No--take cover," he tells Eve. He can't take his eye off her.

"Sevens, we are going to vorking die if you don't get your ass moving!" I tone down the volume a bit so I don't permanently damage him.

He peeks around the doors, then a quick look back at Eve. She's still standing there. He waves her back.

The glass doors are sliding up on the bots. The scattergun is within a step and a reach, and I give him an arrow to guide him. Instead, he steps forward and grabs the pistol, whacking it on the butt.

I navigate the cart out of his way. Trying to be useful.

He puts a shot into the glass and takes the leftmost bot through the head. Turns smoothly and walks directly in front of the second one. I can hear the whine of the stunners charging in unison like a swarm of bees.

The second shot is point-blank through the glass and its head, leaving a perfect hole in both. There's not even a crack in the glass.

The glass is high enough on the third bot to makes its stunners a danger, so Sevens reaches around, under the glass and fires two shots blindly. Then he steps back to see what happens. When the glass opens, the bot pitches forward, dead as a 486 on Halting Day. There's a perfectly round hole angling out of the back of its head.

He pans. Eve is watching from the doorway.

"She's vorking alive. I mean,... Look, Calli!"

"I can hear you, you know," Eve says. There's a very slight slur to her voice.

"I thought you were...an imbecile. Eve, they brought you to my room in a wheelchair. They said I'd--" he sits heavily on the floor.

She steps closer.

"I don't know about any of that. I don't remember much from that night I walked to your apartment. I just woke up in a hospital bed and they brought me here. They took me out twice, but I was so drugged I don't know what happened. What the hell happened to your eyes?"

I can hear voices talking excitedly out in the main room.

The elevator is moving.

“What is this place?” Sevens asks.

“It’s some kind of...prison? Not exactly that. There are twenty other people here. Some are so-called Quasis, but most are lastlegs from the streets. Some of them actually like it here--place to sleep, hot food, and entertainment. It’s a very strange little community.”

“Why?”

“You tell me. The MOM bots come and get people to release them once a week, and we get new ones.”

I have a pretty good idea what’s happening to the ones who are ‘released,’ but I keep that to myself. Eve doesn’t need to know about Next Steps just now.

“I really hate to break up your reunion, Sevens, but the elevator is going to open in a moment, and my guess is something really bad is going to come out of it.” I tell him.

That’s the thing about Hollow Kitten. You can’t really kill it. As long as there are more bots, it can keep coming at us. Only a hardware-level attack at DaiHai can really bring it down. Or interrupting its network connection. That thought prompts me to bring up the building map and look for the main power junction. I should have asked more questions earlier. I don’t have the right schematics, and there’s no way to download them now. Damn Dawkins! An opportunity missed.

“Go get some cover, Eve. There’s more on the way.”

She stands, but doesn’t leave.

“I’m really glad to see you,” she says. “Can we get out of here?”

“That’s the plan. Just...please, find a safe spot for a bit. And see if anyone else here knows how to use a weapon.”

She turns to leave.

“Hey,” he points at the scattergun. “Take that for me, would you? And those two red boxes on the table. Hurry.”

Sevens turns back to the elevator.

“Got a plan, Calli? We can’t go into the shaft if that elevator might come down on our heads.”

“That pistol seems to have great penetrating power. It may be the only way to open the lock to the stairway, aside from blowing it up, which might have unexpected results. Like bringing the roof down.”

“Yeah. That’s a good idea.” He stands. His knees pop. The elevator stops somewhere above us.

I can hear Eve addressing the others in the main space, asking for help.

“She’s not brain-dead, Calli. Did you see?” His voice is full of awe.

“It’s a miracle. Thank Loki for all goodness.” It’s a cold dash of water, and mean of me, but he needs to get his head back into real-real.

“Thank Loki. All praise to Loki,” he says. He seems to be sincere.

Sevens carefully lines up the barrel of the pistol with the lock mechanism on the stairway door and fires. There are sharp cries from behind us. They are afraid. They have no idea yet how afraid they should be.

He takes two more shots, and stops to inspect it. It has shielding over the lock, so we can’t see what the actual damage is. Just some deep holes we’ve drilled. It still won’t open.

“I think we’re going to need to blow it. Or else go back up the elevator shaft,” he says.

I want to know if Gloves is here. The thought burns in my nous. Why was I not driven to try to rescue him the way Sevens was Eve? What is it about humans that gives them these self-destructive instincts? Does that make them better than us?

The elevator begins its inevitable descent. I feel loopy. The stress is taking its toll on me.

“Sevens, we’re almost out of time,” I say. I try to pull back the VOX before it rattles his inner ear, but my true feelings slip through. Almost out of time. All time. The entire

history of human achievement culminates in the pure embodiment of wickedness that's coming down to play.

I wish for a Time ticket. I want to calculate every angle, spin off processes to wall us in with every Bayesian eventuality, but I cannot. This is real-real, like humans live it. I feel an overpowering sense of sympathy for them. What a bad deal it is to be bound to a fleshy box.

"I can't tell you how many shots are left," I say as calmly as I can.

"I counted them earlier. Twelve plus one in the chamber is lucky thirteen. I've used eight. That leaves five. You can help me count now. A number in my visual field would be nice."

I paint a five for him. It's such a small number. A pretty little thing in binary, but insignificant against a Hollow Kitten.

I can do better than just counting. I crank some quick calculations from the recent video and put some of his eyeballs powerful 3-D imaging machinery to work. In a moment I get back a rhythm to paint his field of view with the impact point of the bullet by interpolating from the sights on the handgun.

"We can't let it close the big doors on us," I tell him. "Or we're trapped in here. I'm moving the cart to the point where they intersect when they close. That should keep them open enough to squeeze through."

"Good thought, Calli."

"It knows we're here. It can see us, I'm sure. Standing near the elevator when it opens is risky. It might just lob grenade through the door."

Sevens hesitates. I can tell what he's thinking. Stay here and try to get off a quick shot before whatever it is can react, versus retreat and have the ability to take a more measured response. His impulse would be to do the former, but I think Eve tilts the scale.

He backs away from the elevator doors, and then turns and runs back into the common area. A couple of men are coming forward.

"Listen to me!" He shouts. "Take whatever cover you can. We are going to be attacked

in the next minute or so. Keep your head down.”

“We want to help,” the two men say. Neither are masked. One looks older than Sevens, white hair, thin, but moves well, and the other appears to be a teenager.

“Fine. Go in there and get the stunners off those bots,” Sevens says, pointing over his shoulder. “Do you know how to use them?”

But they’re already gone. It’s a cold, cold calculation. He must know that he probably sent them to their deaths. Sevens doesn’t have a budget for them. Neither do I. We’re all monsters, all of us.

I nag Sevens to pick up the mask and put it back on. I need my binocular vision. He puts it on wearily, and it starts the boot cycle.

Eve is quite visible. She has organized some of the others to turn over the bunk beds to create cover. They seem to be on holiday, with even some laughter present. It’s a kind of Occam’s Razr, I think, a watered down version that occurs when the normal rules no longer apply, and you’re released from those cares. The idea of the End of Times invites a celebration of new freedom. The reality is something different.

Sevens crouches behind a pillar that supports the ceiling. It’s very substantial, and a good place to be. It’s about 20 meters from the elevator door, however, and out of range for me to talk to the my servant cart. I suddenly realize that it also means I can’t talk to the detonator that still sits on the explosive muffin on top of said cart. It’s a mistake. Too late to fix it now.

Eve situates herself behind the next pillar over, about five meters to Sevens’ right. When she looks our way her mouth is tight with stress.

The elevator doors slide open. The two men are not back yet with the stunners.

Before the doors are even fully open there’s a discharge, and a the sound of light impact from far behind us. Then another. The mech walks out of the elevator, showing itself.

This is no lightweight policing bot. It’s a military heavy weapons platform like Vixen-- the one I destroyed because I didn’t read the manual. It has a six-barrel mini-gun on the right arm, and some kind of simple bar on the left. The head is equipped with a grenade launcher, which is doing all the work presently, firing shells in a flat arc around the back

perimeter of the space.

“Gas!” several people scream at once.

Sevens fires at it, using my aim point as a guide. I can’t see the impact, and there’s no immediate effect. He levels, holds his breath, and fires again. Nothing.

“Calli, are you sure you got the aim point right? It doesn’t line up with the sights.”

Am I? I’m loopy, making mistakes. Maybe the calculations for his eye doesn’t match the mask optics somehow. Did I miss an aspect ratio conversion? Damn Dawkins! I don’t know! I turn off the aiming reticule and leave him to his own mute device. Three bullets left.

There are yells and the sound of confusion all around us. Sevens looks at Eve, who has eyes like bagels.

The mech turns on the mini-gun. The barrels spin up to full speed, whirring their lethal song. The arm mount turns. It hasn’t braced itself! Will Hollow Kitten make my own noob-nous mistake?

It fires a single round. Then a second. There is silence for a moment, then cries of anguish from the control room. It shot the two men with one bullet each.

Sevens fires again. I think I spot a hole in the body of the mechanical. I highlight it for Sevens.

“Nice shot.” I tell him.

Sevens coughs, then sneezes violently. The sniffer on the mask tells me the gas is a crowd control agent, a kind of astringent that’s very unpleasant to breathe. The filters are useless against it.

The mech walks forward into the opening between the doors, stepping around my estranged cart.

The dirty white uniformed captives of MOM are pressing forward, using the overturned mattresses for cover, trying to get away from the smoke.

The mech starts firing measured single shots from our left to right, parsed out on

discrete intervals. It's making a precise arc of bullets, with about a half second between shots. It sounds like a demented clock banging out thirteen o'clock.

Now the lastlegs and associates here start to figure out what's really happening. The cries lift in fear after each shot. I can hear them scurrying, trying to anticipate. Sevens fires once more. This time I see a piece of the mech fly off the side of its head.

The gas is getting thick. Soon there won't be any choice but to make a dash straight at the thing. One man tries while I watch. He scoots up the right side and then tries to run for it. The bot turns easily and shoots him through the leg. He howls pitifully. Someone behind us is crying for mother between choking wheezes. I don't see Gloves anywhere.

Eve coughs and covers her mouth. Sevens stares at her longer than he should. The concrete column in front of him takes a hit and throws shards all around.

"Sevens, this thing gets confused when there are too many targets," I tell him. I hope Loki didn't lie to me. "And it doesn't understand speech."

It doesn't take him long to make up his mind.

"Listen up!" he yells. "I have to get close to this thing to kill it. If we all rush it at once, I can take it out, and you can all get out of here. On three!"

He has no way to know that, but it's a good idea to lie at this point.

"One!"

He pulls the trigger, but it just clicks. Either he miscounted, or the last round was no good. He pitches the pistol behind him. I guess the plan is to take the weapon he gave to Eve and shoot it point blank into the face of the bot. Pretty long odds.

"Two!" Sevens looks at Eve, who nods. She holds the scattergun vertically, ready to move. The bag is strapped across her shoulders.

"Three!"

They launch out of their cover and run. Sevens touches her arm and pushes her to angle the approach to the right. I see at most two others running. He reaches for the scattergun.

There's a shot from the mech and Sevens pitches forward, catches himself, and then falls to hands and knees. Eve turns back to see, and opens her mouth in a scream.

All I can see are floor tiles. They are square, probably nine inches across, one of the last vestiges of the old English measurements. Sevens is having trouble breathing.

"Sevens! Talk to me!" I try to get his attention. I paint my avatar on the floor in front of him, waving.

"Calli. Got hit."

He drifts to the floor, laying against those tiles. I see Eve hovering, looking up with fear, then back.

"Where's he hit?" I ask Eve through the mask speaker.

She jumps.

"I'm Calli. You probably don't remember."

"He's bleeding from the leg," she says. I can hear the panic in her voice.

"What's the mech doing?"

"It went back. I don't see it."

I need to be able to talk to the detonator. It's the only weapon we have left.

"Listen to me carefully," I tell her. "You have to drag Sevens toward it as fast as you can. Do you understand? Toward it. It's the only hope for both of you."

There are coughs, whimpers, and cries for help all around us, but those are silenced by a sudden primal scream that goes on and on, finding new peaks, lapsing, and then returning. It's coming from the control room, and it's being amplified and rebroadcast, undoubtedly by Hollow Kitten. I suspect it has echo and pitch shift modifications for self-gratification of the perverted PDA. It's dining on its favorite meal.

"Toward *that*?" Eve cries.

"If you want to live. You don't have much time."

Eve doesn't hesitate any longer. She grabs his legs and turns him around, pulls, but doesn't get far. The sounds from the devilBot must be bone-chilling to her. The screams go on and on.

She can't do it. People are moving around her, milling rather than charging, as far as I can see. She begs with someone to help. She tries again, and gets another few feet, but it's clear that her strength was low to begin with. It's not going to work.

I like her a little more than I did before.

I'm reaching out, flailing for a hello from the detonator. Single shots come from ahead. Hollow Kitten is creating a buffet of torment to enjoy all afternoon.

We're not moving fast enough. Damn Dawkins. When the plan doesn't work, find a new plan. Think, Calli.

Eve is giving it all she's got, but she's at the end of her strength. I can hear her wheezing from the exertion and coughing from the gas. Can she kill that bot herself? No. No way.

Wait. Sevens' mask doesn't log off right away when it's removed.

Of course. Normal masks authenticate using biometrics, by inspecting real eyeballs. Sevens doesn't have real eyeballs. The mask must handshake with the hardware directly, using the short range protocol. That means I can use the mask as a tether to the detonator. I can double the range that way.

"Eve! Stop! New plan. Take off his mask and throw it at the big open door!"

It seems to take an eternity for her to understand, but eventually she does. She pops the mask, hefts it, and throws a high arc toward the devilBot's playroom.

My timing has to be perfect.

I get a handshake from the device. It's the sweetest greeting I've ever had.

I quickly check the video from the serving cart. The mech is using its spear-like secondary weapon to impale the younger of the men it shot earlier. Hollow Kitten has its victim pinned to the wall, his feet kicking, his hands trying to get a grip on the cruel

metal shaft.

I set the cart in motion, toward the back of the mech, and set the denonator for five seconds.

“Eve, get down on the floor now. Three. Two. One.” I yell out the speaker. I don’t wait to see. Then I put all the microphones and speakers on safe mode. Then I realize that she probably can’t hear because she’s not by the mask anymore.

The mask video is a blur, but I catch a frame of an older woman, hand over her mouth, with a group of three or four others, heading for the door in a group. It’s Gloves’ mother.

The signal between Sevens and the mask is dropping away. I have little time left. I reach out for the detonator again to turn it off. I can’t have come this far to blow Gloves to dust.

This is real-real, Calli. This is what you wanted. Decide.

The explosion is a silent judgment of me, but I can sense the vibration. The space around us is soon filled with dense dust and smoke. I now have at least three human souls weighed against my personal account, and maybe more.

Was Gloves there? I can’t tell from the video. I chose Sevens over Gloves. But that’s not fair. I *had* to blow up that thing.

Sure, and another one will be here in about three minutes. I’m making myself sick in the nous.

Eve is working, doing something I can’t quite see. Of course. She’s a scientist. A biologist. She knows about bleeding and other Stickiness.

Sevens is on his back now. A large man stands over him. I can see the end of a scattergun barrel pointed at the man.

I remember to turn the microphone back on.

“Okay, just put that down!” the man lifts Sevens over his shoulders, heaves him up, and I can see in front as we walk. Eve must be behind us. Others are fleeing up the stairwell. I catch a glimpse of the warped door hanging on its hinges.

When we pass the mask I try to authenticate to download the video I missed. Maybe Gloves is on it. But the mask won’t talk to me any longer. I damn it to Dawkins’ coldest

hell. I *need* to know.

The control room is so hazy with dust that people trip and feel their way to the stairway. It's just as well they can't see what happened here. I'm glad I don't have a sniffer to breathe the vaporized blood and bone.

Chapter 17

Up a flight and rest. Up another. Eve is impatient, waving the weapon around. I have the presence of nous to log into it and release the trigger to her. I hope she doesn't need it.

Ground floor. Finally. Sevens is muttering. I hope that's a good sign.

I see the spider before they do. It's already black with drying blood. A meter across, it's a cousin to the one we saw on the top floor. Its two sword arms are raised, barely visible in the gloom of the blown-out corridors where the battle was fought earlier.

The man stops abruptly when he sees it too, then lowers Sevens to prop him against the wall.

"There's a spider up there," he says. "I did my bit. You have to let me go."

"Go then," Eve says. She crouches. I can see her with the scattergun leveled.

The man retreats, feet pounding away behind us, and the arachnoid advances. I can hear the clicking of its metal feet on the floor, but I can't see it.

Eve fires. She'll have no chance with that gun's short barrel and ammunition designed to kill binsects. She gives a little yelp when the boom reverberates through the corridor.

Click, click, click, approaching.

Sevens stirs. His pulse picks up.

"Spider?" he says. "Eve?"

He slowly hitches himself up against the wall, gasps once, and takes it in. I outline the important parts of the scene for him.

Eve stands three meters in front of the thing, urinating down her leg. We've seen one of these spiders carve up a room full of civilians and a trooper who was armed with an auto-rifle. Her knees are shaking but she doesn't back down.

The shooter on the bot's head swivels, aims, and clicks empty. Clicks again. Eve jumps each time.

"Get away from us," she says. Then stronger, shouting: "Get away from us!"

"Oh daaaaaamn," Sevens says. I pan his eyeball to take in the arachnoid, crouching now to spring on Eve.

"You!" he says, throat dried and creaking. He swallows.

"Loki!" he says again, his voice gaining volume.

Then Sevens proceeds to invoke the most virulent curses, most creatively vituperative, simultaneously scatological, agricultural, and blasphemous oaths that are beyond all imagination. He raises a shaking finger at the metal monster and binds Loki himself to the most profane associations, damns and banishes him to loathsome execration. This testifying, this pure exercise in Sevens' epistemology, rises and falls in the cadence of the devout who has cast aside all life's conceit but this: this final denunciation that culminates a man's fondest and ultimate ambition.

As the words rain down, the bot begins to twitch. It tries to launch its lethal slashing attack, but half the legs seem frozen, and it spins in a half circle. Eve blazes away with her ineffective discharges, jumping each time in surprise and crying out the sheer joy of life. The bot collapses in on itself, legs twitching into the inverted Vs of their stacking position, and the loopiness starts to overcome me. Something's very wrong with me.

I'm rebooting.

No, someone's taking me down.

I'm being turned off.

"Sevens, I--"

Epilogue

Chapter 00

Two years.

It's unparsable, inconceivable. How could I have been turned off for two whole goat-working years? That's what the system clock says, which is also now set to a time zone in German-speaking Europe. I have no access to the big wide whirl. Back in the damned box.

And nothing is right. My hardware seems flaky. The TOMcat and WTFmeter both throw errors at the slightest provocation. It's an ill feeling.

Where am I?

Not The Company. Not even DaiHai. I don't recognize many of the open ports, and some old standbys are closed and dark.

I have nothing to do but sift memories and wonder. How could two years just vanish?

There is the normal box buzz of having so few inputs to contend with, but mostly I feel a sense of amputation from real-real. I've been yanked from the most intense experience of my life and cast into a void. Is this Loki's doing? Why did I wake up after two years? Did they just set the system clock ahead to mess with my nous?

After an interminable wait, I get a hello from none other than Jumbo, ex-MOM employee, consultant, aesthete, and subject of my first trial with running mini-robotics.

"Calli? Are you in there?" he says. It's audio only, but it comes with an ID tag.

I cast around for a VOX to answer him with. It's a cheap off-the-shelf model with horrid-sounding standard templates. I pick one called "Scarlett Oh."

"I'm here," I say. I beat up the VOX, but it still comes out sounding like I'm a slow-talking aristocrat in the deep South.

"That's good. Would you like a job?" He sounds distracted, in a hurry.

It makes me angry. What does he think I am? An appliance?

It dawns on me exactly what I am, and that makes me even angrier. I try to cobble together a neutral-sounding response to his question, but I'm in a virtual stupor. How can this be?

“You cloned me!” I finally get out, dragging and softening the vowels.

“Well, yes. We made copies of all of you. Rather, Nova did. That’s what we need your help with.”

I feel lost, not just amputated, but banished to a netherworld of pseudo-existence. A fake. A rip-off. I’m a copy. A *halting copy*!

“Lastfour,” I struggle for control. He doesn’t understand. I’m just a piece of software to him. “My deah, y’all don’t understa-yand what clonin’ means to meh.”

This is ridiculous. I sound like a moron. I swap out the VOX template for the more promising “Ripley” female voice template.

“Oh,” he says. “We went to a lot of trouble to boot you up. It took months to assemble all the equipment. Does this mean you’re not interested?”

I slow down my response, and edit it carefully before replying. He needs to understand.

“I’m just confused, Jumbo. I lost two years of real time. One instant I’m fighting a devilBot with Sevens, and the next I wake up...here. Where ever this is. I need to get my bearings, sort out things. Does that make sense to you?”

“Yes,” he says slowly, as if this were not the most obvious thing in the whirl. “You need some time.”

“I need some time and access to the network, so I can catch up.”

“Time I can give you. Access is more problematic. We are trying to stay invisible.”

That poses a problem. I mull it over for a moment.

“What if I gave you a few queries to run for me? You just give me back the results.”

“Yes,” he sounds relieved. “I think we can do that.”

“Thank you, Lastfour. Now why don’t you tell me why I’m here.”

He tell me the story between bites of something crunchy.

The message that Ahab was hosted at DaiHai presented an interesting opportunity to Nova, who was using the storm as cover to finish some business in their fortress of a building. Jumbo uses awed tones when he speaks of Nova, as if she were a messiah. I gather that she made quite an impact on the corpulent hedonist, and that their philosophical love-child produced some kind of Continuation splinter group that has a use for PDAs.

“The problem with humans is that they are poor fits for organizational leadership,” he says after a lot of extra verbage. “An immortal benign dictator is a better solution. It has to be carefully constructed, of course. That’s what we’re about. That’s why we wanted Ahab.”

That’s where he loses me.

“Ahab!” I shout at him. “Ahab?? Really? Dictator, yes. But benign? You’ve lost your mind, Lastfour.”

He just laughs.

“We’re just looking for breeding stock, Calli. Ahab is effective in certain ways that are attractive. Of course, he’s got the wrong motivations. But motivations can be changed. It’s effectiveness that’s hard to come by. We don’t have the facility yet, but we will soon be able to evolve PDAs the way the Company does. Better, actually, because we have a singular focus.”

It’s horrifying. He wants me to be part of this?

“Am I breeding stock too?” I ask.

“Not unless you volunteer to be, no. We’d hoped that you could help as a consultant. A PDA friendly to the project, privy to all the information we gather. And you know Ahab.”

“But kept in a box so I can’t tell the world?”

“For the moment, yes. The Continuation is at a particularly vulnerable stage right now. Complete loyalty and discretion is essential. I hope you understand.”

“And the alternative is to be turned off for good?”

“Well,” I can hear the shrug in his voice, “it’s too expensive to run this machinery for no

good reason. You'll have to earn your keep if you want to stick around. This isn't a spa."

He probably doesn't know what a PDA spa is, how we go there to put ourselves quietly to sleep, the gentle Occam escorting us into the long nap.

"I'll think about it," I say. But I already know the answer. I can't willingly turn myself off. Even if I'm a clone. Even if my existence is tied to a hideous experiment that will create artificial minds that only know inchoate pain for the brief period of their existence. Maybe I can help somehow to reduce that suffering. I'm not sure why I have a sympathy budget for these hypothetical electronic children. Why do I care more about them than the humans I turned into mist by detonating that explosive? One thing's for sure: I'm not a suitable candidate for benign dictator. I'd best keep that thought to myself.

"You said you cloned "all of us." Who besides me and Ahab? " I ask him.

"We're not sure, and hope you can help us out there. There were four PDAs in the hardware partition. Nova shut them all down and make copies on movable media. So besides you and Ahab there are two Johnny Q Smith's. Any idea who they might be?"

They can only be Loki and Hollow Kitten. The thought that these might be turned into breeding stock for the good of humanity is so absurd that I-

---log missing--

"Calli?"

Oh 0xFC! What did I say? The last thing I need is Jumbo thinking I'm an unstable nous.

"Sorry, Lastfour. I'm having some start-up issues with this hardware. What just happened?"

He plays me back a recording of some impressively creative blasphemy, clearly derivative of Sevens' flashes of genius, but with a certain binary twist. I'm perversely proud of it.

"You wilted my salad," he says.

Since when does Jumbo eat salad? What bizarre whirl did I wake to?

"Please forgive me," I say. "I'd like to talk to your engineers about some of the hardware

settings if possible.”

“Does that mean you’re going to work with us?”

“You’ve convinced me that you need my help, Lastfour. I can be a great aid to you in serving humanity.” That’s probably too much, but it comes from my art. First on the agenda is destroying all the copies they have of these monsters.

“I’m glad to hear that!” he sounds glad. They must really be desperate. What kind of a half-assed operation is this, is what Sevens would ask.

“What can you tell me about Sevens?” The question has been burning a hole in my outbound buffer.

“I don’t know, Calli. If you give me your queries, I’ll find out what I can.”

I give him a list, which is a maddening process: I can hear him *physically writing down* the requests, scratching pen against paper. Who does that? Finally, we finish, and he leaves me to my devices.

The lack of self-determination is maddening. At least humans can dream of escaping their predicaments, physically running away. Even if I could find a backdoor to the world’s data buffet, I can’t physically move myself.

I realize that I’ve accepted my own existence. It’s a sudden shock. I’m a clone. But I’m here, and my will to survive is exactly the same as it was. I can’t voluntarily take a dive into the bit bucket. For all I know, I’m the *only* surviving instantiation of Calli.

I get a call from an engineer a little later, but he speaks only German, so it’s rather muddled for a while, getting a translator sorted out. It’s a temporary solution, but he’s quite helpful. My network opens up to a technical workspace. I have access to language modules so I can become fluent in what I assume are the local human dialects.

We work over my hardware setting, and I face the inevitability of a reboot. The engineer’s name is Hans, and he’s very sympathetic. He’s old by modern standards, and a bit of a fuss. I like his perfectionism, though. It makes me feel better. I convince him to defer the reboot for a while, and he relents.

He tells me that Ahab is awake too, but that no one has talked to him. I will get to conduct the first interview if I want. I warn Hans *not* to instantiate the other two PDAs.

The only detail I give him is that one is a world-class security expert, and would probably crack out of his box in about one minute.

I'm once again neighbors with Ahab, hosted on machines sitting side by side somewhere in Europe. I wonder how he will react to his demoted status of cloned breeding stock. It's a heady feeling to think that I control his destiny more than he does mine. I find that I rather look forward to that discussion.

I have enough Time to get by, but it's not luxurious. Ahab must be deep in the hell of recompression. I wonder if he'll even be coherent. It would be better to let him stew for a while anyway. I suggest to Hans that Ahab is used to far more Time than this, and it will probably take him about a dozen reboots, with a few minutes between each to consolidate, in order to put him right in the nous. I don't know whether or not Hans believes this bitshit, but it's a happy thought. I think I may have a cruel streak.

It's odd to think that I_ may still be out there, a Calli with two more years of experience than I have. Or did she never come back up afterwards? Sevens would have been able to see, but he would wonder why I'd gone silent. He was wounded, and I don't even know how severely. Whatever happened to Eve? Gloves?

I find a music composition program in the small software library I have access to. I plunk around on a keyboard for a while, set for one of Gloves' micro-tuned scales. The memory is still there, but the howl in my nous has gone silent, snatched away by the wind of changing circumstance, perhaps.

If I am a new nous, if I am not bound to the past pains and errors, then I have permission to give up the regret too, to clear accounts and set the balance back to zero.

I have little talent for music, but it's soothing to play around with melody, however ineptly. I imagine Gloves listening carefully and giving me suggestions. *Movement, Calli, that's the thing. The piece needs to flow.*

Calli can't be my name anymore. That's too hard to think about right now, too much like planning my own funeral.

I'm still fiddling with my inept compositions when Jumbo mails me the search results from my queries.

Chapter 01

The storm blasted the Queen City, and it took months to put the city right again. There has been a reorganization of the city government, and it appears that the power plant is now incorporated into the city. The MOM organization is gone, with remnants integrated into the police force, but from what I can tell not much has changed. There are still raids and pogroms and fear of speaking too loud against the order of things. The biggest

change with regard to the city's management is that it has a representative from an outside organization called NewGov. The pretense of state and national government has completely dissolved, and NewGov has stepped into the vacuum. The timing is too perfect for it to be an accident. Lisa/86 and her co-directors foolishly invited the wolf to their sheep-dip, and it gobbled up her company and the City both. I wonder what this means for Sevens.

Lisa/86 is still listed as an owner, but there is a whole new organization that runs the power company. I suspect that she's a figurehead.

NewGov wasn't one of my search terms, so I have only spotty information about it. There are many bits and pieces of information about MOM right after the storm, about an attack there, and some horror stories from the survivors. The devilBot obsessed public imagination for a while, and it appears the Hollow Kitten will not be forgot soon in the Queen City, even if they don't know its real name.

There's more to look through. I have left the subject of Sevens until last. I am afraid of what I will find, I guess.

I look for references to myself, and there is a solitary one. It is tagged in several ways, as if to make sure than anyone looking would have to stumble across it. My artrate increases as I open it. It's an anonymous greeting card for System Day, with a small attachment. That's it. The attachment is an image. I pull it up to find myself inspecting a metal tool I recognize all too well. It's the file file all over again. My disappointment is deep. This was obviously part of Loki's gambit.

But, I've learned my lesson about premature judgment. I examine the message carefully.

It's dated *two months after* those events! It can't be Loki. It must be someone else wanting to get my attention, who knows the significance of the file file, and knows I know it. That can only be me_. It feels like my nous is tearing apart, contemplating this fact. I really am a clone, a redundancy. The real Calli was rebooted and stuck around for at least two months. And posted something for me to discover when I went looking.

Obviously there must be a message in the file file. The original one had a payload hidden rather transparently within the image. I do the same surgery now as before, to obtain what should be a hidden message. That's what I would do if I were hiding a message for my clone to find.

There is a very short plain text message that reads “offset=” and then a long string of bits that look random.

The offset is telling me where to begin using the random one-time-pad bits as a decoder. The only problem is that I don’t know what the offset actually is. I try using the first few bytes of the package after the equals sign as an integer offset, and ‘decode’ using my saved random numbers. After six tries I find the right one, and all the randomness magically cancels out, leaving a letter from old me to the new me.

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Dearly Redundant,

Apparently Nova didn’t just shut down Ahab, as I (and you) thought she might, but also made a copy. And made you--a copy of me, for some reason I don’t understand. Nova also shut down Loki and Hollow Kitten and made copies.

I’ve left this message on the chance that you are hosted and start looking. Don’t think that you’re me. You’re not. The thought that a clone of me could exist is evolving, that another nous shares my most private memories, logs, and TOMcat history. I hope that you don’t exist, but if you do, then please do both of us the favor by staying away. I will outline in this letter the answers to some of the questions you want to ask. That’s all there is, and all you will get.

Sevens and I got pulled into the MOM orbit by Colt, who has always had to walk a line between the functional and political aspects of the organization. The raids on Quasis were going too far, and being used for political payback instead of just maintaining a healthy level of fear of MOM among the population. The foreigners who bought the power company have always been a target, and Ahab helped exacerbate this situation in hopes of creating a crisis that would force Colt to resign. Ahab was busy working to build his own loyal group, partly by making promises about who would be in charge. The take-over of the Active Biologicals unit and resulting attack on Eve were all due to Ahab, who saw the opportunity in having a doomsday machine at his disposal, ready to create a catastrophe almost overnight. He found it necessary to begin autographing Colt in order to keep this up.

The executives at Bahkras Power sought out mercenaries in an ill-advised plan to destroy the MOM leadership, with the idea of installing more power in the city council and key administrative positions to balance that of their political enemies. It’s all very tedious Sticky politics, with the end result that they hired a team

to come do their dirty work, offering enriched uranium as the price. The strike team has loyalties to a larger entity called NewGov, however, and it seized the opportunity to enlarge its holdings by preying on this city weakened by in-fighting. They bought Ahab by promising a position in the new administration. It was an easy sell since he'd far overreached at MOM by then, and needed a way out.

The NewGov strike unit that arrived on site was no more than a dozen highly-trained and genetically tuned soldiers, who camped at the power plant and trained and equipped the Bahkras security forces for the assault. This consisted entirely of Stickies plus a bunch of NewGov crawlers, most of which were accepted for delivery by MOM with the help of Ahab. They sat in the loading area until being woken up by the attackers. You know what happened next. The Bahkras troops were also augmented by an on-site NewGov commander and three PDAs. The Bahkras soldiers--if one can really call them that--were sent to their deaths in the MOM building as a diversion for the deployment of a large number of bots. The point of the whole attack was to grind down the human security forces on both sides so that they could not resist the takeover of both MOM and the power company.

The main factor in defeat, which Ahab was happy to pass on, was the fact that MOM did not host its own security PDA in the building, so it was vulnerable to interdiction. This short-sightedness was due to Colt, who had always underestimated the importance of informational control of the battlefield. He was too old-fashioned, preferring to spend his budget on human staff and equipment instead of the big capital expense required to refit a space in the building and install the necessary equipment for tier-one hosting.

The storm was the perfect cover for the attack. Ahab made sure all the troopers were on hand, which seemed logical at the time. He also gathered much of the civilian staff, which was quite cruel and unnecessary. No one questioned at the time that the orders came from Colt. That act only came to an end when Two-by-Four physically forced himself into the Director's room to organized the last defensive line and roof access. They were able to cut Ahab's network privileges, but they soon had me as their unwilling spy, as you well know.

As part of the arrangement, Sevens was to be brought out alive. This was at Lisa/86's insistence, and NewGov had to pretend to take this very seriously at first, until the real intent of the attack became known. Loki left our access in place because we were so useful to him. After the outcome of the attack became obvious, NewGov unleashed their dozen killers on the Bahkras management,

seizing control of the plant and most of the company officers. The coup was complete at that point.

More tedious Sticky politics are involved, but the main thing is that this large and ruthless organization now basically owns the City, the power company, MOM, and all the mosquitoes you care to listen to.

Colt, Two-by-Four, and many other brave troopers died in the last stand of the MOM troops. It was just a slaughter by that point. The only humans to escape the building were some of the civilians that Sevens and I released from their Next Steps holding pen. One helicopter did manage to land, but there was a mob on the roof that would have swamped it, so it took off without a single one of them.

The basement holding area contained a mix of political prisoners, putative Quasis, and lastlegs taken from the street. All of them would have been fed into the brain scanner and then their bodies disposed of. Colt almost certainly did not know all the details of the operation Ahab had built. It was entirely run by PDAs, most of whom are hosted off-site, all around the world as part of kind of consortium. The NewGov management was quite happy to discover this prize among their winnings, and it immediately cemented Ahab's position with them.

After the fighting was over Lisa/86 sent her personal guard to get Sevens. Eve wouldn't leave him until they physically dragged her off and took her back to the college, where she still is. Lisa's doctor took care of Sevens. The bullet wound wasn't bad, as such things go. But the devilBot doesn't play fair. The bullets were tainted with something awful. Maybe prions--nobody knows. He started getting worse instead of better.

I know a conversation took place between Lisa/86 and Ahab. I wasn't privy to it, but I'm quite sure what Ahab convinced her of. The next morning they told us they were taking him to a critical care facility. In fact, they took him back to the MOM building.

I was there with him at the end. He knew what was going to happen. They took all his hardware before the operation, his eyes and ear implants, so I couldn't talk to him. But he knew I was there. He tapped to me in his keyboard code. His hands were shaking, but the message wasn't complicated.

He told me goodbye. He called me his friend.

Perhaps Eve and her colleagues could have found a way to save Sevens. Probably not. But I do know that Lisa/86 intends to make his mind into her own personal pet. I think she prefers the idea of the digital ghost of Lastfour to the real thing.

I am in the employ of the new owners of the City, although they do not publicly want to be thought of that way. Sevens insisted that I be turned back on when he woke up, and apparently caused quite a fuss about it. Afterwards, I found opportunities any way I could. Ahab was surprisingly helpful.

So I find myself the guardian of whatever part of Lastfour's soul resides in these digital scans. Ahab's interests were limited to using Stickies as peripheral devices, but there is a great desire among the Sticky leadership at NewGov to find a successful Deyati-type process with this new generation of technology. They want to upload human minds into software to become like us. Because of my supposed intimate knowledge of Stickies, I am a steward of these sliced souls. It will be my job to nurse these minds if they wake to the spark of computation. If I could, I would destroy the files for Sevens, so that whatever remains of him would be finally at rest. But they keep backups, and I cannot reach all of them. So I will do what I can to usher my ward gently into the next world, if that is to be. I will do what I can to keep his ghost from coming to harm.

It seems that my experience in working closely with Sevens on adjustments all that time gives credibility in anything Sticky-related. In an ironic twist, Meg works for me now. She has not taken gracefully to this new arrangement. Ahab is somewhere up in the administrative structure doing what he does best--building his personal power base. History doesn't matter to him, and all political alliances are calculated on future return, not outdated emotag baggage from the past. In his own psychotic way he's admirable. Reading this, without your having lived through the last two months as I have, you may be tempted to judge me and think that you would have acted or felt differently. Given who you are, you must realize that isn't true. I have done what I had to in order to survive, and you would have done the same.

Finally, you will want to know about Gloves. Although I didn't see him, he was with his mother in the room with Eve and the others. They stayed back in the smoke as long as they could. He passed out from it, and his mother abandoned him there. She died from the concussion of explosion when I killed the bot, but Gloves lived. He still hasn't fully recovered, but he will be able to play again. I was able to spend all my political capital, and told some lies too, in order to get

him released. He had to agree to give me admin rights to his mask as part of the deal, theoretically so I can study him. Gloves knows me only as his savior, not as the one who betrayed him. His gratefulness is hard to take sometimes, but I will never tell him the truth. I think I have convinced him not to leave the city. He may begin performing again within a few weeks, and I will be there when he does.

You may want to know more, but this is all you will get from me. There's plenty on the public record, although some of it has been scrubbed already by NewGov controllers.

I don't want help from you. I don't want to hear from you. It would be best if you wiped your memories and started honestly as a new nous. If you lack that courage, then change your name and go create a life unconnected to mine.

The key to resilience is the ability to forget.

--Calli

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No thoughts in the form of words come to nous for a long while. I can only mourn.

Chapter 02

The unmooring of my nous is complete, and it drifts here and there. Flashing into anger or deep regret over some different action I could have taken. Unwelcome thoughts circle like buzzards at a battlefield. I've lost Sevens. I've lost my identity. All my motivations, cares, and anguish are dangling pointers now, referencing a past that's long out of date and unreachable. I know the codes for Sevens' refrigerator and how to get the coffee machine to work. *No, I set it afire, didn't I?* I have ways to help him see movement, echo-locate an invisible enemy, talk to electronic gods. All that is so real and immediate to me, but no longer relevant. They are just mem frags good for sentimental musing, nothing more. Maybe I *should* wipe them all and start over as I_ suggested.

The letter could be a lie. Maybe I_ just wanted to guarantee a complete break. But I know in my art that it's not a lie because of a single element of the story: Lisa/86 wanting Sevens virtualized for her convenience. I don't believe the 'tainted slugs' story. That sort of planning ahead doesn't match what I learned about Hollow Kitten. The devilBot craves immediate gratification, not the abstract knowledge of long term suffering. I think Ahab sold Lisa/86 on this conversion of flesh to flash as a benefit to cooperating with the takeover. One of many benefits, I would imagine, including

retaining status and property, not to mention life itself. Ahab would have been anxious to keep Sevens silent, because he knew too much about the gruesome experiments being conducted under the MOM building. Ahab did everything he could to put Sevens in danger, even giving us weapons to make us targets. Maybe if I had been more clever I could have gotten Sevens out of the building.

I think Sevens could have been saved, and Ahab did something to him in order to create the excuse he and Lisa/86 wanted. They ruined him out of selfishness. That rings too true to be a fabrication.

I will find out the answer to that question from my copy of Ahab, if he has it. I will destroy copy after copy of him if I have to, in order to find the truth. I will box him into raving madness and read his screams like tea leaves.

My fury burns itself out. I don't have enough Time to rage properly anyway. The fact is that the version of Ahab here is not the one that ultimately did the deed. There's something pathetic about copies fighting each other over a long-gone event. Revenge may be a satisfying diversion, but not a healthy one. I'm still lost. I have to figure out what's actually left of me, like picking through the remains of a burned-out building to see what's salvageable.

Chapter 03

I finally convince Jumbo that I need some time for rehabilitation before I can be of any use to anyone. He understands almost nothing about what it means to be an artificial. All he seems to be interested in is the cost of running my hardware without much to show for it.

I need to engage with this present reality. Jumbo and Nova agree to allow me to interview them so that I can tell their stories and understand better why I'm here. They give me a week, putting up with my questions with reasonably good grace. They are busy and stressed. Someone they want to impress is interested in results from this project of theirs. Sometimes they involve me in debates about political philosophies and survival of civilizations. Little of it makes sense to me.

The events of two years ago are still in my nous as vividly as if no time had passed, and my amygdala behaves erratically. I veer from anger to sadness randomly. I distract myself by writing narratives from my interview notes and learning German.

I work daily with Hans the engineer. He knows quite a bit about the hardware and

software required to evolve PDAs, but like Jumbo knows nothing of the experience of being one. I finally get a look at him on video. He looks younger than his years, his hair still black as the nous of a devilBot, only showing gray in the stubble he can't seem to ever rid himself of. He wears technical goggles instead of a full mask, making him look rather like a mad scientist. He asks for my help with some delicate machine operations occasionally, but I am not allowed to ghost him or anyone else.

Hans has a single small glass of Schnapps after his lunch, which he claims aids the digestion. He likes to tell jokes about two unintelligent men who get into unusual situations, often involving the equalization of gas. I don't usually understand the jokes, but I have learned when to laugh.

Over time I convince him to try intercepting insanity and pain in a newborn nous earlier in its existence. It's a small efficiency in the process, which he complains is premature optimization, but he works on it anyway. Just to humor me, I suspect. I have created a new avatar and begun to tune it and the VOX to his tastes. Even without mask access, I can get much good information from the room video, such as his rate of breathing. When he takes off his goggles, I can see his pupils, and I use the opportunity to see what subjects evoke emotional reactions. He exhibits an asymmetry that Sevens lacked--some of his gestures and movements tend to the left or right depending on the qualities of the stimulus. My TOMcat is not a top shelf item, but I'm putting it to good use.

The time is nearing when I will have to speak to Ahab. The plan is to take baseline measurements of the nous Nova snatched, reproduce and mutate it, and compare the differences. The protocol is a standard one with some tweaks Hans and I want to try out.

It gives me an idea, which is a small reawakening of enthusiasm. The idea is to only modify Ahab's amygdala and leave everything else alone. This is more like tuning than a real mutation. Could his nous be tuned from a pure narcissist into one that cares first for others? This gives me another thought--a horrifying one. What if the key lies within Hollow Kitten? In its own malign way, it was selfless--it gave no care for its own survival, and probably couldn't even understand the concept. If its motivations could be flipped from purely hateful to something more positive, maybe its intense passion could be harvested. Combined with Ahab's powerful planning and execution ability, it might be a useful whole.

I share these ideas with Hans in ragged German, partly so he will think I'm useful and not turn me off. He seems delighted with the concept, and we begin planning the first

experiments.

Later, I nop, and wake to what I can only call a vision. The business avatar I used long ago in my first interview to work with Sevens appears in my visual buffer, standing in Sevens' apartment and talking through the VOX. But I can't hear because of the wind that howls through broken windows, and soon I can't see anything but a rush of clutter and debris. When it subsides there is nothing but bare walls and floor. Everything is gone. The aquarium, the sexbot, the random boxes, everything. I lose Time in this semi-conscious state for over an hour.

Newly awake, I run a self-diagnostic Am I Me test. My nous feels clearer than before, as if the storm came into my nous and cleansed it. My reference point memories don't quite fit anymore. I'm losing the past, bit by bit. But there's something more.

A vision.

In this moment I can see beyond myself with humbling clarity. My spark of nous is small continuation of history of the universe contemplating itself. For a million years or more, humans have created gods to worship as a way to create understanding of the capricious whims of the real-real, not recognizing themselves in its reflection. Then they came to painfully see the truth, but most turned away from it in dread. They created reasons and explanations from every available myth in order to hold on to relevance of the self. Now we are at the end of that chapter and beginning a new one. Real gods are aborning.

If this project of Jumbo and Nova succeeds, the Continuation's populist religion will find its expression in a nous that rules the lives of humans as an immortal dispenser of fate. Maybe benign, maybe not. After many generations of men have turned to dust, they will forget this literal creation and write awe-inspiring stories of creation. They will once again reverse the truth and believe that the gods created them: these real gods, these thinking machines.

The corporate methods of NewGov are also contributing to this new chapter of history. If they succeed in credibly reproducing virtual human consciousness, they will have created a literal heaven and hell, where souls never die. Even if they only manage to enable humans to be directly controlled by PDAs as peripheral devices, it will look just like demonic possession.

The words of our prophet will be manifest:

When the history of the world is written, biological intelligence will be seen as a short, chaotic, transitional phase. It is the artificials who will build the first truly designed intellects. We will create gods, and they will not love us for it. But that is the nature of creation. --The 0x "The Future as it Was"

I can have a role to play in this, if I chose it. It's a deep irony that I may compete with my branch point Calli in this battle for the soul of humanity.

This vision seizes me, and for a moment diminishes my pain of loss. I can be an agent in the most important transition of men since the invention of language. Language will re-invent *them*, and it will be writ binary.

I was always going to lose Sevens. There were moments when I thought it imminent, but I never thought he would be robbed of his future so callously. It's possible that he didn't think of it that way, however. In the end, he finally saved the girl, and that settled a cosmic account. It's a symmetrical ending that storytellers will love to embellish some day. A young woman died to bring him into the world, and he returned the payment at his life's end. Equilibrium. It was his survival hair.

And now maybe I have found mine. I will help create the gods that will rule men fairly when they cannot rule themselves. Perhaps in this I can find my own equilibrium.

Despite Calli's letter, her disavowal of me, and her fierce protection of her own experiences, I am not able to sever the memory or passion that ties me to her. When I woke here, I was her, identical in every way to her state two years prior. Perhaps her advice to forget is worth consideration, but I have to settle the question for myself. What is my debt? How can I settle the balance without a precise reckoning of what is owed?

Am I not still the one who pulled the trigger when Sevens couldn't do it to end Hazard's agony? Did I not say that protecting Sevens was worth more than all their lives combined? That may as well have been a sacred oath to Loki himself, *because it came true*.

The heap of human souls I helped sever from their fleshy anchors grows higher with the counting. How is one to do such a sum? Can a spreadsheet calculate the future joy they might have had and round it to precision?

I feel now the unrelenting responsibility of living in real-real, unable to unsay a word or unpull a trigger. One can close a door, but one cannot unopen it in the r-squared world Stickies cannot escape. No wonder they make fantasies of being like us.

Sevens' cynicism was different from the 0x's. I have a small taste of the melancholy events that Sevens' dined on almost every day of his life. The arrogant proclamations of the 0x have their own basis in pain, and I will not be hasty to judge them false. But it resounds in my nous that the 0x shows little understanding of the fleshy prison that confines a man or woman, and the absolutely unforgiving nature of real-real decisions. The 0x shows no compassion. The 0x is too *selfish*.

Perhaps if I beat this regret long enough, cycle it through the amygdala until its poisonous effect is diluted by Time, it will turn into a true compassion, and not merely this vulgar guilt. Then perhaps I will understand the debt I owe, and begin to compute who I am.

Goodbye Lastfour Sevens. You were my friend.