Pager Duty

[Disclaimer: The Protectors of the Plot Continuum was created by Jay and Acacia and is used with Permission. This story was written by Tomash. Thank you to Delta Juliette and Granz for beta reading. If you want to leave a late review, you can use [this wiki page](#)]

Summary: Tomash gets paged at a rather early hour.

```
2017-10-13 06:19:00 [ecosystems3.rack5.qq45ld09β-tl1.routing] ttyUSB2: NO
CARRIER
2017-10-13 06:19:00 [cisco2.rack2.rr12zh34ε-tl1.routing] eth3: link down
[10385 similar messages elided]

2017-10-13 06:19:15 [ecosystems3.rack5.qq45ld09α-tl1.routing] heartbeat failed:
no route to host vault-tec1.rack1.qa01aa04ξ-tl1.routing
2017-10-13 06:19:19 [cisco2.rack2.rr12zh34ε-tl1.routing] heartbeat failed: no
route to host console01.rc112358.dms
[22287 similar messages elided]
2017-10-13 06:19:59 [monitoring13.dosat] Region qa01 probably down - sev2
ticket #23499101866 logged
```

[BEEEEEEEEEEEP]

Technician Tomash was startled awake by the console. He groped around for his glasses, put them on, and then took a look at the time.

"It's six in the morning, dammit." he grumbled.

Tomash walked over to his console and logged in to DoSAT's systems. He took a quick glance at the summary of why he'd been paged, and then wandered off to make some tea. He was just awake enough to realize he needed to be more awake than that, and he knew the tea would help.

As the water started boiling, the situation quietly got worse:

```
[630599 messages elided]
2017-10-13 06:20:30 [neonet1.rack17.vj36aa07ν-tl1.routing] nlan1: link down
(warp fluctuations)
2017-10-13 06:20:31 [tuberosum55.box2b.ꓛc23ln43λ-tl1.routing] prot16: link down
[298232 similar messages elided]
2017-10-13 06:20:55 [console02.rc3133735.dosat] heartbeat: no route to host
monitoring.dosat
2017-10-13 06:21:01 [neonet1.rack6.vj36aa07ν-tl1.routing] stats: no route to
host console02.lab.dosat
```

```
[408214 similar messages elided]
```

Tomash went back over to the console and looked at the alert and the first few log entries, which were showing a lot of internal network connectivity problems starting a minute or two ago. "OK, zone outage in qa01, let's see where…"

```
tomash@rc2718282 ~ 06:22 $ server-map qa01
Fatal error: Cannot look up current network and room layout: no route to host
```

"The heck? That's weird." He tried the command again, since this sort of thing was intermittent sometimes.

```
tomash@rc2718282 ~ 06:22 $ server-map qa01
Fatal error: Cannot look up current network and room layout: no route to host
```

Tomash stared at the screen in confusion. "Eh?" he said, rubbing his eyes.

```
2017-10-13 06:23:23 [aperture4.control.dosat] External corruption on link fib3,
preemptive halt
2017-10-13 06:23:24 [monitoring08.dosat] Kernel panic: Core
nyph14tnyd,eucrkaogutns1\2443h4prs^X@
[10 similar messages elided]
```

"Maybe something got unplugged?" he said to himself. He leaned down to make sure his console's network cable was still plugged in. This was a fortunate decision, as, about 30 seconds after the second lookup command had failed, the console's screen and keyboard started glowing eerily green. The console speakers also let out a burst of noise as the screen began to glitch out.

Tomash, satisfied that he did in fact have his network cable plugged in, got out from under the console just as everything got spooky. "Well, so that's in— shit shit *shit!*"

The kettle clicked off, but Tomash *really* didn't need tea anymore.

The talk he'd gotten about infovores soon after he'd joined the department jumped into his head. He started listing off the signs. "Runs through networks, everything goes down, glitches, maybe glowing if — fuck," he concluded. Though the problem was dangerous, especially since stuff like this tended to spread fast, the immediate solution was easy. Kill the affected network and hope it leaves through the plothole it used to get in, and get the Weeds if it didn't.

Tomash grabbed his badge and phone from his nightstand and ran like hell — no shoes, no watch, no tea, nothing else. Something chewing through HQ's network was *not* the sort of situation where you took the time to get ready.

Headquarters, fortunately, was being extremely cooperative, and he made it to an entrance in a bit under a minute.

As Tomash was running for the routers, the defenses in HQ's network realized what was going on.

```
2017-10-13 06:23:45 [watchtower.dosat] Corruption detected (main routing/data),
creating airgap
```

THUNK. CLACK CLACK. clickclickclickclickCHUNK. THWACK. Whump.
HQ's networks split apart. Critical computer systems, such as those in Medical, FicPsych, and Security, were physically disconnected from the rest of HQ, and linked to each other only by a small collection of routers near the Board's offices. External connections that weren't isolated, critical, or unreachable were mechanically disconnected, as were the few cables in main routing attached to equipment that could still be communicated with. A loud *CLANK* near the main DoSAT lab isolated the racks of backup drives. The people working the night shift, as well as the lab's morning people (who, contrary to rumor, did, in fact, exist) were rather startled by all this and started trying to find out what was going on.

While the airgap process finished up, a heavily breathing technician charged into a cavern full of routers, servers, and even more unusual equipment. Much of this hardware was giving off the same green glow that Tomash had seen on his console. To make matters worse, the glow was spreading.

Tomash turned his attention to the panel by the door, which had two red buttons on it, one quite large and a significantly smaller one about the size of a watch battery. Both were surrounded by plastic covers so they wouldn't be pressed accidentally. The larger one, labelled "area TH shutdown", would turn off the portion of the routing infrastructure Tomash stood near. The smaller button was the "kill everything" switch, and would do just that.

Tomash stared at the state of the room and then looked over at the panel. "Everything?" he asked himself, then he looked back up again. This really didn't look good.

He took a deep breath and decided on what needed to be done. "Everything." He made sure he was going to press the right thing, opened up the cover, and slammed the smaller red switch.

```
2017-10-13 06:24:32 [panel.th02-270ene0.compute] Emergency datacenter shutdown
logged
```

CLANG. THUD. The room echoed with the sound of electricity being cut off.

Then, the power was gone.

The blinking lights on the machines turned off.

The box of potatoes half a mile down the hall to the left stopped vibrating.

Everything was quiet.

The glowing started receding out of the hardware. There were no more machines to take over; no more bits to eat.

Tomash went through the room to a hallway so he could get to the right part of the datacenter. He looked at the map posted by the exit to th02 and found out where qa01 should be, since that's where all that had started. He then started walking his way down the emergency-lit hall, using a phone flashlight to check the door signs. Unfortunately, the diagrams he was using were somewhat theoretical, since a few things had been rearranged since they were last updated and HQ was getting back to its usual self. Now that the immediate threat was dealt with, looking for a large cavern full of equipment by following directions was not the best strategy for finding it.

After a few increasingly frustrating minutes, Tomash made it to his destination. Region qa01 was a cavern holding a grid of metal pens filled with long rows of computers, along with the associated cooling equipment, power cabling, and other infrastructure. Ordinarily, it would look like a vast army of metal towers assembled to march stretching out into the distance, though, due to the wide variety of hardware in use, were nowhere as sleek as they should've been.

With only the emergency lights on, however, qa01 was a huge spooky cave. The cables and atypically-shaped hardware jutting out of racks cast long, spidery shadows on the ground. Even the rather tidy cable runs that disappeared into the ceiling or under the floor gave the impression that there were thick snakes hovering overhead as Tomash looked around.

As Tomash walked in and habitually grabbed some earplugs, the echo of his footsteps surprised him. Usually, there were enough fans, generators, and other noisy objects to muffle the sound of a tech walking around. Everything shutting down let the natural acoustics of a big room full of objects for sound to bounce off of take over, and it made Tomash pause.

He regained his composure and walked over to pen aa, which was, conveniently, nearest to his door, and let himself in. "Ok, the first thing that showed as down was in 03 or so, now let's see…" He paced up and down the row of unusually dark and quiet racks, looking for the problem. "OK, so none of this stuff is glowy. Where the heck could that have been coming from?"

He started walking around more slowly and checking the occasional label. While hostnames were almost always accurate down to the pen, and usually the row (not doing this tended to lead to angry coworkers threatening you once they'd had to find the machine that wasn't where it should be), occasionally things weren't quite where they claimed to be.

As he made this next trip down the aisle, he saw a faint blue shimmer from a cable run in the next row over. "*There* it is." He went back out of the pen and grabbed the CAD by the door, then went over to the portal in aa04. He aimed the CAD at the plothole intersecting the cables, and pushed the button.

```
[Natural portal to Laundryverse. Close? Y/n]
```

The portal closed, and the faint hissing and glowing that filtered through from the other side disappeared.

"Got it!" Tomash shouted, throwing his hands up in the air.

Then, his glee at solving the problem ran right into reality. "I hope the information-eating eldritch thingy just chased the bandwidth on the network and stayed away from data, so we don't have to restore from backup."

"And now we have to get all this up again…." He sighed and started out for the main DoSAT labs.

Once he'd gotten there, he went through the Makes-Things Memorial Blast Doors (which were still named that even though Makes-Things had always been very alive).

In the lab, there were various reactions to the outage. Some people weren't even there, because they didn't work on data or networking and everything being down was as good of an excuse as any for a day off. Other people were being slightly more constructive, that is, they were standing around chatting, making coffee, playing solitaire, and otherwise finding ways to kill time until the problem was more solvable.

A smaller group found that they were actually more productive when the network was gone. There were all sorts of things that should have been done quite a while ago, like documenting code, that always got pushed back by more urgent tasks or were boring enough that technicians used the vast array of procrastination methods reachable over the network to avoid them. Now that there wasn't much better to do, the department took another lurch towards best practices.

Tomash called out, "Anyone know how to restart the data center? I got the scary green

stuff out, but I don't know how to turn things back on."

"They're on the wiki!" called a nearby tech. A moment later, she'd remembered what was going on and added "It's under that desk over there," pointing into the lab.

Tomash went over to the wiki server, plugged in a nearby laptop so he could get to the thing, looked up the directions. The instructions were *long*, including straightforward things like "re-close the breakers", rather unusual instructions like "replace that one cable that gets cut off with explosives (Note: the spares are in a drawer by the laser cutter)", and rather incomprehensible steps such as "reflobnicate the swozinator in lh45gq84" (which someone had forgotten to list more details for). Fortunately, after the first few steps, the list could be split up between the many techs who were waiting around for the outage to be over.

The first thing Tomash did was to give the word that it was OK to switch to the failover data center. This was something he needed to do personally, unless he was dead or otherwise unavailable, in which case the job fell to Makes-Things or a few other senior people. He told the tech who'd given him directions to the wiki that the portal all the nasty bit-eaters had come through was closed, adding that he hoped nothing else was running around. She then messaged the fellow who'd run to the `data2` switch to let vem know it was safe to pull it.

`data2` was HQ's larger backup network. It made sure that HQ's typical business could generally go on—agents could still get missions and file reports, Intel could still look through fics, the chatrooms worked again, and so on. The network also contained one set of HQ's backup servers for important data, which was kept reasonably current, and not much work had been lost last time an outage happened (at least according to the wiki).

The network, however, had very few links to the outside world. The few connections that existed, like to the World One internet, were both technically restricted and, at least in theory, only available to departments that might need them in an emergency. However, the whitelist for this connection tracked consoles, and almost no one remembered to de-list a console when it wasn't used by an approved department anymore, so a large portion of HQ's agents got their internet back as soon as the switch was pulled.

The first 90% of the restoration work took about an hour, which Tomash spent coordinating people to make sure everything got done and finally getting tea.The power was turned on to the data center (though even this wasn't easy, since there wasn't just one big off switch, and one breaker hadn't even been added to the big list). A group of supervisory machines had to be turned on by hand, but once that was done the process of bringing the rest of the systems and network online was mostly automatic. Mostly. External network connections, which had been physically disconnected during the crisis,

needed to be put back together and, in many cases, their accompanying SEP field generators had to be spun back up first (It wouldn't do for anyone but the conspiracy theorists to actually think about how much a tiny French island used the internet, for example).

As the work began, the lab returned to a more typical level of activity. People were darting around between all the phases of checking an item off the list. They'd go find out about a task that needed to be done and then head off to their computers to check out how they should do it (and where any relevant materials were supposed to be). More often than they should've needed to, though, they'd need to wander the lab to learn what *actually* needed to happen from whoever had last touched that system and forgotten to update the instructions. Overall, though, the department maintained a typical level of swearing, coffee-drinking, and excited "I figured it out" noises.

Somewhere along the line, a reminder to make more mult-clocks was posted near the Hornbeam's office, since there were definitely not enough for the process of running around and matching up time between HQ, the Worlds, and other bits of HQ to go smoothly.

`data2` was returned to being a backup system near the end of the hour, since `routing` was officially back online enough then.

The second 90% of the work took until the early afternoon, much to the annoyance of an increasingly tired Tomash. Shutting down HQ's main network in the space of a few seconds was not a pleasant process for the machines involved. Some machines had ended up in corrupt states and needed their operating systems reinstalled. Others were unhappy about the situation, and needed a tech-priest out to perform some convoluted ritual of penance or maybe just a hug from one of the digitally-native agents. Stale data led to two pairs of agents getting assigned the same mission. At one point, some intern had to run down to the store for potatoes—bugs had gotten into some of the computational ones.

Throughout all this, a steady stream of agents walked (or, more likely, stormed or stomped) into the lab to complain about anything from how this was making them lose massive piles of money on the Ferengi stock exchange to their download of Doom not going through. After the incident with the tape recorder and the dry ice, DIA sent a Sith Lady to keep order, and a Jedi to keep an eye on the Sith.

Once everything was pretty much back up and running, Tomash went back to bed, yawning frequently along the way, since he really hadn't gotten enough sleep the night before and his two mugs of tea had barely done anything for that problem.

He'd just about managed to settle into a nap when

2017-10-13 13:13:13 [aperture4.control.dosat] Emergency stop. In-progress canon integration detected.
2017-10-13 13:13:16 [monitoring01.dosat] Control AI unresponsive - sev3 ticket #23499124634 logged

[BEEEEEEEEEEEEP]