Net Riders

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VRIS Corporation - Press Release

El Segundo, Los Angeles, CA: VRIS Corp launches new network.

After five years of rolling out fiber optic cables across the world, the world's most "secure" network—the Secnet—is finally a reality.

VRIS Corp's Dr. Myra Tresivo said, "People will no longer need to remember different passwords, as users are identified by the unique 'biocode' password of their irises. And as Secnet computers have protocol addresses based on their physical location, Secnet connections are guaranteed to be genuine. So all hacker activity of spoofing websites and infiltrating systems with malware will be relegated to the old Internet."

Dr. Tresivo made an ominous warning to the hacker underground. "The new Department of Cyber Security monitors all Secnet activity! And any unauthorized users caught will be punished with jamming bracelets—wrist mounted devices that disable electronic equipment within a six foot radius."

VRIS Corporation is a private company with interests in virtual reality equipment, networking and defense systems.

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Hacksteria - Latest News!

Hacksteria—a free and safe community to expand your skills.
Log into our IRC server: lrc.hacksteria.org SSL port 6089

[Latest Forum post: January 18,]

Since the launch of the Secnet three months ago, Cybercops have arrested hundreds of your fellow hackers and punished them by denying them Web access for life.

The Department of Cyber Security has had little judicial oversight and their actions contravene the First, Fourth and Sixth amendments. It's outrageous! Our Government's collaboration with military contractors like VRIS Corp has dealt a serious blow to YOUR freedom of speech!!!

We refuse to let our GOVERNMENT control us in a POLICE STATE!!!

So we challenge everyone to disable VRIS Corps' Jamming Bracelet server. And any hackers who achieve this righteous goal will have the Hacksteria's main meeting room renamed in their honor.

Hack safe!!!

Your Hacksteria Team

1.01 Access Denied!

THE OLD RED brick doorway had been filled in with a stucco wall and double-glazed windows. In this Brooklyn neighborhood, that usually meant a garage had been upgraded into a game room. But instead of reclining sofas and a plasma screen, behind *this* wall was a Cyberpod virtual reality system.

Inside the room, the curtains were drawn and the light was off. The computer's cooling fans hummed noisily in the dark. And its login screen lit up the hacker's face with an eerie ashen glow.

He took a steadying breath and clicked the mouse button.

A login box activated with a message prompt:

Dr. Peter Preston
Verifying iris password ...

The hacker glanced at the portable iris scanner in the cradle on his desk. It was shaped like a small hairdryer with a lens inside a rubber eyecup. The lens flickered ...

But his cracking program ignored the device and displayed a fake green eye. He nodded slowly as the iris shifted every half a second. *Just like a real eye.*

Then an image was grabbed and white dots began covering the iris. The twin cabinets buzzed under the desk. The computer was identifying the eye's blue and black spots to create a *biocode* password.

"Come on, come on ..." the hacker urged.

The login box winked out. Then a pale desktop window materialized with a row of program icons along the bottom edge, and *Dr. Peter Preston* in the menu bar.

"Shame on you, Doc," he sniggered. "You just *hacked* my computer."

He maximized a Browser window and loaded his target netsite:

BROOKLYN UNIVERSITY HOSPITAL
SSL VPN Infonet login
Please enter your username and stand by for iris password verification

The hacker typed in the doctor's name and hesitated with his hands poised over the keyboard.

Getting busted meant having a SWAT team smash in his front door, confiscate *everything* and attach a jamming bracelet to his wrist. Forget about gaming or social networking—he would be denied Web access for life.

His eyes gleamed. If he cracked the hospital's Virtual Private Network server, he could use the same technique to infiltrate *any* Secnet site. *And that meant free gaming credits for life!*

He eagerly pressed enter—

But a message flashed in bold red text:

Access Denied!

The 13-year-old hacker groaned through gritted teeth. "Oh, not again!"

He should've quit. By the end of the day, his cracking program would be responsible for the *worst* cyber attack in US history.

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In a Los Angeles garage, another hacker began her journey to cyber terrorism.

She activated a Cyberpod's login box and picked up the iris scanner off the desk. She pressed the rubber cup against her right eye socket and stared fixedly as the flashing lens recorded her eye. Twitching in discomfort, tears welled and flowed down her cheeks. Then she returned the scanner to its cradle and wiped her face with the back of her sleeve.

A JPEG of her blue iris appeared in the box. The computer overlaid the image with 128 white dots, compared the result with the biocode file in its data registers …

And a desktop window materialized with *Megan Steinberg* in the menu bar.

The hacker inserted a thumb drive into the monitor's USB port. An icon labeled 'BrowserX' appeared on the screen. She opened the icon to reveal

columns of program files. Scrolling down, she located the file 'browser.exe' and double-clicked. A fake Browser window zoomed out.

The girl nodded. Being a Guest user prevented her from altering system software in her dad's computer. *But not from running a cracking program inside an executable shell.*

Leaning forward, she entered 'VRIS Corp VPN' into the Search box. Her BrowserX connected with the company server and the screen lit up with her target's login box:

VRIS CORPORATION
SSL VPN Authorized Users Only
Username ...

The hacker smirked. It would be wicked cool, if the first person to infiltrate the *Hacksteria*'s most despised organization was a *13-year-old girl!*

She quickly entered 'Richard Gredlich' into the username field—

And the response was immediate.

Access Denied!

The hacker slammed both fists onto the desk. "This sucks!"

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1.02 Droid

ZANE WALKER GLARED at the 'Access Denied!' message taunting him in the screen.

The Brooklyn hacker lived in East Flatbush, just a few blocks south of the hospital he was targeting. He had light brown eyes and arched dark eyebrows on a lean face with a slightly crooked nose. He wore a black hoodie, gray track pants and a black bandana with a motorcycle logo. And around his throat was a simple black leather cord.

Zane logged out the fake doctor and used the iris scanner to log back in under his own username. He opened his computer's Users folder, then the Preston subfolder. He scrolled down hundreds of system and Dynamic Link Library '.dll' icons. All the files were genuine—except for his cracking program and an image 'prestoneye.jpg'.

He opened the JPEG in a Picture Viewer and studied the fake green iris. "If the fake eye was good enough for my computer, why didn't the hospital server like it ...?" He shook his head. "I dunno."

Zane turned to his notebook and brushed the touchpad. The screen lit up with the *Hacksteria* Home page. Hacking sites were banned from the new Secnet. So he still needed a Windows PC with Internet access to connect to the hacker underground. He logged in with his handle 'Droid' and his domed robot user icon appeared in the menu bar.

He read the usual rant against VRIS Corp and sighed. "Nope, nobody's cracked the Secnet yet." Then his gaze dropped to the latest comment:

[Comment #11 by: Haxta on January 18,]
To hack secnet is imposible. Is much better to blow up server to free comrades.

"Blow up the server?" He snorted. "That Russian guy is a *jerk*." He quickly wrote his own comment asking for collaborators and posted it on the website.

Zane sat back and checked the time in the screen's menu bar: Sat 3:15 PM. His mom wouldn't be back from the mall for ages. There were heaps of things he *should* do, like cleaning up the game room …

He pushed back his wheelchair and swiveled around. The rubber tires squeaked on the vinyl floor. Next to the computer was another desk with a lamp, tools and a soldering iron. A nearby bookshelf was overflowing with circuit boards, power supplies and cables. More boxes of spare parts—mostly junk cannibalized from older Vmacs—were stacked up on the floor. A pair of old brown curtains hung over the front windows. And in the gloom sat a dome-shaped cage as big as an SUV.

Zane grinned at the Cyberpod. Everybody in the underground hated VRIS Corp. But the company did make the most *awesome* gaming machines. "Yeah, I'm up for another kill."

Leaning on the desk, Zane stood up on quivering legs. Six months of regular gaming had strengthened his upper body. But the legs inside his track pants were skeletal.

He grabbed the nearby crutches leaning against the wall. Then frowning in concentration, he shuffled across to the Cyberpod. The control panel next to the hatchway had three pushbuttons: a green On button, a black Reset button and a red mushroom-head Off button. He thumbed the green button and the entire cage buzzed with a slight hum.

He opened the hatch, leant the crutches against the cage and carefully stepped inside. He pulled the hatch shut and panting from the effort, hauled his body up into the padded harness. Then inserting his useless legs into a kneeling position, he tightened the straps around his waist and across his thighs.

The Cyberpod's Locomotion Harness was in the center of an orientation ring as tall as a doorway. The ring's inner part rolled the user left and right. The outer part was connected to twin columns that pitched the user forward and back. And the columns were bolted to a rotating base that yawed left and right. All

movements were continuous, giving the user the same six degrees of freedom as an avatar in virtual space.

Zane removed his bandana and shoved it into his back pocket. Most VR gamers crop their hair to improve the sensitivity of the brain-computer interface. So Zane's scalp was completely smooth—except for an ugly indent with ridges of scar tissue on top of his skull.

He unhooked the black plastic Cyberhelmet from behind the harness, pulled it on and adjusted the strap under his chin. Then clicking the visor down, the built-in optics scanned his right eye.

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The Cyberpod verified his iris and logged him in. Then the visor lasers beamed virtual reality images into his eyes. He observed the computer's workspace shimmer into life—a light gray rectangle as wide as his outstretched arms—and start-up text began scrolling:

Cyberpod Brain-computer Interface:
Building virtual desktop ...

A menu bar materialized with File, Edit, View and Help buttons in the top left corner, and his username and a clock in the right. Next, his computer's programs emerged like playing cards—*flit, flit, flit*—and formed a row of windows: Desktop, Browser, Videophone, Email, Picture Viewer and *Dread World*. The graphics were slightly blurry, like viewing underwater through goggles.

Energizing primary cortex sensors ...
Rendering virtual limbs ...

His scalp tingled as his brain synapses reacted to the helmet sensors powering up. Then a pair of virtual arms appeared—liquid metal constructs with elongated fingers.

Testing servomotors ...
Centering Locomotion Harness ...

The harness jiggled as the electric motors switched on and off. Then the twin columns hummed to lift his body to the center of the cage. This feature totally blew VR gamers' minds—the columns raised and lowered the harness to give the illusion of *flying* and *falling*.

A final message flashed:

Cyberpod Active

Zane rocked back and forth to check the harness straps were tight. Then tensing his stomach muscles, he punched out with his left fist.

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Inside the cage, the Cyberpod motors whined shrilly as the harness pitched his body sideways.

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Zane observed his virtual workspace rotate 180 degrees then opened his left hand.

The mechanism jerked to a stop, leaving him upside-down in front of the application windows.

He punched behind his head, and pitched backwards for another two revolutions. Another hand gesture and he returned upright. He grunted in satisfaction; his left 'locomotion' hand worked perfectly.

Reaching out with his right 'action' hand, he smacked the *Dread World* dragonhead logo. The virtual reality gaming program window zoomed out into virtual space:

Freaking Arts, Inc presents ...
DREAD WORLD - The game of the future past
Welcome back Zane Walker New Game Exit Credits: 3

Zane cracked his knuckles. "Let's kick some dragon butt."

He pressed the New Game button. An hourglass cursor rotated while the Freaking Arts server downloaded gaming parameters of animal movements,

volcanic eruptions and earthquakes. Then the dragonhead logo expanded around him and materialized into an earthen cave.

His silver virtual-arms morphed into a dragonslayer—a heavily muscled warrior with long black dreadlocks, a protruding brow and a battle-scarred torso. Avatars *fly* in the *Dread World* sim so instead of legs, he was rendered with a stubby tail girded in a black boar skin.

The burly slayer turned right to the cave wall. A recessed shelf held a black leather holster with the game's only weapon—*a laserblade!*

He grabbed the bundle, buckled the belt around his waist and withdrew the weapon. It was a golden sword hilt with a knurled handle and a solid disk-like guard. But instead of a blade, a crystal sat in the center of the guard. He thumbed a small diamond recessed in the handle.

A white-hot beam erupted out of the crystal.

The slayer twirled the weapon in a figure-8 and the laser buzzed and crackled with energy.

A primeval roar bellowed outside. A dark shadow flew past with a powerful *whumpf, whumpf* of huge wings. Then a whoosh of flames was followed by a high-pitched squeal.

The slayer dashed to the entrance. He grinned at the game's starting sequence of a dragon pouncing onto a gigantic slimeworm. "Hello beastie," he breathed and launched out of the cave.

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1.03 Vaxine

MEGAN STEINBERG SCOWLED at the Cyberpod's screen. "My program should've worked."

The Californian hacker was an elfin girl with black eyeliner around her pale blue eyes. Her dark eyebrows tapered to fine lines, and silver ankhs hung from both ear lobes. She wore a black mod cap, a purple cardigan over a white T-shirt, and black leggings. If her hair hadn't been cropped, she would've looked like any other Californian teen.

Except her mind was wired *very* differently. Instead of following celebrity gossip and fashion, *this* Westchester schoolgirl preferred the hi-tech pursuits of gaming and hacking.

Megan closed her BrowserX program then delved into its folder. She located the 'hrcillib.dll' file and opened it in her dad's VRML Developer program:

```
<vrml>
<meta sttp-equiv = Virtual Reality Modelling Language v2.18>
<hRCILLIBDLL Remote Checksum Identifier DLL module>
{
<exec_dataImport (biocode) = Richard Gredlich; hibsllib.dll>
<exec_dataImport (remote_netsite) = Richard Gredlich; hrnsllib.dll>
<set_RCI = exec_dataMerge (biocode; remote_netsite)>
}
</vrml>
```

She checked the lines of code for errors, but they all seemed fine. "I must be getting the wrong netsite …" Then dropping down the desktop's File menu, she selected the Command Prompt function.

The display flashed a red warning:

Access Denied: Guest User is not authorized

"Oh, this is *nuts!*" she snapped. Without administration rights, hacking the Secnet was like trying to break into a house with both hands tied behind her back. She glanced at the clock: Sat 12:55 PM. Time to stop anyway; her parents would be home soon.

Megan logged out of her dad's Cyberpod computer. Both her parents were design engineers who regularly worked at home. So the family garage had been converted into an office with desks, Vmac computers, shelves full of technical books—and a Cyberpod system.

She removed her thumb drive and strode out of the garage and trotted upstairs.

Her bedroom had plain white furniture. And instead of the usual clutter of fluffy toys and boy band posters, her shelves were crammed with circuit boards and programming manuals. She headed straight for her desk. On the right was a brand new 20-inch Vmac with a portable iris scanner. But she ignored the Secnet computer and picked up her old tablet PC with a wireless connection to the Internet.

She sat down on her bed and brushed the screen to reveal the *Hacksteria* home page. The menu bar displayed her 'Vaxine' handle and pill bottle user icon. She scanned the latest post and her nostrils flared. "We *are* becoming a *Police State!*"

Megan jabbed the screen's keypad to upload her response:

[Comment #13 by: Vaxine on January 18,]
Yeah down with the stinking cesspool guvment. Got a checksum exploit to test but need someone with ROOT!!

Then she read the most recent comment:

[Comment #12 by: Droid on January 18,]
Just set up a fake usr account but cant log into SECNET. Anybody wanna help??

"How did Droid set up a fake user account …?" Her gaze dropped to the next comment from Haxta. "Sheesh, I thought you got busted!"

Megan skimmed the rest of the page but nobody had anything new to add. She scrolled back up to Droid's comment. She didn't know the hacker, but a fake user account definitely needed checking out.

She located Droid's domed robot icon in the *Hacksteria* Contacts list. All users were anonymous. So the hacker could be living across the street or across the world.

She pressed the Voicelink Connect button and her cheeks dimpled in anticipation.

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1.04 Dread World

THE *DREAD WORLD* dragon is a terrifying sight.

It had a wedge-shaped head with a long snout, twin horns atop and a back bristling with spines. Its reptilian body was covered with dark maroon scales, and enormous bat-like wings extended from its front shoulders. The muscular hind legs and smaller forearms had long raking talons. And its serpentine tail was equipped with a single lethal spike.

It was like facing off against a T-Rex that can *fly* and *shoot flames*.

But fluorescent red blood bubbled out between the dragon's teeth, and seeped from wounds in its chest and shredded wings. For the hunter had become the hunted, and this dragon had met its match.

The heavily muscled dragonslayer hovered in front of the wounded beast with a buzzing laserblade.

The dragon hissed and stumbled backward, each step causing fresh blood to spurt out of its wounds. Its limp wingtips dragged along the ground, filling the furrows with the bright crimson liquid. And the fire in its eyes dimmed with every heartbeat.

The slayer aimed his weapon at the kill zone under the beast's lower jaw. "Death to the dragon!" he declared and swung the laser straight through the thick sinewy neck.

A glistening red line appeared in the maroon scales. And a fine mist of superheated tissue sprayed out. The jaws opened to roar but could only manage a sickening wheeze. Then the dragon's head toppled off—

And *thunk*, impaled its twin horns into the ground.

But instead of collapsing, the dragon's headless body remained upright.

Grinning broadly, the slayer backed away. *This was the best part of the game.*

A geyser of arterial blood erupted out of the dragon's neck and morphed into a fiery red plasma that pierced the sky. Billowing black clouds gathered overhead and swirled into a monstrous vortex around the plasma stream.

"Yeah!" the slayer shouted at the screaming winds pelting him with forest debris.

A howling funnel snaked down, enveloped the entire dragon …

The slayer squinted.

And with a massive *whomp*, the dragon disintegrated into a stream of red-hot particles. They spewed up into the center of the vortex, forked out across the sky and exploded into mushrooms of multi-colored sparks.

The funnel retreated abruptly. Leaves, twigs and pebbles cascaded around the slayer. The dark clouds dispersed, revealing a gray sky ribbed with orange and yellow streaks.

"A righteous kill," the slayer crowed as he deactivated the weapon and dropped the golden hilt into the holster at his right hip.

The surrounding landscape dissolved into the cave entrance at the start of the game. The slayer unbuckled his belt, rolled it up and returned the weapon bundle to the ledge in the cave wall. Then his buff physique morphed into a pair of silvery virtual-arms. And the 3D cave entrance collapsed into a *Dread World* window floating in virtual space.

"Congratulations Zane Walker," said a British accented female voice. "You have conquered 118 dragons and your current Dragonslayer ranking is number twelve. Thank you for playing *Dread World* and we hope to entertain you again."

"Awesome!" Zane smirked. "I've almost cracked the top ten."

Although the sim wasn't the most popular in the world, it was the most *elite*. The island construct was frighteningly realistic. And the thrill of hunting and killing the mythological beast was exhilarating. But simulator sickness in a Cyberpod was often worse than the island's deadly creatures. So only a few dozen players had scored more than 100 kills.

Zane reached out to the desktop's menu bar with a metallic virtual-finger, scrolled down the options and selected Logout. The helmet lasers switched off and the virtual workspace vanished.

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The Cyberpod's electric motors orientated the harness into the Park position facing the hatch. Zane unclipped the strap under his chin and eased off the Cyberhelmet. His eyes were tinged with broken blood vessels. And perspiration dribbled down his nose and cheeks.

He hung the helmet behind the harness. Then stretching upwards, groaned loudly. The harness only supported the body from the waist down, so VR gaming was murder on the lower back.

He retrieved his bandana from his back pocket and pressed the cloth against his eyes. The manual stated that diode laser output was too low to do any damage —but try telling *that* to his irritated corneas.

Zane wiped his face and tied the black cloth over his ugly head scars. There was nothing wrong with his nerves like a true paraplegic with a spinal injury. He could still activate his leg muscles. But the boating accident had fractured his skull and damaged the primary somatosensory cortex in both hemispheres of his brain. He had lost all sensation below his waist. And without sensory feedback, walking or even just standing up required total concentration.

He released the Velcro straps, eased his legs out from the padded harness and leaned against the cage for support. He opened the hatch and carefully stepped backwards down the two steps. Holding on to the cage mesh with his right hand, he used his left hand to thump the red Off button in the control panel.

The panel lights dimmed and the humming cage became silent.

Then reaching out for the crutches, he glanced at a soccer trophy poking out of a box on a shelf. His expression soured at the memory of the ball blasting into the back of the net. "I should throw them out."

Zane's legs wobbled. "Uh-oh …" He tensed his thigh muscles to steady himself. The wobbles worsened. Then feeling himself fall, he lunged for the cage.

But his flailing hand missed and he collapsed onto the vinyl floor.

"Oh, man …" He rolled into a sitting position and examined a scrape on his elbow. "The real world sucks."

Zane hauled himself upright against the cage. He managed to get a crutch under each armpit and shuffled back to the computer desk. The Cyberpod computer's huge LCD monitor dwarfed his compact notebook. He leaned the crutches against the wall and transferred to his wheelchair. Then deftly spinning the wheels around, he slotted the chair neatly between the desk's twin computer cabinets.

His notebook triple beeped.

Turning to his left, he jabbed the touchpad. The screen lit up with a *Hacksteria* call from a 'Vaxine' identified by a brown pill bottle icon. Another hacker was responding to his post. "That was quick," he murmured and clicked Connect.

"*Hey Droid, I'm Vaxine,*" the caller said with a distinctly West Coast twang.

"You're a girl!" Zane blurted.

"*Is that a problem for you?*"

"No, um. I haven't met any girls in—"

"*Look, if you're one of those guys who think girls can't hack—*"

"Jeez, I'm not saying anything like that …" His voice trailed off as he pictured an angry nerd with thick glasses.

She harrumphed. "*You sound like you're over east. Can you talk about stuff?*"

"Sure, nobody's here."

"*How did you set up a fake user account without a live eye?*"

"I um …" Zane hesitated, reluctant to reveal too much to an anonymous avatar that could be anyone. "I changed a DLL file to accept an animated JPEG."

"*Oh man,*" she lamented. "*I'm only a Guest and don't have any system access.*"

Zane was puzzled. "How can you hack the Secnet with no root?"

"*I know!*" She snorted in disgust. "*I'm trying to exploit a weakness in an RCI file.*"

"Remote Checksum Identifier …" Zane mumbled and turned to his computer's LCD screen. He switched to the Preston subfolder he had opened before. He

scrolled down to the files with 'rci' in the name and frowned. "Who are you targeting with an RCI?"

"*VRIS Corp.*"

Zane whirled back to her pill bottle icon in his notebook. "No way!"

"*Yeah, I wanna kill their Jamming Bracelet server! You saw the Hacksteria post! That server has taken out hundreds of hackers!*"

Zane whistled. "But VRIS Corp has server firewalls with sentry software."

"*We can crack them if we form a virtual team …*"

Zane's guts convulsed. "But that means *videophoning* each other?"

"*It's the only way I can find that server!*" she snapped, then paused to regain her composure. "*You did, like, want help, right?*"

"Yeah, but in the *Hacksteria.*"

She snorted. "*You mean copying a file to your notebook, emailing it to my Hacksteria account, so I can copy it to my Vmac, and send it back the same way … it'll drive me nuts!*"

Zane remained silent. She was right; it would be tedious.

She gave him an exaggerated sigh. "*Here's the thing, Droid. If I can't get remote access to your computer, then I'm wasting my time.*"

Zane glanced at his thin legs. "But hackers don't videophone each other …"

"*Sheesh, what kind of lame hacker are you—trying to crack the Secnet, but too scared to use a vid …?*"

His mouth tried to speak, but his throat had tightened.

"*Forget about it,*" she said resignedly. "*Bye.*"

Her pill bottle icon vanished. She had disconnected.

Zane smacked the notebook lid shut and pushed back from the desk. He gestured rudely at the notebook. "I'm not videophoning anybody from this freakin' wheelchair."

Then keys jangled in the front door and labored footsteps walked into the house.

He groaned inwardly. *Mom's home!* He swiveled his wheelchair towards the door to wait for her reaction.

"What a scared little geek," Megan grumbled at her *Hacksteria* window.

Her cell phone buzzed in her cardigan's pocket. She pulled it out and seeing the caller ID, sighed, "Hi Mom."

"*Hi honey,*" her mom said with road noise in the background. "*We're still looking for Todd's school shoes.*"

"Are you serious. You've been gone, like all morning."

"*I know, so you'll have to fix your own lunch, okay?*"

"*You're a big girl now,*" a voice rumbled nearby.

"Oh, you're hilarious dad."

"*See you in a few hours, bye,*" her mom said and killed the call.

Megan smiled slyly. "Cool. I can call Haxta …"

She tossed the phone and picked up her tablet. She scrolled down the *Hacksteria's* Contacts list and found Haxta's cracked monitor icon. She glanced at her menu bar clock: Sat 1:10 PM. The underground's most notorious hacker lived somewhere in Eastern Europe, so his time was almost midnight. She chewed her lip, debating whether to call him or not.

"He's always up late," she decided and pressed Connect.

1.05 Dread World

RUSSIA'S BIGGEST INDUSTRIES once lorded over the Black Sea shoreline of Odessa, Ukraine. Now most of those mighty factories have been cleared, leaving behind a wasteland of empty space dotted with new smaller factories and shabby Soviet era buildings. At the end of an icy dirt road off *Chornomors'koho Kozatsva* Street, stood a group of tired workshops, straining to support their snow covered roofs. It was after midnight, so nobody was around to hear the screams.

But the cries weren't human.

In the middle workshop were two Gamepod cages—arcade Cyberpods painted with monstrous *Dread World* dragons. Both hatches were crossed with strips of yellow tape to indicate the machines were faulty. Inside one cage was a gamer. And the nearby Vmac screen displayed his game view—a mutilated dragon retreating from a white laser.

The laser thrust left.

The dragon lurched to avoid the deadly beam—

Then the laser whirled right and lopped off the beast's tail.

Spasms undulated up the dragon's body as it shrieked and tottered backwards.

The dragonslayer's view dropped to the severed tail writhing like a cut worm. Then switched to the blood streaming out of the tail stump. Then up to the ragged shoulders to observe blood squirting out of the wing stumps.

The slayer's beefy forearm raised the weapon. "*Smert' drakona!*" 'Death to the dragon' he declared in a deep Ukrainian voice.

The wheezing dragon coughed and meekly lowered its wounded head. The once proud horns had been reduced to bleeding lumps.

The slayer chopped down. But instead of applying the kill strike through the neck, he changed the angle and smote the right forearm off the body.

The dragon screeched and reeled back.

"*Smert' drakona!*" the slayer snarled and removed the left forearm.

The beast screeched again and craned its neck, *begging* for the final cut.

Now mad with bloodlust, the deranged slayer slashed wildly. His laser buzzed and crackled as it gouged chunks of red flesh from the bloated belly. Until green-gray intestines spooled out and formed a steaming pile between the beast's trembling legs.

The dragon tottered sideways, crashed with a mighty *thump* and lay still.

The slayer's chest heaved as he floated above the mutilated beast. His leather tunic was covered with blood splatter. He peered into the reptilian eye. And seeing the red fire was almost spent, he raised the humming laser.

"*Smert' Pyotr Shevchuk!*" he hissed and swept the weapon down.

The dragon's head fell away. Its plasma life force erupted out of the neck and shot up into a sky billowing with black clouds.

But the gamer reached under his chin. He had no interest in watching the sim's closing sequence.

Inside the Gamepod, Yakov Petrovich unclipped the strap and removed the Cyberhelmet to jack out of VR. He sullenly released his waist and legs and stepped out of the domed cage.

Although the young Ukrainian had the build of a wrestler, his shoulders were already stooped from being hunched over computer screens. His Slavic face had pronounced cheekbones, heavy eyebrows and close-set dark eyes. His scalp was cropped. And the pasty skin was riddled with acne scars from a poor diet and insufficient sunlight. His downturned mouth made him look older than his 14 years.

Yakov slammed the hatch shut. Then he ripped off the yellow tape and tossed it onto an overflowing box.

The dimly lit workshop looked like a hi-tech rubbish dump. The floor was littered with the carcasses of old pinball machines, arcade gaming consoles and piles of LCD screens. One side of the workshop was wall-to-wall shelves with dusty boxes of cannibalized spare parts. The other side had been set up with a

sagging cot, chest of drawers and an old misshapen wardrobe. In the corner, a partitioned area had a filthy toilet bowl and an ancient kitchenette.

Yakov picked up a heavy coat and traditional fur-lined *Ushanka* hat off his office chair, and pulled them on. He stomped his feet against the cold. He wore a thick woolen polo neck jumper, jeans and lined boots but still shivered. He glowered at the decrepit gas heater hanging from the ceiling; it barely managed to keep the temperature above freezing.

Wrapping the heavy coat tightly around his body, he glanced at the front windows covered with heavy iron bars. He loathed January; even though Odessa was by the sea, every night was below freezing. It was snowing. But the cascading flakes did nothing to improve his view of gas storage tanks, lighting towers and container cranes. He scowled and shuffled to his desk in the center of the workshop.

On the right was a Vmac with the usual keyboard, mouse and iris scanner. The screen displayed a Gamepod window with the *Dread World* dragonhead logo. The menu bar clock displayed the time: Sat 11.11 PM. On the left of the desk was a notebook PC with a *Hacksteria* page. The remaining space was strewn with food wrappers, crumpled paper and empty soda cups. Blue network cables trailed along the ground between the Vmac, wall-mounted Vhub server and the repaired Gamepod.

Pulling out a drawer, Yakov grabbed the maintenance logbook and tossed it onto the desk. His gaze lingered over a folded paper. He picked up the note and his bottom lip quivered as he read his mother's cursive script:

> *My dearest Yakov*
> *I decide to go to Kiev to live with Pyotr Shevchuk.*
> *Now you work for Igor Zlotnyk, you not need your maty any more.*
> *love, Tetyana Petrovich*

Yakov's eyes glazed over as he recalled his mother's shrill voice. *It is your father Viktor who make problems for us!*

But he had no recollection of his dad. Not even a photograph. All he remembered was a series of different homes. Different schools. The blur of

different faces shouting at him. And especially the beatings that taught him to stay in his room. Now that pig dog Shevchuk had taken her to Kiev. *And she never left a cell phone number.*

"*YA nenavydzhu tebe,* I hate you, Pyotr Shevchuk," he muttered darkly.

Yakov returned the note and grabbed his old leather wallet. Then flicking the Ukrainian currency he shook his head in frustration. "Eight hundred and seventy *Hryvnia.* Bah! Ninety euros!"

He tossed the wallet back into the drawer and slammed it shut. He opened the maintenance logbook, grabbed a pen off the desk and began filling in the columns in the next available space. He wrote the repair number '28', the date, Gamepod serial number, details of the repair, and ticked the 'Tested' box.

He flipped back through the pages. They listed the repairs he had completed since December last year. The first two weeks with repairs 1 to 10 were crossed as paid. But repairs 11 to 27 from mid-December to mid-January were unpaid.

Yakov jerked to his feet. "Is not fair!" He paced the workshop, clenching and unclenching his fists as he kicked out at parts and panels and whatever junk was closest. "Zlotnyk must … pay me my …" He ended up near the kitchenette and unleashed a thrust kick with the heel of his right boot. "MONEY!"

But instead of bouncing off, his boot smashed straight through the wall.

"*Ow, ow, ow,*" Yakov hopped awkwardly on his left foot, each movement causing splinters to lacerate his right leg.

He steadied and wrenched his foot out of the wall. He lifted his trouser leg to inspect his shin. But the grazes were only superficial. He peered into the hole and jerked back in alarm. It was freezing outside. "Hole will drain heat out of workshop!"

He grabbed some old rags and shoved them into the hole. The wood panel crumbled. The entire wall was rotten from leaking pipes behind the kitchenette's basin.

Then his notebook triple beeped.

Yakov shuffled back to his desk and raised his eyebrows at the caller's handle—Vaxine! He clicked on Connect and her pill bottle icon animated in his screen.

"*Hey Haxta*," she said in her Californian accent. "*Is that you?*"

He grunted. "Is long time, since I hear you."

"*I've been busy. The holidays have been like, pretty crazy.*"

Yakov stiffened at her response. His Christmas day had been spent alone in the workshop. "So why call now?"

"*I just saw your post. Where have you been? I haven't seen you online for ages.*"

Yakov snorted. "You not only one who is busy. I have job."

"*A job? But aren't you still at school?*"

"Bah, this is not America," he sneered, then tapped his chest proudly. "I not need school, to be Gamepod technician."

"*Oh, so you don't have time to crack the Secnet?*"

He burst out laughing.

"*What's so funny?*" she asked testily.

"*Vybachte*, sorry," he said with a hand on his chest. "You make good joke. You can't crack Secnet. Webmeister, Crood and Sintax already try. And now Jamming Bracelet fix them good."

"*But those guys were our friends! I've got an awesome cracking technique. And if we can work together—*"

"Virtual team is very bad, *leetle* girl," Yakov interrupted. "Your Cyber Warfare department watch all Secnet traffic. If make one login mistake, they trace you." He snorted. "Forget crack Secnet. Is much better, find server location and blow up with C4."

"*But a hacker called Droid set up a fake user account. Check out his post!*"

"I not know this Droid." Yakov minimized the Voicelink window to read the *Hacksteria* comments. His upper lip curled. "Droid is *idiot*. Server must see *live* eye for biocode scan. It stop criminal, take man's eye from head, and use on scanner, like Hollywood movie. What he say is *impossible*."

"*But he used an animated eye. So he must've found a security hole.*"

Yakov's eyes narrowed. "A security hole in Secnet …?"

She sighed heavily. "*Look, do you wanna help me or not?*"

"Bah, I never give up netsite." He waved dismissively. "*Do pobachennya*, goodbye Vaxine."

"*No wait—*"

Yakov clicked the Disconnect button and stared at the screen. "If this Droid, find Secnet security hole, I must find out what she knows."

He switched to desktop and opened his hacking software folder. He scrolled through titles and highlighted a simple gray icon labeled '*Shpyhuns'koho*'. He copied the icon to the desktop and renamed the Spyware program in English for its next target.

"Okay Vaxine, I make *nice* surprise for you."

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