A SCIENCE FICTION PROTOTYPE

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A state sponsored terror group aims to attack New York and destabilize the United States, targeting the ports and critical supply chains...

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INTRODUCTION

Science Fiction Prototypes are science fiction stories based on future trends, technologies, economics and culture change. The story you are about to read is based on research from Arizona State University, The United States Army Cyber Institute, Citibank, the New York Police Department, USAA and Cisco Hyperinnovation Living Labs (CHILL). Our story does not shy away from a dystopian vision of tomorrow. Exploring these dark regions inspires us to build a better, stronger and more secure future.

Cisco Hyperinnovation Living Labs is built on the notion that we must first imagine, and then create, the future together.

We know that we can no longer innovation in isolation.

Our Living Labs bring together giants of industry to explore the white space of emerging technologies. By collaborating with our customers in a two-day lab focused on ideation, prototyping, and end-user feedback, we develop bold solutions to disrupt a marketplace. CHILL conducts research to identify innovation battlefields, laying the foundation for opportunities areas tackled during the lab. We the explore the dark side of inaction as well as the upside of solving tough challenges. How will new technologies like blockchain, machine learning, and IOT could secure vital supply chain infrastructures? The potential opportunities within Securing the Digitized Supply Chain are too hard to ignore.

For this lab, senior executives from Citibank, Cisco, D.B. Schenker, General Electric, and Intel will iterate through 12 cycles of end-user feedback and increasingly hardened prototypes. Together we build concepts ready to launch.

PART ONE: BEFORE TUESDAY

Using a targeted spear phishing attack on a small supplier with weak security on the edge of the supply chain, a terror group gains access to internal proprietary networks and communications. They search for a weakness in the security of the ports.



SHIPPING & MOVING SUPPLIES

•MONEY TRANSFER

FROM:	FUNDS@UUSBANK.COM
DATE:	MONDAY NOVEMBER 8, 2027 6:34AM ET
TO:	ACCOUNTS@WEAVERANDSONS.COM
SUBJECT:	URGENT: ACCOUNT VERIFICATION NEEDED

Dear Account Holder,

VEAVER & SONS SUPPLY CO.

We are contacting you to verify your account with us. There is a pending funds transfer set to expire at 8:00 am ET today.

If you fail to verify your account at the link below the funds will be returned.

VERIFY ACCOUNT

Thank you for your help in this matter.

Respectfully, Joshua Bowman Accounts Department

A WEAKNESS IS DISCOVERED

Now with access to internal supply chain networks and using artificial intelligence (AI) agents to crawl message boards, the terror group discovers the Taucor Detectr 400, a gaseous ionization detector used to inspect cargo. The scanners are prone to malfunction and critical repair parts come from limited suppliers mostly outside the US.

> Tellit @Bill Morgan

Taocor Again!! Grrrr. Shoddy Parts somehow my problem??? Try printin local?!?

> With a knowledge of a weakness the AI agents scour public social media feeds and find Bill Morgan, an inspector at the Red Hook, NY port. Two months prior he posted a complaint about the faulty Taucor scanners. Little does Bill know but he's now an informant inside the port.

THE NEXT WEEK IT HAPPENS...

Preparing for the attack, the terror group uses the dark web to buy a bot-net that targets IoT devices, hijacking them without their owners knowing.

TIMIT

MEANWHILE...

@Bill Morgan

Taocor Again!!! Stupid scanners. Long night for me.

5:33 PM July 26 2028

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When Bill Morgan complains again the terror group is ready, they know a window of opportunity has opened. The attack is launched...

PART TWO: TUESDAY

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Across the greater New York City, area the bot-net takes over home IoT devices, placing orders for milk and fresh fruit before they are needed. Their owners never suspect.

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The automated supply chain snaps into action. Local drones deliver the orders but quickly supplies run low.

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Automated trucks roll out, prioritizing the perishable goods, clogging the roads and bridges.

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දේව The Red Hook port is at a stand still, clogged with produce shipments from fast-moving autonomous ships.

The supply chain is clogged and the Taucor Detects replacement parts are delayed. With the scanners down, Bill Morgan and the inspectors have no choice but to switch to random manual inspections of incoming containers.

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A single container slips through uninspected...

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ONLY YOU CAN SECURE THE FUTURE OF THE SUPPLY CHAIN!

Stay Tuned...as Cisco, Citi, GE, Intel and DB Schenker battle to save the world's tomorrows.

END NOTES

Throughout the science fiction prototype you just read were symbols. These icons correlate directly to the CHILL Areas of Opportunity. Each of these areas informed and are expressed in the story.











CROSS BORDER TRANSACTIONS

What would a frictionless cross border supply chain look like?

What new business models are needed to make this happen?

SECURING THE VIRTUAL SUPPLY CHAIN

On-demand manufacturing, like 3D printing, is growing exponentially.

How can we protect our brand and intellectual property?

SAFE, CERTIFIED & CIRCULAR SUPPLY CHAIN

How do we know what we're buying is safe and sustainable?

How can we ensure that goods in the supply chain are certified and secure?

INTELLIGENCE AT THE EDGE

How might autonomous, independent agents use real-time insights?

Someone is going to use the data... Is it you?



How can we ensure people get what they need, when they need it?

How can we ensure privacy and security for both goods and people?

FURTHER READING

Explore the research behind the science fiction prototype "Two Days Before Tuesday":

ASU Threatcasting Lab Report: **"A Widening Attack Plain"**(<u>http://threatcasting.com/wp-content/uploads/2017/03/A-Widening-Attack-Plain.pdf</u>) - Report explores digital, physical and kinetic threats 10 years in the future

"How automated delivery vehicles will transform your city" (<u>https://www.weforum.org/agenda/2017/03/automated-delivery-drones-supply-chain/</u>) World Economic Forum Report

"Cost of Bananas" (<u>http://www.aviewfromthehook.com/2012/02/on-red-hook-waterfront-cost-of-bananas.html</u>) Inspections and produce at the Red Hook, NY port

Recent use of Bot-Net Attacks (<u>https://themerkle.com/updated-mirai-botnet-malware-executes-54-hour-ddos-attack/</u>) Updated Mirai Botnet Malware Executes 54-hour DDoS Attack

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