

MTI Research Snaps presents:

# (Cyber) Security Risk: Aligning the Transit Industry and Vendors to Address Increasing Cybersecurity Challenges

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# Cybersecurity: A Primer

## What is Cybersecurity

Cyber risk management is more than just protecting your systems. It requires processes, planning, and people, in addition to technology.

The question is not if but when will an incident occur. You must identify, detect, and protect, but also be ready to respond and recover.

## NIST Framework

- **Identify:** develop the organizational understanding to manage cybersecurity risk to systems, assets, data, and capabilities;
- **Protect:** develop and implement the appropriate safeguards to ensure delivery of critical infrastructure services;
- **Detect:** develop and implement the appropriate activities to identify the occurrence of a cybersecurity event;
- **Respond:** develop and implement the appropriate activities to take action regarding a detected cybersecurity event;
- **Recover:** develop and implement the appropriate activities to maintain plans for resilience and to restore any capabilities or services that were impaired due to a cybersecurity event.

# Why Cybersecurity Matters



*Cybersecurity is part of a broader technology disruption affecting public transit agencies.*

Management Area	Challenge	Changes Occurring
Technology Management	IT managed as a service function	Technology increasingly critical to strategic goals, effective risk management
Program Management	Organizations focus on projects	Systems Development Life Cycle management (SDLC) required for effective cyber risk management
Infrastructure Management	Hardware procured and designed to last decades	Firmware and software requires constant upkeep to ensure security, effectiveness
General Management	Pace of change is slow	Changes required in days due to COVID; more opportunities arrive every day to move people more safely and efficiently

# 2020 Study: Is the Transit Industry Prepared for the Cyber Revolution?



## Public Transit

**22%**

Responded that they  
have suffered an  
incident

Vs.

## Global Organizations

**82%**

Responded that they  
have suffered a  
disruptive event

**Key Takeaway:** Resources are a Limiting Factor but Plenty of Guidance Exists

**The Bottom Line:** The transit industry is ill-prepared for malicious cyber attacks and other cybersecurity related threats  
(and the risk is growing)

# Follow-On Study: Aligning the Transit Industry and Their Vendors



Seeking to understand the current state of cybersecurity among the prominent vendor community supporting public transit:

- People Safety
- Business Continuity
- Personal and Financial Data

Opportunity for vendors to work with agencies to understand and improve cyber risk management

# Key Learnings and Insights

- Transit supply chain is generally more advanced in cybersecurity practices than the transit agencies
- Operational technologies that previously ran internal systems, including safety and security systems, are now linked to all manner of internet-enabled devices
- Mismatch in lifespan of vehicles vs. the need for regular software updates



# Stay Tuned...



- Recently published brief on “Buy America” provisions:
  - <https://transweb.sjsu.edu/2113WP-Cybersecurity-Transit-Buy-America>
- Upcoming brief on personally identifiable information (PII)
- Paper on the supply chain to publish before the end of the year

Thank you for joining us for:

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View the 2020 report at:

<https://transweb.sjsu.edu/research/1939-Transit-Industry-Cyber-Preparedness>

View the brief on “Buy America” at

<https://transweb.sjsu.edu/2113WP-Cybersecurity-Transit-Buy-America>

**Tune in for our next MTI Research Snap “Advanced Driver Assistance Systems and Automated Features: Are They Driving Us to Safety?” on November 16, 2021 at 10a.m. (PT)! Visit <https://transweb.sjsu.edu/events> for details and registration.**

Have a suggestion for a webinar topic you’d like to see featured? Email [irma.garcia@sjsu.edu](mailto:irma.garcia@sjsu.edu)

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