

SHIFT5

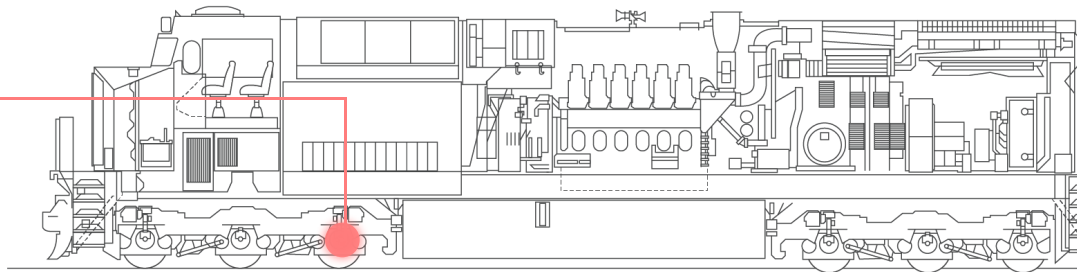
Onboard Cyber Resiliency for Rail Assets

FACT:

A motivated adversary can remotely hack a train's operational technology.



“Warning: Unauthorized configuration changes to Traction Motor controls”



FACT:

Virtually no platforms are resilient against cyberattack.

Know what's at risk...

Rail assets are filled with digital components, but they were never designed for the digital age. Manufacturers design their systems for robustness and reliability but not for security. While digital components make platforms more advanced and less expensive, they also open the aperture for cyberattack. Operational Technology (OT) at risk include unsecured onboard systems: ATC, traction motor controllers, Train Control Units, Prime Mover Engine Control Computers, Telematics Systems, Cab Display Units, etc.

Cyber Resiliency with Shift5

More Protection. More Innovation.
More Insights.



Onboard System Protection

Monitor subsystem communications for intrusion, decreasing vulnerability to cyber attack.



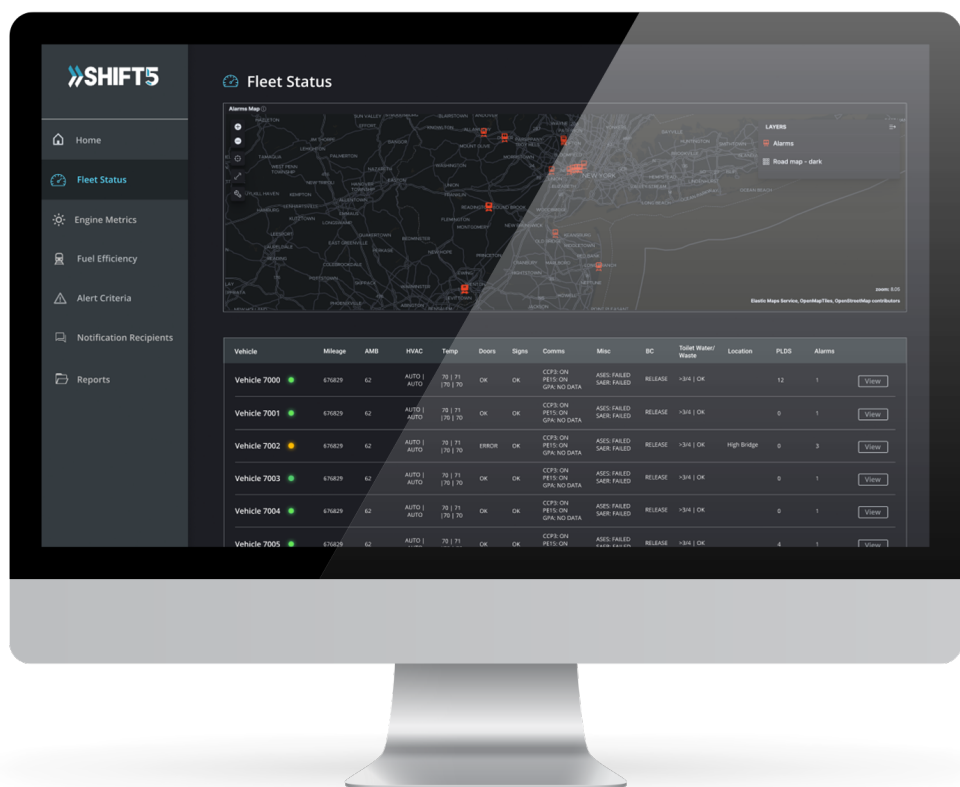
Real-Time Alerting

Generate real-time alerts based on security and operating status of critical locomotive components.



Advanced Data Analysis

Leverage continuous monitoring of data streams to protect locomotives while gaining valuable operational insight.



Overall Fleet Awareness

Using Shift5 Portal Dashboards, view real-time location of fleet assets and cyber resiliency health.

- ✓ Ensure Onboard Security
- ✓ Capture Valuable Data
- ✓ Protect Rolling Stock LRUs
- ✓ Increase Situational Awareness



About Shift5

Shift5 is an OT data company whose customers run smarter, safer, and more efficiently by unlocking their data and with less risk from cyber attack. Our data-driven solutions integrate directly onto existing platforms, collecting and enriching data from all their electronic components. The US Military and commercial fleet operators alike trust Shift5 with their most critical assets; reach out to us today and see how you can take operations to the next level.