



# Cybersecurity Engineering for Rail

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## Common Trends

*Three of the most painful cybersecurity trends we find in rail.*



## Cybersecurity Trends in Rail

- Legacy systems. We all have and for some reason, we can't seem to get rid of them.
- Strong enterprise defenses; weak industrial control defenses.
- No holistic approach to cybersecurity. Reactive to events, and limited proactive monitoring.



### Legacy Systems

- Limited to no patching
- Insecure implementations
- Reactive maintenance



### Weak ICS Defenses

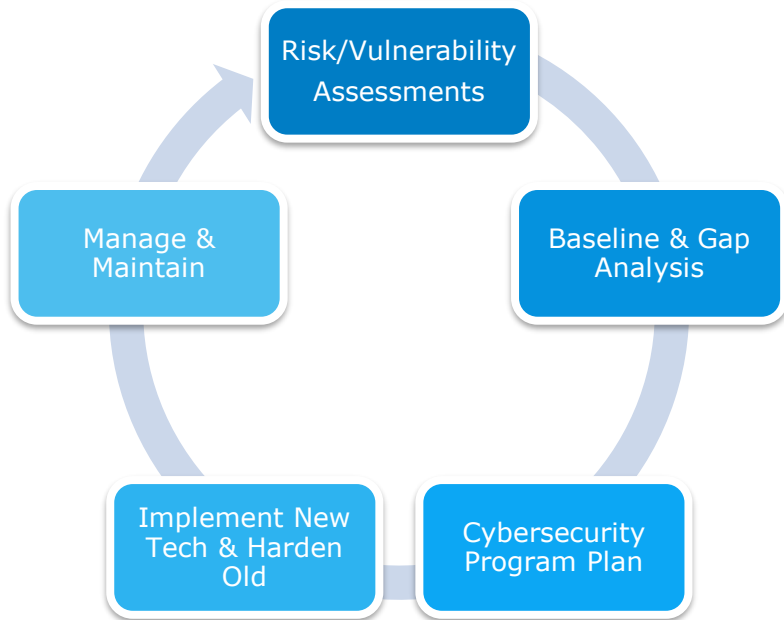
- Is it *really* disconnected?
- Direct connections to the internet
- Limited vulnerability management



### Cybersecurity Culture

- "We know it's insecure"
- "Security through obscurity"
- "If it's not broken, don't try to fix it"

## Cybersecurity Trends in Rail



- There are many challenges facing rail; but they can be solved by strategically assessing your infrastructure.
- With better cooperation between enterprise, operations, engineering and etc. you can rope in your vulnerabilities.
- Independent, third-party assessments are critical.