

Cybersecurity Best Practices for IoT/Network Devices:

A Case Study on South River EMC

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Cybersecurity for Cooperatives

- Increasingly attractive target to criminals.
- More devices connected in real-time for system resilience.
- Wider mix of connectivity mechanisms in use.
- Bring Your Own Device (BYOD) becoming the norm for employees and contractors.

How Technology Ecosystems can Help

End-user
application to
the device

Network
connection and
the cloud

Enterprise
systems

Assessing and Protecting Access

- Best practices/scenarios for assessing your situation:
 - Identify the risks
 - Where does communication cross public infrastructure (WiFi, Cellular, Home Access)?
 - What is the impact of a device being accessed by an unauthorized person or system?
 - What internal systems are connected to remotely?
 - Identify the cost
 - What is the resilience plan?
 - Is heightened security going to cause less secure work arounds to pop up?
 - How does increased security impact productivity?
 - What is the ongoing expense of each approach to securing communication?

IoT, What is it?

- IoT is shorthand for the “Internet of Things”
- Any device, vehicle, sensor, or similar item that communicates over a public, private, or a combination of the two is a part of IoT
- Examples:
 - SCADA Devices
 - Reclosers
 - Smart Lighting
 - AMI/AMR
 - Gates and Card Access
 - Volt/Var Sensors
 - Cameras

The role of Vehicles

- Vehicles are a key component of IoT infrastructure
- Vehicle Area Networks (VAN)
- PTO Sensors
- CANBUS/J1939 Vehicle Diagnostics
- Cameras
- Bucket Positioning
- Panic Buttons

Cyber security - definition

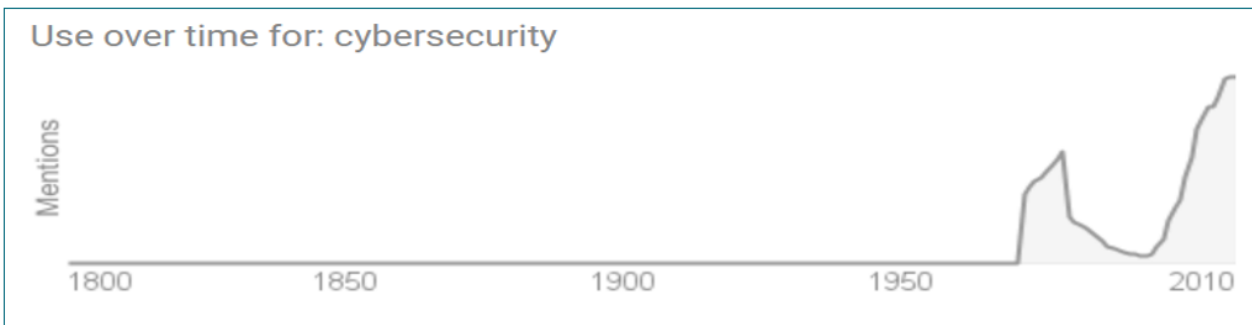
Definition of CYBERSECURITY

: measures taken to protect a computer or computer system (as on the Internet) against unauthorized access or attack

First known use: 1989

Meriam Webster Dictionary

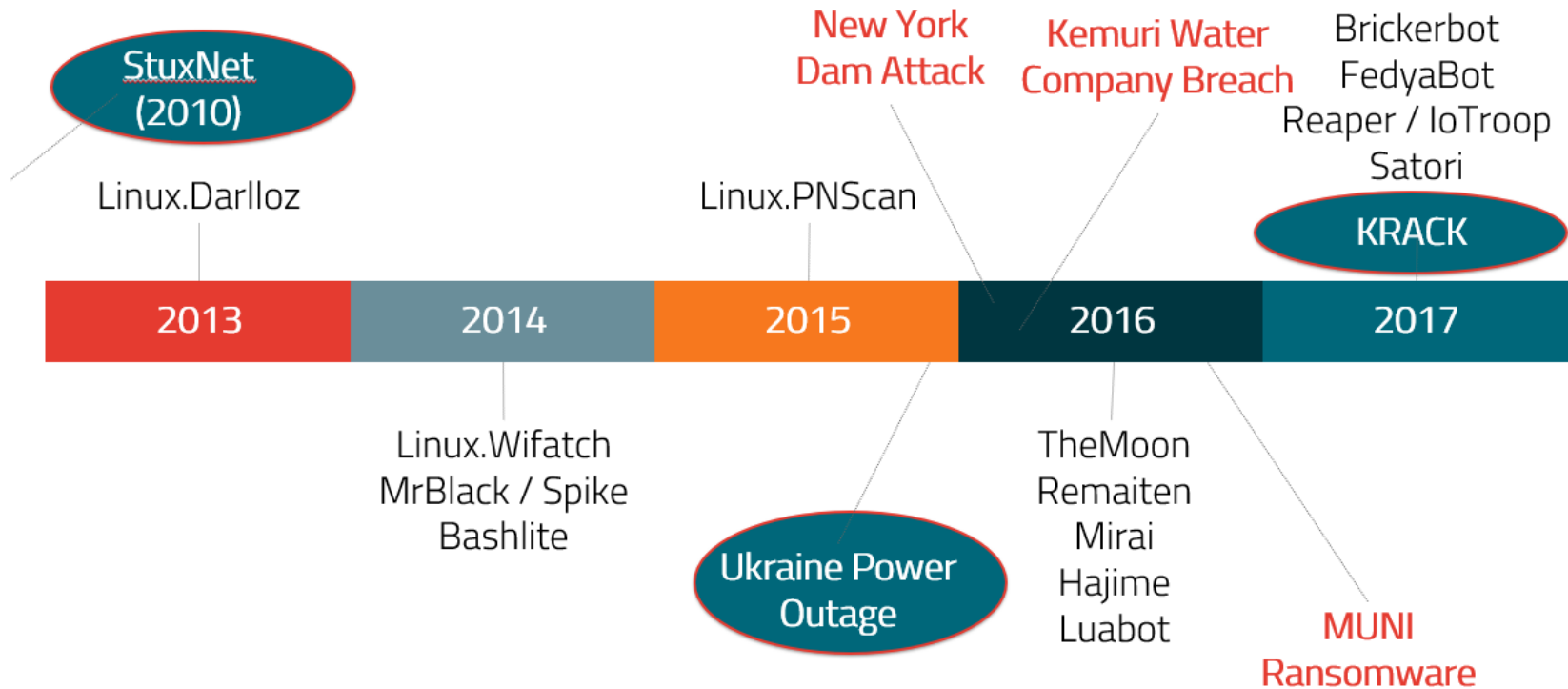
Use over time for: cybersecurity



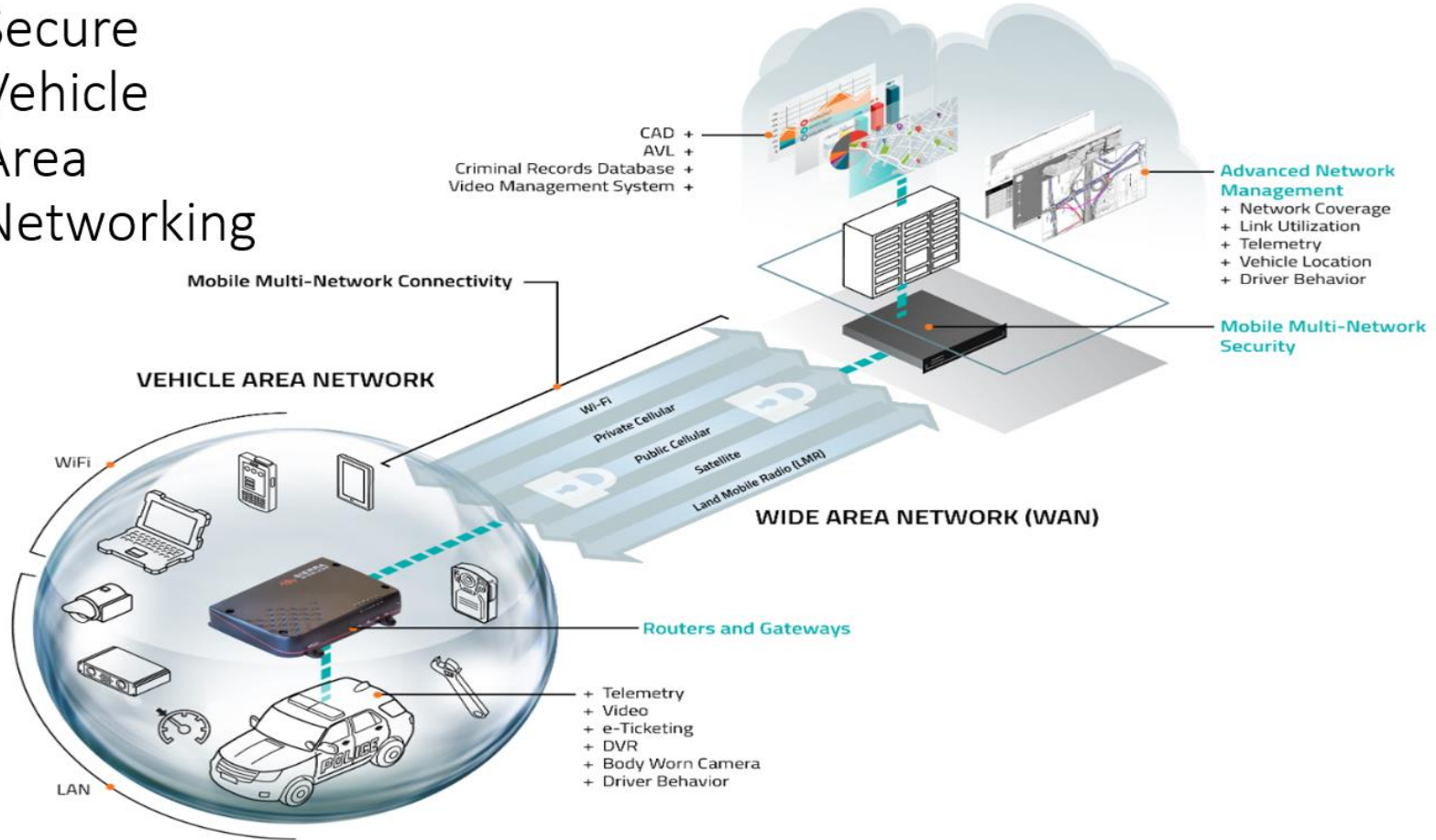
Dictionary.com



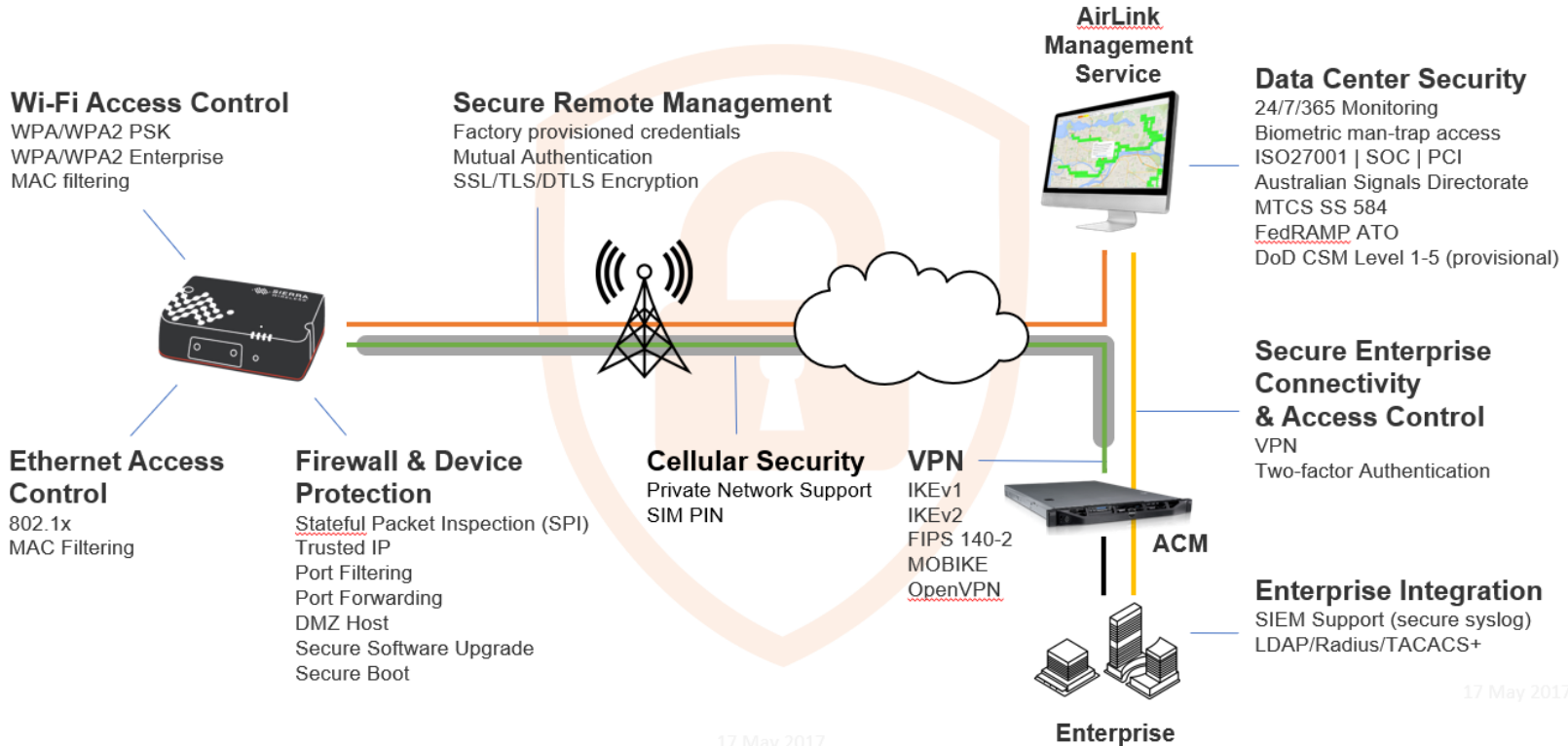
State of IoT Security, exploits & vulnerabilities



Secure Vehicle Area Networking



Integrated Security



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- AirLink® Classic
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Professional Services

- Network Planning & Design
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AirLink Mobility Manager

- Advanced, end-to-end mobility management, on-premises or

AirLink Management Service

- Cloud-based management
- Remotely deploy, configure, monitor and manage devices

AirLink Connection Manager

- Always-On VPN Connectivity
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Support & Services

Network Management & Security

Gateways & Routers

LX40
Compact LTE Modem



ES450
LTE Enterprise Modem



LX60
Dual Ethernet LTE/LTE-M/NB-IoT Gateway



Essential Series

RV50/X
Rugged LTE Low-Power Modem



GX450
Rugged LTE Gateway



MP70
Rugged LTE-A Gateway



MG90
Rugged LTE-A Multi-Network Router



Performance Series

Case study: Malware Incident Response

