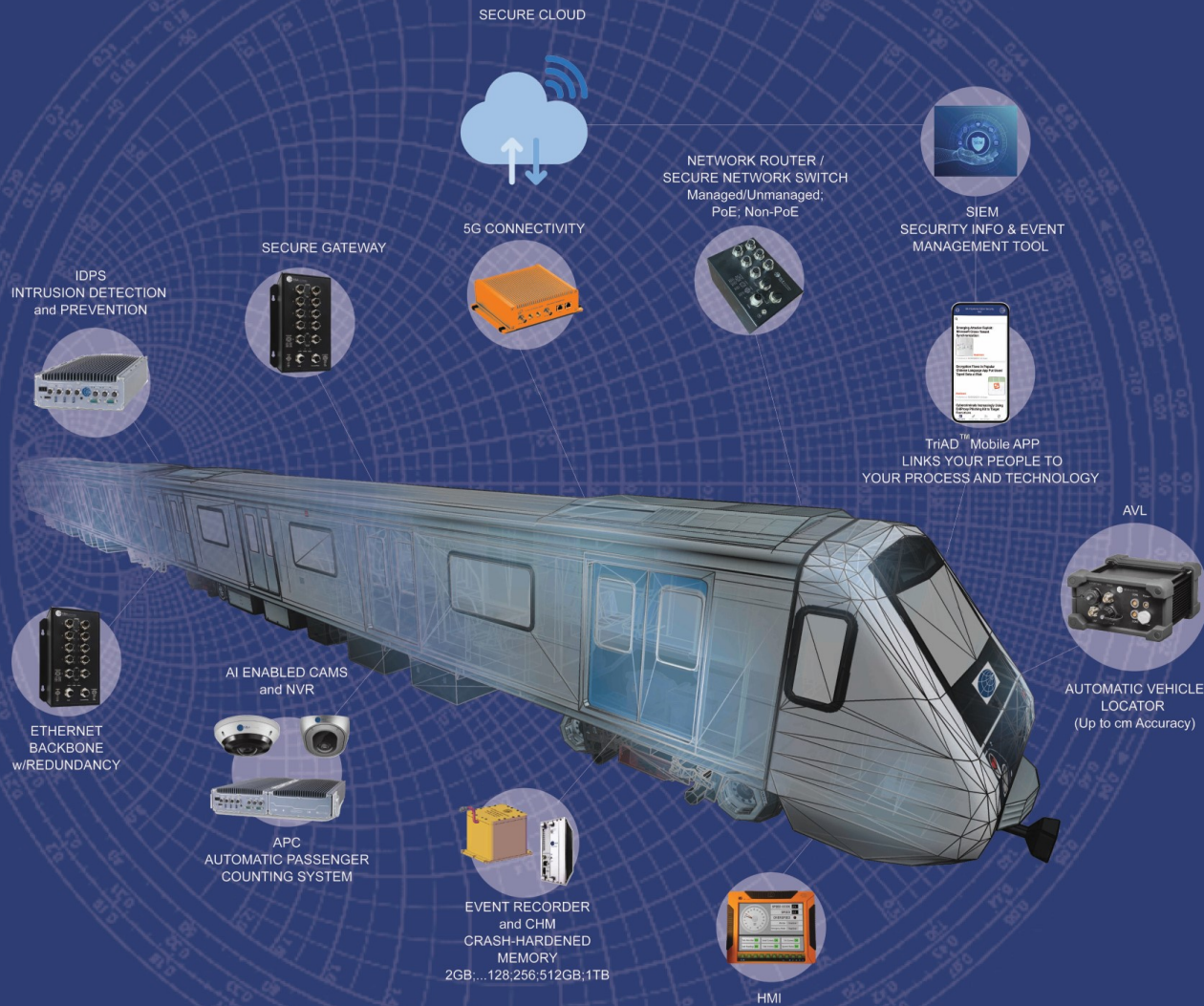


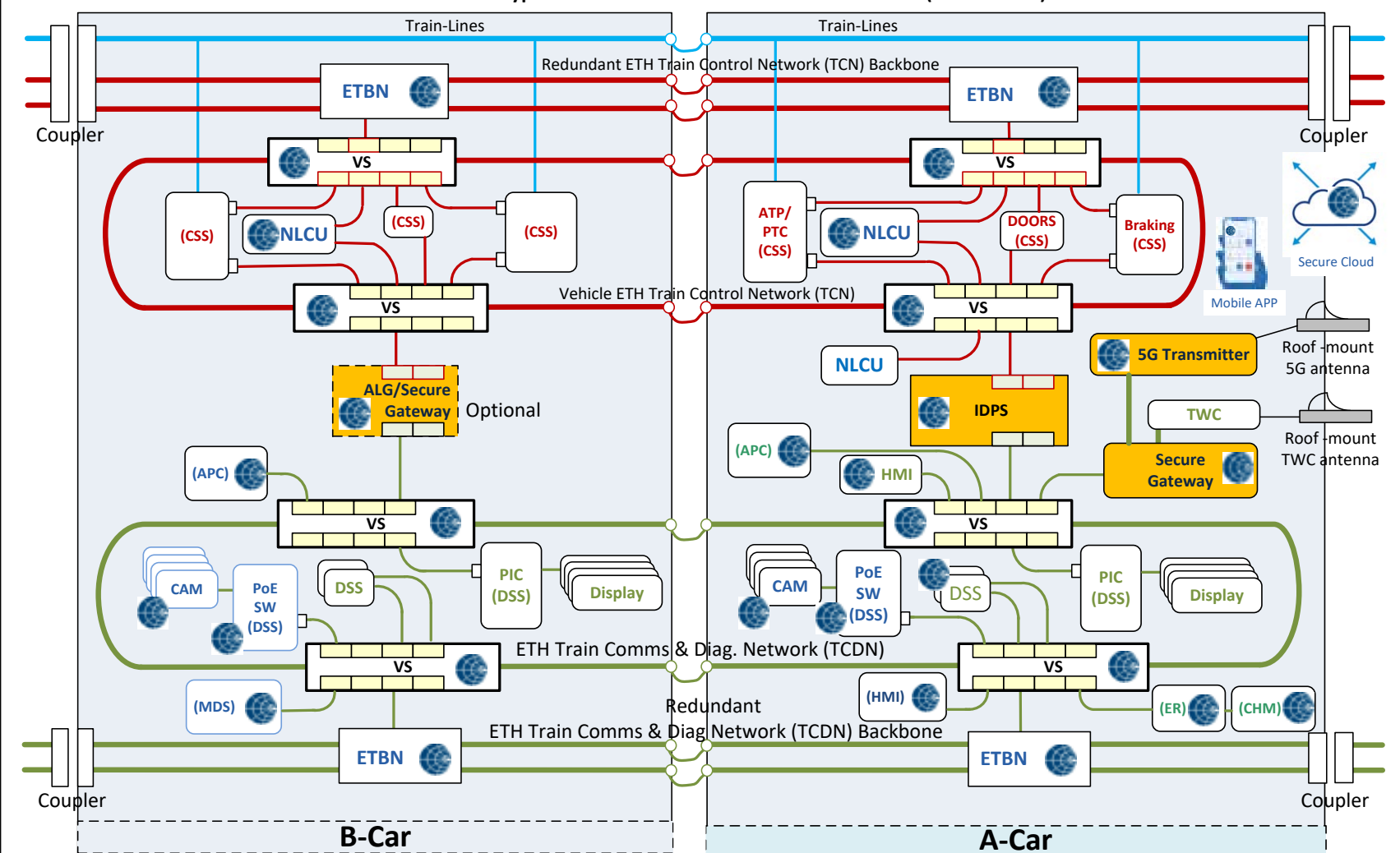
CYBERSECURITY ECO-SYSTEM for RAIL TRANSIT

SIL4 SYSTEMS delivers and integrates the **3 pillars of Cyber Security: People, Processes and Technology**



SIL4 Systems Inc.
2275 Swallow Hill Road, STE 1200
Pittsburgh, PA 15220
www.sil4systems.com
PH: 412-343-1180

Transit Vehicle Typical Married-Pair – Vehicle Comms Network (Confidential)



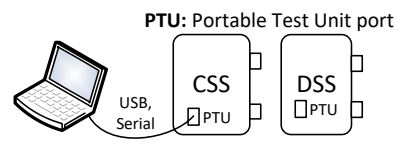
Key Take-Aways:

🌐 Denotes SIL4 Product

Discrete System offerings:

- Vehicle Comms Network (ETBN; Switches; Routers; Gateways)
- NVR/CAMs w/AI features
- Automatic Passenger Counter (APC)
- IDPS (Real-time Cyber Security)
- 5G Cloud Storage / Admin & CySec.
- On-going system support / updates / maintenance / administration
- Cyber Security (ALG & Secure Gateway)
- TriAD™ Mobile APP – Link People to Process and Technology
- Event Recorder w/CHM
- Monitoring & Diagnostic System
- HMI / TOD

ETBN: ETH Train Backbone Node; w/ Redundancy; IEC61375-2-5 Compliant (using TRDP and TTDP) and IEEE 802.3; IEEE 1473 Type E
CSS: Control Sub-system (propulsion; brakes; doors; etc.)
TCN: Train Control Network (IP-Based transmission deterministic data for drive; braking and speed sensors)
TCDN: Train Comms and Diagnostic Network (Hi-BW; Non-deterministic)
VS: Vehicle Switch; IEC61375 Compliant; **(ER)** Event Data Recorder; **(CHM)** Crash-Hardened Memory; **(APC)** Automatic Passenger Counter
ALG: Application-Layer Gateway / Secure Gateway; **IDPS:** Intrusion Detection & Prevention System
TWC: Train-Wayside Transmitter
DSS: Data Sub-system (PIC; Displays, Destination Signs; CAMs; DVR/NVR; Event Recorder; MDS; HVAC; AUX_Power; Passenger Counter; HMIs)
NLCU: Network Logical Control Unit (Handles all Vehicle Monitoring and Control Functions that are critical or maintaining operation of cars over the TCN)
HMI: Human-Machine Interface in Cab **MDS:** Monitoring and Diagnostic System **PIC:** Passenger Information Controller (Info; ads; media)



SIL4 Systems Inc.
Date: 03-FEB-2023
 Proprietary Information