

Next Gen Architecture ASLAN

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CORNING

Key Takeaways

1. 30% CAPEX Reduction
2. 50% TCO Savings
3. 70% Less Cabling
4. 2000+ ft Reach
5. Future Proofed Network (AI/ML, VR, 5G, Wi-Fi 7)

USAF Key Challenges

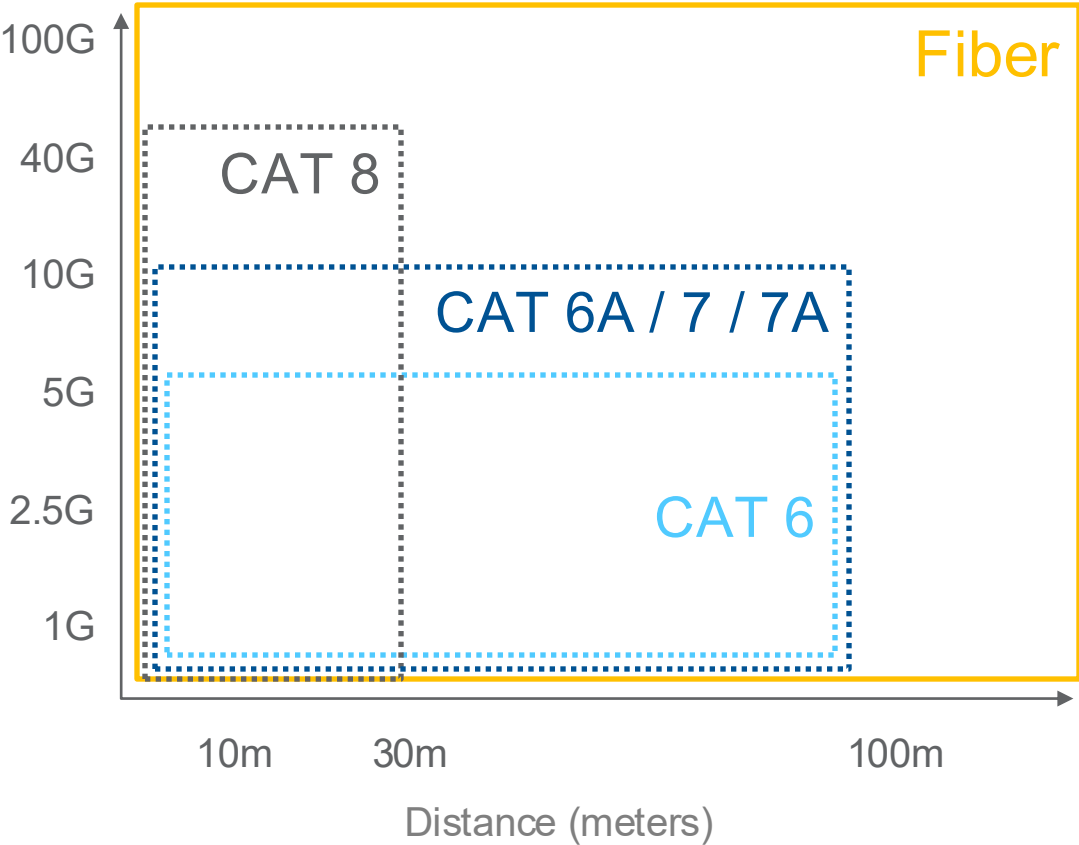
1. Aging and inefficient infrastructure
2. Cyber security threats and nonhuman threats
3. High bandwidth applications being implemented at a rapid rate

Your data tsunami is here. Is the Air Force ready?

- Current DoD networks are being swamped, bandwidth problems growing exponentially
- Too many devices to connect each with independent cable
- Rising demand for bandwidth & power
- Copper has reached its limit and will not support future requirements.
- Government needs a data transport architecture designed for higher bandwidth, security, and less cost.

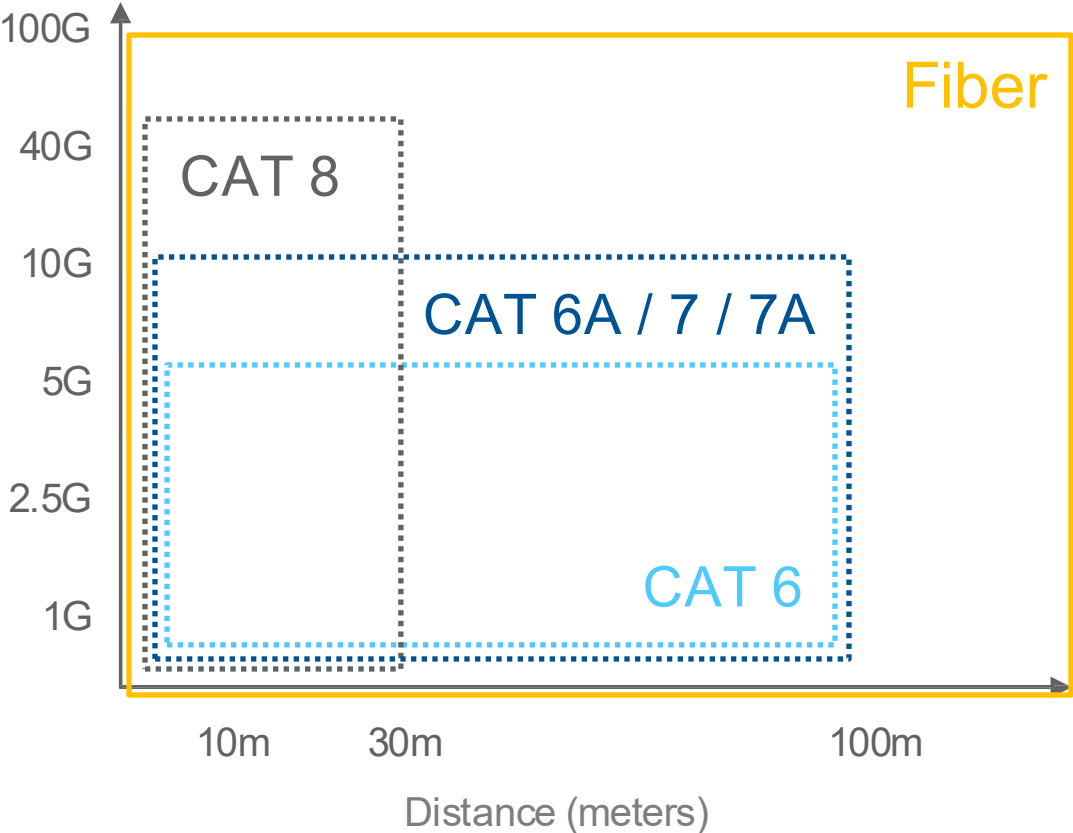
Enabling a Virtual Battlespace

Copper-based cabling has bandwidth and distance limitations



Enabling a wireless world

Copper-based cabling has bandwidth and distance limitations



Fiber Saves Space & Reduces Upgrade Costs

Wi-Fi 6



1 CAT6A

Wi-Fi 6E



2 CAT6A

Wi-Fi 7



4 CAT6A

To support increasing Wi-Fi speeds, building owners will need to pull additional category cable. Pathways are often maxed out without leaving room to expand for Day 2.

VS.



1 composite cable supports increasing Wi-Fi demands which reduces space and eliminates routine, costly, and disruptive rip-and-replace upgrade cycles

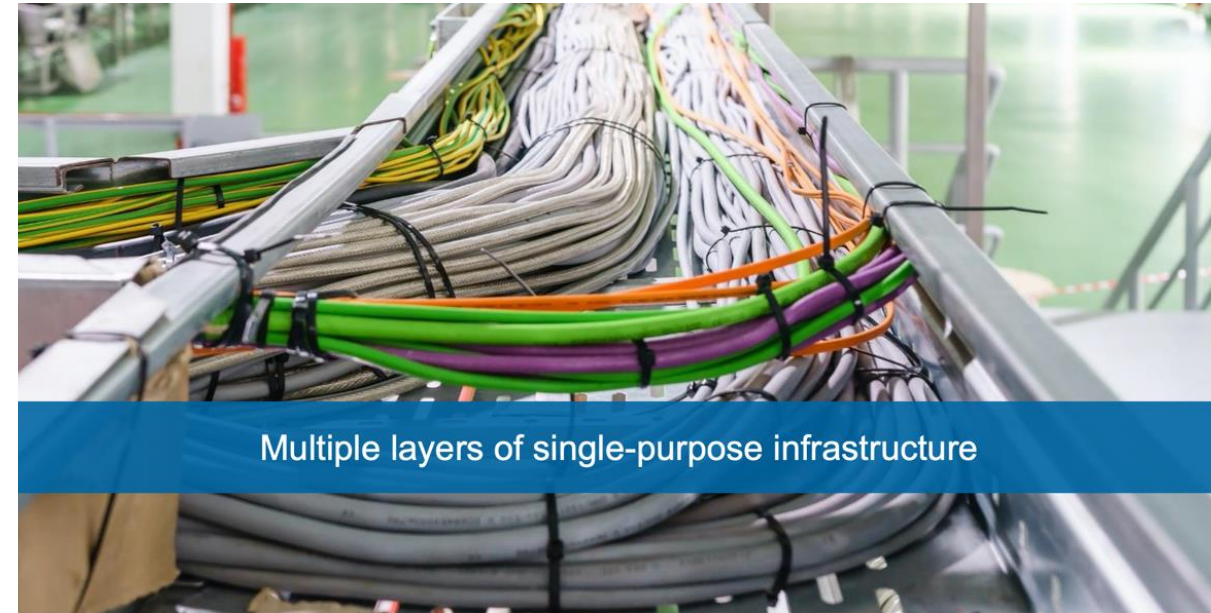


Multiple layers of single-purpose infrastructure



Reduce and eliminate single-purpose infrastructure

AS-LAN vs Legacy



Mission Owners: A Revolutionary New Network

Unlimited Bandwidth

- **Significant cost savings** for initial installation, operations, upgrades
- **Unlimited data throughput** – multitudes more ports - ready for new missions
- **More Secure** – No EM signature
- **Enhanced network monitoring** through orchestration
- **Data scale does not matter** – current and future support - without the need to invest in upgrades

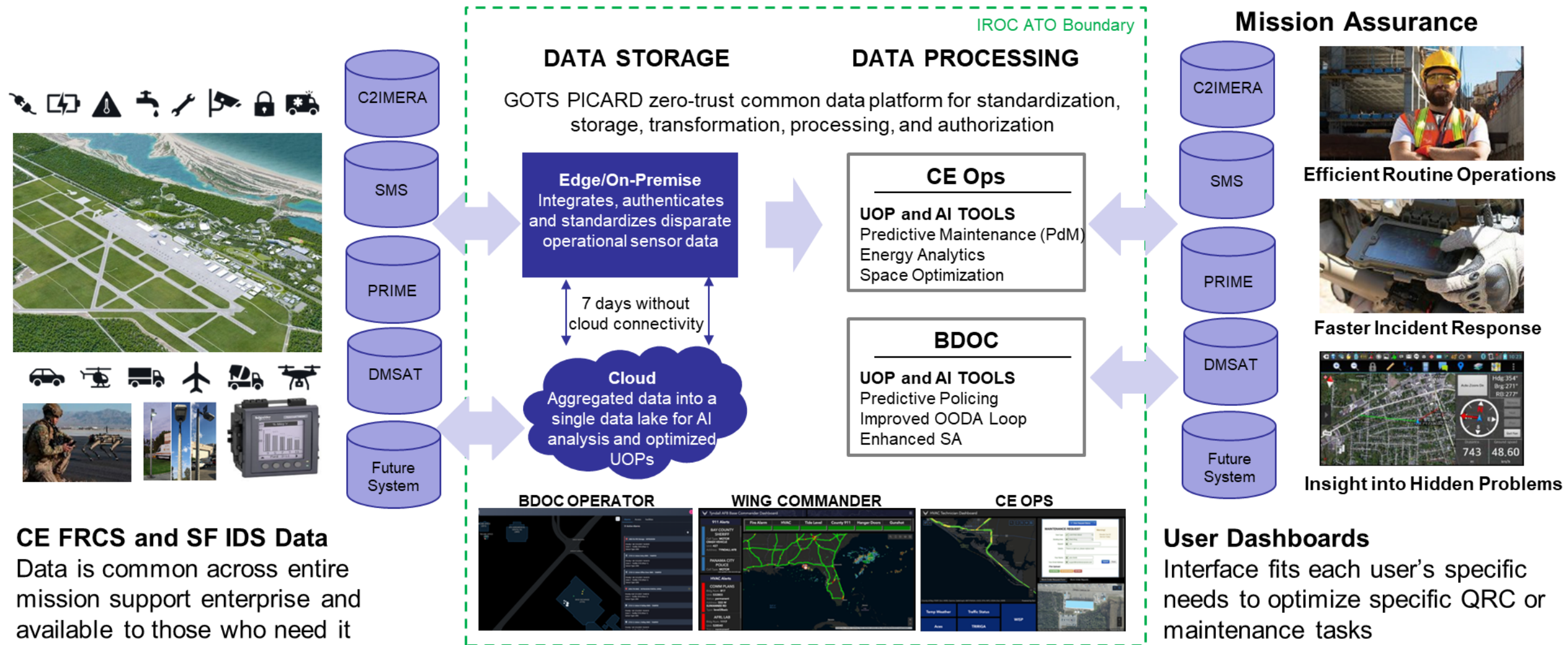


A Next Generation Network Design

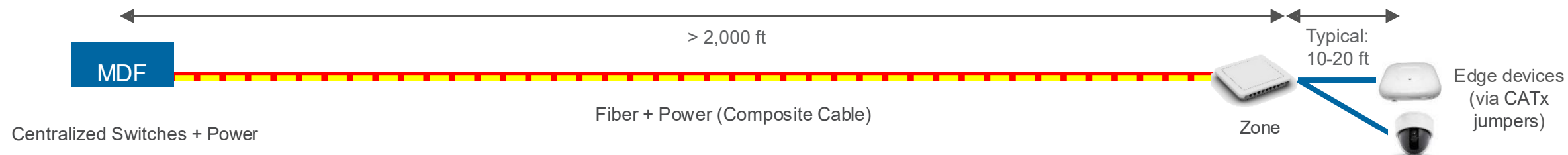
1. Mission Agility – rapid upgrade paths
2. Zero Trust Security – extended all the way to the port
3. Sustainability Impact – 27x carbon footprint reduction
4. Improved Operational Readiness – reduce complexity
5. Human-Centered Design – low-voltage deployment

Digital Twins

USAF Installation Resilience Operations Command/Control (IROC)



Corning AS-LAN and Fiber to the Edge Architecture



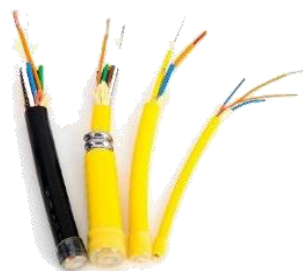
White Box Appliances



1G/10G/40G Optical Switching Fabrics
PoE/PoE+/PoE++

Full SFP portfolio

Hybrid Composite Cable Portfolio



Up to 2,000 ft. reach
1-24 F / 2-12 Cu
12-20 AWG
Reel-in-a-Box

Edge Devices – Optical to Ethernet w/ PoE



Dual-mode software-defined access nodes
10G HPoE Media Converters

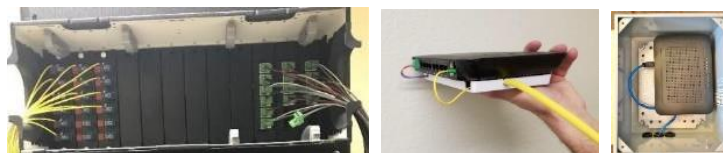
Low Voltage, Intelligent Power Solutions



CIP: 0-800W, redundant, 24V or 56V available

Aggregation; step-down accessories

Compatible Structured Cabling



Fiber/Copper Management

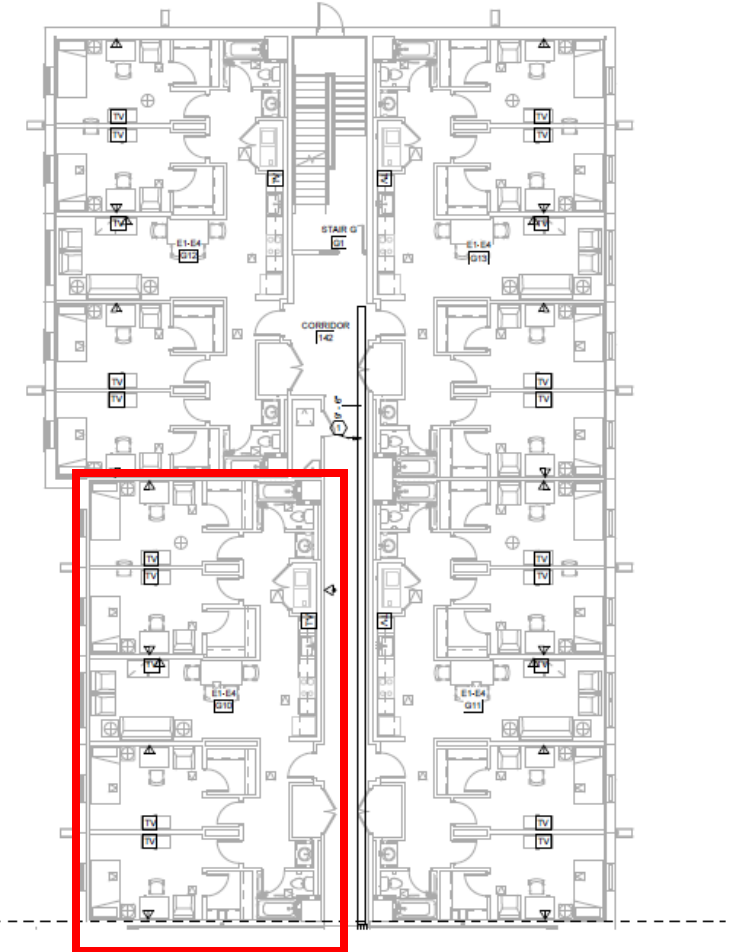
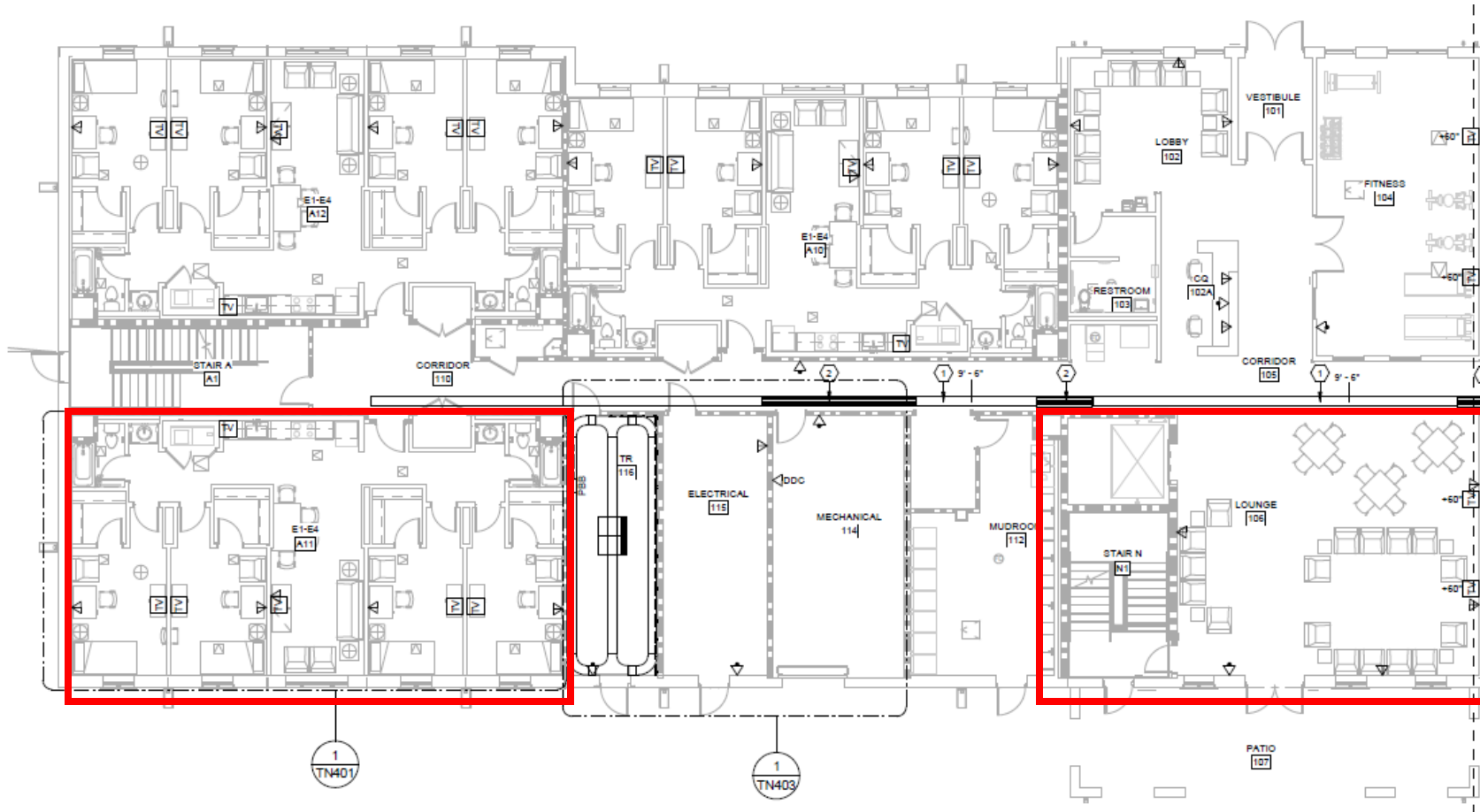
Connectivity & Enclosures

Advanced Software Defined Network Orchestration Software



Zone Creation

Create 1 drop per “Door” of Barracks. Can build single cable with many ports supporting today & tomorrow’s growth



10 cable pulls reduced to 1

Where is the value?



Our Recommendations

1. Incorporate fiber into specs for horizontal cabling
2. Update spec documents to reflect new technologies for telecommunications
3. Promote programs that allow for new technologies to be tested then receive stamp of approval on passing

JITC Status

DODIN Approved Product Listing

DoDin APL listed under Assured Services LAN Product Category

Testing is complete!

- Cyber Testing ✓
- Interoperability (IO) Testing ✓
- Software Orchestration Platform Testing ✓
- Full End-to-End Solution ✓

Corning Optical Communications

Model Everon SD-LAN
Version 6.1
Tracking Number (TN) 2130701

Effective Date 17-Nov-2023

Expiration Date 17-Nov-2026

Product Info

VM - Virtual Network Commander, VM - Software Defined LAN Controller, CIP-16-56V/CIP-32-56V, 1LAN-SDDP-48P-U, 1LAN-SDDP-24POE-U, 1LAN-FMC-10G-U, 1LAN-SDAN-7298-U, 1LAN-SDAN-IW4P-U, 1LAN-SDAN-7290-U, 1LAN-SDAN-8011-U, 1LAN-SDDP-48POE-U, 1LAN-SDAN-8293, 1LAN-SDAN-7691-U

Certified Device Types

-- Assured Services Local Area Network (ASLAN), Access IP Switch.

APL Memo

IO Certification

Request CAP



Use Cases



***Naval Information
Warfare Center***



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