



U.S. ARMY
COMMUNICATIONS-
ELECTRONICS
COMMAND



CASE STUDY: CISCO FEDRAMP SD-WAN (CISCO DNA EA TIER-2 – 1G) IN SUPPORT OF U.S. ARMY CECOM

SOLUTION: CISCO FEDRAMP SD-WAN – CISCO DNA ENTERPRISE AGREEMENT (EA) TIER-2 (1G) LICENSES

MISSION CONTEXT

The U.S. Army CECOM is responsible for developing, integrating, and sustaining the Army’s communications and network capabilities across CONUS and OCONUS environments. CECOM required a secure, scalable, and centrally managed wide area networking solution capable of supporting distributed Army installations, depots, program offices, and operational units—while aligning with DoD Zero Trust principles and FedRAMP compliance requirements.

Legacy WAN architectures created challenges related to visibility, performance optimization, security enforcement, and rapid deployment across geographically dispersed locations.

CHALLENGES

- Highly Distributed Environment:** Army and CECOM locations required consistent network performance across fixed, mobile, and remote sites.
- Security & Compliance:** The solution needed to meet FedRAMP requirements and align with DoD cybersecurity and Zero Trust mandates.
- Operational Complexity:** Limited centralized visibility and manual configuration increased operational overhead and slowed response times.
- Scalability & Bandwidth:** Growing data demands required support for higher-capacity links (up to 1G) without redesigning the network.
- Resiliency & Performance:** Mission systems required reliable application performance with automated failover and traffic optimization.

SOLUTION OVERVIEW

The integrator deployed Cisco FedRAMP SD-WAN using Cisco DNA EA Tier-2 (1G) licenses to modernize and standardize CECOM’s WAN architecture.

Key solution components included:

- Cisco FedRAMP-Authorized SD-WAN Controllers
- Cisco DNA Enterprise Agreement (EA) Tier-2 (1G) Licensing
- Centralized orchestration and policy management
- Secure application-aware routing and segmentation
- Encrypted transport over multiple underlays (MPLS, DIA, LTE)

The solution was designed to integrate seamlessly into existing Army network architectures while enabling future growth and modernization.



IMPLEMENTATION & SERVICES

- **Architecture Design & Planning:** Aligned SD-WAN design to Army network standards, RMF requirements, and CECOM operational needs
- **License Provisioning:** Delivered and activated Cisco DNA EA Tier-2 (1G) licenses across designated sites
- **Configuration & Policy Development:**
 - Application-aware routing
 - Traffic segmentation for mission, administrative, and management networks
 - Centralized security and QoS policies
- **Deployment & Cutover:** Phased implementation to minimize mission impact
- **Validation & Testing:** Performance, resiliency, and security validation
- **Knowledge Transfer:** Documentation and operational handoff to government personnel

RESULTS & OUTCOMES

Improved Mission Readiness

- Increased network uptime and application performance across CECOM sites
- Automated failover and path optimization improved resiliency for mission-critical systems

Enhanced Security Posture

- End-to-end encryption and segmentation supported Army Zero Trust objectives
- FedRAMP-authorized SD-WAN architecture reduced compliance risk

Operational Efficiency

- Centralized visibility and orchestration significantly reduced manual configuration and troubleshooting time
- Simplified policy management across distributed locations

Scalability & Flexibility

- Tier-2 (1G) licensing enabled higher bandwidth utilization without hardware redesign
- Architecture supports rapid site additions and mission expansion

Cost Optimization

- Cisco DNA EA licensing model reduced long-term licensing complexity and improved budget predictability

TECHNOLOGIES & PRODUCTS

- Cisco FedRAMP SD-WAN
- Cisco DNA Enterprise Agreement (EA)
- Tier-2 (1G) SD-WAN Licenses
- Encrypted WAN transport (MPLS, DIA, LTE)

CUSTOMER IMPACT

The deployment of Cisco FedRAMP SD-WAN with Cisco DNA EA Tier-2 (1G) licenses provided CECOM with a modern, secure, and scalable WAN foundation that supports current Army missions while enabling future modernization efforts. The solution improved operational efficiency, strengthened cybersecurity posture, and enhanced network resiliency across the CECOM enterprise.

