



CASE STUDY: ENABLING CECOM'S MISSION TO DELIVER SECURE, AGILE NETWORKS WITH PALO ALTO NETWORKS SD-WAN LICENSES

EXECUTIVE SUMMARY

U.S. Army Communications-Electronics Command (CECOM) is responsible for delivering, sustaining, and modernizing the Army's C5ISR capabilities across the full operational lifecycle. As the Army accelerates modernization efforts to support Multi-Domain Operations (MDO), Joint All-Domain Command and Control (JADC2), and expeditionary warfare, CECOM faces increasing pressure to provide secure, resilient, and rapidly deployable network architectures.

Palo Alto Networks SD-WAN licenses, integrated with next-generation firewalls (NGFWs), enable CECOM to deliver policy-driven, Zero Trust-aligned connectivity from the tactical edge to the enterprise—while reducing operational complexity and supporting rapid fielding to Program Executive Offices (PEOs) and supported units.

CECOM MISSION CONTEXT & CHALLENGES CECOM OPERATIONAL ENVIRONMENT

CECOM supports a wide range of stakeholders, including PEO C3N, PEO IEW&S, Network Cross-Functional Team (N-CFT), and operational units across CONUS, OCONUS, and contested environments. Key challenges include:

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| Highly Distributed Architectures | Tactical command posts, sensors, and mobile formations operating across austere and degraded networks. |
| Lifecycle Complexity | Managing integration, sustainment, and modernization across legacy and emerging systems. |
| Security & Compliance Requirements | Ensuring compliance with Army Zero Trust guidance and DoD cybersecurity mandates. |
| Rapid Fielding Demands | Supporting rapid prototyping, experimentation, and operational deployment (e.g., Project Convergence). |

SOLUTION OVERVIEW: PALO ALTO NETWORKS SD-WAN FOR CECOM

CECOM leveraged Palo Alto Networks SD-WAN licenses embedded within NGFW platforms to deliver secure, application-aware connectivity across tactical, operational, and enterprise environments.

Key Capabilities Aligned to CECOM Priorities

Unified Network & Security Management

- Centralized policy control simplifies deployment across PM-managed environments.
- Reduces integration risk during system upgrades and refresh cycles.

Application-Aware Traffic Steering

- Prioritizes mission command systems, ISR feeds, and voice/data services.
- Ensures consistent performance despite constrained or contested links.

Multi-Transport Resiliency

- Supports SATCOM, LTE/5G, commercial broadband, MPLS, and line-of-sight links.
- Enables automatic failover without operator intervention.

Zero Trust Enforcement

- SD-WAN traffic is inspected by NGFW security services.
- Aligns with Army Zero Trust pillars: identity, device, network, and application security.



CECOM USE CASE SCENARIOS

1. Support to PEO C3N and Tactical Network Programs

As PEO C3N modernizes the Integrated Tactical Network (ITN), Palo Alto Networks SD-WAN enables:

- Seamless integration of commercial and tactical transport options.
- Policy-based routing for mission command applications.
- Reduced configuration burden during fielding and sustainment.

CECOM Benefit: Faster deployment timelines and reduced integration complexity across increments.

2. Sustainment & Lifecycle Management

CECOM sustainment teams use SD-WAN licenses to:

- Push standardized network and security policies across deployed systems.
- Maintain visibility into network health and application performance.
- Reduce mean time to repair (MTTR) during operational issues.

CECOM Benefit: Improved readiness and lower sustainment costs across the lifecycle.

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OUTCOMES & BENEFITS FOR CECOM

Enhanced Mission Effectiveness

- Improved reliability of mission-critical applications at the tactical edge.
- Reduced dependency on single transport paths in contested environments.

Security by Design

- Integrated threat prevention ensures consistent protection without adding point solutions.
- Simplifies Authority to Operate (ATO) alignment through standardized security controls.

Operational Efficiency

- Centralized management reduces manpower required for configuration and troubleshooting.
- Enables CECOM to scale support across multiple PMs and fielded systems.

ALIGNMENT TO ARMY MODERNIZATION INITIATIVES

Army Priority

JADC2

Integrated Tactical Network (ITN)

Zero Trust Architecture

Rapid Prototyping

CECOM Enablement with SD-WAN

Secure, resilient data transport across domains

Multi-path, application-aware connectivity

Continuous inspection and policy enforcement

Fast, repeatable deployment models

CONCLUSION

Palo Alto Networks SD-WAN licenses provide CECOM with a **secure, flexible, and lifecycle-aware networking capability** that aligns directly with its mission to equip the Army with reliable C5ISR systems. By integrating SD-WAN with enterprise-grade security, CECOM can accelerate modernization, improve sustainment outcomes, and ensure the warfighter remains connected—anywhere, anytime, in any environment.

