Solution Brief

Securing Communications

Military Aircraft and Mobile Autonomous Platforms

In today's complex operating environment, military missions depend on the security and resilience of data in motion. Thales CN7000 Series network encryptors are Commercial Off-The-Shelf (COTS) solutions engineered to deliver certified, high-speed encryption for sensitive mission data flowing between highly mobile military assets and remote command nodes.

Key Applications at the Tactical Edge

Thales CN7000 Series network encryptors are the ideal solution for securing tactical networks that involve mobile units and frequent topology changes.

- **UAV Telemetry and Control:** Encrypt real-time sensor data, video feeds, and command-and-control telemetry from airborne autonomous platforms back to ground stations.
- **Tactical Aircraft Communications:** Protect sensitive voice and data links for mobile platforms (such as fixed-wing aircraft or in-vehicle computing systems) operating reliably in harsh environmental conditions.
- **Cross-Domain Connectivity:** Secure communications across hybrid tactical-core network topologies, fully interoperable with all Thales network encryptors on-premises and virtual environments.

Built for Extreme Environments

Military aircraft applications demand a hardware solution that operates reliably outside of standard data center environments. The CN7000 series is a hardened COTS platform built for this challenge.

Simple Deployment and Centralized Control

The CN7000 series deploys inline (bump-in-the-wire) to secure data entering untrusted public networks.

- **Centralized Management:** Manage via Thales Security Management Center (SMC) or CM7.
- **Secure Remote Access:** Remote CLI access uses SSH; CM7 communicates via secure SNMP over SSH.
- **Robust Authentication:** Role-based access control (RBAC) supports multiple administrator roles with password and X.509 certificate authentication.
- **Secure Activation:** Initial setup uses two-stage hash verification between user and remote operator, preventing man-in-the-middle attacks.

Operational Benefits for Military Applications

The CN7000 series provides core advantages for military aircraft applications:

- **Security at the Tactical Edge:** Ruggedized, fanless, MIL-STD 810G hardware for high-assurance encryption beyond secure facilities. Deployed in Autonomous Warrior trials for resilient tactical edge communications.
- **Resilient Connectivity:** Transport Independent Mode (TIM) ensures encrypted communication across unstable or diverse IP WANs and fluctuating network conditions.
- **Sovereign Crypto Requirements:** Software Development Kit enables deployment of bespoke, "customer eyes-only" symmetric ciphers aligning with national or proprietary standards.
- **Future-Proof Security:** Crypto agile solution that supports hybrid Post-Quantum Cryptography (PQC) and Quantum Key Distribution (QKD), mitigating future quantum threats and ensuring long-term data protection.

Thales Tactical Encryptors

CN7105 Network Encryptor—Fully rugged IP67-sealed outdoor encryptor for the most demanding field conditions, tested to MIL-STD-810G shock/vibration standards, to secure data in tactical, industrial, and mobile deployments.

CN7107 Network Encryptor—Rugged, in-vehicle encryptor, MIL-STD-810G shock/vibration-tested, and designed for tactical vehicles and mobile command platforms.

CN7108 Network Encryptor—Ruggedized compact, fanless MIL-STD-810G encryptor for industrial IoT, substations, and remote edge locations.

About Thales

Thales is a global leader in cybersecurity, helping businesses, governments, and the most trusted organizations in the world protect critical applications, sensitive data, identities, and software anywhere, at scale — with the highest ROI. With more than 30,000 customers, including 58% of the Fortune Global 500, our solutions are deployed in 148 countries around the world. Through our innovative services and integrated platforms, Thales helps customers achieve better visibility of risks, defend against cyber threats, close compliance gaps, and deliver trusted digital experiences for billions of consumers every day.