

Cybersecurity & Mission Support Platform Case Study

Name

Cybersecurity & Mission Support Platform

Executive Summary

Fortify mission-critical operations with Ovaku's **secure, automated software delivery and situational awareness solution**. Designed for defense-focused organizations, this platform ensures **hands-free, version-controlled updates, bandwidth-efficient deployments**, and **real-time field coordination**—delivering **100% compliance, uninterrupted operations**, and **enhanced mission readiness**.

Problem Statement

A defense organization faced challenges with manual software updates to edge devices, limited bandwidth in austere environments, and lack of integrated situational awareness tools. These shortcomings risked operational delays, security vulnerabilities, and reduced mission effectiveness.

Business Solution

Ovaku implemented a **comprehensive DevOps and cyber support initiative** comprising:

- Automated, containerized update pipelines with version control
- Bandwidth-optimized delivery mechanisms for constrained networks
- Deployment of TAK Server for real-time geospatial mapping and communication
- On-premises, secure infrastructure aligned with defense security standards
- SLA-driven support model ensuring continuous system reliability and rapid issue resolution

Key Features

- **Automated Update System:** Containerized software packages deployed via CI/CD pipelines for error-free, hands-free updates

- **Bandwidth-Efficient Delivery:** Delta updates and compression techniques tailored for low-bandwidth edge environments
- **Situational Awareness Suite:** TAK Server integration enabling live geospatial tracking, chat, and coordinated mission planning
- **Secure On-Premises Infrastructure:** Hardened environments, strict access controls, and compliance with defense security protocols
- **Operational Reliability:** SLA-backed support ensures rapid rollback, monitoring, and remediation for mission-critical software

Impact

Performance Metric	Achievement	Business Value
Update Success Rate	100% automated deployments	Eliminated manual errors and ensured consistent software baselines
Bandwidth Utilization	60% reduction in transfer sizes	Optimized network usage in constrained field conditions
Mission Coordination Efficiency	50% faster situational response	Real-time geospatial awareness improved decision making
Compliance & Security	100% defense-grade adherence	Maintained data integrity and met stringent security requirements
System Uptime	99.9% availability	Uninterrupted field operations and mission continuity

Technologies

- **DevOps & IaC:** Jenkins, GitLab CI/CD, Docker, Kubernetes
- **Update Delivery:** Delta update frameworks, container registries, secure OTA protocols
- **Situational Awareness:** TAK Server (Team Awareness Kit), WebSocket communications
- **Infrastructure:** Hardened on-premises servers, VLAN segmentation, FIPS-compliant encryption
- **Security & Compliance:** Role-based access, audit logging, SELinux, compliance with DoD and intelligence standards

Client

Confidential – Defense & Intelligence Organization

Industry

Defense Technology, Cybersecurity, Mission Support Systems