



ORTHOS

Securing All Operational Technology

SYSTEMS OVERVIEW

Project Brief:

Reducing the cyberattack surface by combining protection of IT and Operational Technology (OT) environments into a single solution.

- Secure remote or local access
- Threat detection and isolation
- AI assisted network analysis
- Intuitive management console

WHY PROJECT ORTHOS?

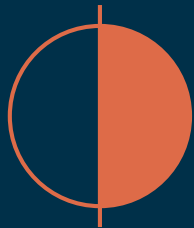
Project Orthos was developed in response to government's call to reduce the cyberattack surface (RCAS).

A collaboration between three leading cybersecurity companies, Orthos is a compelling solution to the threats faced by critical infrastructure and defense assets.

Orthos combines quantum-resilient encryption with an OT cyber-physical suite. Effortlessly scalable and secure by design, it provides both detection and protection, shielding OT equipment from vulnerabilities that may be exploited by threat actors.



EDGE



MIRROR



IN-PATH

STANDARDS-BASED

ARTIFICIAL

INTELLIGENCE

MACHINE

LEARNING

DETECTION

SOFTWARE

QUANTUM

RESILIENT

FLEXIBLE DEPLOYMENT

SCALABLE SOLUTION

PROTECTION

SIMPLIFIED ARCHITECTURE

SECURE REMOTE ACCESS, FROM ANYWHERE, DIRECTLY TO YOUR OPERATIONAL INFRASTRUCTURE

LOCAL/REMOTE
MANAGEMENT LAYER



EXTENSIBLE ENCRYPTION ENVELOPE

AGGREGATION LAYER



OT ENCRYPTED OVERLAY NETWORK

EDGE TRANSPORT LAYER



PROTECTION MODES
DETECT & PREVENT



MIRROR MODE



EDGE MODE



IN-PATH MODE

SYSTEM DESCRIPTION

Operational technology is fundamental to the functioning of critical infrastructure and defense assets, whether fixed or mobile. In essence, Orthos provides vulnerability shielding for operational technology within an encrypted overlay network. The architecture is highly scalable with built-in redundancy and may even enhance the resilience of the underlying network.

Orthos is built on parallel path cryptographic key routing, where each device on the network is tied to a cryptographic key. Because most legacy OT devices do not feature cryptographic capabilities, Orthos manages the keys and the cryptography on behalf of the devices.

“Orthos is the integration of quantum resilient encryption with an OT cyber-physical security suite. Available as software or a virtualized device it is ideal for deployment in a wide range of hostile environments.”



Secure by design



Effortlessly scalable



Vendor equipment agnostic



Multilayer encryption
(Layers 2, 3 and 4)



Active and passive discovery



Detailed network visualization



Intrusion inspection based on industrial control protocols



Certified key management processes



Multiple deployment options



Secure remote or local management



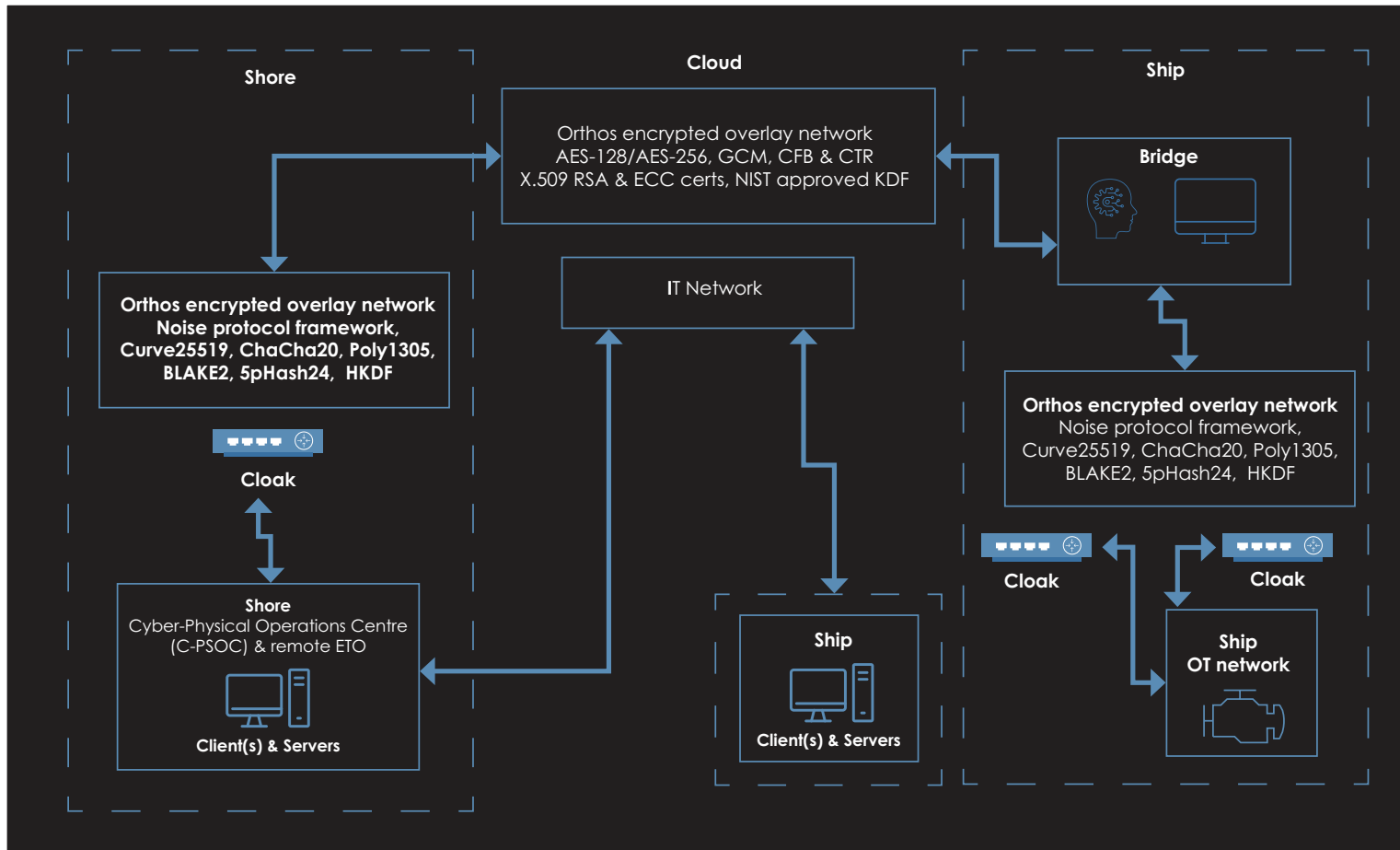
Role-based access



Cryptographic separation of OT network elements

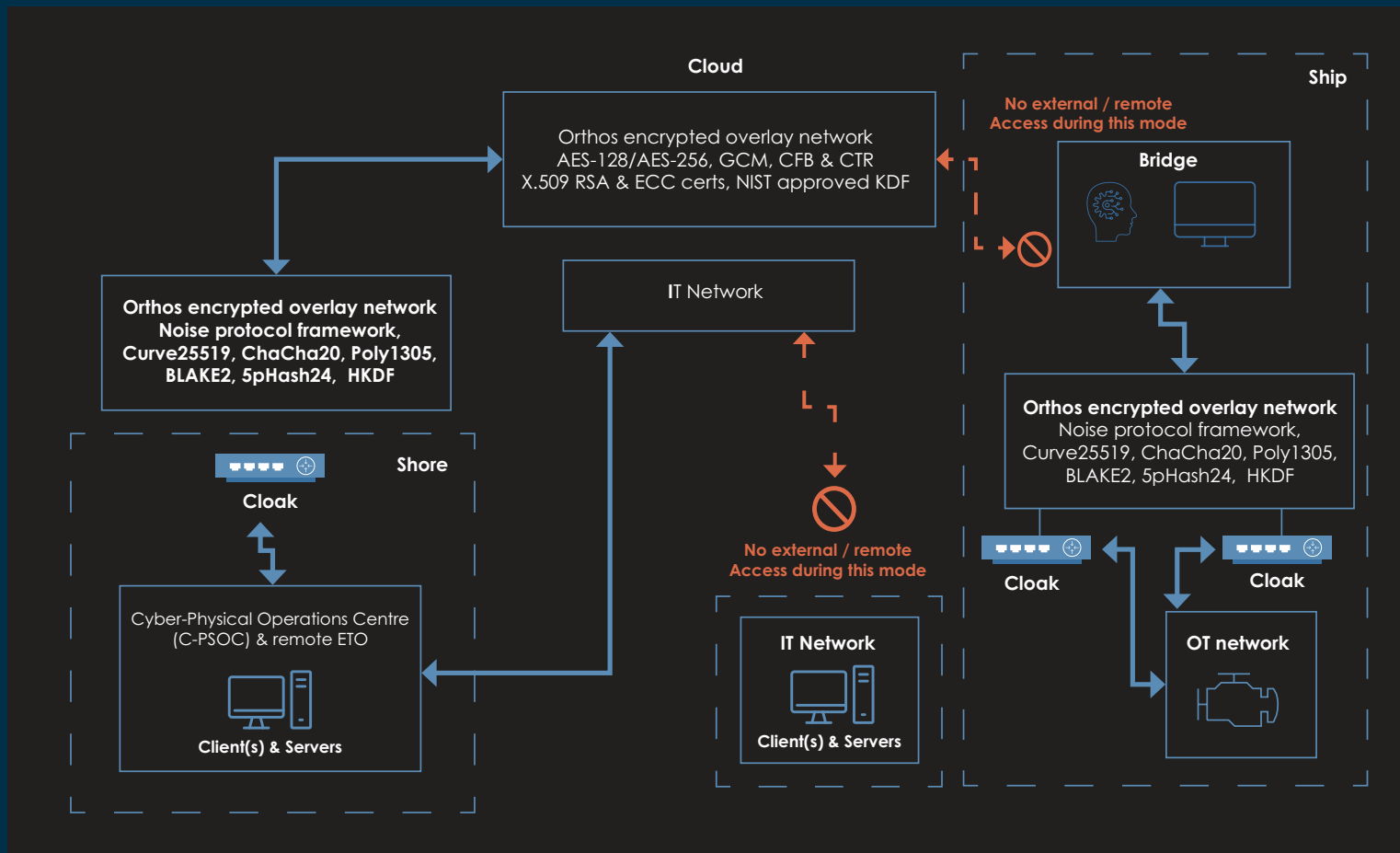
SECURE REMOTE MONITORING

Orthos allows for secure remote monitoring of OT environments from centralized command and control or cyber-physical operations center (CPOC). The CPOC can also be used to provide remote engineering support, reducing the need to physically send maintenance staff to the asset.



AUTONOMOUS ON-SITE CONTROL

Orthos can operate in an autonomous site-specific configuration (EG naval vessel during active engagement). In this instance, full visibility of the cyber-physical infrastructure is available to local command and control via an intuitive dashboard and visualization engine.





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