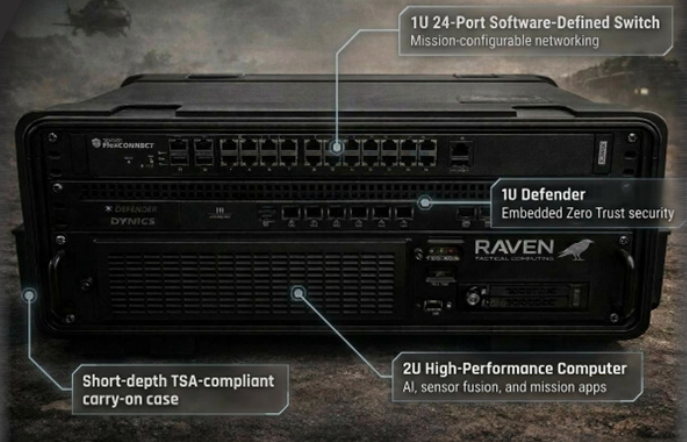




RAVEN DEPLOYABLE EDGE COMPUTE SYSTEM

Deployable Tactical Edge Computing Platform with Integrated SDN Networking and Cyber Defense



System Overview

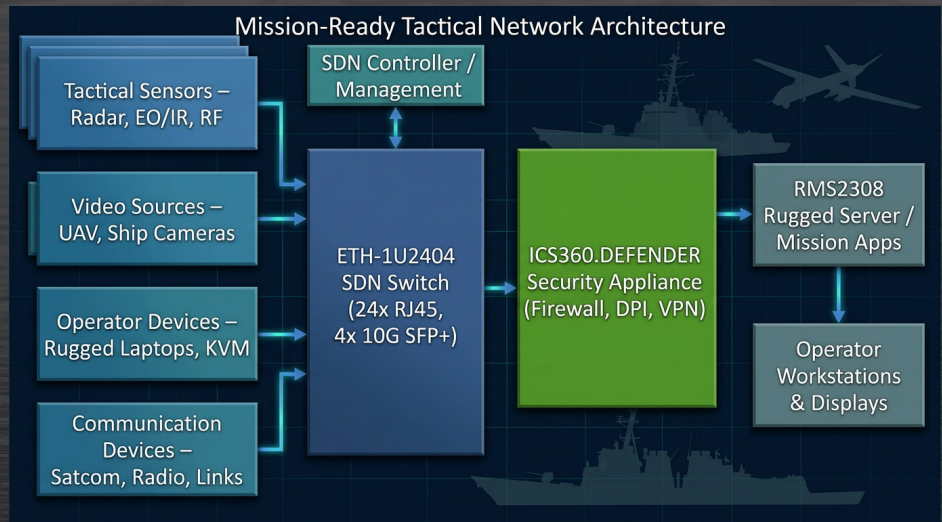
The Raven Deployable Edge Compute System is a ruggedized, mission-ready computing platform designed for tactical edge operations, distributed C5ISR environments, and disconnected or contested networks. The system integrates high-performance computing, software-defined networking (SDN), and advanced cyber defense capabilities into a compact deployable architecture.

The architecture combines high-performance 2U (other form factors available) Servers, Software Defined Network switch, and the ICS360 Defender cybersecurity gateway to deliver a fully integrated platform capable of operating in forward locations, mobile command posts, maritime platforms, and expeditionary mission environments.

System Architecture

The Raven architecture combines compute, networking, and security into a unified platform. The Raven SDN switch forms the core network fabric and enables deterministic traffic control, segmentation, and centralized network policy management through an SDN controller. The ICS360 Defender provides the following: deep packet inspection (DPI), firewall protection, and VPN capability for external connectivity/cyber defense.

Mission compute servers provide state-of-the-art high-performance processing for AI workloads, ISR processing, data analytics, and command applications. The SDN architecture allows traffic to be dynamically controlled and segmented based on mission policies.



Data Flow and Network Operation

1. Edge sensors, operator workstations, and mission systems connect to the Raven SDN switch which provides the primary network fabric.
2. The SDN controller defines network segmentation policies and determines how traffic flows across the system.
3. Mission data such as ISR sensor feeds, AI workloads, and command system traffic are routed directly through the Raven SDN fabric to the mission compute servers.
4. Traffic requiring security inspection or external connectivity is automatically routed through the ICS360 Defender cybersecurity gateway.
5. The Defender performs firewall inspection, deep packet inspection, and VPN termination before traffic is allowed to reach external networks such as SATCOM, coalition networks, or enterprise infrastructure.
6. The integrated architecture provides deterministic network control, enhanced cyber protection, and high-performance processing at the tactical edge.

RAVEN

TACTICAL COMPUTING

RUGGED | RELIABLE | READY FOR ANY MISSION



Typical Mission Applications

- Tactical edge computing
- Distributed ISR processing
- AI inference at the edge
- Mobile command posts
- Cyber defense operations
- Maritime and expeditionary networks
- Autonomous system operations
- Coalition and multi-enclave networks

Software Defined Networking Specs

Specification	Description
Ports	24x 1Gb Ethernet + 4x 10Gb SFP
Networking Model	Software Defined Networking (SDN)
Control Protocol	OpenFlow compatible
Network Modes	Layer 2 SDN or Layer 3 routing
Management	Centralized SDN controller
Segmentation	Mission-based network segmentation
Security	Supports zero-trust architecture and micro-segmentation
Deployment	Short depth 1U rugged switch suitable for tactical racks
Operating Temperature	-40°C to +60°C

Server System Specifications

Component	Specification
Server Platform	2U High-Performance Tactical Server
Processors	Intel/AMD CPU architecture
Memory	Up to 1TB DDR5 memory
Storage	Up to 512TB high-speed storage
GPU Acceleration	Integrated GPU for AI and HPC workloads
Deployment	Deployable rack or transit case integration

ICS360 Defender Cybersecurity Gateway Specifications

Specification	Description
Form Factor	1U rackmount cybersecurity appliance
Network Interfaces	8x 1Gb Ethernet + SFP uplinks
Security Functions	Firewall, deep packet inspection (DPI), VPN gateway
Industrial Protocol Security	Inspection of OT/ICS protocols
Deployment Role	Secure gateway between mission networks and external networks. Supports secure remote access and VPN termination.

About Us

Raven Tactical Computing has over 40 years' experience in the use, design, development and manufacturing of defense and industrial computing hardware solutions. With a defense pedigree born out of actual experience and the use of the technology in combat environments, we understand our customers and their expectations when it comes to real world environments. Our manufacturing is vertically integrated, from the metal on up, we design and manufacture in-house to assure quality and speed of delivery.

USA DESIGNED • MOSA ALIGNED • MISSION READY

