

Advantech and Wind River: Harnessing the Intelligent Edge

Enterprises and communication service providers (CSPs) are embracing edge computing, propelled by their plans for IoT expansion, 5G deployments, AI at the edge, and demand for real-time analytics. Open, adaptable, and secure edge platforms let those organizations efficiently deploy private 5G, SD-WAN, Managed Detection and Response (MDR), and AI workloads.

To serve their organizations' needs, Advantech and Wind River offer integrated platforms optimized for cloud-to-edge deployments. Enterprises and CSPs can use the Advantech FWA-6072 edge server with eLxr Pro™ from Wind River to harness the intelligent edge in industries including telecommunications, industrial automation, and enterprise IT.



Advantech FWA-6072 edge server

WHERE THIS JOINT SOLUTION EXCELS

This vendor collaboration is particularly valuable for demanding scenarios such as:

- **Private 5G and virtualized telecom edge:** Rapid deployment of containerized private 5G networks serving industrial campuses, logistics hubs, and smart cities.
- **Enterprise software-defined wide area networks (SD-WAN) and secure access service edge (SASE):** Secure branch connectivity and workload orchestration.
- **Industrial automation and IoT security:** Real-time edge analytics and operational technology security in manufacturing and industrial networks.
- **Mission-critical systems:** Aerospace, defense, and healthcare edge environments that require the utmost reliability, compliance, and security.
- **Systems relying on MDR:** Organizations that rely on cybersecurity services to provide proactive threat detection and incident response. MDR often offers 24/7 monitoring, acting as an outsourced security operations center (SOC), helping organizations bolster their defenses.

REASONS TO CHOOSE ADVANTECH AND ELXR PRO

Customers benefit in several key ways:

The solution is integrated: Advantech's hardware and Wind River's software are validated together to ensure seamless deployment, lower risks, and faster time-to-market.

You get confidence-inducing security and stability: CSPs and related industries have strict compliance requirements. Enterprise-grade long-term support accompanied by responsive security fixes resolve those concerns. Global service footprint, local customization, and expert professional services reduce operational complexity and costs.

Everything is open and flexible: You get complete control without vendor lock-in, enabling custom solutions tailored to unique edge environments and workloads.

ABOUT ADVANTECH: ROBUST EDGE INFRASTRUCTURE

Advantech is a global pioneer in IoT, edge computing, and industrial automation whose strengths include:

- **Industry leadership and broad portfolio:** Advantech offers modular, carrier-grade white-box appliances covering environments that range from core data centers to far-edge environments.
- **High performance and scalability:** The Advantech FWA server series supports Intel® Xeon® and AMD EPYC processors with flexible network expansion via mezzanine cards, optimized for Network Functions Virtualization (NFV), SD-WAN, universal customer premises equipment (uCPE), MDR, and secure edge compute.
- **Operational excellence:** Advantech platforms comply with Network Equipment-Building System (NEBS) with redundant power, Intelligent Platform Management Interface (IPMI) remote management, and global logistics.

ABOUT ELXR PRO: ENTERPRISE-GRADE SECURE LINUX OS

eLxr Pro brings several advantages to the intelligent edge:

- **Open source and commercial support:** eLxr Pro is a Debian-based, upstream-aligned Linux distribution designed for cloud-native workloads with container/Kubernetes support and hardened security.
- **Long-term stability and security:** Wind River offers 10 years of service-level agreements, accelerated vulnerability management, and a compliance roadmap (e.g., FIPS 140-3, STIGs) to ensure mission-critical reliability.
- **Performance optimization:** eLxr Pro is tuned for edge AI, low SWaP environments, and complex telecom and enterprise use cases, with expert professional services for migration and workload tuning.

PRODUCT SPOTLIGHT

eLxr Pro	
Feature	Description
Base distribution	Debian-derivative Linux distribution with an upstream-first approach to ensure software freedom and community-driven innovation
Security	Accelerated CVE remediation, future support for FIPS 140-3, STIG compliance, and expert vulnerability management
Long-term support	Up to 10 years of technical support, security patches, and defect fixes
Performance optimization	Tuned for commercial off-the-shelf hardware, silicon accelerators, and container workloads (including Kubernetes)
Professional services	Migration support, workload performance tuning, and use case optimizations for mission-critical applications
Cloud-native ready	Supports container runtimes, Kubernetes orchestration, and streamlined edge deployment

Advantech FWA-6072 Edge Server	
Feature	Specifications and Benefits
Form factor	2U rackmount network appliance
Processor	Single/dual 4th or 5th Generation Intel Xeon scalable processors (up to 60 cores single, 104 cores dual)
Memory	Up to 16 DDR5 ECC RDIMM slots for high throughput and large dataset handling
Network expansion	8 Advantech Network Mezzanine Card (NMC) slots supporting diverse Ethernet/optical interfaces
Storage	Hot-swappable 2.5" bays for flexible, redundant storage
PCIe expansion	2 FH/HL Gen5 PCIe x16 slots for accelerators, GPUs, or specialized NICs
Security acceleration	Intel QuickAssist Technology (QAT) up to 200G crypto acceleration
Reliability and management	Redundant power supplies, hot-swappable fans, IPMI v2.0 remote management with web interface
Typical use cases	NFV edge/core networking, enterprise data center security, unified communications, SD-WAN, MDR

