Wind River and Rakuten Symphony Cloud-Native Storage Enable Intelligent Infrastructure

Enterprises are evolving their IT infrastructure to support digital transformation, AI-driven insights, and edge computing. The combination of Wind River® Cloud Platform and Rakuten Cloud-Native Storage delivers a cloud-native foundation that enables high performance, scalability, and operational efficiency across data centers and edge environments.

CHALLENGES FOR THE EDGE

Enterprises face significant challenges at the edge, including processing limitations, multi-vendor complexity, multiple configurations, slow feature rollout, and environments that are not ready for AI/ML workloads. These issues often increase costs and decrease the liklihood of achieving full regulatory compliance, data resilience, and security.

To address these pain points, Wind River and Rakuten Symphony have integrated cloud and advanced storage solutions with edge infrastructures. This solution reduces processing bottlenecks and enables local, real-time data handling — overcoming traditional edge processing limitations and accelerating feature deployments.

Wind River and Rakuten Symphony solve the challenges facing modern enterprises through these performance pillars:

- **Centralized management via the cloud** that streamlines operations across diverse vendors and configurations.
- **Cloud-native platforms** that provide the scalability and flexibility necessary to support evolving AI/ML use cases.
- **Combined cloud and edge architecture** that strengthens data security, enhances regulatory compliance, and improves resilience against outages, all while enabling cost-effective scaling and simplified updates.

SOLUTION OVERVIEW

As shown in Figure 1, the individual elements of this solution are:

- **Wind River Cloud Platform:** A production-grade, Kubernetes-based infrastructure platform optimized for distributed computing, real-time performance, and zero-touch automation.
- **Rakuten Cloud-Native Storage:** A scalable, application-aware, software-defined storage solution built for cloud-native environments, offering full-service data protection and disaster recovery services. It provides high throughput at scale, low latency, and seamless integration with containerized and VM workloads.
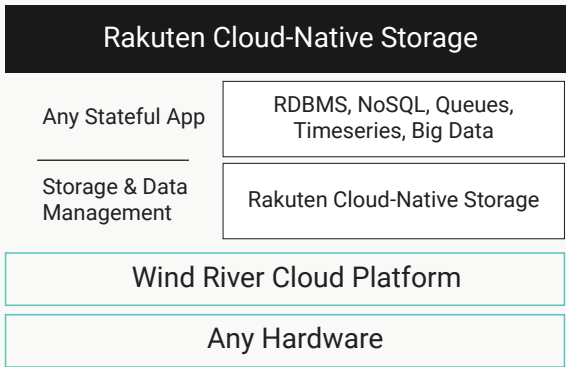
Rakuten Cloud-Native Storage	
Any Stateful App	RDBMS, NoSQL, Queues, Timeseries, Big Data
Storage & Data Management	Rakuten Cloud-Native Storage
Wind River Cloud Platform	
Any Hardware	

Figure 1. Overview of Rakuten Cloud-Native Storage

CUSTOMER VALUE AND BENEFITS

The Wind River/Rakuten Symphony solution provides productivity and cost-efficiency benefits, including:

Cloud-native agility for enterprise workloads to accelerate innovation cycles and reduce time-to-value for new applications

- Supports containerized applications across hybrid and multi-cloud environments
- Enables rapid deployment, scaling, and lifecycle management of enterprise services

Scalable and resilient infrastructure to deliver enterprise-grade reliability and performance for mission-critical workloads

- Ensures deterministic performance and high availability across distributed nodes
- Provides data protection and disaster recovery storage that dynamically scales to meet growing data demands without disruption

AI and data-intensive application optimization to unlock insights from data and increase efficiencies

- Supports AI/ML training and inference with high-throughput storage and low-latency compute
- Features configurations primed for edge AI, real-time analytics, and data lake architectures

Simplified operations to improve operational efficiency and lower TCO

- Includes zero-touch provisioning, automated updates, and centralized management to reduce operational overhead
- Provides data protection for the entire application and data pipeline to streamline disaster recovery and eliminate the need for expensive proprietary hardware

Secure and future-ready architecture to protect IT investments and ensure long-term scalability and compliance

- Conforms to open standards, with both integrated security and long-term support
- Responds to evolving enterprise needs, including edge computing, Industry 4.0, and hybrid cloud

USE CASE EXAMPLES

The Wind River/Rakuten Symphony solution provides industry-specific benefits for a wide variety of sectors, including:

Manufacturing

- **Use case:** Real-time quality inspection using AI at the edge.
- **Value:** Wind River enables deterministic compute at factory floors, while Rakuten Symphony's storage supports high-speed video, computer vision, and sensor data ingestion and retention.

Healthcare

- **Use case:** AI-assisted diagnostics and secure medical imaging storage.
- **Value:** Enables HIPAA-compliant, low-latency access to imaging data and AI models for faster diagnosis and treatment planning.

Retail

- **Use case:** Smart checkout, AI-enabled inventory management and customer behavior analytics.
- **Value:** Edge compute processes video and sensor data in real time, while cloud-native storage supports scalable data lakes for trend analysis.

Financial Services

- **Use case:** Fraud detection and real-time risk analytics.
- **Value:** High-performance infrastructure supports low-latency transaction processing and AI-driven anomaly detection.

Energy and Utilities

- **Use case:** Predictive maintenance and grid optimization.
- **Value:** Edge-native architecture supports remote monitoring and analytics in harsh environments, reducing downtime and improving efficiency.

THE FUTURE OF OPTIMIZATION

The combination of Wind River Cloud Platform and Rakuten Cloud-Native Storage provides a robust, enterprise-ready foundation for modern IT infrastructure. It empowers organizations across industries to scale intelligently, operate efficiently, and innovate faster — whether in the data center, at the edge, or across hybrid cloud environments.

About Wind River

Wind River is a global leader in delivering software for the intelligent edge. For more than four decades, the company has been an innovator and pioneer, powering billions of devices and systems that require the highest levels of security, safety, and reliability. Wind River software and expertise are accelerating digital transformation across industries including automotive, aerospace, defense, industrial, medical, and telecommunications. The company offers a comprehensive portfolio supported by world-class global professional services and support and a broad partner ecosystem.

To learn more, visit Wind River at www.windriver.com.

About Rakuten Symphony

Rakuten Symphony is reimagining enterprises and telecom, changing supply chain norms and disrupting outmoded thinking that threatens the industry's pursuit of rapid innovation and growth. Based on proven modern infrastructure practices, its advanced storage solution makes it possible to launch and operate advanced services in a fraction of the time and cost of conventional approaches, with no compromise to network quality or security. Rakuten Symphony has operations in Japan, the United States, Singapore, India, South Korea, Europe and the Middle East Africa region.

For more information about Rakuten Symphony's offerings, visit cloud.rakuten.com.

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