



Wind River Private Cloud Suite: A Modern Telco Cloud Platform for the Intelligent Network Era

Telecommunications networks are entering a new phase. Infrastructure requirements extend beyond throughput and latency.

Edge computing, 5G, artificial intelligence, and autonomous operations push traditional architectures past their limits. Closed, monolithic systems and fragmented cloud deployments can no longer support the speed, resilience, and operational efficiency that networks require. Telco operators must deliver adaptability and uncompromising performance at massive scale, across incredibly distributed environments.

With Wind River® Private Cloud Suite, telco operators can resolve these challenges with an open, cloud-native platform that modernizes infrastructure end to end, across IT, network, and edge domains while preserving the performance and reliability expected of any mission-critical environment.

By combining bare-metal performance, intelligent automation, and real-time operational insight, Private Cloud Suite enables telco operators to build secure, scalable, and adaptive networks that are ready for today's 5G deployments and engineered for the demands of tomorrow.

A UNIFIED, FUTURE-READY TELCO CLOUD

Together, Wind River Cloud Platform, Wind River Conductor, and Wind River Analytics create a future-ready telco cloud that is:

- **Secure:** Enforcing policy consistently across domains
- **Intelligent:** Including embedded automation and real-time insight
- **Unified:** Spanning IT, operational technology, network, and edge environments

This integrated approach allows telco operators to modernize their infrastructure without sacrificing performance or reliability — while positioning the network to support emerging services, AI-driven workloads, and evolving regulatory requirements.

THE EVOLUTION OF THE NETWORK

Faster connectivity is only the beginning of technology requirements. Today's networks must:

- Deploy and scale services dynamically
- Optimize performance in real time
- Anticipate and resolve failures before they impact customers
- Operate consistently across core data centers, regional hubs, and far-edge sites

WIND RIVER PRIVATE CLOUD SUITE

Private Cloud Suite combines the platform with essential cloud management tools that help customers build and operate resilient, scalable, and secure private clouds. They simplify procurement and reduce operational overhead.

Wind River Cloud Platform

A commercially hardened cloud infrastructure, based on StarlingX, optimized for mission-critical edge deployments. Cloud Platform integrates Kubernetes, OpenStack, and automation features to deliver high-performance, small footprint, and ultra-reliable cloud infrastructure. Cloud Platform supports virtual machine (VM) and container workloads with integrated security, lifecycle automation, and analytics.

Wind River OpenStack

Commercialized OpenStack services deployed as containers run natively on Cloud Platform's Kubernetes infrastructure.

Organizations can manage legacy VM-based workloads alongside new container workloads. The unique architecture offers simplified upgrades and unified lifecycle management.

Wind River Conductor

A centralized orchestration, automation, and management tool manages distributed deployments, software services, and infrastructure across clouds and subclouds.

With its zero-touch orchestration and automation for multi-cloud architecture, Conductor includes application catalogs, drag-and-drop deployment, and policy-based automation.

Wind River Analytics

A full-stack monitoring and analytics tool collects, processes, and visualizes data across cloud nodes.

Analytics provides useful insights, proactive alerts, and comprehensive reporting so private clouds stay up and optimized.

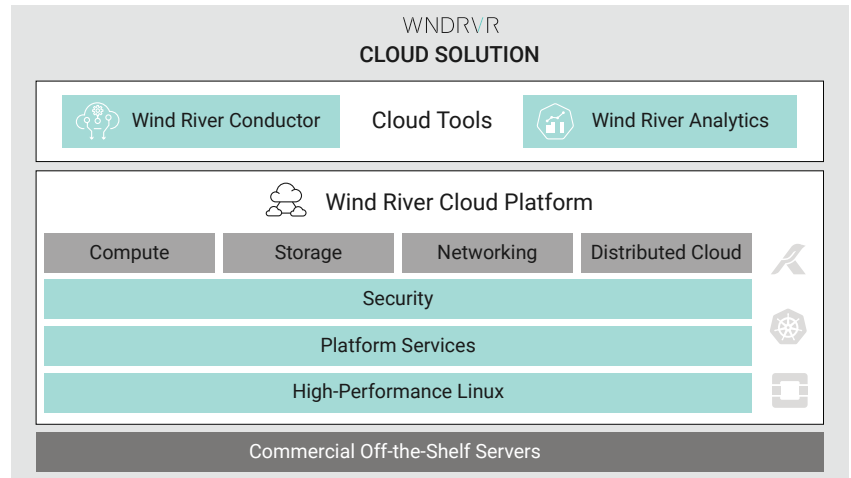
A successful transition requires a shift from rigid, siloed infrastructure to cloud-native architectures that can adapt continuously.

Wind River is ready to help. Our telco cloud solution delivers reliable high performance for network workloads, accompanied by the openness, scalability, flexibility, and automation that operators demand. Networks become a predictive and continuously optimized system across RAN, core, and IT, supporting both current services and future innovations.

A UNIFIED CLOUD SOLUTION FOR TELCO MODERNIZATION

At the core of Private Cloud Suite is a distributed cloud architecture built expressly for the unique requirements of telecommunications.

Most conventional cloud-native platforms are designed primarily for centralized IT environments. Their architectures assume large, homogeneous clusters optimized for enterprise IT applications running in centralized data centers. While this model scales well in a core data center, it is difficult to adapt to smaller, space- and power-constrained distributed sites. The result is cloud operations fragmented across centralized IT domains and distributed edge and RAN environments, which increases operational complexity.



Wind River delivers consistent cloud operations across the entire network topology, from centralized core data centers to thousands of distributed edge and RAN sites. Operators can seamlessly deploy, scale, and maintain services. The result is a modern telco cloud platform that supports today's workloads and remains adaptable to future demands.

Key characteristics include:

- End-to-end operational consistency across IT, network, and edge domains
- A unified management interface that gives staff visibility and control
- Zero-touch deployment and lifecycle management for large-scale, geographically dispersed environments

This is cloud done differently. Telco operators need an open, lightweight architecture that delivers:

- Bare-metal performance for latency- and throughput-sensitive workloads
- Microservices-based agility for rapid innovation
- Efficient operations across every network layer

OPERATIONAL CONTINUITY ACROSS RAN, CORE, AND IT

Cloud Platform enables operators to apply a consistent cloud operating model across network and IT environments, aligning RAN, core, and IT.

Built on success in large-scale RAN deployments, the platform gives telco network and IT workloads SLA-backed performance, unified lifecycle management, and intelligent automation without compromise.

Rather than extending cloud capabilities from a single domain, Cloud Platform establishes a common operational foundation that spans centralized and distributed environments. Operators can:

- Run cloud-native and virtualized network functions with bare-metal performance.
- Maintain consistent operational models across centralized and distributed sites.
- Apply the same automation, observability, and policy controls across RAN, core, and IT.
- Treat the entire environment as a single, coherent cloud fabric.

INTELLIGENT AUTOMATION

Manual operations become unsustainable as networks grow. Automation is no longer optional. It's a baseline requirement.

Conductor delivers intelligent orchestration and automation to manage deployments, updates, and scaling across the distributed cloud fabric with zero-touch precision. Capabilities include:

- Policy-based blueprints that standardize deployments
- Closed-loop automation that continuously enforces the desired state
- Lifecycle management across thousands of distributed nodes

By embedding automation into the operational fabric, Conductor enables operators to reduce human error, accelerate time-to-service, and maintain consistent compliance across environments. The result is a network that scales predictably and efficiently.

REAL-TIME INSIGHT AND PREDICTIVE OPERATIONS

Operational intelligence is critical for sustaining performance in distributed networks.

Analytics provides deep, real-time observability by collecting and correlating telemetry across the entire infrastructure stack. It enables operators to:

- Detect anomalies immediately.
- Anticipate issues before they impact services.
- Optimize resource utilization dynamically.
- Maintain mission-critical performance under changing conditions.

With AI-assisted analysis, operators move from reactive operations to predictive and proactive network management, a critical step toward autonomous operations.

REDEFINING HOW NETWORKS ARE BUILT AND OPERATED

Wind River delivers bare-metal performance, flexibility, and management. Together, these capabilities redefine how telecommunications networks are built, managed, and evolved. They are delivered by a company founded on an understanding of mission-critical systems across RAN, core, and IT, and spanning industries and sovereign boundaries.

Wind River provides the foundation for the modern telco cloud: open, intelligent, and engineered for whatever comes next.

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