



TELUS: FIRST TO DEPLOY OPEN RAN IN CANADA

Telus is one of the three largest communications and information technology companies in Canada, with \$18 billion in annual revenue and 15.2 million customer connections spanning wireless, data, IP, voice, television, entertainment, video and security, healthcare, and agriculture.

The Canadian government has mandated that Huawei solutions be removed from service provider networks by 2027. Telus is using this mandate as an opportunity to introduce Open RAN (O-RAN) with deployment ambitions for 2024 and is striving to be the first in North America to adopt a fully O-RAN-compliant 5G network.

THE CHALLENGE

Open RAN is a relatively new technology, with complex integration issues, changing standards, and varying levels of support from within the vendor ecosystem. Deploying and maintaining a disaggregated vRAN solution is different from handling a traditional network, and operational teams need to quickly learn and adopt new technologies, standards, skills, and methods. And while legacy RAN does not offer the same flexibility as O-RAN, it is a known solution that can be attractive to some operators.

Telus had several challenges to deal with:

Integration with existing systems: Telus had to ensure smooth integration with its existing and complex brownfield network environment. This included supporting 4G and 5G network systems and applications, minimizing disruptions, and ensuring compatibility with the newly implemented O-RAN technology.

Adhering to industry standards: Telus had to confirm that the multi-vendor O-RAN technology met industry standards and regulations while improving the network's overall performance and reliability.

Transitioning from traditional deployment: Telus had to transition from its legacy, monolithic, single-vendor deployment model to a disaggregated, multi-vendor O-RAN-based deployment model, requiring the adoption of new processes, procedures, and technologies.



A Canadian national telecommunications company that provides a wide range of products and services, including Internet access, voice, entertainment, healthcare, video, smart home automation, and IPTV

Industry

Telecommunications

Solution Used

Wind River® partnered with Telus and Samsung to deploy the entire Wind River Studio solution, including Studio Conductor, Studio Cloud Platform, and Studio Analytics.

Benefits

The benefits of O-RAN include:

- Cost savings
- Vendor flexibility
- New use cases at the edge to generate new revenue
- Network maintenance and limited operations disruptions
- Improved performance and reliability



"We are looking forward to having more and more TCO savings."

—Sushil Rawat, Director, RAN Strategy, Telus

THE APPROACH

Wind River has years of deployment experience, which was a key factor in the Telus selection of Wind River Studio. We were able to demonstrate our ecosystem integration and industry-leading performance through lab activities, which increased confidence that Telus would be able to successfully replace Huawei with an O-RAN solution within the mandated time frame.

"It's not as complicated as has been said. It's very straightforward. We could do this system integration work in less than six months."

—Sushil Rawat, Director, RAN Strategy, Telus

The Wind River solution included Wind River Studio Cloud Platform, Wind River Studio Conductor, and Wind River Studio Analytics, all integrated with COTS hardware and Samsung RAN applications.

This deployment is the first instance of utilizing the entire Wind River Studio solution in the Americas. Initially, the solution was deployed at sites in urban areas in Ontario, and the positive performance drove the decision to push forward and implement on 50% of the network over the next few years.

"You have removed your dependence on hardware, [and] now you have the capability to improve your TCO on a regular basis."

—Sushil Rawat, Director, RAN Strategy, Telus



Telus's successful implementation of the multi-vendor O-RAN technology demonstrated its commitment to providing customers with reliable, flexible, and high-performing networks. The Wind River solution helped Telus improve network performance and reliability, reduce network complexity, and achieve significant cost savings. The adoption of multi-vendor O-RAN technology, made possible by Wind River, has enabled Telus to maintain its position as an innovation leader in the telecommunications industry.

THE RESULT

Open RAN lets Telus simplify what had been a complex site design by reducing the number of radios, lowering both operational costs and the energy consumed at each site. It also diversifies the supply chain, helping Telus drive down capital expenditures and TCO, all while complying with the government mandate. Advantages have included:

Reduced time-to-market and improved adoption: A pre-tested and pre-integrated hardware-plus-software solution that Studio provided with Samsung dramatically improved adoption experience and time-to-market.

Improved network performance and reliability: The adoption of multi-vendor O-RAN technology provided by Wind River enabled Telus to continually improve its network performance and reliability, reducing downtime and improving speed and coverage.

Reduced network complexity: By eliminating dependence on a single hardware supplier, made possible by Wind River CaaS platform architecture, Telus achieved more control over its network, reducing complexity and improving flexibility.

Cost savings: The O-RAN technology's software-based approach, enabled by the Wind River cloud-native platform, helped Telus reduce hardware and infrastructure costs, resulting in significant savings for the company.

Compliance and standards: The multi-vendor O-RAN technology allowed Telus to comply with the Canadian government mandate as well as industry standards and regulations, while providing improved network performance and reliability and ensuring that the network's users are satisfied with coverage and latency.

"What we are observing is that, in many areas, O-RAN performs even better than traditional RAN."

—Sushil Rawat, Director, RAN Strategy, Telus

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