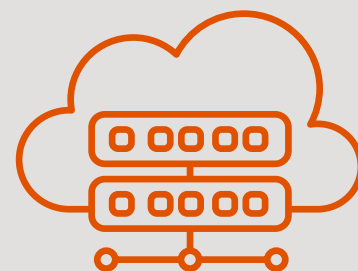


# AUTOMATION

BRINGING AGILITY, INNOVATION, AND COST-SAVINGS THROUGH  
PARALLEL WIRELESS CLOUD-NATIVE OPEN RAN

## IMPROVING PROFITABILITY IS KEY FOR MNOS

MNOs around the world are facing several common challenges: economics, vendor diversity, innovation, and end-user experience. Operator revenue is not growing at the rate the data growth is happening. Costs are increasing significantly; thus, improving profitability is key. Vendor diversity and innovation are pivotal so operators can pursue new revenue opportunities and maintain competitive advantage. It is also imperative that operators provide best-in-class end-user experience through Quality of Service (QoS), SLA and support.



## WHY AUTOMATION IS IMPORTANT

What do operators need to address these challenges? Operators are looking for cost reduction in both CAPEX and OPEX – and RAN is one of the biggest cost factors for operators. It is also one of the most challenging areas when introducing new features and services. Tackling the RAN will have the biggest impact on optimizing cost and delivering innovation with more agility in the solution. With traditional legacy solutions, however, operators must often wait several months to receive feedback on newer services which hinders innovation.

Operators need agility to launch newer features with faster time to market as well as implementing bug fixes faster. They need flexibility for hosting functions in different types of infrastructure, such as public/private/hybrid cloud. They need an efficient solution with elasticity that can scale up and down as the network requires and that optimizes the utilization of resources and reduces power consumption, which will help significantly reduce cost.

This is where a cloud-native, All G O-RAN compliant Open RAN approach with automation, such as the one offered by Parallel Wireless, can provide the agility and flexibility operators need.

CAPEX is significantly reduced with a software-based, virtualized Open RAN solution. At the same time, automation and orchestration help operators realize significant OPEX savings.

## AUTOMATION IN THE PARALLEL WIRELESS ALL G CLOUD-NATIVE OPEN RAN SOLUTION

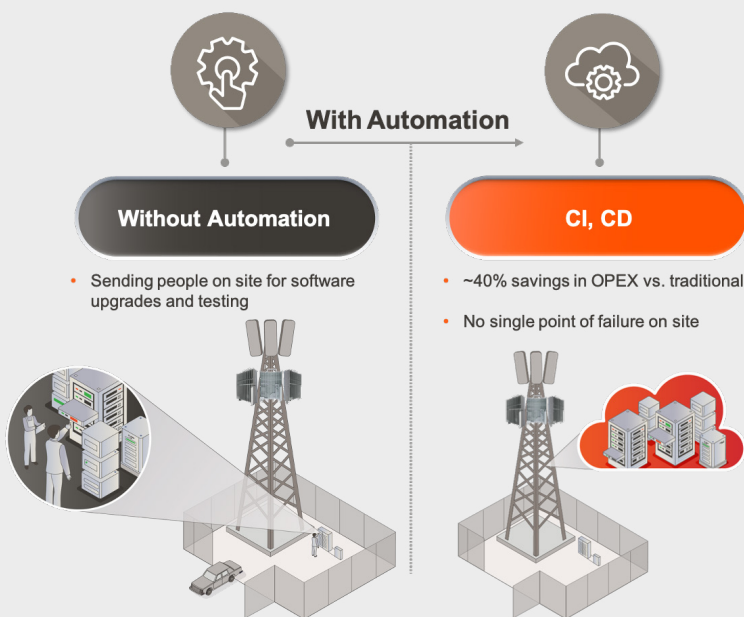
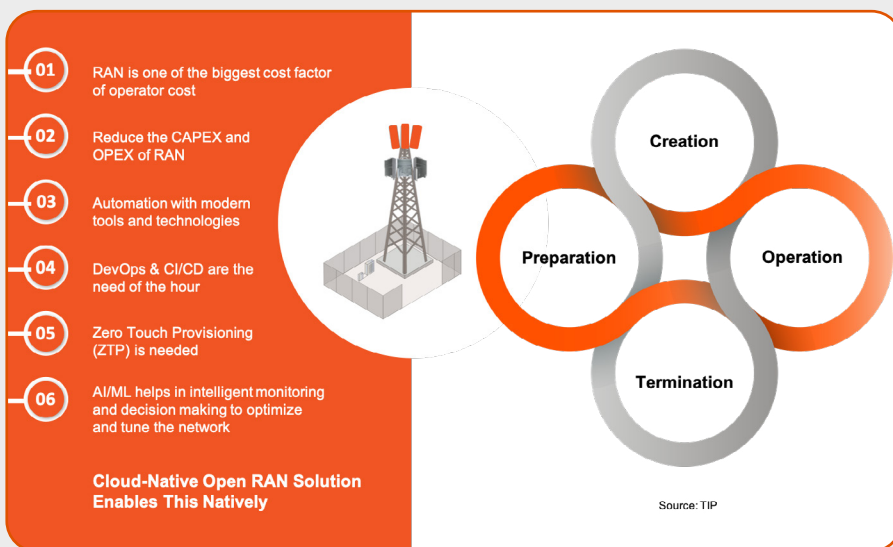
Automation with modern tools and technologies can bring in several advantages and help in different stages of network deployment, starting with preparation to roll out a network or a new service, followed by implementation of the rollout, then operating and monitoring the network after rollout. Automation also helps when shutting down or scaling down the network or services as needed.

Parallel Wireless's ORAN-compliant, All G Open RAN solution has natively built-in AI/ML framework into the RAN architecture with Near-RT & Non-RT RAN Intelligence Controller Functions. With the help of rApps and xApps, the solution integrates AI/ML-based decision-making. ML models are trained in Non-RT RIC rApps based on data received from different network functions for analysis. These are then used for inferencing and act accordingly in other RAN nodes to fine-tune the network, providing the best end-user experience.

The CI/CD approach found in Parallel Wireless cloud-native Open RAN provides agility and flexibility for operators to launch new features, implement bug fixes and execute software upgrades. Through the automation offered with the Parallel Wireless Open RAN solution, CI/CD software enables upgrade/downgrade to be done in seconds or minutes with no manual intervention – leading to significant reductions in cost, time, and errors compared to sending workers on-site for upgrades and testing.

## ADVANTAGES OF CLOUD AUTOMATION

- Automates management and operations of infrastructure
- Manages compute, storage, and networks
- Automates common repetitive tasks
- Reduces administrative overhead
- Facilitates application lifecycle management
- Reduces time and effort
- Increases resource utilization and power consumption efficiency



## ADVANTAGES OF ZTP

- Automated software installation and configuration
- Decreased complexity
- Reduced time, error, and cost
- Safe for RAN installation
- Simplifies deployment of multiple sites since no site visits are needed

## SUMMARY

Parallel Wireless's All G, O-RAN Compliant, Cloud-Native Open RAN solution provides operators with the agility, elasticity, flexibility, interoperability and cost savings they need to improve profitability, enable innovation, and deliver the high quality of service end-users demand.