



OPTIMIZING TOTAL COST OF OWNERSHIP FOR MOBILE NETWORKS

EVOLVING MARKET DEMANDS

The following elements can impact the success of networks as they shift to meet evolving market demands:

1. Ability to lower CAPEX or upfront investment when building or expanding any given network
2. Adjusting the network to changing regulatory constraints for service/spectrum/coverage etc.
3. Ability to quickly add new resources, such as new layers of additional frequencies or adding new spectrum

These considerations will directly impact each MNO's ability to lower service prices and support a valid business plan. There is a common theme – the market expects more value for lower cost. This will be challenging for MNOs to achieve without a significant breakthrough in every aspect named above.

THE CHALLENGE

MNOs are facing a growing dilemma when it comes to managing the rising costs of operating their networks. The move toward 5G network architecture and services is one of the main drivers for Open RAN. Legacy network design cannot scale in terms of performance and cost in the way MNOs require to meet market demands as data growth skyrockets. Added infrastructure investment will be needed to accommodate and enable the required service ramp-up MNOs must deliver. This investment is comprised of hardware CAPEX across the network and can translate to radios, antennas, towers and even additional small cells to enhance service in black spots. This added infrastructure also leads to increased OPEX, such as enhanced transmission layers to backhaul this significant traffic into the CUs or larger frequency slices and frequency bands to enhance the data rate capacity.

THE IMPACT OF RAN ON TCO

The RAN is at least 60% of any cellular network TCO when combining CAPEX and OPEX. It could be even more depending on each individual network, especially when considering 5G and future network and service requirements. Legacy RAN solutions prevent MNOs from reaping the benefits of virtualization, interoperability, and cost savings.



By contrast, Parallel Wireless Open RAN is all about open, generic, predefined interfaces between each building block within the RAN ecosystem (RU/DU/CU/RIC). This includes one of the primary advantages: the ability to independently mix and match between any certified hardware and software vendor within the ecosystem – and this is the component that can enable global MNOs to leverage competitive advantage, lower costs, and implement best-of-breed solutions.

	 Lower CAPEX	 Lower OPEX
 Multi-Band RRH	Less HW per site (RRHs) ✓	Less power, less physical space ✓
 Multi-RAT DU	Less HW per site (Baseband) ✓	Less power, less physical space ✓
 Efficient Power Management	Less HW per site (Batteries/Solar) ✓	Less energy, increased efficiency, increased availability ✓
 Automation	No change ✓	Less site visits, quicker deployments, increased availability ✓
 Licensing Cost	No change ✓	Dynamic licensing plans due to multi-RAT systems ✓
 Open Interfaces	Lower HW costs, increased competitiveness ✓	Less vendor dependency, reduced service cost ✓

HOW PARALLEL WIRELESS OPEN RAN CAN HELP DELIVER THE LOWEST TCO

Parallel Wireless can help MNOs achieve TCO savings through the following benefits:



SITE ACQUISITION

Parallel Wireless Open RAN does not require expensive towers and can be installed anywhere while leveraging multi-RAT capable solutions and minimizing actual site footprint and power requirements.



EQUIPMENT

The interoperable Parallel Wireless Open RAN approach enables vendor diversity and cost reduction.



INSTALLATION

Self-configuration and self-optimization are possible with Parallel Wireless Open RAN Zero-Touch Provisioning (ZTP) approach leveraging our Controller and Business Intelligence (SON) modules.



MAINTENANCE

Automation helps reduce OPEX.



BACKHAUL

Parallel Wireless's flexible and futureproof backhaul, supporting both satellite and microwave, removes the dependency for expensive and complex fiber backhaul.

SUMMARY

Parallel Wireless is committed helping MNOs to deploy, upgrade, and expand their networks simply and cost-effectively with our leading Open RAN solution.