Intro to OpenRAN

The telecom industry is going through a dramatic change that can be only compared to what data centers experienced in the 2000s – all driven by Moore's Law. This is driving the need to move from costly, proprietary solutions to COTS and open-based ones, and to create a broader vendor supply chain.

The Current Industry Situation

Deploying, maintaining and optimizing networks requires a lot of manual labor and results in high cost. There are traditional, legacy RAN vendors whose solutions are proprietary and siloed for each G. Historically, mobile network operators (MNOs) have been "locked in" to these legacy RAN vendors, which makes maintaining and upgrading networks costly and challenging. However, these challenges can be addressed with the automation/DevOps approach found in Open RAN solutions.

Open RAN (sometimes referred to as ORAN) is a new movement to open up interfaces to reduce cost, driven by the O-RAN Alliance to standardize interfaces and Telecom Infra Project (TIP) to deploy and establish an ecosystem of MNOs and vendors.

There are numerous legacy networks deployed around the globe, which is why Open RAN must address all Gs – including 2G and 3G – because if only 4G and 5G are addressed, MNOs then have two networks to run: legacy and new Open RAN networks. This would be costly and miss the true purpose of the Open RAN movement.

How Parallel Wireless Can Address These Challenges

Parallel Wireless OpenRAN is a software-based solution designed to support ALL Gs (5G, 4G, 3G, 2G and Wi-Fi). It is a unified, cloud-native solution, horizontally distributed, rather than vertical silos found with legacy solutions. This makes Parallel Wireless's software-based OpenRAN easy to manage and delivers cost-savings to MNOs using it to modernize or expand their networks. Parallel Wireless CU/DU separation is for All Gs and supports all splits. And, with our proprietary OpenRAN Controller, it enables interoperability across different hardware and cores. Parallel Wireless's OpenRAN has been deployed in 60 global networks both with TIP and outside of TIP. Parallel Wireless's solution helps redefine network economics for global mobile operators in both coverage and capacity deployments, while also paving the way to 5G. Parallel Wireless's OpenRAN solution is deployed in more than 50 networks (including trials and commercial deployments) around the globe.

The Benefits of Open RAN and How Open RAN is Being Implemented Now

Open RAN's main benefits are cost savings and flexibility, which are not possible with traditional architecture. Open RAN means building a real multi-vendor network with no vendor lock-in.

Everyone is talking about Open RAN, but we still have legacy networks that cannot be switched off. Thailand, for example, was aiming to turn off 2G, but they realized there is a significant user base for 2G/3G – such as credit card terminals – and they elected to keep 2G and 3G running. Taiwan experienced the same thing. This is where an All G Open RAN solution, such as the one offered by Parallel Wireless, can help MNOs modernize 2G and 3G while reducing costs.

For Open RAN implementations, replacements will likely begin at older sites where the technology is outdated. Two major European operators are trying to leverage their power to pressure the legacy incumbent vendors to open the interface to allow multiple vendors. From there, it is likely that MNOs will begin the transition in chunks. Operators are using Parallel Wireless equipment today, and the industry as a whole will illustrate that Open RAN and the Open RAN ecosystem works, leading the movement to become a widespread reality over time.