## Understanding the Different OpenRAN



There are a variety of Open RAN groups and advocacy organizations focused on Open RAN, and it can be a challenge to understand the role each plays in the telecoms industry. In this blog, we will take a closer look at the key Open RAN industry groups, as well as other important initiatives around Open RAN.

## **Telecom Infra Project (TIP)**

The first of the two industry groups who are leading the Open RAN movement is Telecom Infra Project, or TIP. TIP was formed by Facebook in 2016 as an engineering-focused, collaborative methodology for building and deploying global telecom network infrastructure, with the goal of enabling global access for all. TIP is jointly steered by its group of founding tech and telecom companies, which forms its board of directors. It is currently chaired by Vodafone's Head of Network Strategy and Architecture, Yago Tenorio. Member companies host technology incubator labs and accelerators, and TIP hosts an annual infrastructure conference known as TIP Summit.

With over 500 participating member organizations, including operators, vendors, developers, integrators, startups and other entities that participate in various TIP project groups, TIP adopts transparency of process and collaboration in the development of new technologies. All projects are member-driven and employ current case studies to evolve telecom equipment and software into more flexible, agile, and interoperable forms.

As a company, Parallel Wireless is focused on the OpenRAN and OpenRAN 5G NR groups as you may have learned in our <u>educational Open RAN videos</u>. The OpenRAN project group is an initiative to define and build 2G, 3G and 4G RAN solutions based on general-purpose vendor-neutral hardware and software-defined technology. The OpenRAN 5G NR project group, as the name suggests, focuses on 5G NR or New Radio. And why is Parallel Wireless, along with a growing number of the telecom industry, so focused on Open RAN? Because the general consensus is that RAN is 60% of CAPEX and OPEX. Open RAN helps significantly reduce RAN costs and reducing RAN costs can significantly help mobile network operators cut down their CAPEX.

## **O-RAN Alliance**

The second group leading the Open RAN movement is the O-RAN Alliance, which was founded in February 2018 with the intention of promoting open and intelligent RAN. It was formed by a merger of two different organizations, namely the C-RAN Alliance and the XRAN Forum. The C-RAN Alliance consisted of China Mobile and a lot of other Chinese vendors. On the other hand, the XRAN Forum consisted of US, European, Japanese and South Korean vendors and operators. AT&T, China Mobile, Deutsche Telekom, NTT Docomo and Orange were the initial founding operators. Since then many more operators, vendors, integrators, etc. have joined.

Due to an increase in the amount of traffic resulting from better devices, newer applications, faster connections and even generous data plans, a complete paradigm shift is required for mobile networks. While 3GPP does an excellent job of defining these new flexible standards separating the user and control planes and keeping the different implementation options open, organizations like the O-RAN Alliance have an important role in bringing the industry together to create a more software-based, virtualized, flexible, intelligent and energy-efficient network. These goals can be achieved by evolving RAN to a higher level of openness and intelligence, and the O-RAN Alliance does just that. They specify reference designs consisting of virtualized network elements using open and standardized interfaces, and they call for more intelligence in the network through

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