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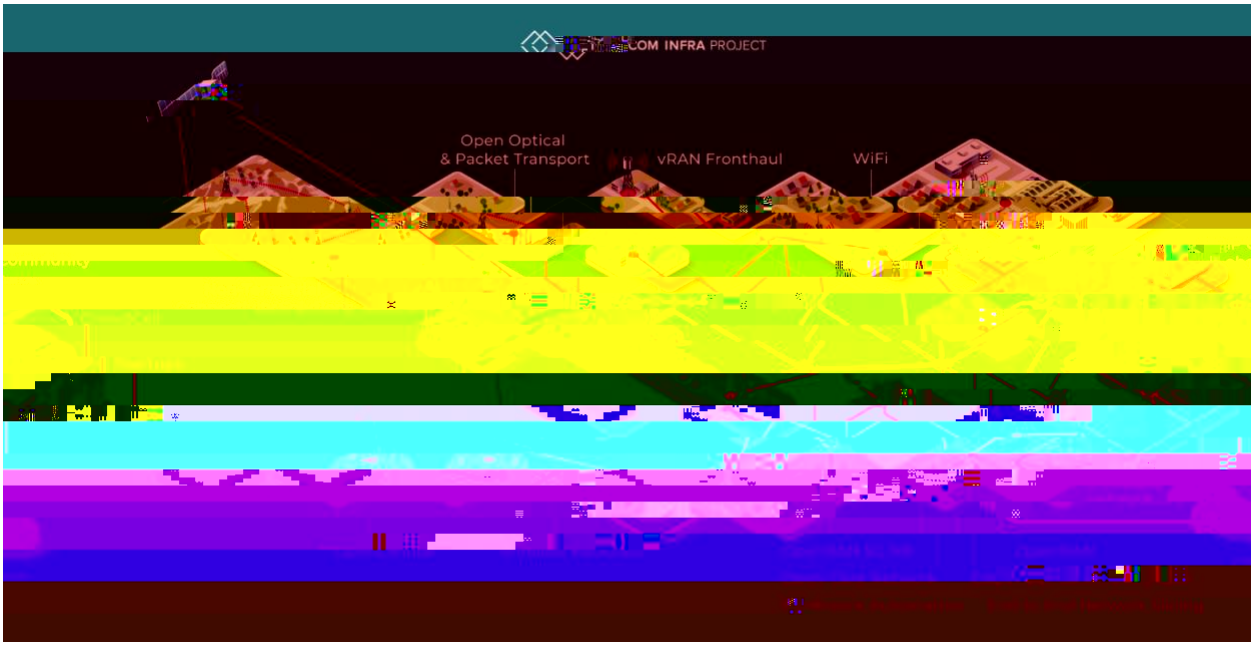

Source: TIP

TIP is jointly steered by its group of founding MNOs and vendors, which form its board of directors, and is currently chaired by Vodafone's Head of Network Strategy and Architecture, Yago Tenorio. Vodafone has been leading efforts within the TIP's OpenRAN initiative since 2016 with three main goals: - 1. to spur innovation through building an ecosystem, 2. to enable supplier diversity and, 3. to reduce deployment and maintenance costs.

As part of TIP, Vodafone is working closely with other mobile operators to accelerate innovation, new technology and business approaches to help the industry build the networks of the future.

There are over 70 mobile operator members now in the TIP membership roster. With more than 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. TIP supports low cost and more competition. They launched PlugFests to accelerate interoperability between vendors, to create a tangible ecosystem and to encourage trials and deployments.

2017

The first OpenRAN trials started in India and Latin America. You might wonder why low ARPU markets became a playing ground for Open RAN? Hint: the answer can be found at the end of this installment.

2018

February: The O-RAN Alliance was formed. It's is a worldwide, carrier-led effort to drive new levels of openness in the radio access network of next-generation wireless systems by creating standards for interoperability – one of the most important being the 7.2 functional split between RU and DU which standardized the use of 3rd party radios. The alliance was formed as a result of a merger of C-RAN Alliance and xRAN Alliance. O-RAN Alliance's original founding operator members were AT&T, China Mobile, Deutsche Telekom, NTT DOCOMO and Orange, but since then many other operators have joined. As in case of TIP groups, the O-RAN Alliance has its own set of working groups.

Source: Keysight

While 3GPP defines the new flexible standards (Release 16 was just finalized on July 3rd) separating the user and control plane and keeping the different implementation options open, the O-RAN Alliance specifies reference designs consisting of virtualized network elements using open and standardized interfaces and calls for more intelligence in the network with the help of information collection from these virtualized network elements. Recently, O-RAN Alliance introduced a virtual exhibition where 38 Open RAN ecosystem partners demonstrate their innovations.

TIP is not writing specs like O-RAN Alliance, but rather TIP is promoting, educating and deploying OpenRAN globally, starting in LATAM in 2016, then with Vodafone in Asia, Europe and DRC and more in Asia with Indosat Ooredo, Smartfren, ad Axiata and most recently with TIM

The main takeaway: Open RAN is now mainstream, with not only industry organizations joining forces to drive the OpenRAN movement forward, but also legacy vendors opening up their RAN – but for 5G only.

How

It is not a surprise that Open RAN started in rural areas, as that is the most challenging market for MNOs and vendors to address – the user penetration is low, the ARPU is low, and the site and backhaul infrastructure is non-existent. With an ALL G OpenRAN solution, MNOs can address cost and deployment challenges of rural markets globally. Minimizing CAPEX/OPEX is important in these low-density areas where there is high uncertainty regarding return on investment. High operational cost and deployment complexity of low-density deployments have prevented MNOs from bringing coverage to those areas in the past. Traditional 2G voice-only and broadband 3G or 4G networks require high-cost and often bulky equipment to deploy and operate. These types of equipment need large spaces to store, have a short life cycle and consume energy. Hardware-based networks are also difficult to upgrade. By shifting networks to virtual Open RAN architectures, telecom operators can overcome all these problems and deliver coverage at a much lower cost.

Now that OpenRAN has been deployed and proven in those low-density areas for 5+ years, MNOs have started deploying OpenRAN in urban locations for network modernization and for 5G. This will allow global mobile operators to have greater buying power as they continue shaping the