



Mobile & Wireless Roundup #62 (see original on [LinkedIn!](#))

By Zahid Ghadialy

Welcome to the 62nd edition of this newsletter. I have attended many discussions where future technological skills shortages have come up as an important topic. In the UK for example, many young people would prefer to study arts, drama and history rather than STEM (Science, technology, engineering, and mathematics). While many different organisations are trying their best to change this, there hasn't been much difference.

I believe that to encourage youth all over the world we need to simplify technology, create stories and make them participate in adventures. Over the years I have learnt how to simplify technology that you can see on our [YouTube](#) channel. I am now working on 'TechKnowledge Technology Stories' series to see if I can create convincing stories.

As far as adventures are concerned, it is a difficult one to crack and requires a lot more effort. A year and a half ago, I [took a colleague](#), who was new to our industry to see 'The Green Planet AR Experience'. While we can debate how much of actual 5G technology was part of that, she loved it and it motivated her to immerse herself in work and technology. We need more adventures like these.

Over the years many people have reached out to me to say they want to help, especially with simplifying technology. Most of these people realise that this will require a lot of effort and while it may be easy to talk and tell stories, it is quite challenging to put them on slides. A minority of these people persevere and manage to create something but it is just not good enough and they realise this. Years ago I heard of a professor who asked students to explain anything they want to explain to him, to a teddy bear outside his office. If they managed to convince the teddy than they can come and explain to him. I think that approach works well 😊.

For those of you who don't know me, I am a technologist with over 24 years' experience in mobile wireless technology, currently working as an independent advisor, analyst, consultant and a trainer.

This newsletter is a summary of my posts and others news that caught my attention since the last newsletter.



6G

- Free 6G Training: TERA6G – Advancing Connectivity with Cutting-edge Transceivers ([link](#))
- 6G World: UK, US and Others Form Coalition to Invest in 6G and Future Tech ([link](#)) – Light Reading: 6G fragmentation may have just gotten a little closer ([link](#))

5G

- 3GPP has decided to continue providing a link to the 5G version of the NetX network map ([link](#))
- How 5G is Transforming APAC: Ten case studies by GSMA APAC highlighting the utility and versatility of 5G technologies ([link](#))
- Dean Bubley on LinkedIn: "This may surprise a few people, as I generally call myself a #5G "slice denier", but this idea of T-Mobile US to have a "security slice" and special SIM for #SASE connections to enterprise / government networks actually seems like a reasonable use of the technology..." ([link](#))

Open & Disaggregated Networks (including Open RAN, vRAN, etc.)

- The 3G4G Blog: Presentations from 2nd IEEE Open RAN Summit ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Four Open RAN Principles ([link](#))

Open RAN Principles [Open RAN principles - GOV.UK \(www.gov.uk\)](https://www.gov.uk/open-ran-principles)

Open disaggregation	• Open RAN breaks from the idea that a single vendor must provide the entire RAN. Instead, it divides the RAN into functional elements provided by different vendors, connected via open interfaces.
Standards-based compliance	• Open RAN solutions should adopt industry-driven standards for all interfaces to ensure RAN disaggregation is sustainable.
Demonstrated interoperability	• Standardized interfaces and protocols between RAN parts are necessary but not sufficient. The equipment must be demonstrably interoperable in realistic environments.
Implementation neutrality	• Open RAN should be neutral to the technologies used for implementation and allows for vendor differentiation and flexible approaches to implementing networks in the right mix of hardware and software.

- Jinsung (Alex) Choi on LinkedIn: O-RAN Slicing enabled by Near-RT RIC ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Multi-Vendor Support with O-RAN Service Management and Orchestration (SMO) ([link](#))

🕒 AI, ML & Automation

- Jinsung (Alex) Choi on LinkedIn - AI Meets O-RAN: Experience O-RAN ALLIANCE's Pioneering RIC xApps/rApps Solutions at MWC Las Vegas 2023 ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Model-Driven O-RAN Automation ([link](#))



Model language	Primary Purpose	Development Background	Key Features	Use Cases	Environment	Supported Protocols/ Platforms	Community & Industry Support	Language	Relevance to O-RAN
TOSCA	Cloud Application Deployment & Orchestration	Developed for interoperable description of cloud services and their orchestration.	- Cloud-Agnostic - Comprehensive Modeling - Standardized	- Cloud Application Deployment - NFV Orchestration	Cloud Environments	Cloud-agnostic; works with various cloud platforms and orchestration tools.	Supported by various cloud providers and used in enterprise cloud orchestration solutions.	YAML	Used for orchestrating and automating cloud-native network functions in O-RAN deployments.
Terraform	Infrastructure as Code (IaC)	Created by HashiCorp for defining, provisioning, and scaling infrastructure.	- Provider-Agnostic - Declarative Syntax - Modular and Reusable Components	- Automated Infrastructure Provisioning - Multi-Cloud Deployment	Cloud & On-Premises Infrastructure	Supports multiple cloud providers and on-premises infrastructure solutions.	Widely adopted with extensive community contributions; supported by major cloud providers.	HashiCorp Configuration Language (HCL)	Facilitates automated provisioning and scaling of infrastructure for O-RAN networks.
YANG	Network Configuration & Management	Developed by IETF for standardizing network device configuration and management.	- Structured Syntax - Protocol-Agnostic - Vendor-Neutral	- Network Device Configuration - Network Automation	Network Devices & Systems	Commonly used with NETCONF, but supports other network protocols.	Widely supported by networking equipment vendors and the network automation community.	YANG data modeling language	Provides standardized data models for configuring and managing O-RAN components.

🕒 Spectrum

- Dean Bublely on LinkedIn: Indoor wireless & the need for unlicensed 6GHz ([link](#))
- 5G Observatory: Poland opens 3.8–4.2 GHz to private networks ([link](#))

🕒 Private Networks

- Private Networks Technology Blog: Fraport AG's Private 5G Network in Frankfurt Airport, Germany ([link](#))
- Belden Presentation on 'Time sensitive networks over private 5G' ([link](#))

🕒 Telecoms Infrastructure, Small Cells, Antennas & others

- Paul Rhodes on LinkedIn: Thursday School : Bigger is Not Always Better ([link](#))
- Dean Bublely on LinkedIn: "It's always interesting to attend non-telecom industry events. Too often, we breathe our own smoke. Visiting another sector's conferences gives better perspective. Often, networks are less important than we imagine for "verticals"... " ([link](#))

🕒 Virtualization, Cloud & Edge

- Financial Times: Ofcom calls for UK antitrust probe into Microsoft and Amazon's cloud dominance ([link](#))

📱 Smartphones, Devices, Wearables & Gadgets

- The Guardian: Google Pixel 8 Pro launched with thermometer and seven years of updates ([link](#))

🛰️ Satellites, HAPS, Drones, UAVs & Space

- Telecom TV: Eutelsat soars to new heights with OneWeb merger ([link](#))
- The Register: BlueWalker 3 5G satellite briefly becomes brightest object in night sky ([link](#))
- The Guardian: US government issues first-ever space debris penalty to Dish Network ([link](#))
- Counterpoint Research: 3GPP 5G NTN Standards Set To Dramatically Boost Mobile Satellite Addressable Market ([link](#))

🌐 Metaverse & Extended Reality (XR)

- MWL: BT outlines XR ambitions through testbed ([link](#)) – BT press release [here](#).

📰 Other News and Technology Stuff

- Reuters: TSMC tells vendors to delay chip equipment deliveries, sources say ([link](#))
- The Guardian: Facebook and Instagram could charge for ad-free services in EU ([link](#))
- European Commission recommends carrying out risk assessments on four critical technology areas: advanced semiconductors, artificial intelligence, quantum, biotechnologies ([link](#))

📸 **Picture of the week:** This picture from IEEE Spectrum [article](#) shows how big some antennas really are. As most of you would know, as we go to higher frequency the antenna size decreases.



Happy to hear your thoughts. Feel free let me know what worked, what didn't, how I can make this better, etc. Get in touch over LinkedIn!

PDF version of this and previous newsletters are available [here](#).