

Mobile & Wireless Roundup #72 (see original on [LinkedIn!](#))

By Zahid Ghadialy

Welcome to the 72nd edition of this newsletter. Some of the perks of being an analyst are the opportunities to preview some of the new things coming into the market, listen to how companies plan to launch new products, have discussions with them and more often, learn about new things and get doubts clarified.

There is a fine line between what you offer as a free service and what you want to charge for. It's always difficult for a small company to take a few days off to see demos far away, even if the travel and accommodation is being taken care of. Our most valuable asset is time so we have to be judicious on how we use it.

As I mentioned in the earlier newsletter, I am looking forward to MWC next year and will be happy to see some demonstrations and new products, and I hope they are worthwhile and I see value in them. Do feel free to message me on LinkedIn regarding this.

The main value I get from MWC is walking the floor and being surprised. What do you like to do if you attend?

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.



New White Paper

Private 5G for Enterprises Becoming Real

Download Now ↓



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6G

- Operator Watch Blog: AT&T's Plans on Open RAN and 6G ([link](#))
- Roberto Ercole on LinkedIn: "*This calls into question the viability of terrestrial 6G as a wide area upgrade to a commercial national network. 5G has cost a lot in auction fees and for anything other than 700 MHz coverage, means thousands of new cell sites (for contiguous coverage)...*" ([link](#))
- Dean Bubley on Twitter: "*In the past, I've talked about a fork in the road for hashtag#6G. I saw two ideologies emerging...*" ([link](#))
- New issue of 6G Waves from 6G Flagship ([link](#))
- RCR Wireless - China aims for 6G commercialization by 2030: Report ([link](#))
- Free 6G Training: 3GPP Provides Details on 6G Timeline ([link](#))



3GPP TSG#102 Joint Session
December 12th, 2023
RP-233985
AI 6.1

High-level Considerations for 6G Timeline

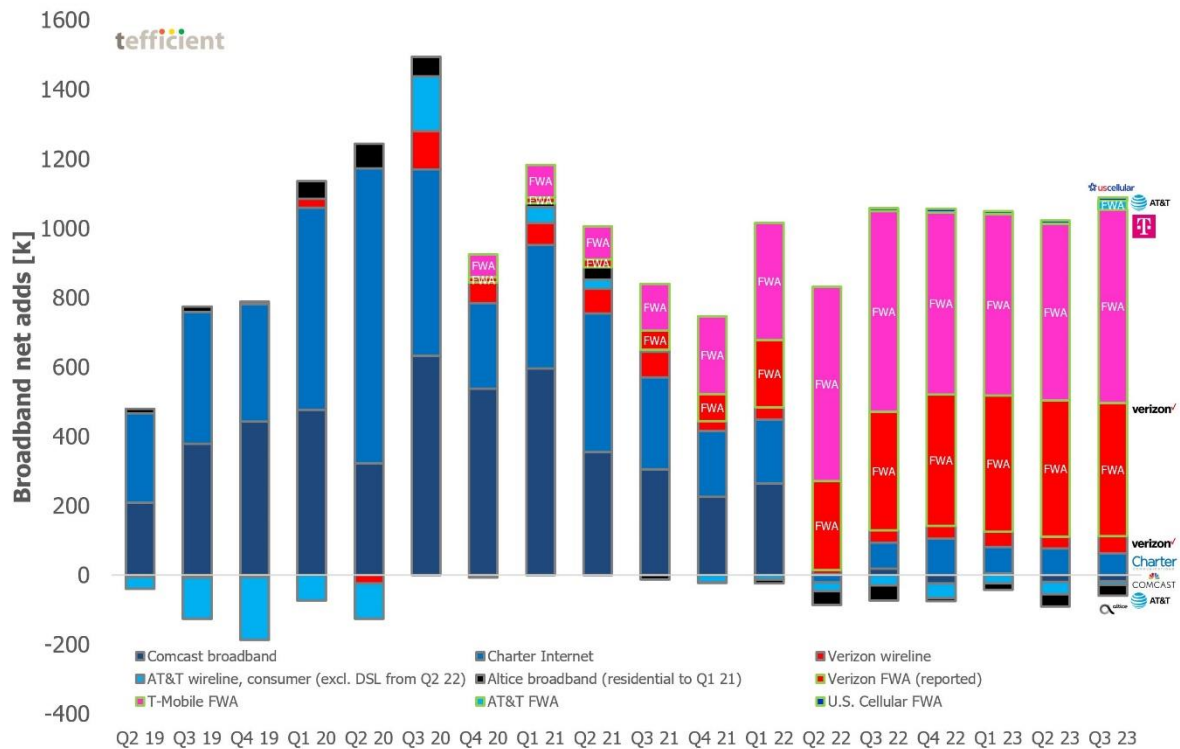
Source: TSG Chairs

High-Level Considerations for 6G Timeline

- **First TSG-wide 6G workshop** is expected to be in **March 2025**
 - Right before the planned Rel-19 RAN1 functional freeze (June 2025). Detailed information for the workshop is TBD
- Organization of a **3GPP Stage 1 workshop on IMT-2030 use cases** is being discussed separately
 - Refer to SP-231619
- **Studies for 6G** in 3GPP are expected to start from **Release 20**
 - **Requirements studies:**
 - **SA1 SID** is expected to be approved in **Sept'2024**.
 - **RAN plenary SID** (e.g., radio requirements and KPIs) is expected to be approved **TBD** (*to be decided at RAN#103*)
 - **Technology studies:**
 - **SA2 SID** is expected to be approved in **June'2025**. Other SA-WG SIDs (e.g., Security, etc.) are expected to be approved TBD
 - **RAN-WG SIDs** are expected to be approved in **June'2025**
 - **CT-WG SIDs** are expected to be approved TBD
- **IMT-2030 submission and normative work for 6G** in 3GPP are expected to start from **Release 21**
 - **Release 21** is expected to produce the 1st set of 3GPP **6G technical specifications**, and will be the release for **IMT-2030 submission** before 2030
 - **Release 21** is expected to be delivered with a **single drop** (i.e., a single code freeze)
- Target **TSG#103 (March'2024)** for the remaining detailed 6G timeline decisions

5G

- Qualcomm OnQ Blog - 5G Broadcast: What can consumers expect? ([link](#))
- Jinsung (Alex) Choi on LinkedIn: The Future of 5G Network Data Analytics ([link](#))
- Tefficient: Data-only drives traffic. The same can't be said for 5G ([link](#))



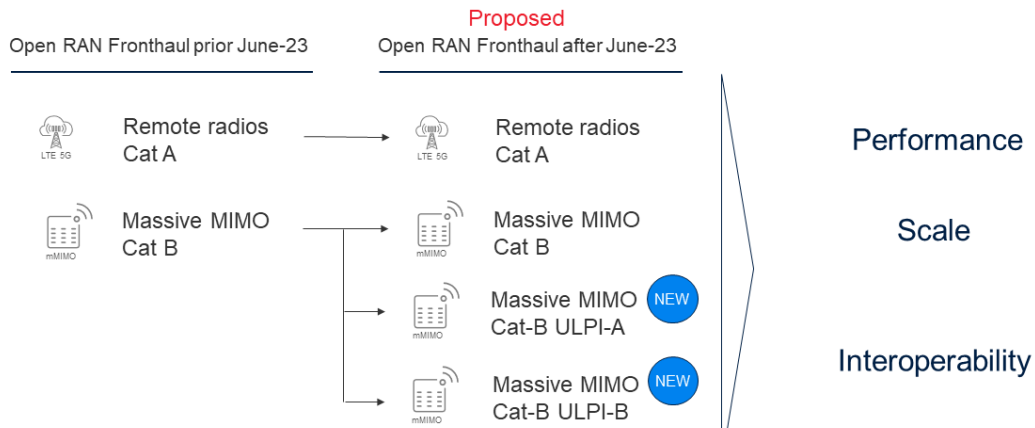
2G/3G

- Commsupdate: Finnish MNOs now only obliged to maintain 2G connectivity until end-2029. Under the previous terms, mobile network operators (MNOs) had been required to maintain their respective 2G networks until the end of 2033. ([link](#))
- Commsupdate: Zambia planning to switch off 2G networks; minister still hopeful that Beeline will launch ([link](#))

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

- O-RAN ALLIANCE and OpenAirInterface Software Alliance Expand Cooperation on Developing Open Software for the RAN ([link](#))
- NTT: Why O-RAN Will Change Everything, Everywhere ([link](#))
- Jinsung (Alex) Choi on LinkedIn - The Mixture-of-Experts (MoE) Advantage in O-RAN: Smarter Networks, Smarter Management ([link](#))
- Vodafone, Cirrus360, and Intel introduce a new computer language framework for Open RAN ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Accelerating O-RAN Innovation: The Impact of O-RAN ALLIANCE's AAL Standard ([link](#))
- TMN: DT sets Open RAN target ([link](#))
- Some more discussion on LinkedIn, on "AT&T's decision to go all-in with Ericsson makes a nonsense of the open RAN concept and will come at a massive cost to Nokia." ([link](#))
- Mavenir: Clarity on O-RAN Specification Updates for Massive MIMO Radios ([link](#))

Evolved Open RAN Fronthaul Evolution



MAVENIR

Source:– Ericsson, Mavenir

📶 Spectrum

- 5G .. 6G on LinkedIn: "Upper 6GHz CEPT_ECC confirm the inclusion of both IMT and RLAN (WiFi)..." ([Tweet](#))
- IEEE ComSoc Technology Blog: WRC-23 concludes with decisions on low-band/mid-band spectrum and 6G ([link](#))

📶 Telecoms Infrastructure, Small Cells, Antennas & others

- Paul Rhodes on LinkedIn - Thursday School : Urban Camouflage ([link](#))
- Telecoms Infrastructure Blog: Testing Vodafone UK's Open RAN Deployment Performance ([link](#))

The image displays a person standing in front of a 5G tower. To the right, two smartphone screenshots show network performance metrics:

NR-NSA (Replaying (Available))

SSB-ARFCN	PCI	SS-RSRP	SS-SINR
628992	293	-94.3 dBm	25.5 dB

NSA Data Metrics

U: Mbps	LTE	NR	Total
Downlink	169.7	392.4	562.2
Uplink	0.0	2.9	3.0

LTE 3xCA (Testing (Available))

EARFCN	PCI	RSRP	SINR
2850	292 / 1	-78.3 dBm	13.2 dB

3 carrier(s)

Throughput	Downlink	Uplink
RB	272.96 Mbps	1.12 Mbps
MCS	28	7
Modulation	64QAM	16QAM
Rx/Tx Error	7.3%	2.8%

Cellular Details:

- EARFCN/PCI: 2850 / 292
- Band/Width: 7 / 20 MHz
- SINR: 13.2 dB
- Ant. eNB Tx/Div. Rx: 4 x 4
- Trans. Mode: TMA-CLSM
- Rank: Rank 2
- Thpt. Cwd0: 51.72 Mbps
- Thpt. Cwd1: 96.20 Mbps
- Mod. B/I: 64QAM / 64QAM
- Thpt: 147.92 Mbps

🕒 Private Networks

- Private Networks Technology Blog: The Future is Bright for Private Networks ([link](#))
- Light Reading: US military bases could get private 5G, delighting Dish ([link](#))

🕒 IoT / M2M / Smart Homes

- A 5G Americas Briefing Paper: Evolving Devices for 5G Adoption ([link](#))
- MWL: Singtel first to trial RedCap in Singapore ([link](#))

🕒 Virtualization, Cloud & Edge

- Jinsung (Alex) Choi on LinkedIn: O-RAN O-Cloud and Its SLA Challenge in a Multi-Vendor Environment ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Unlocking O-RAN Automation with SMO, O-Cloud, Nephio and Kubernetes ([link](#))

🕒 Security & Privacy

- 5G and Cyber Security ([link](#))
- Jinsung (Alex) Choi on LinkedIn: O-RAN Security - Not Necessarily Less Secure ([link](#))

🕒 Smartphones, Devices, Wearables & Gadgets

- MWL: Tech, handset players target open ecosystems ([link](#)) – “A group of device makers and technology companies including Meta Platforms and Qualcomm pledged to push for more open digital ecosystems, in response to the European Union’s Digital Markets Act (DMA).”
- FT: My struggle to live without an iPhone — for two whole hours ([link](#))

🕒 AI, ML & Automation

- Benedict Evans: AI and Everything Else ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Telco Intelligent Automation Platform in O-RAN ([link](#))
- Jinsung (Alex) Choi on LinkedIn - Bridging Intelligence: A1 Interface and xApps in Near-RT RIC ([link](#))

🕒 Satellites, HAPS, Drones, UAVs & Space

- Amazon's Project Kuiper completes successful tests of optical mesh network in low Earth orbit ([link](#))
- Tech Brew: Starlink won—and then lost—\$886 million in connectivity funds ([link](#))
- The Networking Channel: LEO Satellite Mega Constellations – the ‘New Space’ potential ([video](#))

🕒 Wi-Fi

- RCR Wireless: Three Wi-Fi trends that aren’t Wi-Fi 7 ([link](#))

🕒 Public Safety Networks

- Connectivity Technology Blog: KDDI Prepares for Disasters with Vehicle-Mounted Base Stations Backhauled via Starlink ([link](#))

🕒 Other News and Technology Stuff

- Ofcom's Online Nation 2023: An annual report that looks at what people are doing online, how they are served by online content providers and platforms, and their attitudes to and experiences of using the internet. ([link](#))
- Reuters - Rakuten's mobile misadventure: from ambitious plan to millstone ([link](#))

🕒 **Picture of the week:** A [LinkedIn post](#) reminded me of Robert Voit's New Trees this week. I also have a collection of many such base stations on our post [here](#).



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](#).