



Mobile & Wireless Roundup #74 (see original on [LinkedIn!](#))

By Zahid Ghadialy

Welcome to the 74th edition of this newsletter. Wishing everyone a happy, healthy, peaceful and prosperous new year where our deepest technological desires come true. I often receive requests from people to write about things, make videos or explain things that could easily be found with simple Google search. Unfortunately there isn't enough hours in a day and I am often even unable to reply.

Late last year a friend who was trying to build his brand on YouTube (non-related to our field or technology as such) called it quits after some 3-4 years. Generally people start out with over optimism and brimming with confidence. We all think we know how to crack the code which others weren't able to crack. As it happens, most of the things in life are random and so is success.

Even on LinkedIn I see people come with a new brand or channel and post every day for a year or two and then just give up and disappear. Tom Scott, who has over 6.35 million subscribers on YouTube just [announced](#) at the end of last year that he is 'so tired', hence quitting making videos.

My suggestion to people who ask me how to not over commit, just do what you can and have fun as you go along. If it becomes a chore, you will hate it and then there is no coming back. If you think of it as fun where you take breaks when you want to, you can commit for a longer period which can benefit you as well as others.

Happy to listen to other suggestions as well on how to keep posting blogs and making videos without necessarily burning out.

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.



Private 5G Networks Made Simple



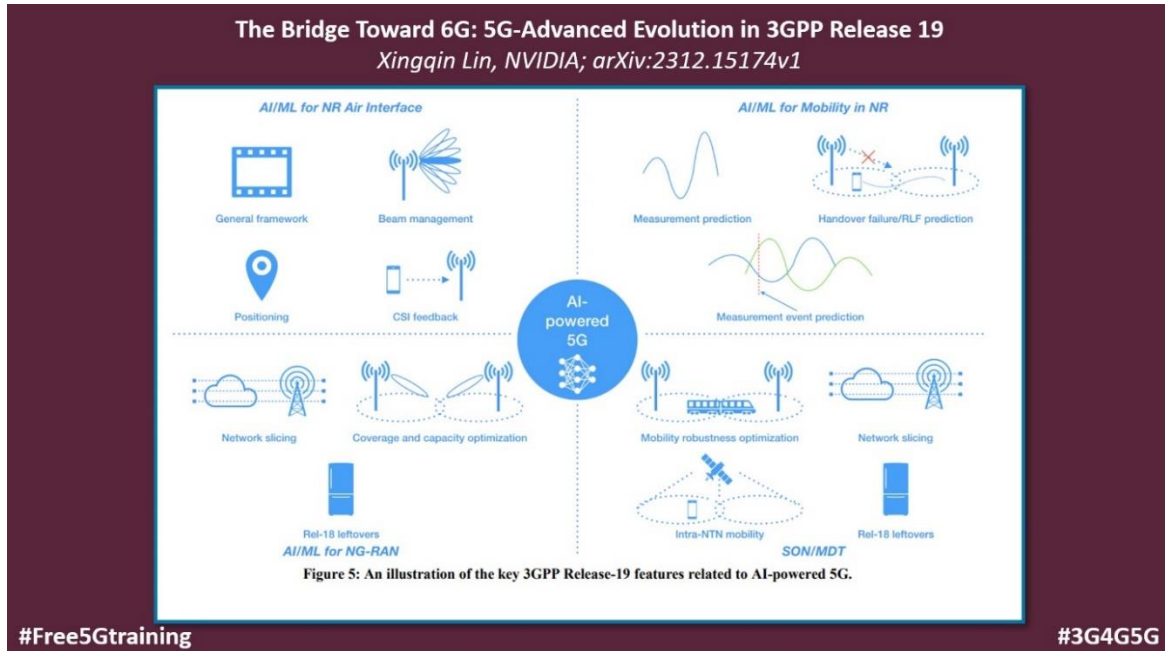
This newsletter is kindly sponsored by Firecell - the Private 5G experts

6G

- Free 6G Training: Cloud Native Architecture & Migration Towards 6G from B6GS 2023 ([link](#))
- Toon Norp on LinkedIn: "The Hexa-X-II project this week released its deliverable D1.2 with 6G use cases. This is excellent input for the study work on 6G requirements which is expected to start in 3GPP SA1 in the second half of 2024 and can be the basis for the European input to the 3GPP SA1 'Workshop on IMT2030 use cases' (Rotterdam, May 2024)..." ([link](#))

5G

- New Nokia whitepaper: Resilient 5G-Advanced timing service ([link](#))
- Luke Kehoe on LinkedIn: "The year that has gone by has been a humbling one for the global telecoms industry. The hopes that 5G would improve market returns are in a state of tatters and..." ([link](#))
- The Bridge Toward 6G: 5G-Advanced Evolution in 3GPP Release 19 ([link](#))



- Mike Simon on LinkedIn: "In Future 3GPP 5G NR and Non-3GPP Direct 2 Everything (D2X) Multicast Broadcast can provide seamless Interwork using (UHF Spectrum) to Compliment 5G NR as a New D2X Broadcast Multicast Vertical with intelligent wide area topologies that can overlay 5G NR..." ([link](#))
- T-Mobile Delivers Another World's First with 6-Carrier Aggregation. The Un-carrier worked with Ericsson and Qualcomm in a test that reached 3.6 Gbps speeds using sub-6 GHz

spectrum ([link](#)) – last year they announced world’s first four-carrier aggregation data call on a commercial device ([link](#))

- Ken Schmidt on LinkedIn: "Per this article, allegedly the race to 5G is over. Why?... " ([link](#)) – interesting discussions in comments.
- 3GPP Release 17 Description and Summary of Work Items ([link](#))

🕒 4G/LTE

- Developing Telecoms: North Korea starts signing up subscribers for new 4G service ([link](#))

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

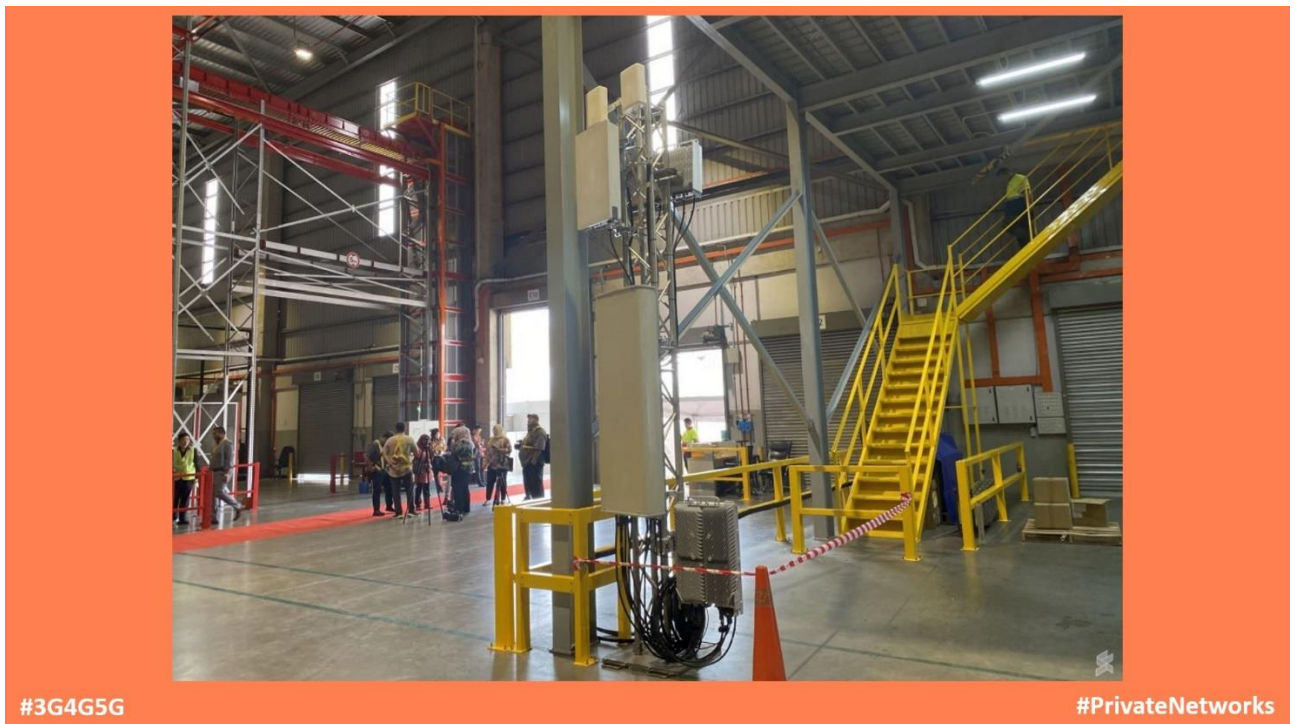
- Jinsung (Alex) Choi on LinkedIn: 12 Telco O-RAN Network Automation Principles ([link](#))
- Jinsung (Alex) Choi on LinkedIn: OpenRAN Gym - Gymnasium for O-RAN RIC ecosystem ([link](#))

🕒 Spectrum

- RCR Wireless: Arcep extends trial platform for 5G use cases ([link](#))
- OnGo Alliance: CBRS Takes Flight: 2023’s Soaring Developments in 3.5 GHz Spectrum ([link](#))
- RCR Wireless: India set to allow telcos to lease spectrum for private networks ([link](#))

🕒 Private Networks

- Private Networks Technology Blog: Public or Private 5G for Warehouses? ([link](#))



- Jinsung (Alex) Choi on LinkedIn: 5G Private O-RAN with Integrated AI Computing for Enterprise AI Applications ([link](#))
- RCR Wireless: Telia and partners obtain EU funding for dedicated 5G networks in Sweden ([link](#)) – see the actual press release [here](#).
- Telemedicine in rural areas using mobile vehicles (medical buses), cameras, realhaptics robots, and private 5G ([link](#))

📍 Telecoms Infrastructure, Small Cells, Antennas & others

- Rudolf van der Berg on LinkedIn: "It is the holiday season, so many people will miss this ambiguously worded statement by the Chinese government on submarine cables to or near China (see picture). I am inclined to think this means that it will only allow cables that Chinese telcos are dominant in, but I might be reading too much..." ([link](#))
- RCR Wireless: Chinese operator ended November with 771 million 5G users ([link](#))
- RCR Wireless: Cellnex to deploy 5G small cells in news kiosks in Spain ([link](#)) – original PR from Cellnex ([link](#))
- Paul Rhodes on LinkedIn - Thursday School : When I Grow Up ([link](#))

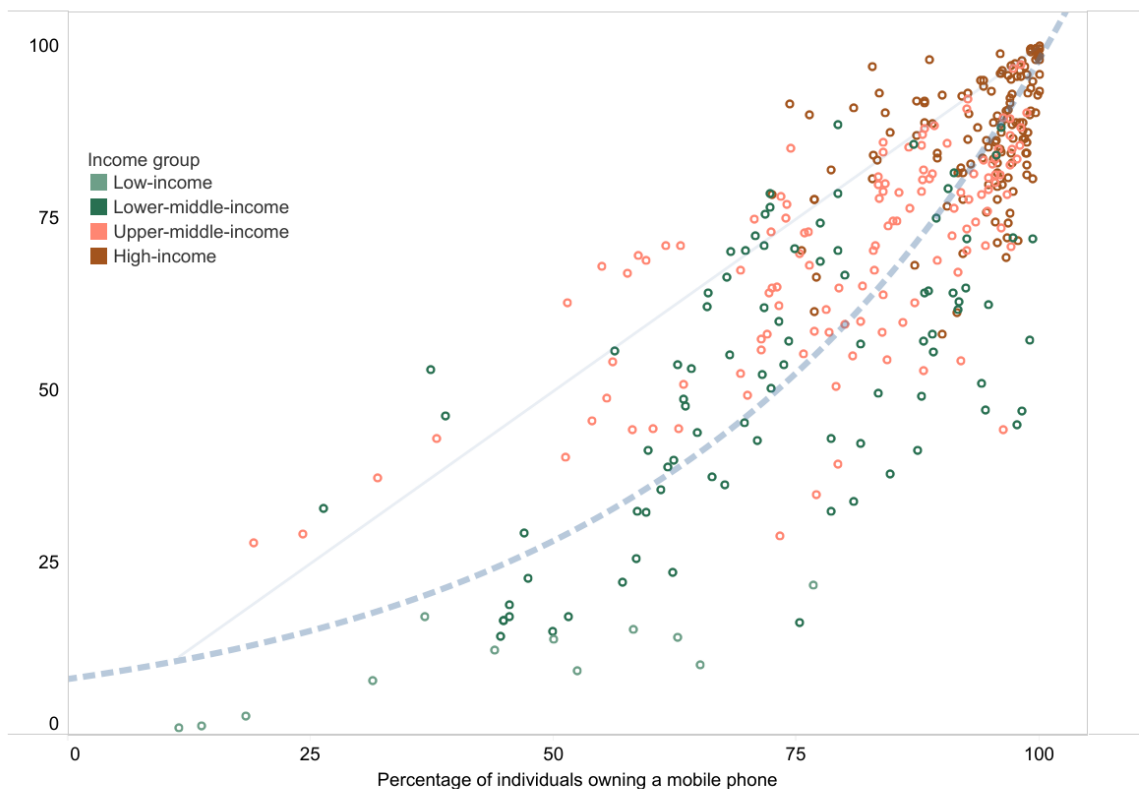
📍 IoT / M2M / Smart Homes

- TechBrew: How one IoT company is improving dairy production ([link](#))

📍 Smartphones, Devices, Wearables & Gadgets

- ITU Facts and Figures 2023: Mobile phone ownership ([link](#))

Percentage of individuals using the Internet vs percentage of individuals owning a mobile phone, 2013-2022



Note: Official data available from 100 countries (380 observations). In-scope ages may vary between countries. Each point refers to one country in one year between 2013 and 2022. Some countries have multiple years and multiple points. The blue dotted line refers to the trend of all countries. The grey diagonal line is a reference line for mobile phone ownership = Internet use.

Source: ITU

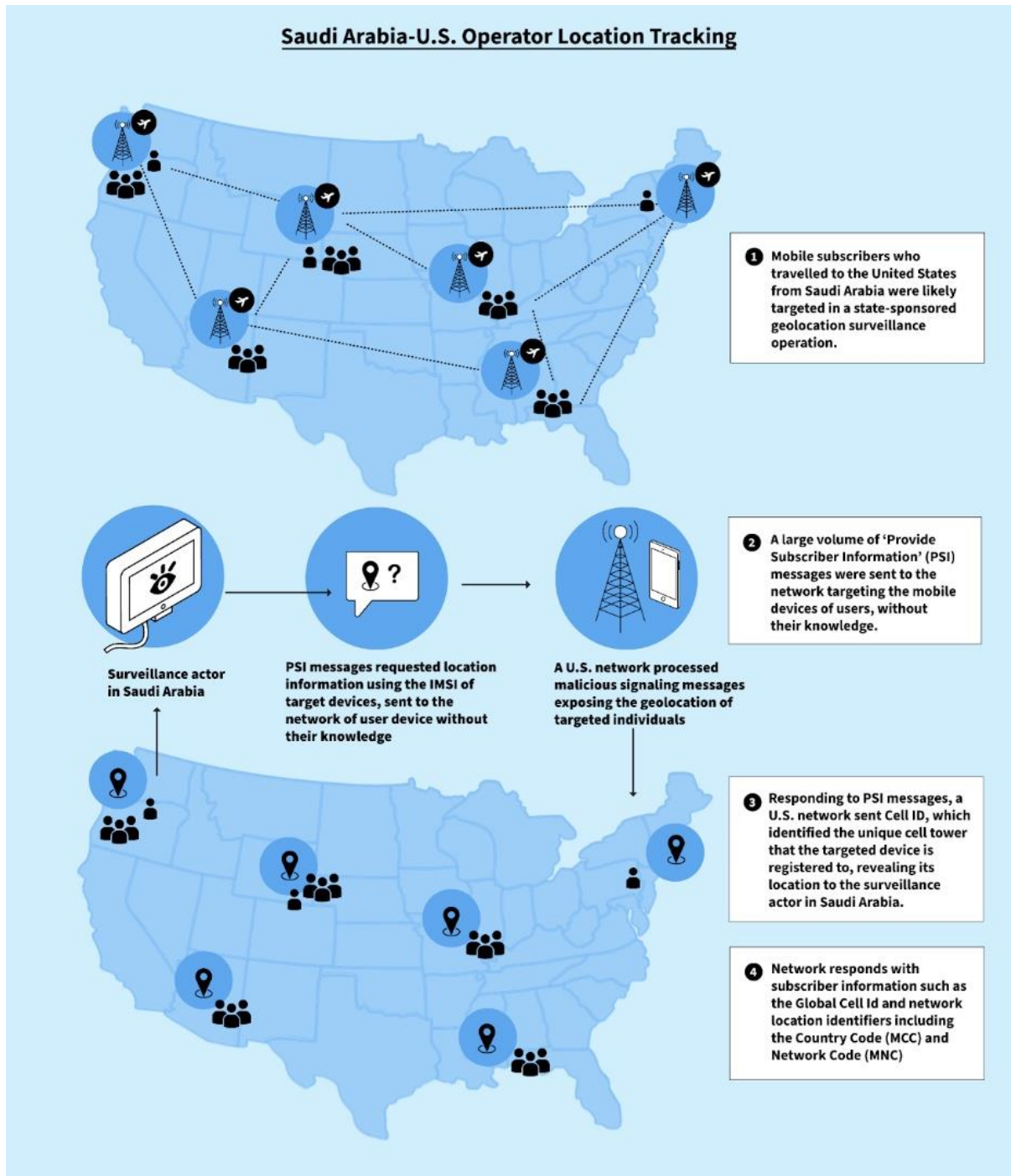
- Android Central: In 2023, smartwatches tried to become fitness watches and vice versa ([link](#))
- Counterpoint Research: Global Premium Smartphone Market Continues to See Record Sales in 2023 ([link](#))
- Advancing Wireless Innovations towards 6G — from a Device's Viewpoint ([link](#))

Virtualization, Cloud & Edge

- STL Partners: Edge computing infrastructure for AI workloads ([link](#))

Security & Privacy

- Al Jazeera: Indian journalists targeted by Israeli spyware again: What do we know? ([link](#))
- Reuters: Russian hackers were inside Ukraine telecoms giant for months ([link](#))
- Lawfare: When You Roam, You're Not Alone ([link](#))



Connected And Autonomous Vehicles (CAVs)

- MWL: Samsung ties-up with Hyundai on connected cars ([link](#))

🕒 AI, ML & Automation

- Jinsung (Alex) Choi on LinkedIn: AI's Role in Redefining Future Mobile Communication Systems ([link](#))
- Gabriel Brown in Light Reading: Telco AI is Alphafly ([link](#))
- Jinsung (Alex) Choi on LinkedIn: AI at the O-RAN Edge ([link](#))
- MWL: How GenAI is transforming AT&T ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Hybrid AI-AI Orchestrator in O-RAN - On-Device AI: The New User Interface Revolution ([link](#))
- Semafor: Meta's CTO on how the generative AI craze has spurred the company to 'change it up' ([link](#))
- Jinsung (Alex) Choi on LinkedIn: How AI and Advanced Video Codecs Could Slash Data Usage? ([link](#))
- James Crawshaw on LinkedIn: "During twixtmas (when you're not sure what day it is or whether those leftovers in the fridge are still safe to eat) Omdia analyst Brian Washburn published a note explaining his estimates for the impact of AI on global telco network traffic. Brian predicts that by 2025, most telecom network application traffic will involve AI content generation, curation, and/or processing. By 2030, nearly two-thirds of network traffic..." ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Converged and Accelerated Computing Platform for AI-Native O-RAN ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Orchestrating AI-Native Network Evolution - The Synergy Between O-RAN ALLIANCE and 3GPP in AI/ML Standardization ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Making O-RAN Edge AI Inferencing Service Economically Feasible ([link](#))

AI/ML Standardization



Feature	O-RAN Alliance AI/ML with RIC/open Interfaces	3GPP AI/ML Standardization
Main Focus	RAN optimization through open interfaces (A1, E2, O1) and RIC (both near-real-time and non-real-time)	Entire network functionalities including NG-RAN, core network(NWDAF, NEF etc.), and services (e.g., media)
AI/ML in RAN	Closed loop based Near-real-time and non-real-time RIC for intelligent RAN control. xApps and rApps for specific optimizations and automation	AI/ML integrated within the broader framework for various RAN functions including air interface (e.g., CSI feedback, beam management, location)
Specific Interfaces	A1 for policy guidance, E2 for real-time RAN node communication and control, O1 for management and orchestration. Vendor-agnostic	No specific open interfaces like O-RAN; AI/ML integration is more holistic within the network standards and vendor dependent
Openness and Interoperability	Emphasizes open, interoperable architecture. Encourages broad participation, innovation and testing & certification	Focuses on backward compatibility and integration within the existing and evolving 3GPP standards framework.
Vendor Neutrality	Designed to break vendor lock-ins and encourage multi-vendor integration	Standards typically adopted widely, ensuring compatibility across vendors but less focus on breaking vendor lock-ins
Scope of AI/ML Application	Primarily RAN-centric, focusing on real-time and closed-loop automation, use case driven	Encompasses AI/ML applications across the entire network, including core and service aspects
Standardization Approach	Structured approach with specific roles for each interface in RAN control and optimization.	Integrative approach, embedding AI/ML across various network functions and processes
Innovation Potential	High, due to open interfaces and encouragement of diverse contributions.	Consistent, due to industry-wide acceptance and baseline standards for global telecommunications

🕒 Satellites, HAPS, Drones, UAVs & Space

- Connectivity Technology Blog: 5G NB-IoT NTN Coverage Extension by Sateliot ([link](#))

- MWL: First Starlink sat-to-phone birds leave launchpad ([link](#))

🕒 Other News and Technology Stuff

- World Economic Forum: Future of Jobs Report, May 2023 ([link](#))
- Dean Bublely on LinkedIn: Hospitals and other healthcare settings are key Indoor Wireless domains for policymakers and regulators ([link](#))
- New ITU standards to boost Fibre to the Home from 10G to 50G ([link](#))
- Gabriela Styf Sjöman on LinkedIn: *"It is with great pride and excitement I share that BT Group Research has conducted a Microsoft Teams call using a quantum optical radio receiver..."* ([link](#))

🕒 **Picture of the week:** Docomo's mid-band (n78) 5G small cells on Osaka Castle's famous public telephone box ([source](#))



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](#).