

Mobile & Wireless Roundup #53 (see original on <u>LinkedIn!</u>) By Zahid Ghadialy

Welcome to the 53rd edition of this newsletter. I have always had a passion for sharing knowledge. Initially it started with my younger siblings but then as I went into further education, I started giving tuitions. Maths was the easiest subject for me as I didn't have to learn anything extra and there was a lot of demand for good tutors.

I started coming up with stories and examples (sometimes silly ones) that people would understand and remember. Later on when I started working in our industry, I started the <u>3G4G website</u> and then <u>The 3G4G Blog</u> to share interesting things, in simple ways. I tried the same simplified approach for our <u>YouTube channel</u> and I feel it worked. Hoping to have 20k subscribers by the end of year .

Now I am embarking on a new 'TechKnowledge Stories' series. I am working to create 10 episodes looking at how technology has changed the world but also on how it will still have a big role to play in future. The <u>pilot episode</u> is here (unlisted ①) and I need your feedback on this as well as some help.

This series is targeted at young people, to encourage and motivate them to learn more about technology, either as part of academia or just in general. I am also trying to get a sponsor for this series. If your company or organisation is interested in encouraging young people to study STEM subjects, could you connect me with the team responsible? Alternatively, please feel free to point me in the right direction and I will be happy to take it further.

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: 6G Smart Networks and Services Joint Undertaking (SNS JU) Phase 1
 Projects (link)

● 5G

- Dell'Oro: 5G Advanced What does it mean for the RAN market? (link)
- Aayush Bhatnagar on LinkedIn: "5G is poised to play a major role in automating the processes in Railways and Metros..." (link)

2G/3G

 Rudolf van der Berg on Twitter: "Why we can't shut down 2G and 3G? Well mobile voice over 4G isn't standardised and only a third of networks currently have it active. VoLTE roaming is even worse..." (Twitter thread)

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

• TeckNexus: Driving Open RAN Innovation: The Telecom Infra Project's Role and Initiatives (link)

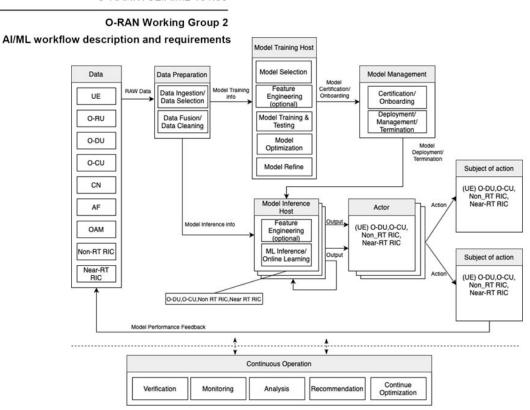


- Jinsung (Alex) Choi on LinkedIn: "Unleashing AI/ML on the World of Mobile Communication Systems..." (link)
- Jinsung (Alex) Choi on LinkedIn: "AI-Native Open RAN..." (link)

- John Baker on LinkedIn: "Proven Open and Interoperable Open RAN eco system- Version 2..."
 (link)
- Jinsung (Alex) Choi on LinkedIn: "How to train AI/ML without real datasets in O-RAN RIC..."
 (link)



O-RAN.WG2.AIML-v01.03



Jinsung (Alex) Choi on LinkedIn: "AI testing AI for O-RAN RIC..." (link)

Spectrum

- C4ISRNET Hiding in plain sight: Warfare in the electromagnetic spectrum (link)
- Tweet by DSA: "Intended IMT use of the upper 6 GHz band as promoted by mobile operators - does not comply with the ITU sharing study parameters', states Michael Kraemer, Head of Spectrum Policy in EMEA for Intel. Read more on the #6GHz v IMT debate in <u>Tagesspiegel</u>" (Tweet)

Private Networks

- Private Networks Technology Blog: Fujitsu Highlights Private Networks Success, Potential and Use Cases (<u>link</u>)
- Frank Rayal: Highlights of Canada's New NCL Spectrum Licensing Framework (link)
- RCR Wireless: Vodafone claims 60 private networks, plus ramp-up to MPN 2.0 service wrap (link)
- OnGo Alliance: What makes OnGo Private Cellular Networks Secure (link)
- T HQ: Is a private 5G network the right choice for your business? (link)

Telecoms Infrastructure, Small Cells, Antennas & others

- RCR Wireless Analyst Angle: Do not underestimate the value of your cellular network basestation antenna (link)
- Paul Rhodes on LinkedIn: "Thursday School: The Suburban/Highway Monopole..." (link)
- Paul Rhodes on LinkedIn: "Thursday School: The Rooftop Macro..." (link)

O IoT / M2M / Smart Homes

TelecomTV: Telefónica and Sateliot claim 5G roaming breakthrough in space (link)

Smart Cities

 GSMA APAC 5G Industry Community Webinar: 5G brings new momentum to smart city development (link, video)

Virtualization, Cloud & Edge

- Slides from IEEE International Conference on Communications 2023, Evolution of Telco Edge Cloud toward Network-as-a-Service (NaaS) (link)
- Silverlinings Step on the gas: A 5G layer 1 acceleration roundup (link)

Security & Privacy

- Cybersecurity Magazine Webinar July 2023: Emerging Security Technologies (video)
- Dark Reading: Best Practices for Enterprise Private 5G Security (link)

AI, ML & Automation

• Jinsung (Alex) Choi on LinkedIn: "Three Key AI Use Cases in O-RAN: Leveraging Automation, Slicing, and Edge AI Computing..." (link)

Three AI Use cases in O-RAN System



Use Case	Purpose	Primary Benefit	Example Applications
O-RAN Management with RIC	Automates and optimizes various network functions	Increases network management efficiency, reduces operational costs, and improves network performance	Customer network service lifecycle and experience management, Energy Saving
RAN Slicing and its Service Assurance by RIC	Manages virtual networks (slices) and monitors key performance indicators (KPIs)	Ensures optimal performance for RAN slicing services and maintains service quality	Creating RAN slices optimized for high- speed data (eMBB), low-latency applications (URLLC), or massive IoT connections (mMTC)
Al Computing in O-RAN Edge Cloud	Hosts enterprise Al applications in the private O-RAN networks	Reduces latency, improves operational efficiency, and enables real-time Al inferencing	Enterprise private 5G, running video analytics for smart factory production lines, Automated Guided Vehicles, predictive maintenance in industries such as manufacturing, utilities, and transportation

- Jinsung (Alex) Choi on LinkedIn: "The Promise of Multi-Agent Reinforcement Learning for O-RAN RIC..." (link)
- Jinsung (Alex) Choi on LinkedIn: "Needs for Reinforcement Learning Ops (RLOps)..." (link)

Satellites, HAPS, Drones, UAVs & Space

• Briefing Paper from 5GAmericas: Update on 5G Non-Terrestrial Networks (link)

Wi-Fi

- Introducing Wi-Fi Alliance Services: driving broad adoption of 6 GHz (link)
- Fierce Wireless: Report emphasizes Wi-Fi's energy efficiency over 5G (link)

Other News and Technology Stuff

- The 3G4G Blog Tutorial: A Quick Introduction to 3GPP (link)
- Operator Watch Blog: Over 21 Trillion KPIs per Week (link)
- UKTIN: New study proves that investing in rural mobile connectivity brings significant economic, social and environmental benefits (link)
- Bob Hannent on LinkedIn: How much bandwidth? (link)
- Rudolf van der Berg on Twitter: "In France SMS scammers steal the SIM cards out of elevators. The elevator has a SIM card to enable emergency calls when the elevator is stuck.
 Good thing telcos finally allow eSIM (Tweet with link)
- Silverlinings: Immersion cooling tech is hot. What are hyperscalers waiting for? (link)
- Techneconomyblog: On Cellular Data Pricing, Revenue & Consumptive Growth Dynamics, and Elephants in the Data Pipe (link)

OPICTURE OF THE Week: バザール (@bazar55) shared some interesting pics on Twitter from the Pokémon GO Fest 2023 in Osaka. KDDI is providing free Wi-Fi, backhauled on Starlink. There are COWs from NTT Docomo as well. The train with Pokémons is interesting as well.



Pictures from Pokémon GO Fest 2023 in Osaka, Aug 4 – 6 2023. Pictures from Tweets by バザール (@bazar55)

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.