

## Mobile & Wireless Roundup #87 (see original on [LinkedIn!](#))

By Zahid Ghadialy

Welcome to the 87th edition of this newsletter. Mobile technology specifications from 3GPP are complex and numerous. They require a lot of technology experts who participate in the standardisation process to ensure everything fits together. Once these standards are ready, one requires many more people to translate them into code.

I spent many years writing code for the UE (handset), mobile network and then, UE simulator for a T&M company. In some cases we had to write code optimised for particular processor while in others, there were far less constraints for coding but an important requirement for loads of comments explaining everything to ensure someone in future can pick-up where you left off.

A few weeks back I saw a demo of how easy writing apps for smartphones have become. ChatGPT (LLMs) can quickly generate code for whatever app you want to create, as long as you can craft the input prompts in the right way. In the next few years this is going to get better and easier.

It is possible that by the time we are ready to implement 6G, we can just ask an LLM to create the code for every specific area based on a specific release. Then for every new release, it can quickly provide us a summary of all the changes and can also provide the code changes required for each layer/protocol/module.

The hardware will probably continue to be done the traditional way, but there are off-the-shelf SDRs (software defined radios) that can again be programmed based on the code generated by the LLM model. It would be interesting to see how the whole standardisation, development and testing process will change when LLMs become mature.

For those of you who don't know me, I am a technologist with over 25 years' experience in mobile wireless technology, currently working as an independent advisor, analyst, consultant and a trainer.

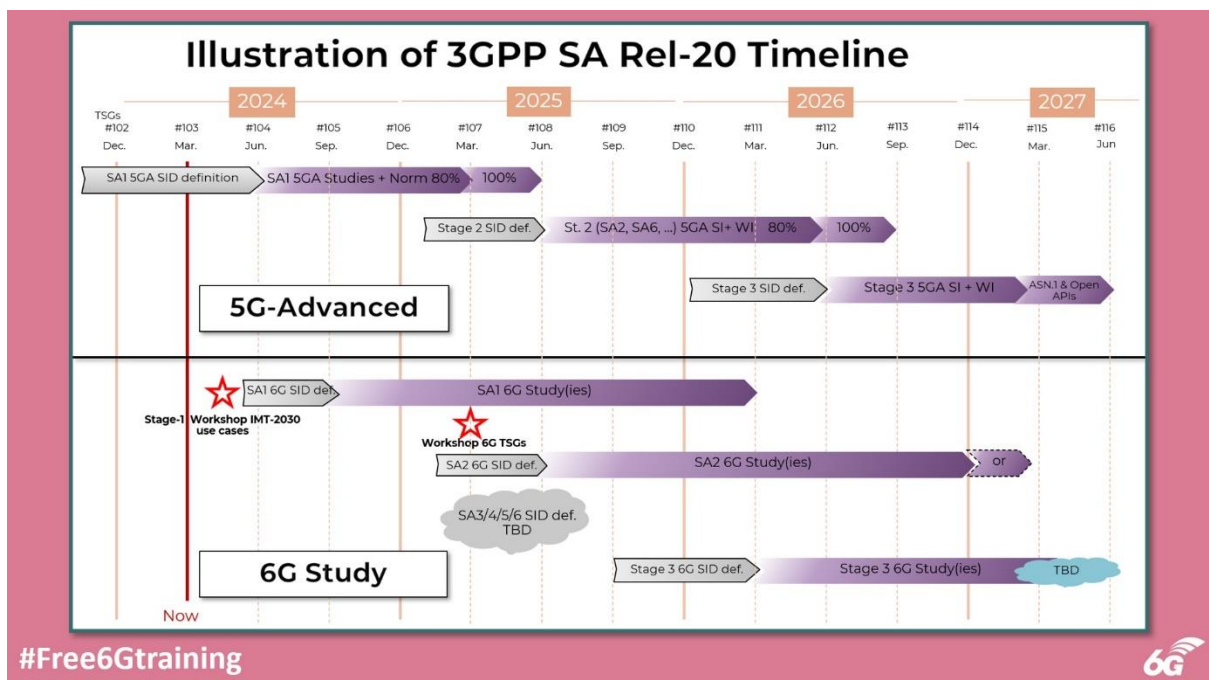
This newsletter is a summary of my posts and other news that caught my attention since the last newsletter.



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

## 6G

- TMN: 6G still a puzzle without a picture on the box ([link](#))
- Dean Bubley on LinkedIn: "I'm at 6GWorld #6GSymposium in Levi, Finland... Some takeouts & thinkings, written down here as a way for me to remember the main points while still fresh in my mind. I'll drill into some in more detail another time..." ([link](#))
- University of Glasgow: Research breakthrough could enable future 6G communications networks ([link](#)) - A team led by researchers from the University of Glasgow has developed an innovative wireless communications antenna which combines the unique properties of metamaterials with sophisticated signal processing to deliver a new peak of performance.
- DOCOMO, NTT, NEC and Fujitsu Develop Top-level Sub-terahertz 6G Device Capable of Ultra-high-speed 100 Gbps Transmission ([link](#))
- 3GPP Stage-1 Workshop on IMT2030 Use Cases – May 8-10 2024 ([link](#))
- Free 6G Training: ATIS Webinar on 'Introduction to 3GPP Release 19 and 6G Planning ([link](#))



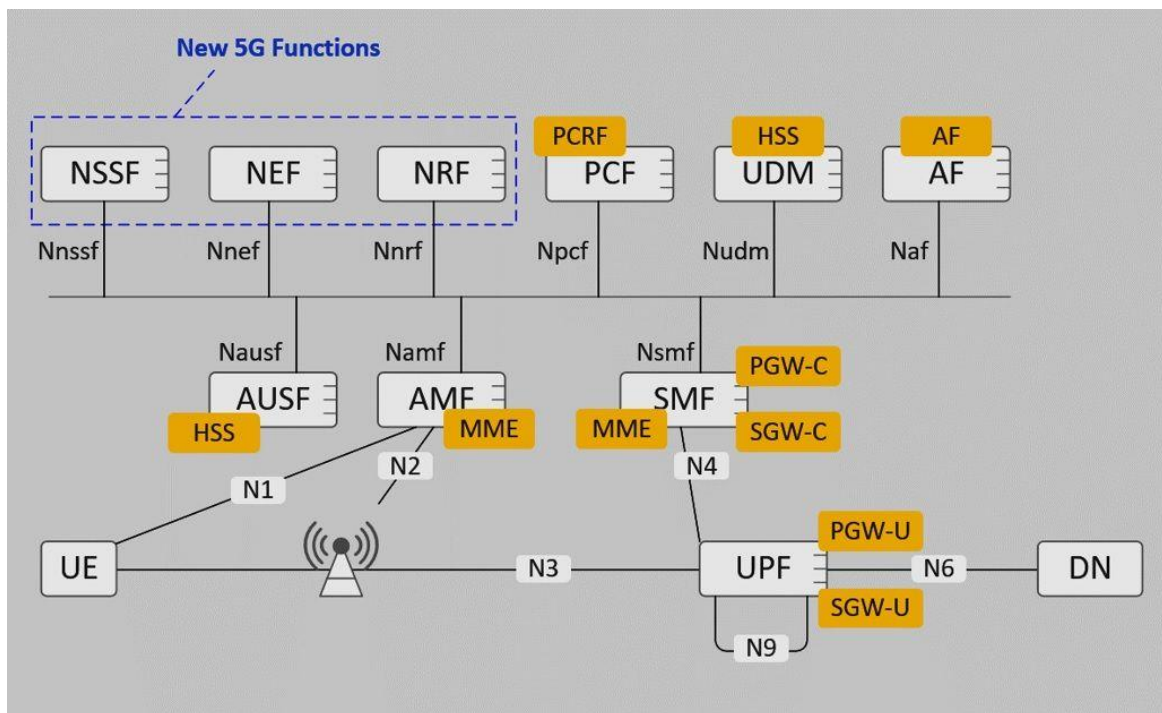
## 5G

- New Scientist: Phone batteries could last 50% longer if more 5G towers are built ([link](#))

- GSMA Future Networks MWC24 5G Futures Summit Session 2, 'Towards a standalone future with 5G-Advanced', slides and videos ([link](#))
- 5G Technology World: How do 5G eMBB and FWA data services compare? ([link](#))

## 🕒 4G/LTE

- Nick Jones on LinkedIn: "Moving away from Circuit Switched Roaming? What role does DNS play in LTE roaming and S8 Home Routing and how does it all work?" ([link](#))
- Benoist Sébire on LinkedIn: "With 6G around the corner, let us reminisce about 4G/LTE planning and execution in 3GPP : 4 years and 4 months between the very first LTE workshop and ASN.1 freeze, 21 months of acknowledged delay, very few RRC CRs agreed after ASN.1 freeze..." ([link](#))
- Benoist Sébire on LinkedIn: "With three different drops, three different ASN.1 freezes, and a long trail of correcting CRs, determining how long it took 3GPP to standardize the first 5G/NR release is not as straightforward as it was for 4G/LTE..." ([link](#))
- Charfeddine Sassi on LinkedIn: Mapping of 4G EPC to 5GC ([link](#))



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

- Jinsung (Alex) Choi on LinkedIn: Symbolic Digital Twin of O-RAN Network ([link](#))
- Telecom Infra Project: Neutral Host & Infra Sharing Project Group Charter Approved by TIP Board of Directors ([link](#))
- Jinsung (Alex) Choi on LinkedIn: The Power of AI/ML Models in AI-Native O-RAN ([link](#))

## 🕒 Spectrum

- Paul Rhodes on LinkedIn - Thursday School : Bidding (Room) for Spectrum! 🌈 ([link](#))

## 🕒 Private Networks

- Private Networks Technology Blog: Orange Jordan Establishes First Private 5G Network In Kingdom For Aqaba Container Terminal (ACT) ([link](#))

- MWL: Dell'Oro highlights private RAN revenue growth ([link](#))

### 🕒 Telecoms Infrastructure, Small Cells, Antennas & others

- Paul Rhodes on LinkedIn - Sunday School : Spot the Difference! ([link](#))

### 🕒 Virtualization, Cloud & Edge

- FutureNet World - Insights Gleaned from 5G SA Rollouts: The Journey Thus Far ([link](#))
- Sagar Nangare on LinkedIn: How 'Telco as a Platform' can be a Game Changer for Telcos? ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Secure Cloud-Native Multi-Tenant Telco Edge AI Inferencing ([link](#))
- Paul Rhodes on LinkedIn - Tuesdays Thoughts: xRAN, What are we Waiting For? ([link](#))

### 🕒 Security & Privacy

- Silke Holtmanns on LinkedIn: "*Finally public, Threat intelligence framework to complement the MITRE ATT&CK FIGHT Framework (for 5G). Happy to see it now fully grown and supported by the industry...*" ([link](#))
- ABI Research: Free whitepaper "The State Of OT Security: A Comprehensive Guide To Trends, Risks & Cyber Resilience" ([link](#))
- Android Authority: Android 15 may protect you from rogue 'stingray' tracking devices ([link](#))

### 🕒 Connected And Autonomous Vehicles (CAVs)

- Mick Goulding on LinkedIn: "*Why is mobile signal often overlooked for new developments? Whether it's a brand new building with patchy indoor coverage or outdoor charging points for electric vehicles, connectivity plays such a crucial role...*" ([link](#))

### 🕒 Smartphones, Devices, Wearables & Gadgets

- Dean Bublely on LinkedIn: "*One of the myths of the 5G era is that we're on the verge of a mass switch to cellular-connected laptops. The same myth was hyped in the 4G era 10 years ago, and even the 3G era as far back as 2008...*" ([link](#))
- MWL: India iPhone production surges to \$14B ([link](#))

### 🕒 AI, ML & Automation

- FutureNet World - The Industrialization of Network Automation ([link](#))
- Light Reading: South Korea to invest \$7B in AI chip manufacturing ([link](#))
- New Nokia Bell Labs Consulting Whitepaper: Generative AI implications for telco operations ([link](#))
- The Guardian: New bill would force AI companies to reveal use of copyrighted art ([link](#))
- Jinsung (Alex) Choi on LinkedIn: Leveraging LLM Apps in Daily Mobile Network Engineering ([link](#))

### 🕒 Satellites, HAPS, Drones, UAVs & Space

- RCR Wireless: Deals, demos, delays and disappointments in 5G NTN ([Part 1](#), [Part 2](#))
- RNTFND: America is losing its GPS dominance to China's BeiDou satnav – SpaceNews ([link](#))
- RCR Wireless: Four market predictions for 5G NTN (and four phases of direct-to-cellular) ([link](#))

- SpaceNews: Banding together for direct-to-smartphone satellite services ([link](#))
- Tren Griffin on Twitter: "A Poobah at Wold Economic Forum asked a consultant to estimate the future size of "the global space economy." After being asked the question, the consultant stood up, locked the door, closed the shades, and then asked the Poobah, "How big do you want it to be? I'm guessing." " ([Tweet](#) with picture)
- NewsBytes - Meet Tiantong Project: China's revolutionary leap in satellite communication ([link](#))

### ☉ Sustainability

- Orange Business: Flux Vision innovates to tackle sustainability challenges ([link](#))
- Fortune: The world generated 62 million tonnes of electronic waste in just one year and recycled way too little, UN agencies warn ([link](#))

### ☉ Other News and Technology Stuff

- The Intercept: Google Won't Say Anything About Israel Using Its Photo Software to Create Gaza "Hit List" ([link](#))
- MSPNews: MSP Robot Dog 'Roscoe' Takes Bullets for His Human Law Enforcement Partners in Barnstable Incident ([link](#))
- CCS Insight: Online Channels Dominate Mobile Operator Interactions ([link](#))
- Michael Thelander on LinkedIn: "Signals Research Group - SRG Research Group just released a benchmark study that we did on behalf of Google, which evaluated the performance attributes of Cisco Webex, Google Meet, Microsoft Teams, and Zoom..." ([link](#))

☉ **Picture of the week:** An example of hidden infrastructure by Commscope from MWC 2024, captured by yours truly.



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](#).