



Mobile & Wireless Roundup No. 157 (see original on [Web!](#))

By Zahid Ghadialy

Welcome to the 157th edition of this newsletter. Yesterday, I attended a birthday party where a magician performed some incredible tricks that completely defied rational explanation. As a big fan of [The Mentalist](#), I like to think I can sometimes work out how such illusions are done, but in this case, I had absolutely no idea how the expert managed them.

The most surprising moment came when the magician found out that I work in the mobile industry. He then decided to perform a few tricks involving mobile phones. In one of them, two volunteers, people I knew so it couldn't have been staged, placed their phones next to each other. One phone had its flashlight on, the other off. The magician somehow appeared to pick up the light from one phone and transfer it to the other, and then back again.

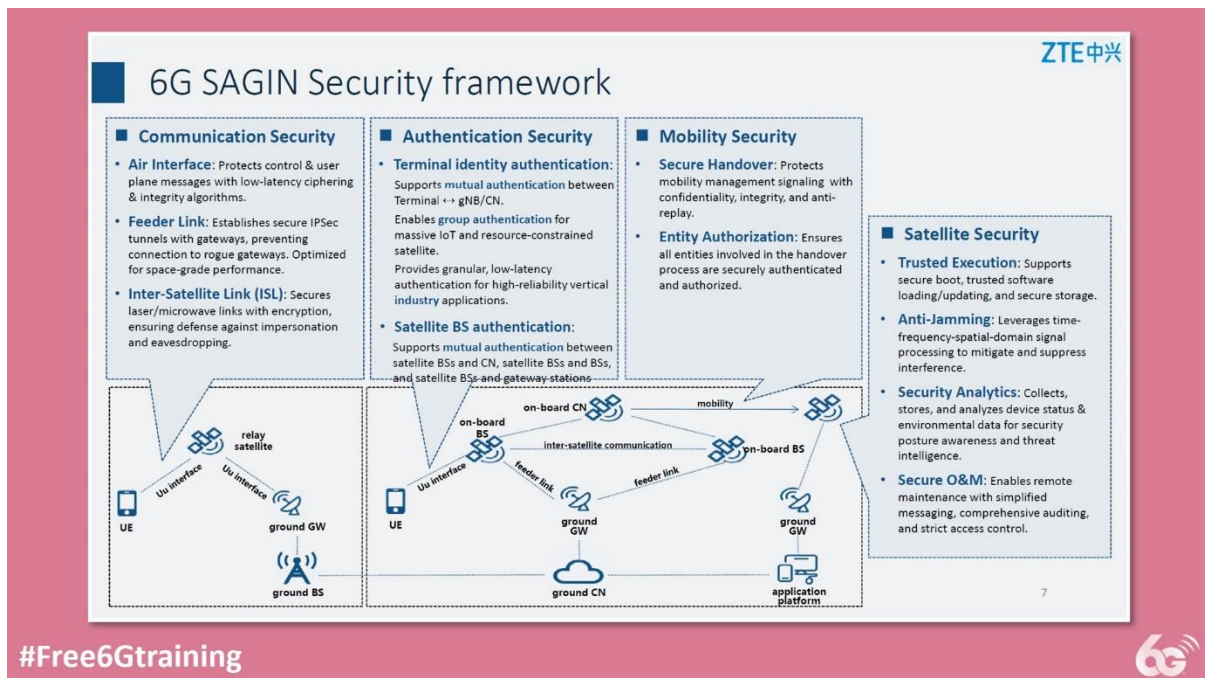
There were other equally mind-blowing moments, such as when someone entered their number on their phone using the keypad, and the magician seemed to lift the digital numbers off the screen with a click and send them to another phone. I could imagine how such things might work using spyware or an unsecured network, but in this case, the volunteers' phones were only connected via the cellular network.

It just goes to show that even after many years in the industry, having worked across devices, networks and everything in between, I still have no rational explanation for how these tricks were done. They were certainly the highlight of the evening, and I'm determined to figure them out at some point. I've added that to my ever-growing to-do list.

For those who don't know me, I'm a technologist with over 25 years of experience in mobile and wireless technology, currently working as an independent advisor, analyst, consultant and trainer. This newsletter is a summary of my posts and other news that caught my attention since the last edition.

6G

- Light Reading: What AT&T really wants from 6G ([link](#))
- Free 6G Training - From 0 to PHY: Keysight's View on Innovating Ahead of the 6G Standard ([link](#))
- Free 6G Training: Securing the 6G Space–Air–Ground Integrated Network (6G SAGIN) ([link](#))



5G

- UE Assistance Information in LTE and 5G ([link](#))
- TelcoForge: Inside Shanghai's Massive 5G-Enabled Metro Network ([link](#))

4G/LTE

- Operator Watch Blog: Madagascar's Operators Push Ahead in the Race for Connectivity ([link](#))

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

- Fierce Network: Open RAN is 'still happening' says analyst as Dell rolls out new server ([link](#))
- TMN: Spring 6 outcome deflates innovation dreams ([link](#))

Spectrum

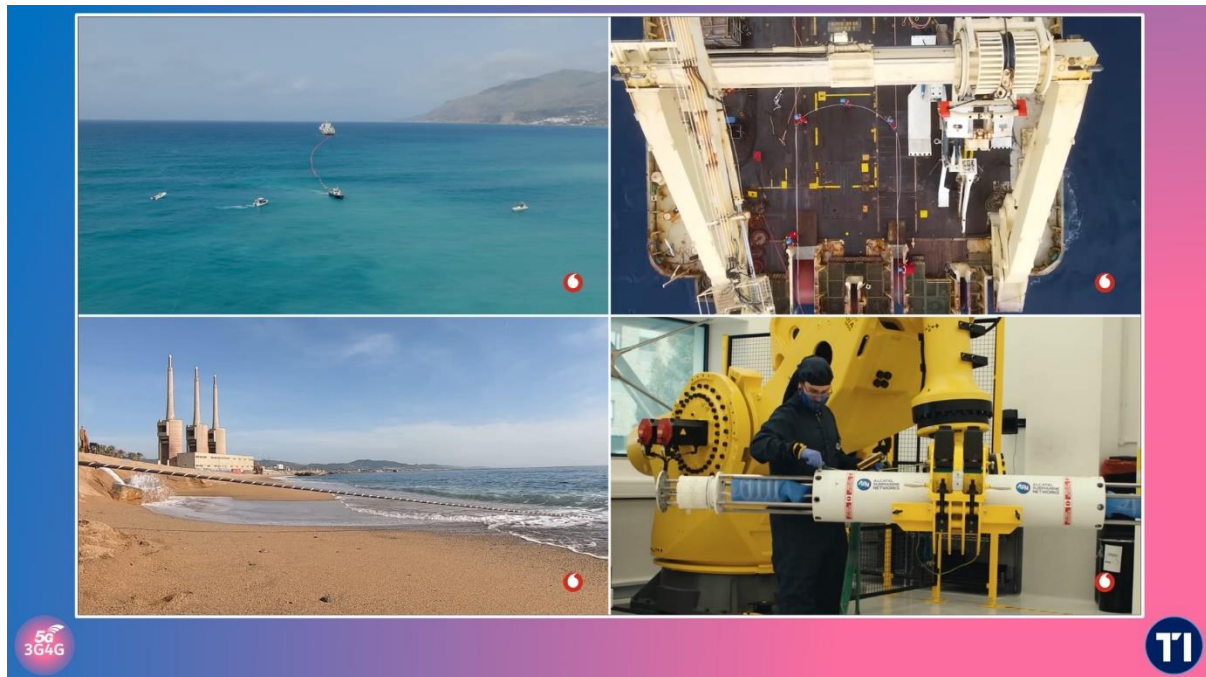
- BackTapp Consulting - FR3: Is the upper midband the new FR2/mmWave? ([link](#))
- Ofcom UK - Ofcom spectrum auction results: networks acquire rights to airwaves to improve mobile services in busy places ([link](#)) – details [here](#).
- MWL: Turkish 5G auction exceeds targets with \$3B raised ([link](#))

Private Networks

- Dell'Oro Group: Private Wireless Growth Continues in 1H25 ([PR](#))
- Private Networks Technology Blog: Hybrid 5G Boosts Automation and Safety at KLG Europe's Warehouse ([link](#))

🕒 Telecoms Infrastructure, Small Cells, Antennas & others

- Telecoms Infrastructure Blog: The Subsea Cables Infrastructure Keeping the World Connected ([link](#))



- Paul Rhodes on LinkedIn - Saturday School: Water Disguise in Paris! ([link](#))
- Light Reading: Vodafone Spring 6 lands with a whimper for Ericsson and Samsung ([link](#))
- Paul Rhodes on LinkedIn - Thursday School: Green Telecoms! ([link](#))

🕒 IoT / M2M / Smart Homes

- Transforma Insights - AI-enabled IoT video analytics: key technologies, opportunities, and solution elements ([link](#))

🕒 Security & Privacy

- 3GPP SA3 Update from ETSI Security Conference 2025 ([link](#))
- Denis Laskov on LinkedIn: Hardware hacking in automotive: training materials to accelerate your career in cybersecurity ([link](#))
- The Register: Researchers intercept unencrypted satellite traffic from space blabbermouths ([link](#))
- Dmitry Kurbatov on LinkedIn: "GEO Satellites Leak Global Data. New research shows that GEO satellites broadcast unencrypted IP links, leaking telecom, military and banking data - accessible with a \$600 hardware..." ([link](#))
- Light Reading: Deutsche Telekom brings in hackers to find 5G bugs ([link](#))
- The 3G4G Blog: Evolving Communication Security Towards 6G at the ETSI Security Conference 2025 ([link](#))

3GPP – Home of 6G ...and of previous Gs

Generation: UMTS a.k.a. 3G, 4G/LTE a.k.a. 4G, 5G, 6G

Release: Rel. 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23

Year: 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030

6G Security

- 5G security good base for 6G security
- Evolve security in 6G based on
 - New use cases
 - New technology
- Security by Design - Improved threat analysis one important part
- Simplification as far as possible, avoid options
 - Simplification requires prioritization – based on threat and risk analysis
- Post-Quantum Cryptography (PQC) implementation for mobile networks
- Integrated Sensing and Communications (ISAC)
 - New technology and new use cases – likely to be the most challenging part of 6G from security and privacy point of view

SAGIN: Enabling Ubiquitous 6G Connectivity

■ SAGIN: A holistic architecture integrating satellites (GEO/MEO/LEO), aerial platforms (HAPS, drones), and terrestrial networks.

Key Drivers for 6G

- **Global Seamless Coverage:** remote, rural, and underserved areas
- **Ultra-Low Latency:** Enabling mission-critical services
- **Massive Device Access:** For IoT and massive machine-type communication

Reference architecture

- **Transparent Payload**
Satellite acts as a relay node – transparently forwarding the radio frequency signals between the terminal and the ground base station, providing communication signal connection and continuous business services as a coverage filler for the ground network.
- **Regenerative Payload**
Moving some or even all of the network elements to the satellite, equivalent to making the ground communication network three-dimensional, forming an integrated space-ground network with satellite-ground coordination and high, medium and low orbit coordination.

Architecture Changes Pose New Challenges on Security

6G System Design Considerations

Source: Chair Summary of 3GPP Workshop on 6G (2025.03)

Source: Huawei (‘6G: The Next Horizon’) white paper

The Agentic-AI 6G architecture design poses new challenges on security:

- Challenge 1: Probabilistic decision-making of AI may bring uncertainty
- Challenge 2: The autonomy of Agent may lead to issues such as intention/value misalignment

✓ Traditional security measures may not be adequate (e.g. static security domains, focusing on external attacks)

✓ Trust is considered to be a feasible solution (e.g. value alignment, liability linkage)

Source: ETSI: AI Core Reference Architecture (2025.02)

*GSR ENI 951: Study on AI Agents based Next-generation Network Slicing

🔗 Connected And Autonomous Vehicles (CAVs)

- The Stack: Jeep software update bricks vehicles, leaves owners stranded ([link](#))

🔗 Smartphones, Devices, Wearables & Gadgets

- Denis Laskov on LinkedIn - Humanoid robots and how to hack them: taking apart the Unitree G1 robot to find its vulnerabilities ([link](#))

🔗 AI, ML & Automation

- Dean Bubley on LinkedIn: "Important stat from an Orange speaker at #NetworkX. In June 2025, the amount of traffic generated by #AI tools and inferencing on its mobile network was.... just 0.1% ..." ([link](#))
- Ruth Brown on LinkedIn: From Prediction to Full Autonomy ([link](#))

🔗 Satellites, HAPS, Drones, UAVs & Space

- Frank Royal on LinkedIn: "The satellite ground segment is going shared as GEO operators get financially squeezed and LEO satellites scale deployments. With multi-tenant access and pay as you go pricing, Ground Station as a Service (GSaaS) follows a model similar to data centers and tower companies, which makes it attractive to infrastructure investors..." ([link](#))

🔗 Wi-Fi

- TP-Link Achieves Breakthrough With First Wi-Fi 8 Connection ([PR](#))
- Broadcom Introduces Industry's First Wi-Fi 8 Silicon Ecosystem Powering the AI Era ([PR](#))

🔗 Other News and Technology Stuff

- Communication Chambers: European telcos are well placed to fund needed investment in digital infrastructure ([link](#))

- Dean Bubley on LinkedIn: *"Quite a lot of different things to cover at Network X in Paris from yesterday. I'll cover some of the network equipment/software trends in another post, but a couple of quick comments on telecoms & AI ..."* ([link](#))

© **Picture of the week:** This week we have another interesting update from Japan. NTT Docomo has embraced Starlink to provide backhaul in remote and hard-to-reach areas. In a [recent publication](#), they explained how they are bringing connectivity to Mount Haku, also known as Mount Hakusan, a dormant stratovolcano in Japan. The article, written in Japanese, provides the full details, and the image below is taken from their [post on X](#).



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](#).