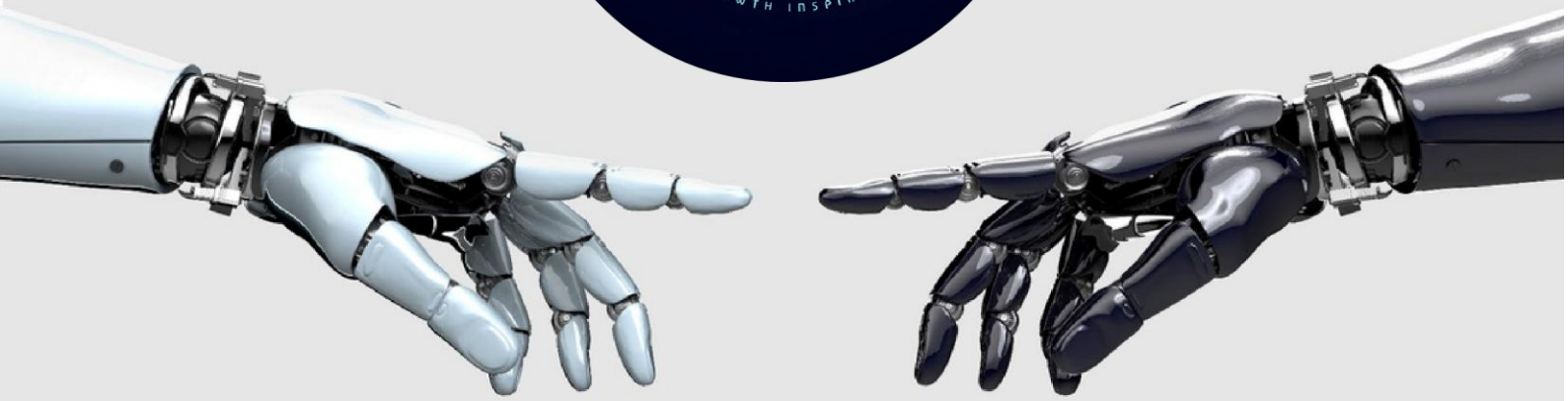
MAKEMYTECHNOLOGY

MMT

UNLOCKING GROWTH INSPIRING INNOVATION



Mobisync-5G-Logger (LIVE COTS UE protocol Logger)

5G LAB

Power

Pharmacy

Health

Agriculture

Education

TALK TO US

+91 63610 31970

info@makemytechnology.com

Bixbi Systems Private Limited , Visvesvaraya Technological University, Regional Centre, 1st Main Rd, RHCS Layout, Annapoorneshwari Nagar, Naagarabhaavi, Bengaluru, Karnataka 560091

MAKE MY TECHNOLOGY

Mobisync-5G Logger

🚀 See What Your 5G UE Sees — Instantly

If you've ever built, debugged, or optimized an open-source or commercial 5G network, you've probably asked:

> "What exactly is my UE doing right now?"

That's where **Mobisync-5G Logger** comes in —a lightweight, cross-platform tool that connects to your **COTS 5G smartphone** through USB cable and lets you view **live RRC, NAS, MAC, RLC, and Layer-1 logs** directly in **Wireshark** — in real time!.

Whether you're bringing up a new 5G gNB, optimizing throughput, or diagnosing attach failures, Mobisync gives you **unprecedented visibility** into UE behavior — with **zero fuss**.

⚙️ Why Mobisync-5G?

Because simplicity drives innovation.

Most traditional 5G logging tools are *heavy, expensive and proprietary*, requiring complex setup — dedicated dongles, drivers, and licenses — only to export logs for offline decoding later.
Mobisync-5G Logger changes that.

It's designed with a **developer-first philosophy**:
✅ *Plug in your phone (**rooted as well non-rooted**) → Click "Start Logging" → View live decoded 5G messages in Wireshark instantly. Phone models supported are from **Oneplus, Quectel, MI/POCO as well as Samsung***
No dongles. No vendor lock-ins. No waiting.

💪 Mobisync Advantages at a Glance

✅	Mobisync-5G Logger Advantage	What It Means for You
🧠 **True Live Wireshark Decoding**	Instantly decodes OTA messages — no export or conversion needed.	faster resolution of issues/Bugs for gNB
⚙️ **Works with COTS Phones**	No custom modem firmware, no root required for many supported models.	cost efficient
🧰 **Lightweight Single Executable**	Runs anywhere — no bloated SDKs or installation nightmares.	easy to use and deploy
🔎 **Protocol Transparency**	View clear RRC/NAS/MAC/RLC/L1 signaling exactly as transmitted.	unambiguous
🧪 **Cross-Platform Freedom**	Supports **Ubuntu 22.04/24.04**, **Windows**, and **Raspberry Pi(Offline logging only)**	flexibility
💡 **Affordable & Open**	No expensive licensing or yearly renewals — built for real users.	Pay only for essential 5G capabilities
🕹️ **Developer Friendly**	Perfect for R&D labs, open-source developers, and educators.	Quicker, Nimble and easy
🚀 **Instant Debug Feedback**	Make a config change → log → verify in seconds, not hours.	Accelerated debugging cycle
🔍 **Custom Lua Extensibility**	Add your own dissectors for vendor-specific messages.	Flexibility

Bottom line: Mobisync does in *seconds* what enterprise tools do after *minutes of export, decode, and post-processing.*

🧩 Perfect for Every 5G Development Phase

🧱 1. Network Bring-Up

- See instantly if UE is stuck at MIB, SIB, RRC Setup, or Security stage.
- Detect attach/registration failures or low throughput causes in real time.

Stop guessing — start seeing.

🧭 2. Exploration & Tuning

- Validate changes to RAN or core parameters on the spot.
- Confirm UE capability negotiation, reconfig responses, and security setups.

Iterate confidently — verify every tweak.

🧪 3. Development & Testing

- Debug advanced features, handovers, and cell selection/reselection.
- Correlate UE traces with gNB logs slot-by-slot.

Bring transparency to feature testing.

🚗 4. Field Diagnostics

- Instant insight into why a UE isn't attaching or achieving throughput.
- Portable, USB-based — fits right into your field kit.

Perfect for drive tests, demos, or on-site troubleshooting.

📡 Protocol Coverage Snapshot

Layer:	Examples
RRC/NAS	MIB, SIB1/SIBs, RRC Setup, Security, UE Capability, Reconfig, Paging, NAS SM/MM (decrypted)
MAC/RLC	RACH Trigger/Attempt, TB Stats, PDSCH/UL Schedule Reports, CSI Reports
L1 (Physical)	Cell Search Updates, RSRP/RSRQ/SNR for Serving and Neighbor Cells

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💡 Feature Highlights

- 🎛️ **Live & Offline Logging** — choose between real-time Wireshark or pcap dump.

- 🧩 **Full Wireshark Compatibility** — works seamlessly with dissectors and filters.
- 🖥️ **GUI Simplicity** — clean, intuitive PyQt interface.
- 🔧 **Extensible** — plug in your own Lua dissectors for proprietary formats.

🧭 Upcoming Features

- 🧠 AI-driven automatic fault identification
- 🗺️ Drive test visualization & GPS tagging
- 📶 Handover/cell reselection event correlation
- 🔍 Expanded PDCP/RLC analytics
- 🧩 Dynamic signal-flow visual graphs

🎓 Built for Researchers, Developers, and Engineers

Whether you're:

- A **5G researcher** analyzing UE behavior
- A **network developer** fine-tuning RAN features
- A **field tester** needing quick attach visibility
- Or an **educator** teaching 5G internals

> 🔖 *"Don't just test your network — understand your UE*

☎️: For any queries or trial license, please contact:

nj_contact@yahoo.com, info@makemytechnology.com,

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Screenshots of the Tool in Action

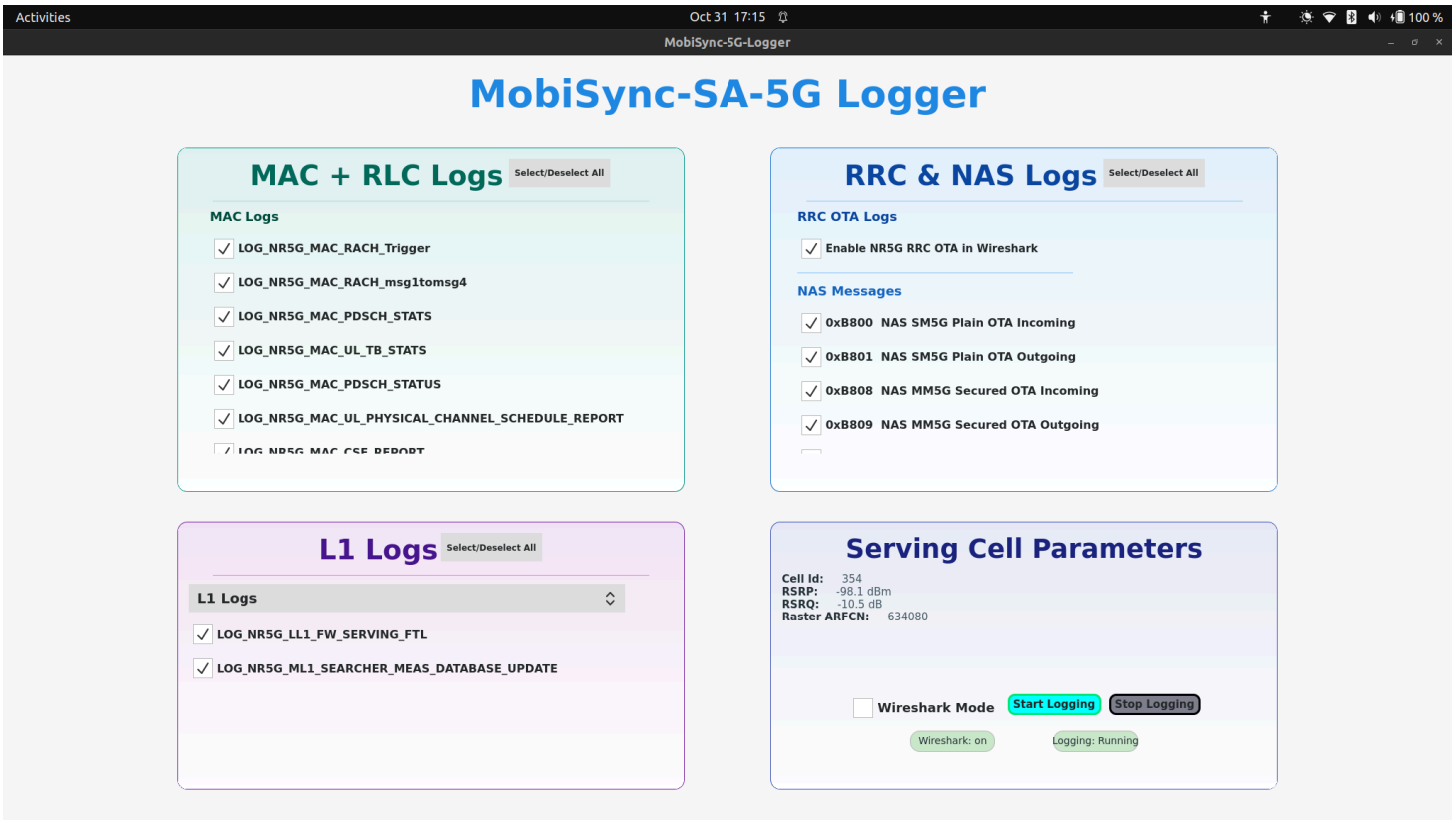
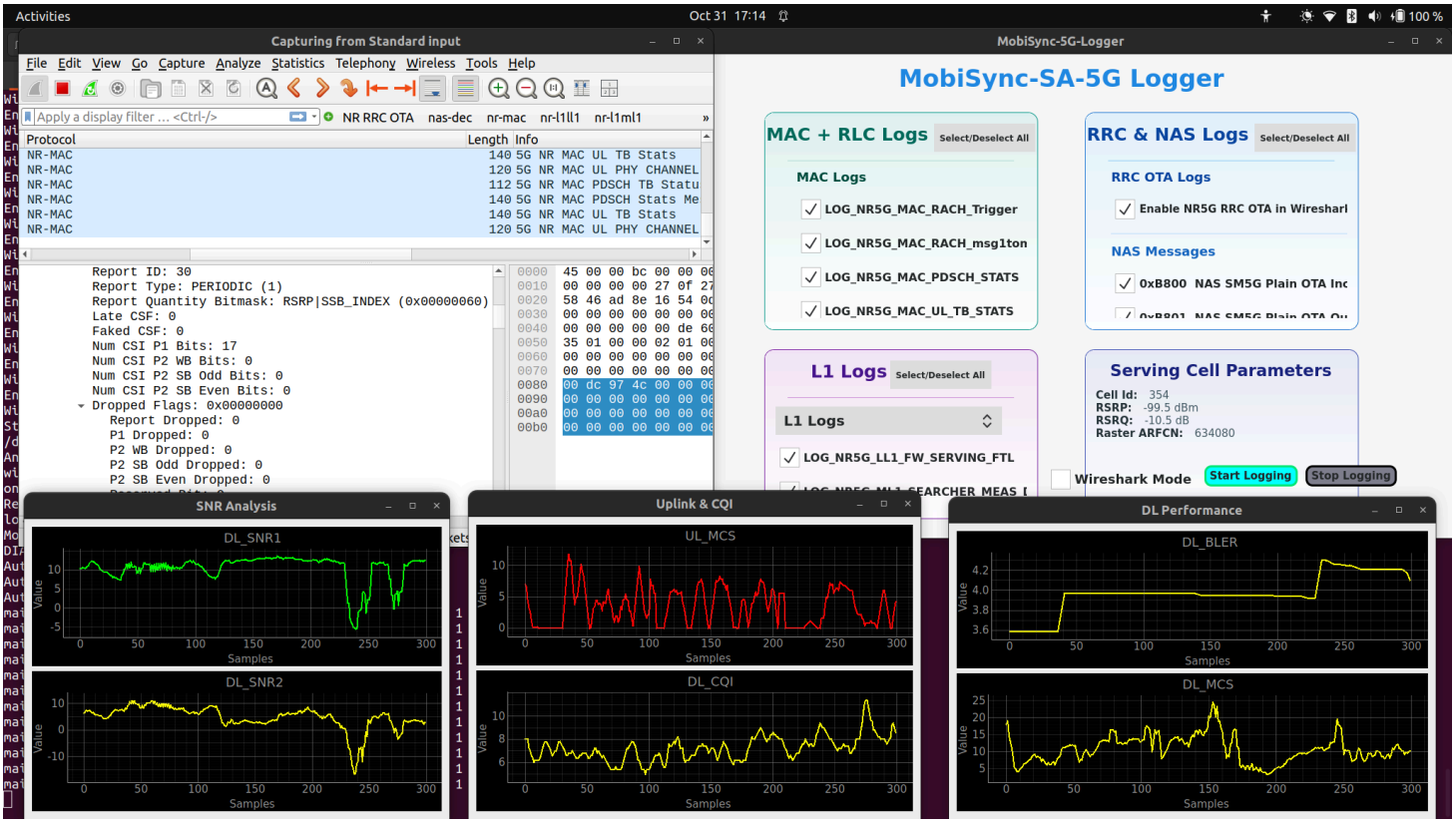


Fig 1: Front end LOGS Config

Fig 2: Wireshark to view elements of MAC CSI report message along with KPI visualization



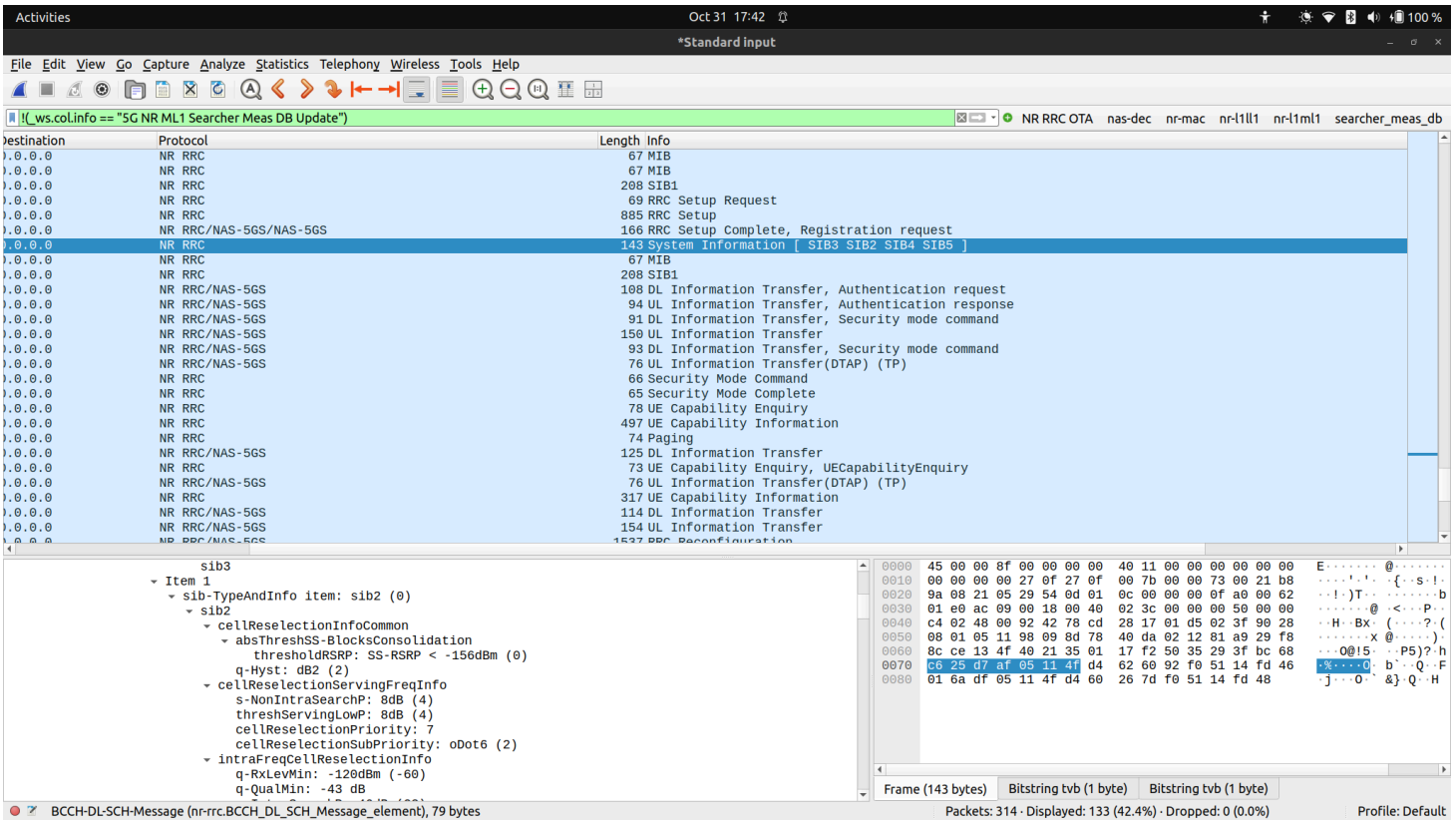
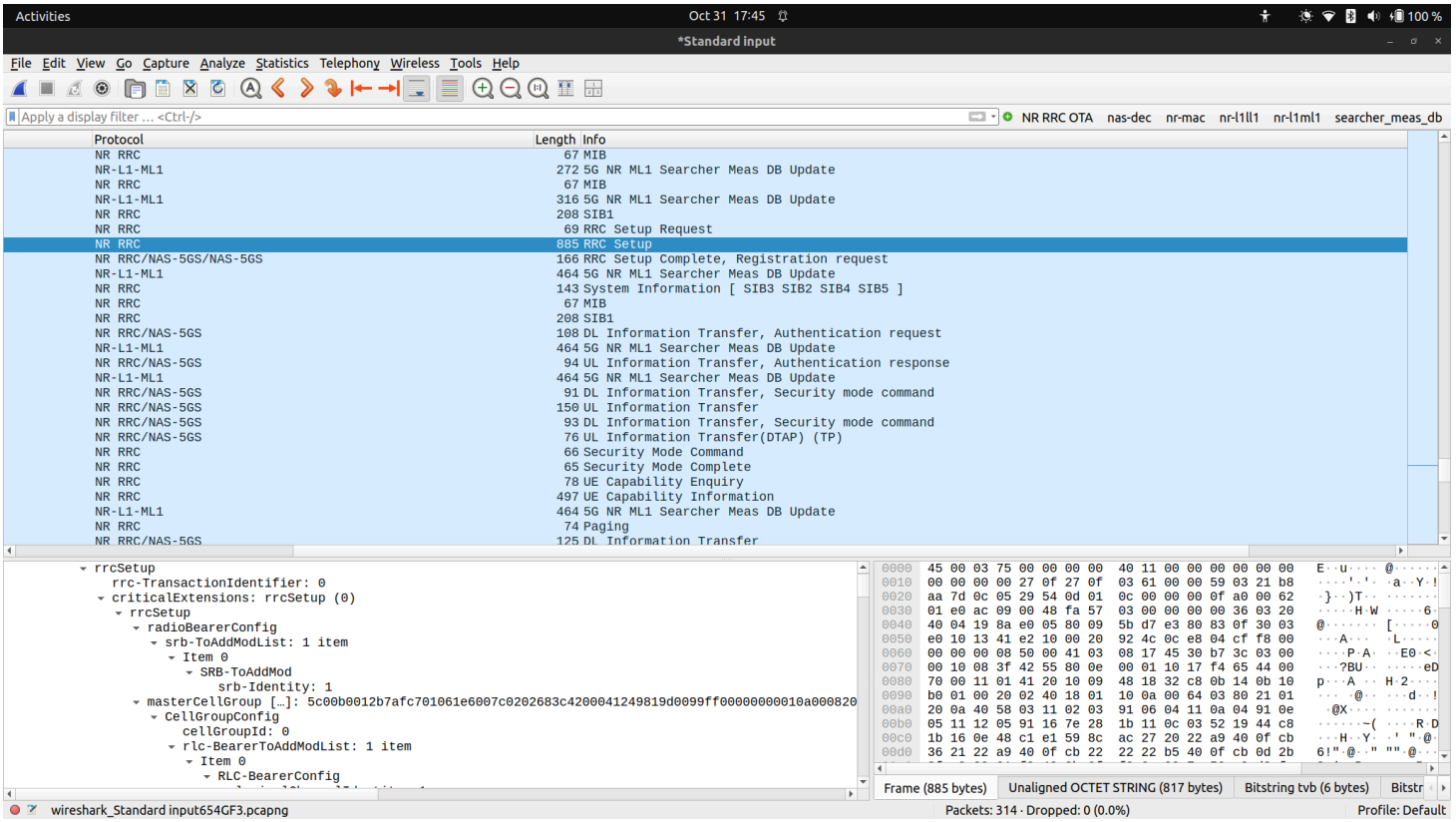


Fig 3 & 4: RRC OTA Message sequence during network attach/registration



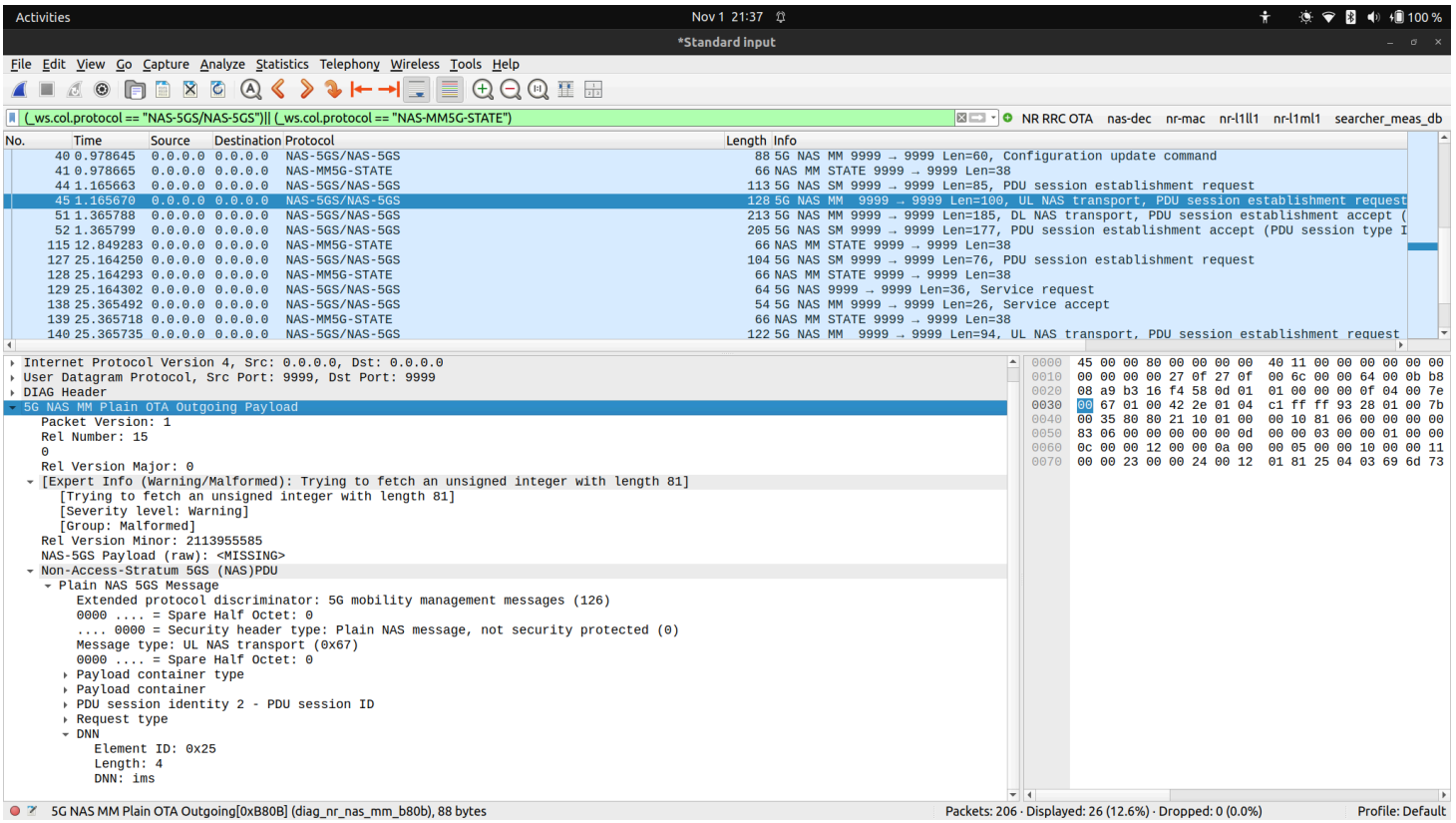
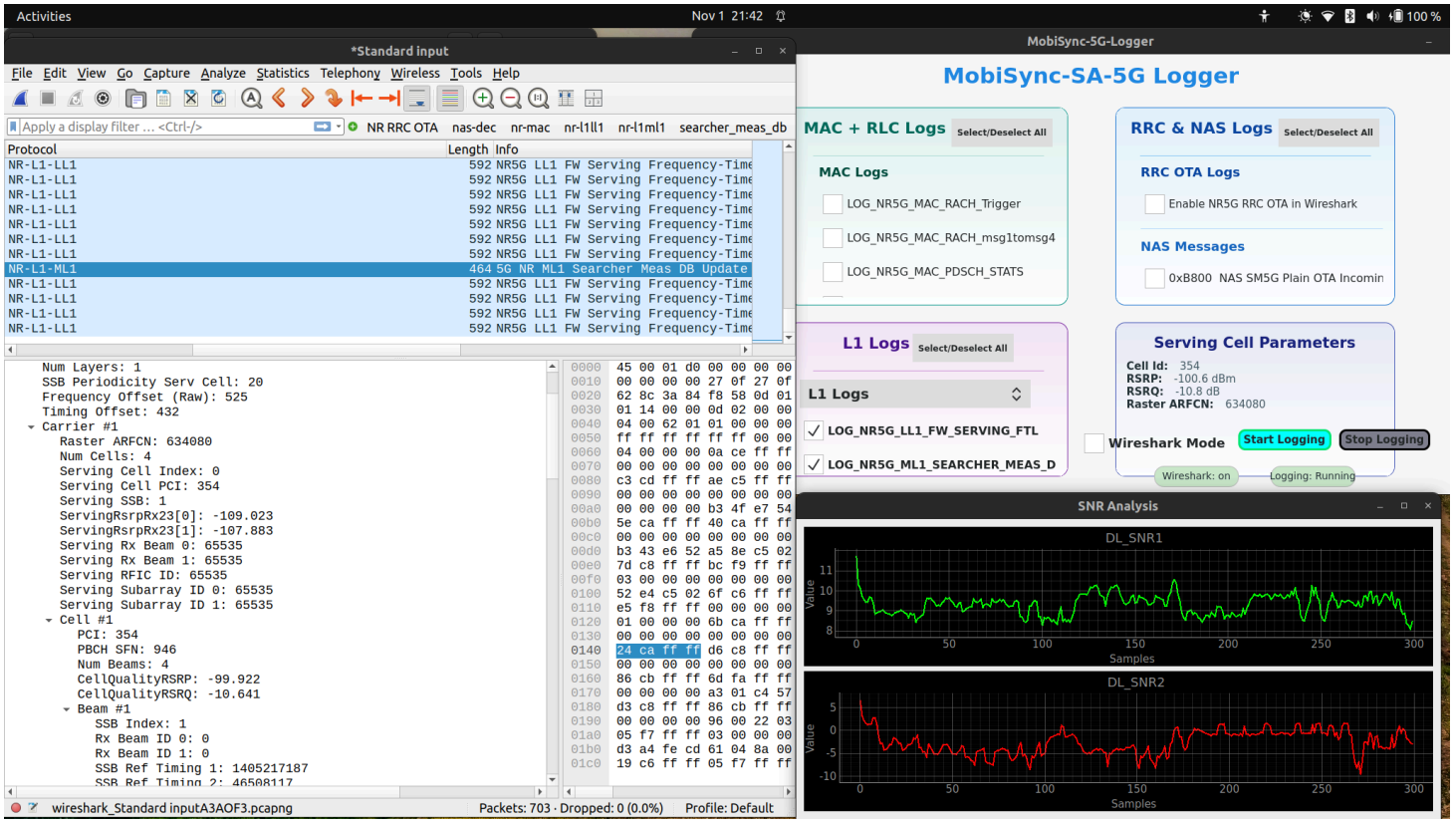


Fig 5: RRC NAS Messages during attach/registration procedure

Fig 6: Details of L1 msg: Cells post Cell search



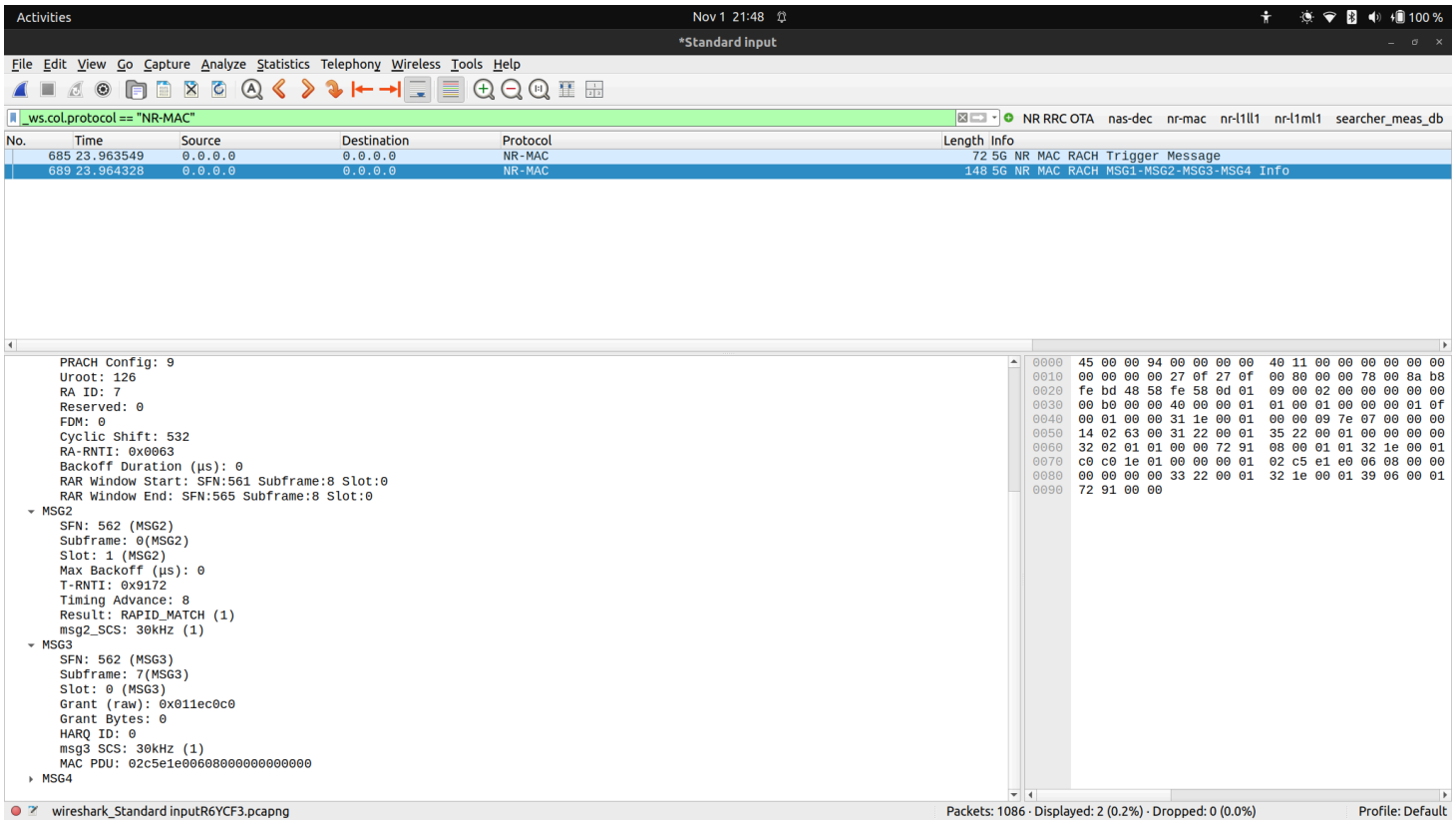


Figure 7: Details of MAC Msg1-Msg4 during RRC setup

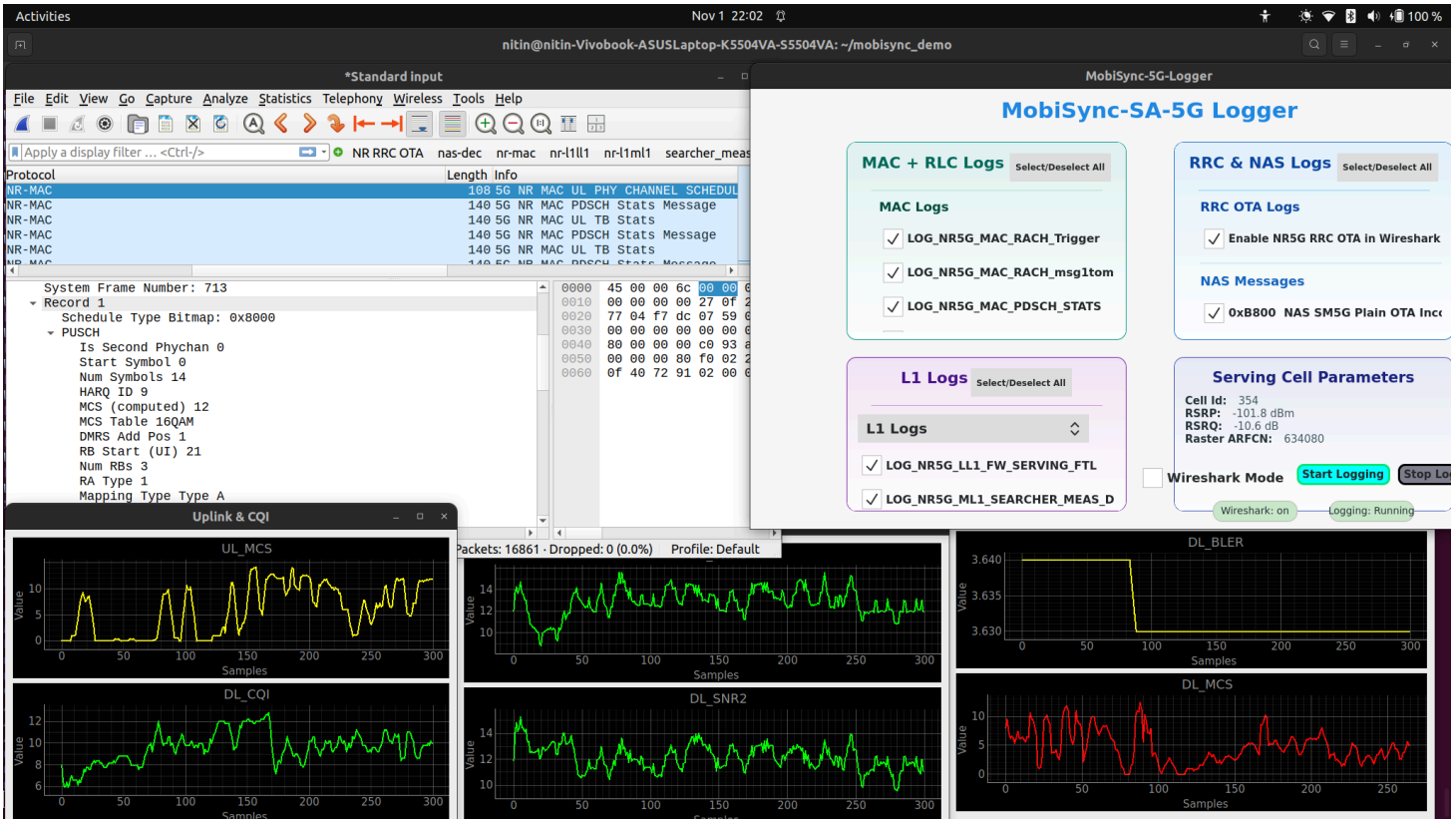


Fig 8: Details of UL PHY channels (PUSCH/PUCCH/SRS etc)