



Global Internet & 5G News Gathering

Leveraging TVU Networks'
Innovations



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"In the Cloud and AI age, the industry needs vendors that deliver holistic solutions, not just isolated products. TVU is pioneering this path, crafting advanced tools infused with AI and strategies that drive your digital transformation. We champion collaborative AI-driven development and operations tailored to address your unique challenges, ensuring we're continually innovating together... all at a velocity that redefines industry standards.

Paul Shen



TVU Networks®

18

Years in the
M&E Industry

10M+

Hours of
transmission per
year

4000 +

TV Stations



EMMY® AWARD
WINNER



Increased Demand for News

The era of global connectivity, fueled by rapid technological advancements and the ubiquity of digital devices, has dramatically reshaped our news consumption habits.

- 1.- Instant Access to Information
- 2.- Social Media's Influence
- 3.- Global Interconnectedness
- 4.- Audience Expectation of Authenticity
- 5.- Interactive Engagement
- 6.- Technological Feasibility
- 7.- Rise of Citizen Journalism

The era of global connectivity has created an environment where real-time news isn't just preferred—it's expected. As boundaries blur and the world becomes more interconnected, the thirst for immediate, authentic news coverage intensifies.

Challenges in Traditional News Gathering Methods

Traditional news gathering methods, while foundational for the evolution of journalism, have encountered a range of challenges, especially in the rapidly changing digital landscape.

- 1.- Mobility Limitations
- 2.- High Cost
- 3.- Resource Intensive
- 3.- Geographical Constraints
- 4.- Time Constraints
- 5.- Limited Interactivity
- 6.- Technological Limitations
- 7.- Not Agile for changes

Despite these challenges, traditional news gathering methods laid the groundwork for the journalism industry. However, the evolution of technology and changing audience preferences have made it imperative for the news industry to innovate and adapt to more modern, agile, and efficient methods.

From Satellite Trucks to IP-based Agility

A News Gathering Revolution



The Satellite Truck

Mobility Issues

Setup Time

Cost



The IP-based Revolution

Lightweight & Portable

On-the-Go Broadcasting

Flexibility in Connectivity

Global Internet and 5G

It's Significance for News Gathering



1. The Rise of Mobile Journalism (MoJo):

Reporters can now capture, edit, and broadcast news from their devices from anywhere in the world.

2. Real-time Reporting:

With the global internet and 5G, the delay between capturing an event and broadcasting it to audiences has diminished significantly.

3. Enhanced Quality:

5G offers faster data speeds and more reliable connections. This allows broadcasters to send high-definition and even 4K video feeds without bulky satellite trucks.



Global Internet and 5G Its Significance for News Gathering

4. Cost Efficiency:

With 5G and the global internet, news agencies can broadcast live at a fraction of the cost, making live coverage more accessible even to smaller news outlets.

5. Broadening of Horizons:

Remote locations that were once out of reach due to a lack of infrastructure are now accessible. Reporters can send live feeds from virtually anywhere on the planet.

▶ Advancements in 5G Transmission Technology:

1. Sub-6GHz 5G NR Modems:

- Wider Coverage
- Better Building Penetration
- Reliability

2. Next Gen 3GPP Release 16 Modems:

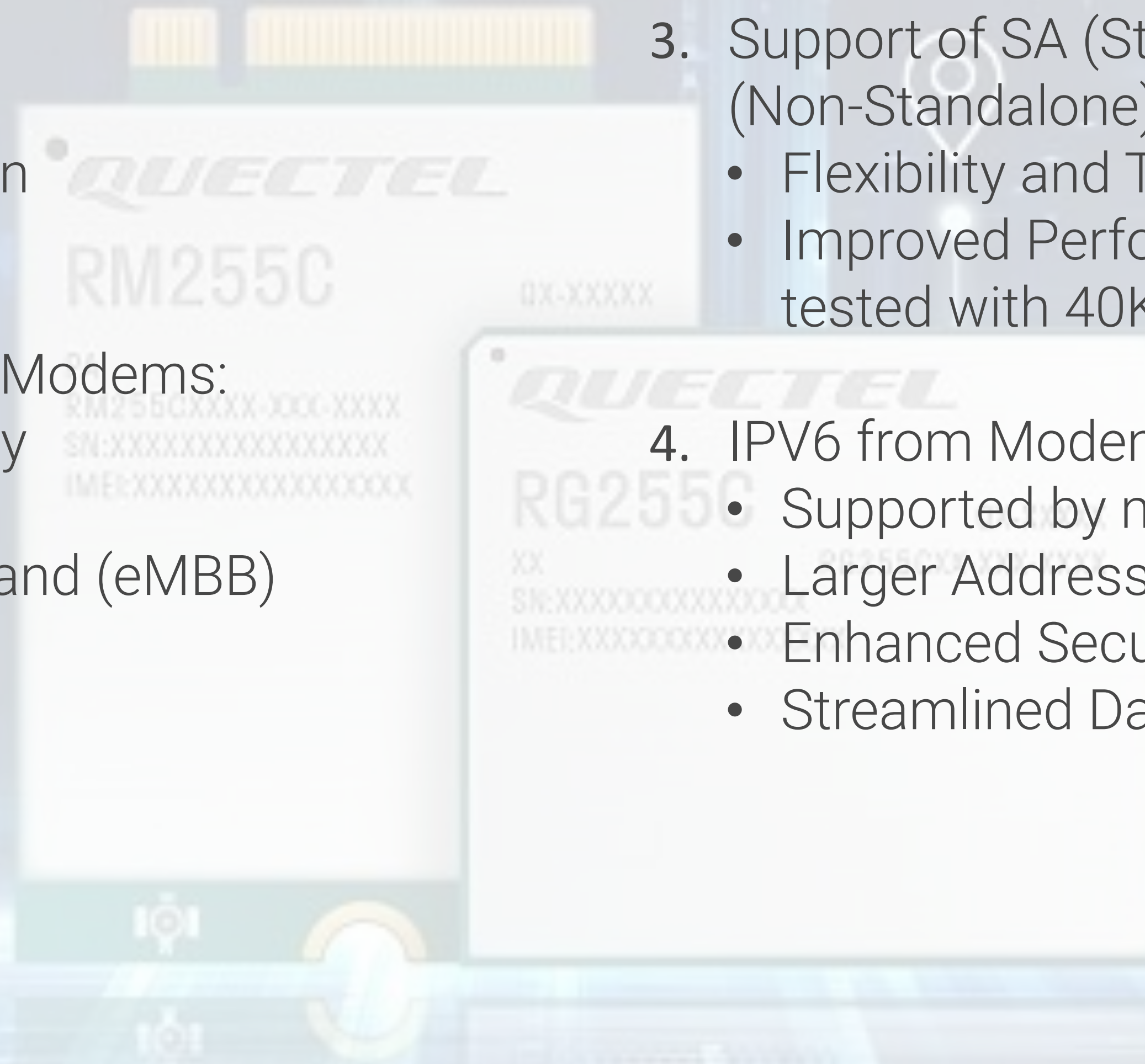
- Ultra-Reliable Low-Latency Communication (URLLC)
- Enhanced Mobile Broadband (eMBB)
- IoT Enhancements

3. Support of SA (Standalone) and NSA (Non-Standalone) Modes:

- Flexibility and Transition
- Improved Performance (Slicing) – already tested with 40K+ audience at stadium.

4. IPV6 from Modem to Receiver

- Supported by multiple operators
- Larger Address Space
- Enhanced Security
- Streamlined Data Flow



▶ TVU Networks: Innovating News Gathering

TVU has integrated advanced 5G modems and the latest antenna arrays into its solutions

- Six sub-6GHz 5G NR embedded modems
- Next gen 3GPP Release 16 modems support 5G SA and NSA modes
- On the New TVU One, a highly optimized antenna-array with 22 individual antennas - multiple antennas per modem
- External 5G Antennas for RPSLink and MLink
- Support for MIMO Tx for next generation 5G networks on ALL six modems. Transmission stability
- Support for IPv6 - modem to receiver
- Supports all major 5G/LTE/3G bands worldwide
- Support of multiple 5G mmWave external devices/handsets with direct USB tethering
- Dual WiFi (WAN and HotSpot with MIMO antennas (2xPer)

ONE Hardware



▶ TVU Networks: Next Generation of Inverse StatMux

TVU Networks has implemented the Third generation of Inverse StatMux



0.3 Seconds Latency on Cellular Network

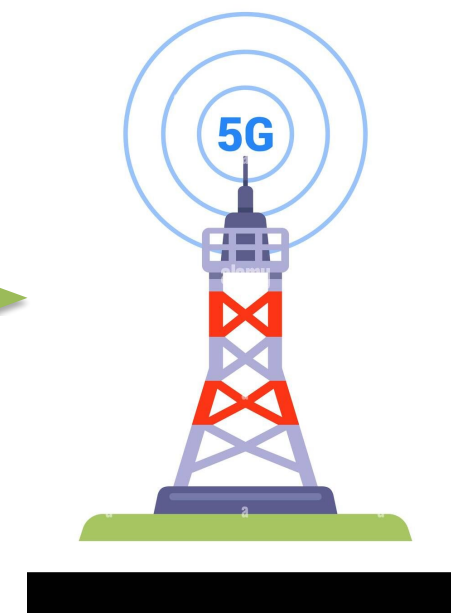


- For years, Inverse Statmux+ has been the gold standard for delivering high-quality, low-latency broadcasts, even through unstable networks.
- Demand for greater performance, especially in areas of dense congestion or weak signals.
- Demand for ultra-low latency, especially for REMI broadcasts.
- TVU has meticulously enhanced the Inverse Statmux algorithm, culminating in the creation of ISX!
 - ✓ Fast Variable Bit Rate Controller
 - ✓ More accurate network bandwidth conditions projection for each link
 - ✓ Error Correction Technology without retransmission or fixed overhead.
 - ✓ Achieves groundbreaking latency – as swift as 0.3 seconds on cellular.

▶ TVU Networks: Innovating News Gathering

TVU Networks offers a comprehensive suite of solutions, harnessing the strength of Internet and 5G technologies to enhance news gathering and the entire News Media Supply chain.

Remote Journalist with TVU Anywhere 5G



Cloud Production – TVU Producer



Remote Studio



TVU RPS One



RPS Link or MLink



REMI Production – Traditional Studio Control Room



▶ Case Study: France Télévisions – Paris



France Televisions introduces Hyper-Mobile broadcasting for Paris 2024 1-year countdown talkshow

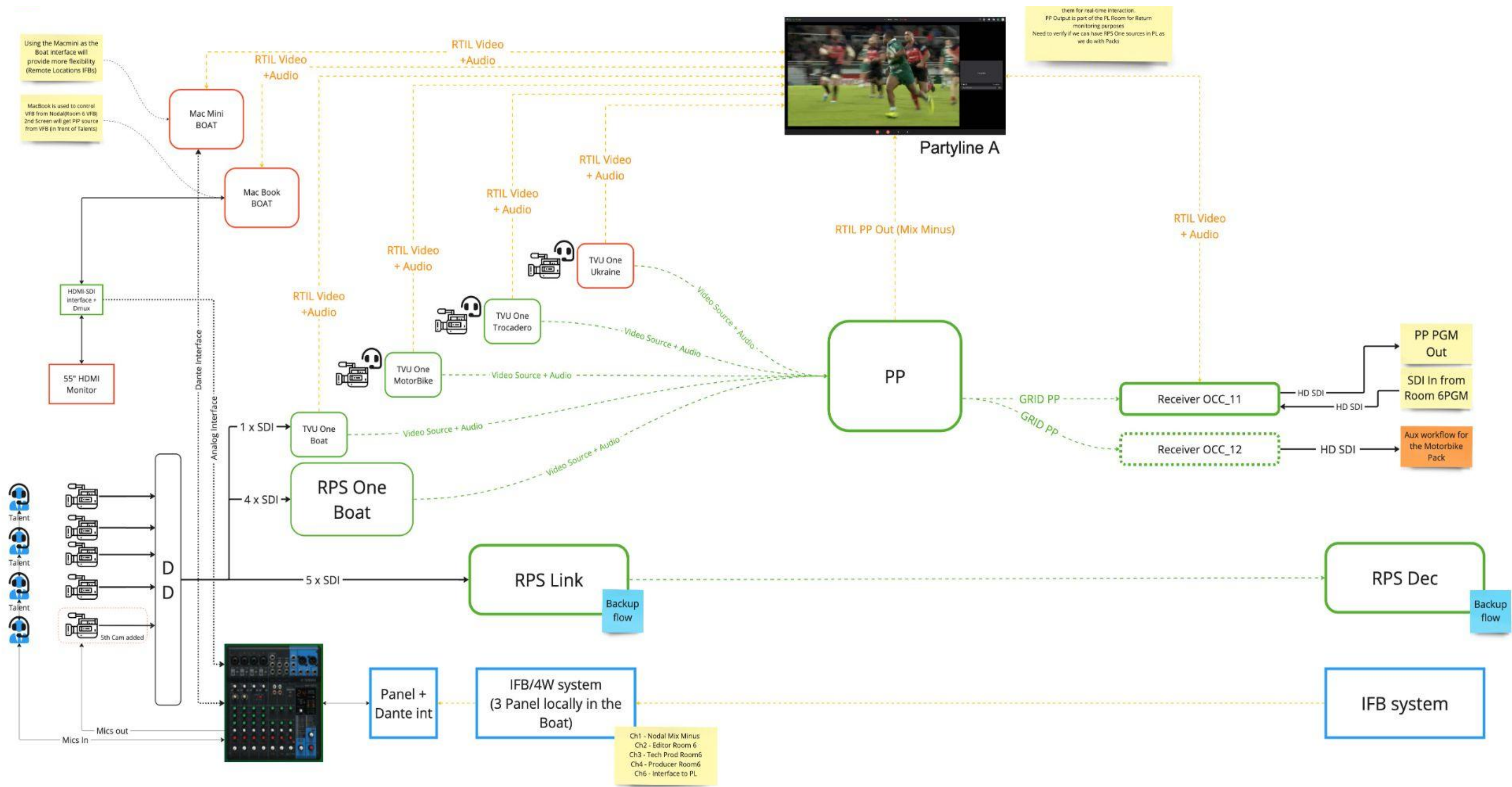


scan me!





Case Study: France Télévisions – Paris



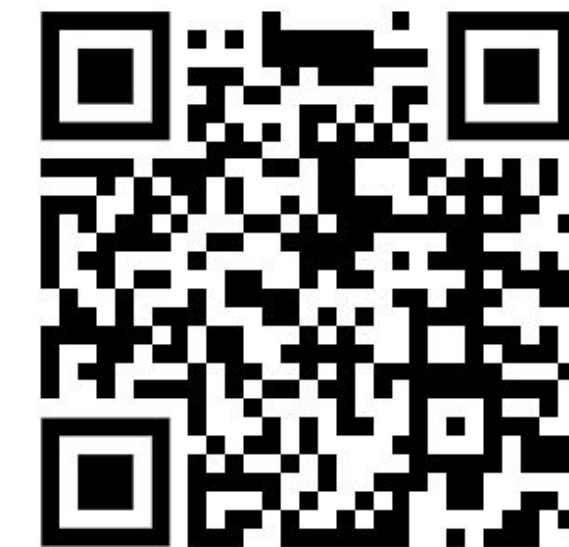


Case Study: DFL, TVN, Viaplay, Deutsch Telekom – Munich

First-Ever 5G Transmission for the German Supercup 2023 in the Bayern-Munich Allianz Arena



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▶ Case Study: Betevé, La Xarxa, CellNex – Barcelona

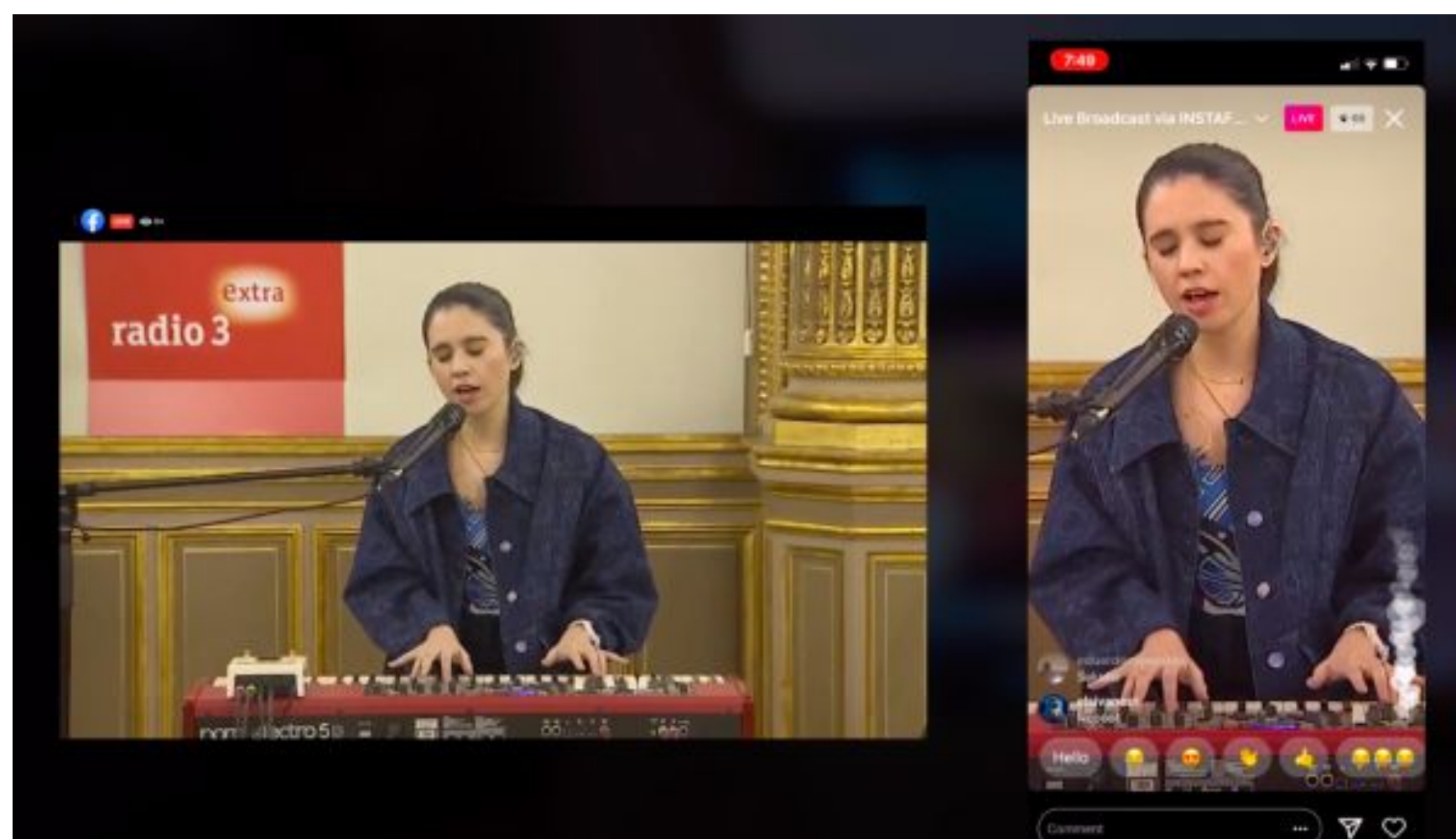


TVU Networks assisted Betevé in conducting live transmission tests on a standalone 5G network.



▶ Case Study: RTVE – Madrid

With Cloud-Based TVU Producer and 5G transmitters, RTVE Produced & Distributed A Radio 3 Musical Event to Traditional and Streaming Channels





Thank You !!!

