AUDEAMUS GROUP, LLC

Telecommunications Research Brief

November 6, 2026 | New research since the October 30 briefing

THIS WEEK'S JUDGMENT

The clearest deployment lesson comes from measured Starlink service: local network policy can dominate the customer experience. New work also improves how researchers characterize AI traffic for 6G and design efficient MIMO receivers. These findings justify better tests and targeted trials; they do not establish a case for broad infrastructure replacement.

01 / LEO CONNECTIVITY / NOVEMBER 4, 2026 / ARXIV PREPRINT

A First Look at Starlink Maritime on Cruise Ships

Jinwei Zhao, Kousar Malekinasab and Jianping Pan, University of Victoria. Two voyages combined terminal telemetry, passenger-device tests and external probes. On Silver Muse, the passenger median was 7.84 Mbps down / 4.50 Mbps up with BBR, consistent with purchased-plan rate limits. Terminal-to-PoP latency medians were about 18-19 ms; the onboard network added roughly 8-9 ms at the median.

Evidence limits. This is a two-ship observational study using December 2025 and July 2026 measurements. Aggregate terminal traffic reflects demand, not maximum capacity. Onboard configuration was not controlled. No peer-reviewed publication is identified in the arXiv record.

Audeamus inference. For shared LEO service, test Wi-Fi contention, per-user policy and session continuity alongside satellite performance before adding terminals. Public-IP changes within one PoP make VPN and application testing relevant. Maritime findings need validation before transfer to residential communities.

Original paper

02 / 6G TRAFFIC ENGINEERING / NOVEMBER 4, 2026 / ARXIV PREPRINT

Characterizing AI Service Traffic for 6G: An Open Testbed and Initial Results from 3GPP SA4

Imed Bouazizi. An open testbed combines network emulation, packet capture and application measurements, analyzing draft TR 26.870 v0.6.2 and its workbook. Uplink/downlink volume ratios span over six orders of magnitude. One assistant measured 0.007 at its local control interface versus 0.50 at wide-area egress.

Evidence limits. Scenario and measurement layer matter. Emulator jitter can reorder packets; correlated-loss settings can suppress rare losses. Small video-test repetitions cannot establish loss tolerance. This author preprint is not an approved 3GPP specification or a deployed 6G result.

Audeamus inference. Size AI-service access and upstream capacity from captured application traffic. Require measured impairment rates and versioned test configurations; generic claims that AI needs a particular access speed are insufficient.

Original paper

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Telecommunications Research Brief

November 6, 2026 | Hardware, standards direction and deployment priorities

03 / WI-FI 7 ENABLING HARDWARE / NOVEMBER 4, 2026 / ARXIV PREPRINT

Iteration-Free Candidate Pruning and an Index-Domain VLSI Architecture for Sort-Free MIMO Box Decoding up to 1024-QAM

Shengchun Yang, Amit Sravan Bora, Emil Matus and Gerhard Fettweis. The proposed detector removes an iterative selection loop and represents candidates by constellation indices. A synthesized 4×4 design in TSMC 16 nm reaches 40 Gb/s at 1 GHz for 1024-QAM. Reported normalized hardware efficiency is 14× the best compared hard-output detector at that modulation.

Evidence limits. Synthesis and numerical error-rate evaluation do not establish fabricated-silicon performance. Reference designs differ in process, voltage and search width; some achieve lower error rates. The demonstrated range stops at 1024-QAM, below Wi-Fi 7's 4096-QAM ceiling. Submitted to IEEE; acceptance is not established.

Audeamus inference. Worth watching for receiver area and energy efficiency. It provides no measured access-point coverage gain, device battery benefit, interoperability result or near-term equipment availability.

Original paper

04 / 6G ARCHITECTURE / ANNOUNCED NOVEMBER 5 / NON-PEER-REVIEWED GROUP REPORT

ETSI GR ISC 005 V1.1.1: Integration of Computing with ISAC

ETSI ISAC Industry Specification Group. The report maps computing, sensing and communications integration, addressing compute-aware coordination, synchronization and channel impairments, heterogeneous processing, and device clustering. It assesses potential approaches and trade-offs.

Date and evidence caveat. The report carries an October 2026 publication month; ETSI announced it November 5. The exact first-release day is unverified, so this is newly announced technical context, not a confirmed in-window research breakthrough. It is a group report, not a normative interoperability standard or quantitative field validation.

Audeamus inference. For industrial sensing and edge services, assess compute placement, transport delay, energy and orchestration together. It does not yet justify a specific edge-server purchase or 6G rollout.

Original ETSI report

50G PON / NO QUALIFYING NEW ADVANCE VERIFIED

No significant new 50G PON research met the date and evidence threshold. Later coverage of Orange Romania's October 29 trial repeats the previous edition. No new Wi-Fi 7 network-level breakthrough met the threshold; item 03 is enabling receiver research.

DEPLOYMENT PRIORITIES / AUDEAMUS ASSESSMENT

Act now: measure customer experience through the full LAN/WAN path and profile AI traffic by workload. **Trial:** satellite session continuity and realistic impairment tests. **Watch:** fabricated receiver silicon, independent replication, loaded 50G PON trials with optical budgets and cost per served customer, and normative 6G compute interfaces.

Scope: October 30-November 6; previously covered items excluded. No selected paper has verified peer-reviewed publication status. Public indexing may lag; supplemental Scribd discovery produced no suitable current source. Source links preserve third-party authorship. Strategic interpretations are Audeamus opinions.

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