

Miami International Airport

Multi-Network Carrier Comparison Report

Comparative analysis of AT&T, T-Mobile, and Verizon across the MIA venue

Prepared by the Imagine Wireless Network Intelligence Platform · Carrier Comparison Strategist surface

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(exceeds the 90-day default policy — standards revision, not a data refresh)

Primary source: Ookla Cell Analytics · Reference: das_master_feb2026 · MDAD DAS Future Solicitation (draft SoS)

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1. CIO Verdict

Headline ranking.

Inside MIA, T-Mobile leads 5G coverage (78% T-Mobile vs 29% Verizon vs 5% AT&T, on the gate basis — a 48-percentage-point spread vs the runner-up, DOMINANT on the canonical >15-point threshold; n=129 gates). Verizon leads 5G signal quality (median SINR +11.8 dB Verizon vs +7.0 dB T-Mobile vs +6.2 dB AT&T — a 4.8 dB delta, MEANINGFUL on the canonical 3–5 dB bands) and dominates LTE fallback (128 of 129 gates best-serving). AT&T trails on every indoor cellular layer measured. On the per-concourse NR median the ranking flips twice, not once: T-Mobile takes D, E, F, J · Verizon takes G, H.

Operational consequence.

MIA is a carrier-asymmetric venue: no single carrier wins across coverage, quality, and fallback simultaneously. Passenger experience depends on which carrier the device is on, not which gate the passenger is at. Premium-cabin populations in international concourses inherit the worst measured AT&T values in the venue (Turkish Airlines Lounge, Concourse H, at -107 dBm). LTE service availability is effectively universal on all three carriers, so no zone is service-lost — only experience-degraded. The airport-owned Wi-Fi network (Boingo, Passpoint enabled) is observed at 96–100% of measured tenants per category and partially masks the cellular gap at the user-experience layer.

Recommendation.

Run a multi-device, multi-carrier indoor walk-test campaign in Concourses F, H, and J (the locations where carrier asymmetry is widest) and at the two CBP zones (Concourse D FIS and Concourse J Global Entry). Technical-complexity label: Survey-required. This converts the gate-area aggregate picture into per-band, per-room values needed to act on the open MDAD DAS RFP before award.

Risk if no action is taken.

The MDAD competitive DAS solicitation will be awarded against today's measurement substrate. Without indoor walk-test ground truth, the AT&T donor-isolation gap (zero healthy gates in Concourse J) and the Verizon legacy-standalone-path footprint (which the RFP scope explicitly contemplates decommissioning) remain unmapped at award, raising transition risk during cutover and reducing the bidders' ability to scope an AT&T-hosted design accurately.

Imagine Wireless referral.

IW capability to engage: Indoor comparative measurement campaign + Carrier coordination review (the RFP scope names AT&T, T-Mobile, and Verizon as expected hosted carriers; pre-award commitments from each carrier compress the post-award transition window). Data package to hand to IW: the comparative deltas in Section 3, the per-concourse winner matrix in Section 5, the lounge-level comparison in Appendix C, and the das_master reference row showing T-Mobile DAS expired 2024 with Black Box management.

Commercial scoping and pricing should be handled directly by Imagine Wireless. The comparative finding supports a scoped technical discussion, but this agent does not price work.

2. Comparison Frame

Element	Value
Candidates compared	AT&T US · T-Mobile US · Verizon Wireless
Venue	Miami International Airport (MIA / KMIA, MDAD-operated)
Zones in scope	129 gates · 494 tenants · 6 concourses (D, E, F, G, H, J) · CBP zones · airline lounges
Layers in scope	5G NR RSRP, 5G NR SINR, LTE RSRP, LTE service availability, best-serving-network (NR + LTE), serving-cell volatility, Wi-Fi presence as adjacent layer
Window	2025-04-01 – 2026-03-31 (12 months, Ookla Cell Analytics tile aggregates)
Freshness	136 days at rev-2 issue date; EXCEEDS the platform 90-day default policy. This issue is a standards-conformance regeneration on the same data window as the 2026-05-26 original, not a data refresh.

Sample density	AT&T 25,607 NR tiles · T-Mobile 15,671 NR tiles · Verizon 11,557 NR tiles (NR_SS_RSRP non-null). Per-carrier export rows: AT&T 45,427 · T-Mobile 18,721 · Verizon 16,635. All candidates clear the $n \geq 30$ floor for venue-level ranking; full per-layer breakdown in Appendix B.
Reference context	das_master_feb2026 row 11 (MIA); MDAD draft Scope of Services PDF for open competitive DAS solicitation

Layers not in scope (explicitly absent from the public Ookla layer for this venue):

- Per-carrier Passpoint attach-success metrics (Boingo Passpoint is attested but attach telemetry is not exposed). Therefore the canonical Passpoint attach success threshold ($>85\%$ robust, $<60\%$ broken) cannot be applied.
- Per-carrier Wi-Fi offload attribution (Ookla WiFi_Data_Usage is observed but not attributable to specific carrier subscribers). Therefore the canonical offload share threshold ($>40\%$ healthy, $<15\%$ with Wi-Fi present = offload failure) cannot be applied.
- Hour-of-day stability across the window (Ookla 12-month tile aggregates do not expose hour-of-day natively). Stability is therefore reported across concourses and tenant classes only, not by hour.
- Multi-carrier dominance ping-pong inside a 100m radius over a 1-hour window (requires per-event records, not tile aggregates). The canonical >3 -flips threshold therefore cannot be applied; serving-cell volatility (Section 7) is used as a related proxy.
- FutureTech / Black Box Private 5G performance (private-network layer not characterized by Ookla).

3. Headline Rankings — Three Layers

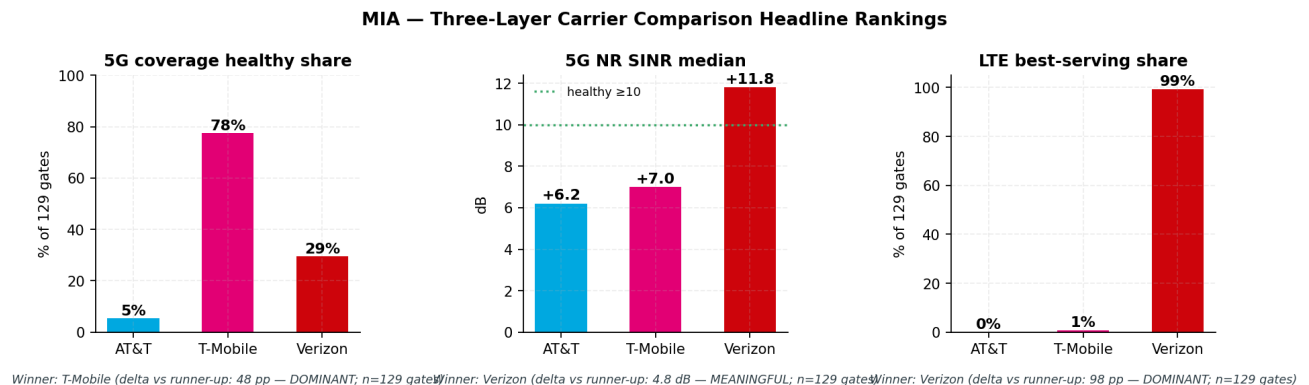


Figure. Three-layer headline rankings with delta vs runner-up and canonical-threshold classification.

The three-layer headline establishes the comparative shape of the venue, all three layers measured on the same 129 gates. The 5G coverage delta (T-Mobile vs Verizon) of 48 percentage points is DOMINANT against the canonical >15 -point band. The 5G SINR delta (Verizon vs T-Mobile) of 4.8 dB is MEANINGFUL: it clears the 3 dB meaningful band but does not reach the 5 dB dominant band. The LTE fallback delta (Verizon vs all others) at 99% vs 1% is the largest single-layer delta in the dataset.

MIA — Comparative Distributions (gate-aggregate)

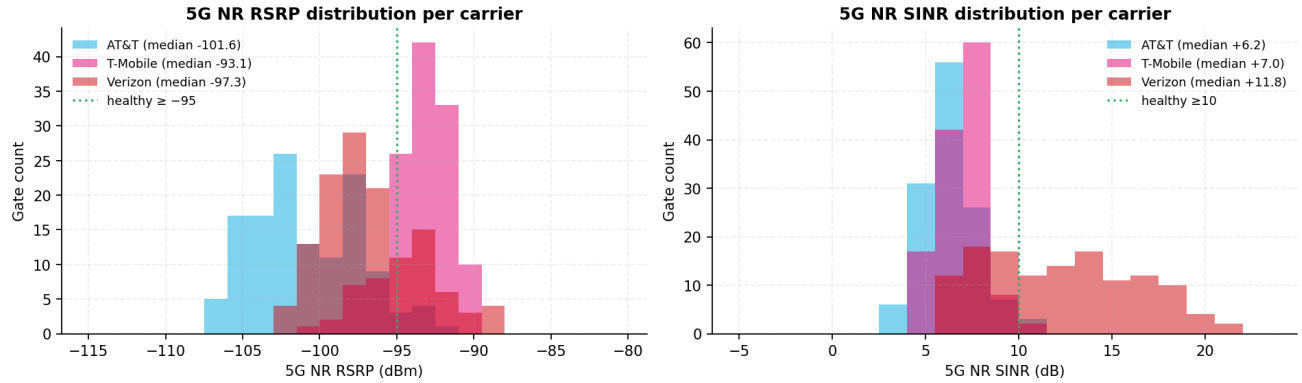


Figure. Full per-carrier distributions for 5G NR RSRP and SINR across 129 gates. Verizon's SINR distribution is shifted right of AT&T's and T-Mobile's by several dB at every percentile.

4. Per-Layer 'Network-of-Record' Across the Venue

MIA — Per-Layer 'Network-of-Record' Across 129 Gates

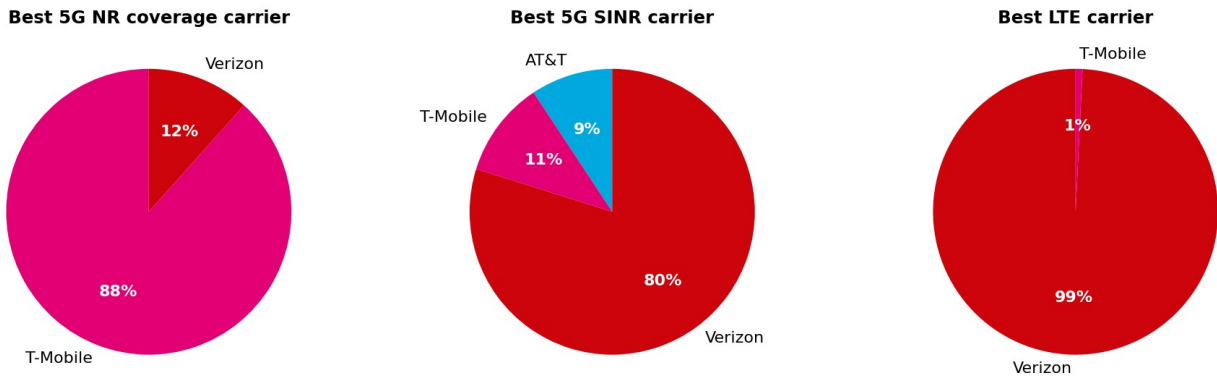


Figure. Network-of-record shares: each donut shows which carrier wins the most gates on that layer. No single carrier holds the network-of-record position on more than one layer.

The canonical network-of-record threshold (single network exceeds 50% in a zone with three or more candidates — that network is the record-holder; otherwise the zone is unstructured) applies cleanly at MIA, but the picture differs by layer. All three shares below are best-serving gate shares on the same 129 gates — the share of gates each carrier actually wins, not its healthy-band share. T-Mobile is the 5G coverage network-of-record (88%). Verizon is the 5G SINR network-of-record (80%) and the LTE network-of-record (99%). AT&T is not the network-of-record on any layer measured. The venue is therefore **layered-asymmetric** rather than **unstructured** — every layer has a defensible leader, but the leader differs by layer.

5. Per-Concourse Comparative View

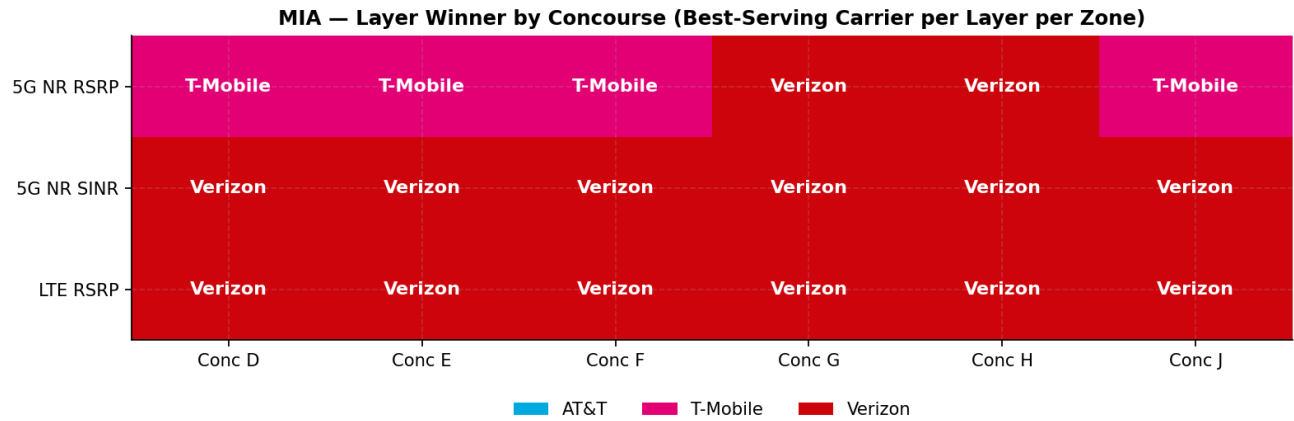


Figure. Layer-by-layer winning carrier for each concourse, on the median of each layer. Verizon wins LTE in every concourse and SINR in every concourse. On NR coverage the split is: T-Mobile takes D, E, F, J; Verizon takes G, H.

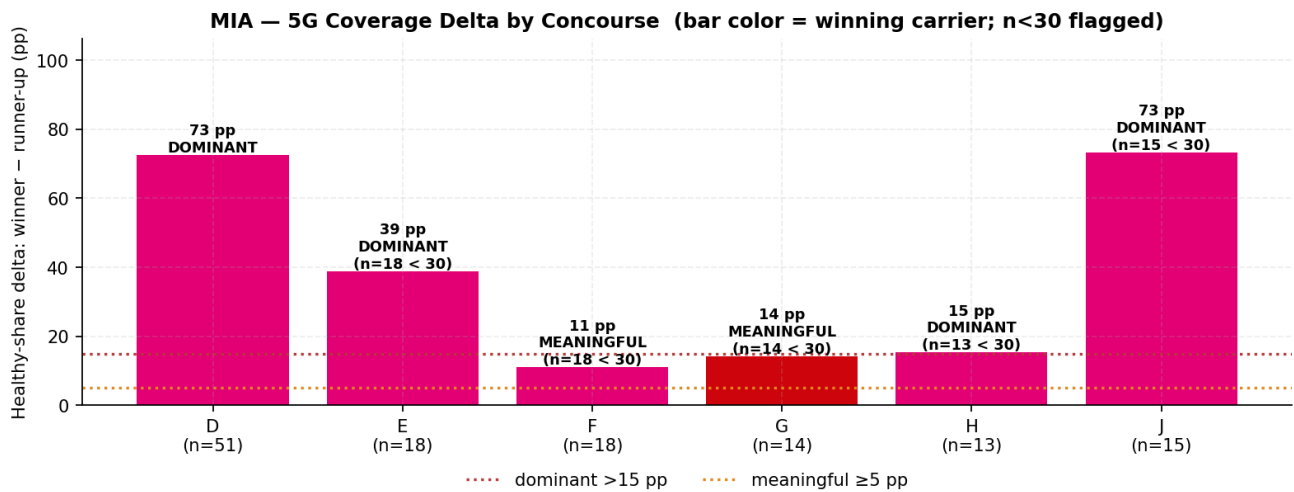


Figure. 5G coverage healthy-share delta between winner and runner-up by concourse, with each concourse's gate count. Bands: DOMINANT: 4 of 6 · MEANINGFUL: 2 of 6. Concourses below n=30 gates are flagged on the figure — the delta is reported but carries a wider error bar than the venue-level figure.

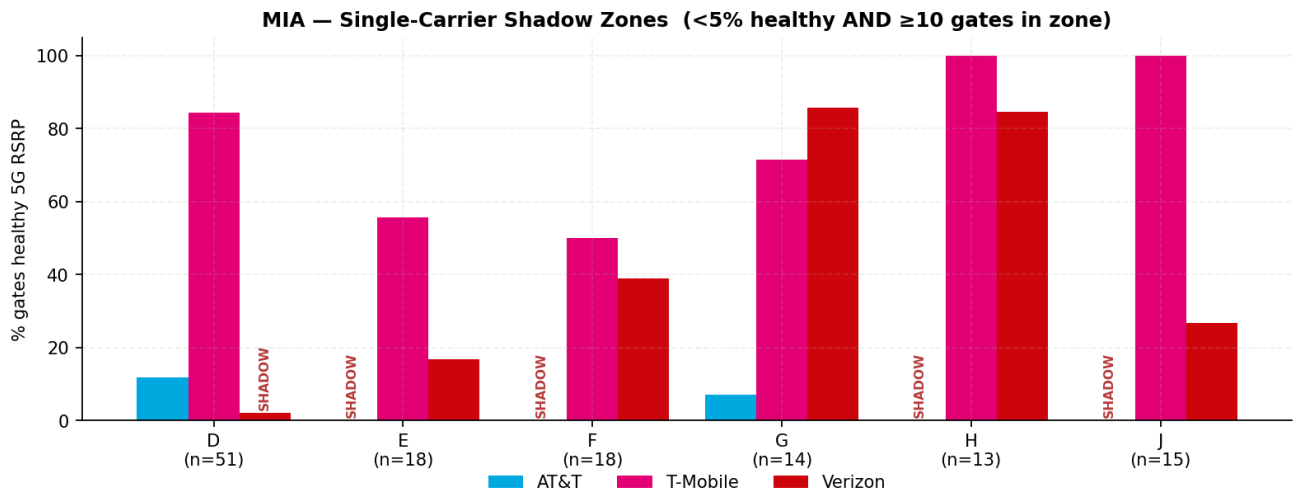


Figure. Per-carrier healthy share by concourse. A cell is called a shadow zone only when it falls below 5% healthy AND the concourse holds at least 10 gates — in a 13-gate concourse a single healthy gate is already 7.7%, so a bare percentage is not sufficient evidence.

Single-carrier shadow zones identified by this dataset. The rule has three parts: below 5% healthy on the gate basis, below 5% on the tenant basis as well, and at least 10 gates in the zone. Requiring both bases matters — they disagree in places, and a single-basis rule would name zones the other basis contradicts:

- Verizon in Concourse D — 1 of 51 gates healthy (2%), and 0 of 80 measured tenants healthy (0%). Both bases agree. A further 115 of the concourse's 195 tenants return no reading for this carrier and are not evidence either way. This is consistent with an independent in-building Verizon path that does not extend into the AA-hub concourse. Verizon LTE is healthy in D, so the shadow is NR-only.
- AT&T in Concourse J — 0 of 15 gates healthy (0%), and 0 of 19 measured tenants healthy (0%). Both bases agree. Every one of the concourse's 19 tenants returns a reading for this carrier, so there is no missing-data ambiguity here. Concourse J is the international concourse hosting the Latin-American hub lounges (Copa, Avianca, LATAM, United).

Zones that meet the gate-basis threshold but are NOT called shadow zones, because the tenant basis contradicts them. These are reported rather than suppressed: the disagreement is itself the finding, and it is the reason no claim in this report rests on a single denominator.

- AT&T in Concourse E — 0% of 18 gates healthy, but 74% of 145 measured tenants healthy (108 of 145). Gate centroids and tenant locations sample different parts of the concourse; until a walk test reconciles them, neither basis can be published alone for this zone.
- AT&T in Concourse F — 0% of 18 gates healthy, but 36% of 11 measured tenants healthy (4 of 11). Gate centroids and tenant locations sample different parts of the concourse; until a walk test reconciles them, neither basis can be published alone for this zone.
- AT&T in Concourse H — 0% of 13 gates healthy, but 19% of 21 measured tenants healthy (4 of 21). Gate centroids and tenant locations sample different parts of the concourse; until a walk test reconciles them, neither basis can be published alone for this zone.

The Verizon-D and AT&T-J anomalies are visualized in Section 7.

6. Per-Tenant-Class Comparative View

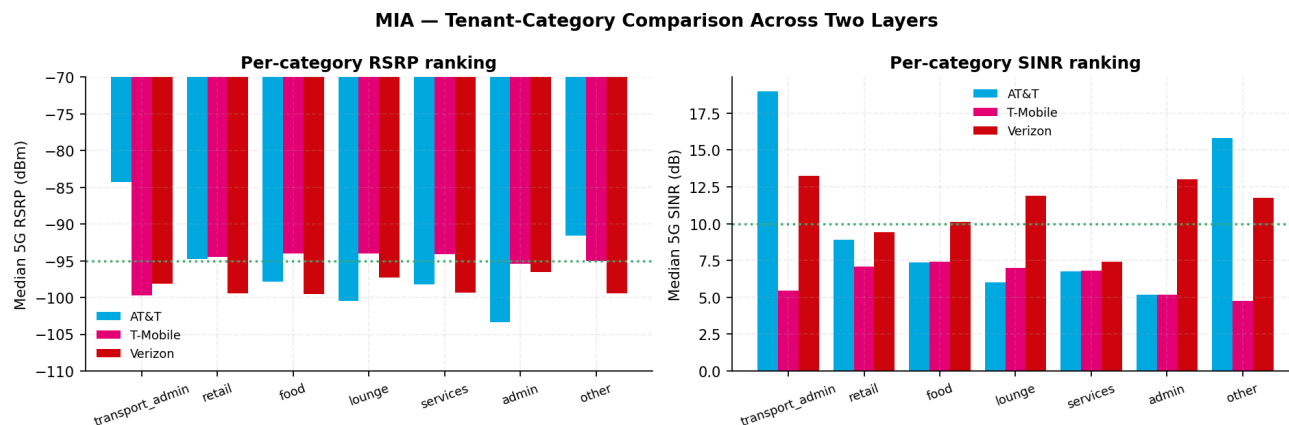


Figure. Per-category RSRP and SINR rankings. The category-by-category leader differs by layer: T-Mobile leads RSRP at the indoor categories; Verizon leads SINR across categories. Read the small categories with care — AT&T is measured at far more tenants than the other two in several of them, so a per-category ordering is not a like-for-like comparison. Categories under the n≥30 floor for T-Mobile/Verizon: transport_admin (T-Mobile n=14, Verizon n=14); lounge (T-Mobile n=9, Verizon n=9); services (T-Mobile n=5, Verizon n=5); admin (T-Mobile n=5, Verizon n=5); other (T-Mobile n=2, Verizon n=2).

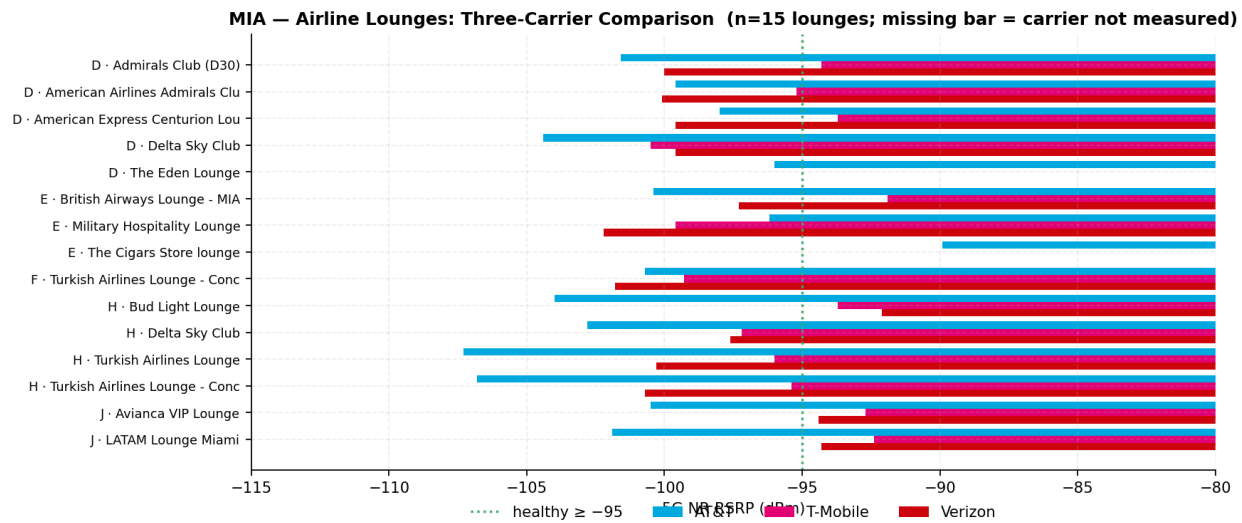


Figure. Three-carrier comparison across the 15 lounges matched by name in the tenant graph (n=15 < 30, so this is a per-room read, not a ranked comparison). Best-serving split: T-Mobile 10 · ATT 3 · Verizon 2. 2 of the 15 return a reading for only some carriers — a missing bar means not measured, not zero.

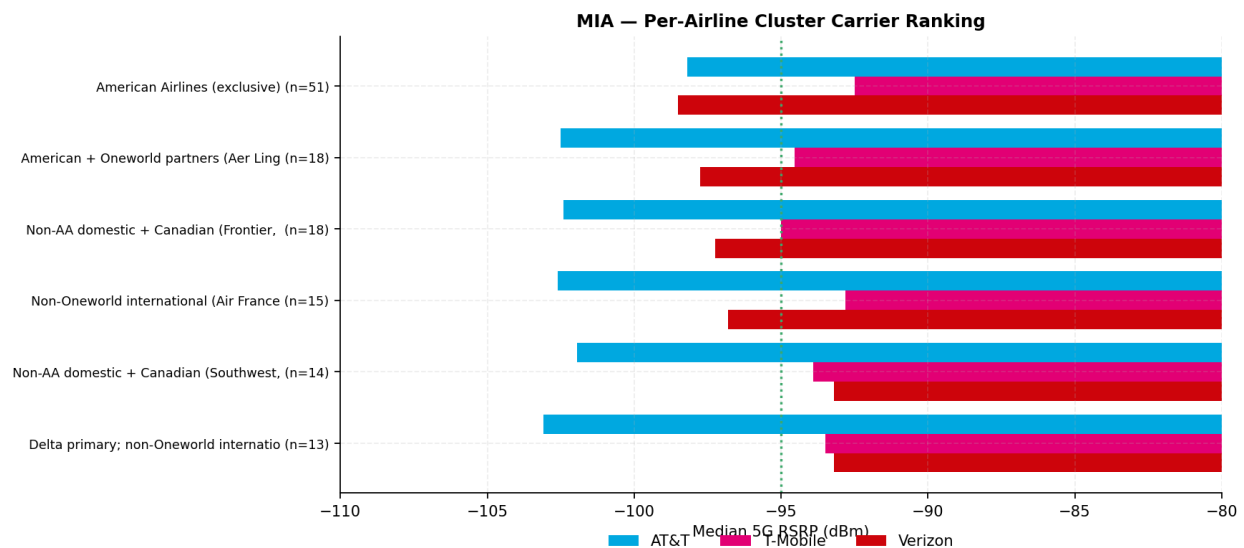


Figure. Per-airline cluster ranking across the top 6 operator clusters by gate count. Largest cluster: American Airlines (exclusive) (n=51 gates). Clusters are OSM operator descriptions, several of which are mixed-carrier groupings rather than a single airline, so read them as gate groupings and not as airline scorecards.

7. Comparative Pathologies

The comparison surfaces four named comparative pathologies — patterns that are visible only when carriers are placed side by side, not when any single network is analyzed in isolation.

7.1 Carrier asymmetry (venue-wide)

No single network wins across coverage + quality + fallback. The ranking flips by layer: T-Mobile wins NR coverage, Verizon wins SINR and LTE. This is the defining comparative pathology at MIA. Evidence: Section 3 headline deltas; Section 4 network-of-record splits; Section 5 winner matrix.

7.2 Single-carrier shadow zone — AT&T in Concourse J

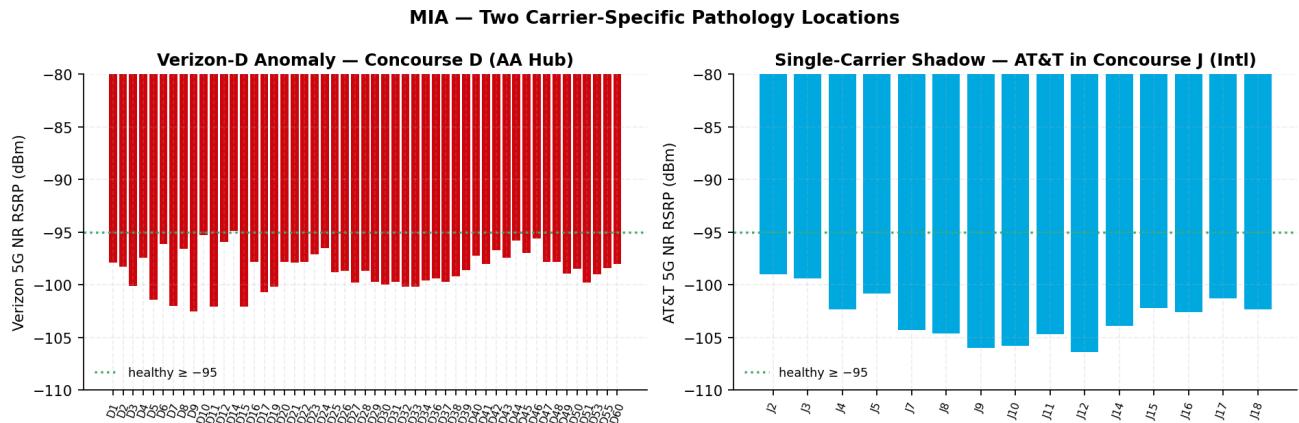


Figure. Left: Verizon NR RSRP across all 51 Concourse D gates (1 healthy, 2%). Right: AT&T NR RSRP across all 15 Concourse J gates (0 healthy, 0%).

0 of the 19 Concourse-J tenants that return an AT&T NR reading are healthy — and here the measured set is the whole set: all 19 J tenants return an AT&T reading, so there is no missing-data ambiguity in this zone. On the gate basis the same picture holds (0 of 15 gates healthy). Concourse J hosts the South-American hub carrier lounges and is the highest-international-traffic concourse at MIA. The canonical shadow-zone pattern applies cleanly.

7.3 Verizon-D anomaly — localized single-carrier weakness

Verizon reaches the healthy SINR band at 64% of the 129 gates venue-wide, but in Concourse D only 1 of 51 gates (2%) reach the healthy NR band, and on the tenant basis 0 of the 80 D tenants that return a Verizon reading are healthy. Two cautions on that tenant figure: 115 of Concourse D's 195 tenants return no Verizon reading at all and are not evidence of failure, and the gate and tenant bases are not interchangeable. What the measurement supports is a localized NR weakness in D against Verizon's own venue-wide profile; it does not by itself establish a cause. The reading is consistent with an independent in-building Verizon path that does not extend into the AA-hub concourse, and the MDAD RFP scope explicitly contemplates the existence of "existing legacy in-building systems, repeaters, BDAs, small cells or standalone WSP systems" and mandates their decommissioning at cutover — but confirming that would require attestation or a walk test, not this dataset.

7.4 T-Mobile DAS interference signature (comparative)

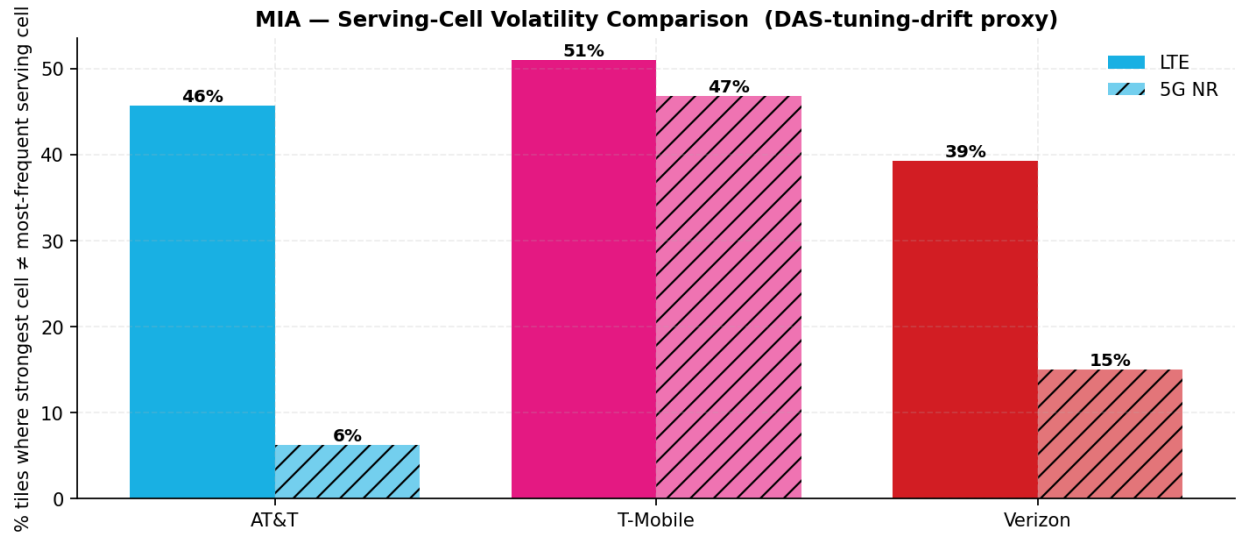


Figure. Serving-cell volatility comparison: percentage of tiles where the strongest serving cell is not the most-frequent serving cell. Higher values indicate handover churn / dominance conflict. T-Mobile shows the highest volatility on both LTE and NR.

T-Mobile's strong-RSRP-but-weak-SINR profile only becomes diagnostic in a three-carrier comparison: the other two carriers do not show this combination. The serving-cell volatility chart confirms that T-Mobile sees more cell-to-cell churn than the other two carriers, which is consistent with PCI overlap or neighbor-list staleness on the incumbent DAS (contract expired 2024).

7.5 Comparative pathologies NOT called

The following canonical comparative pathologies cannot be evaluated from this dataset and are therefore not called in this report:

- Passpoint ANQP timeout / Passpoint attach failure (requires per-device Passpoint attach metrics; Boingo Passpoint is attested but attach telemetry is not in the public layer).
- Offload failure or offload mismatch (requires per-carrier Wi-Fi attribution; the Ookla WiFi_Data_Usage layer is not attributable to a specific carrier's subscribers).
- PWN underutilization (FutureTech / Black Box Private 5G is attested but private-network performance is not characterized by Ookla).
- Multi-carrier dominance ping-pong with the canonical 3-flip threshold (requires per-event records inside a 100m / 1-hour window; tile aggregates do not expose this).

8. Carrier-Asymmetry Atlas

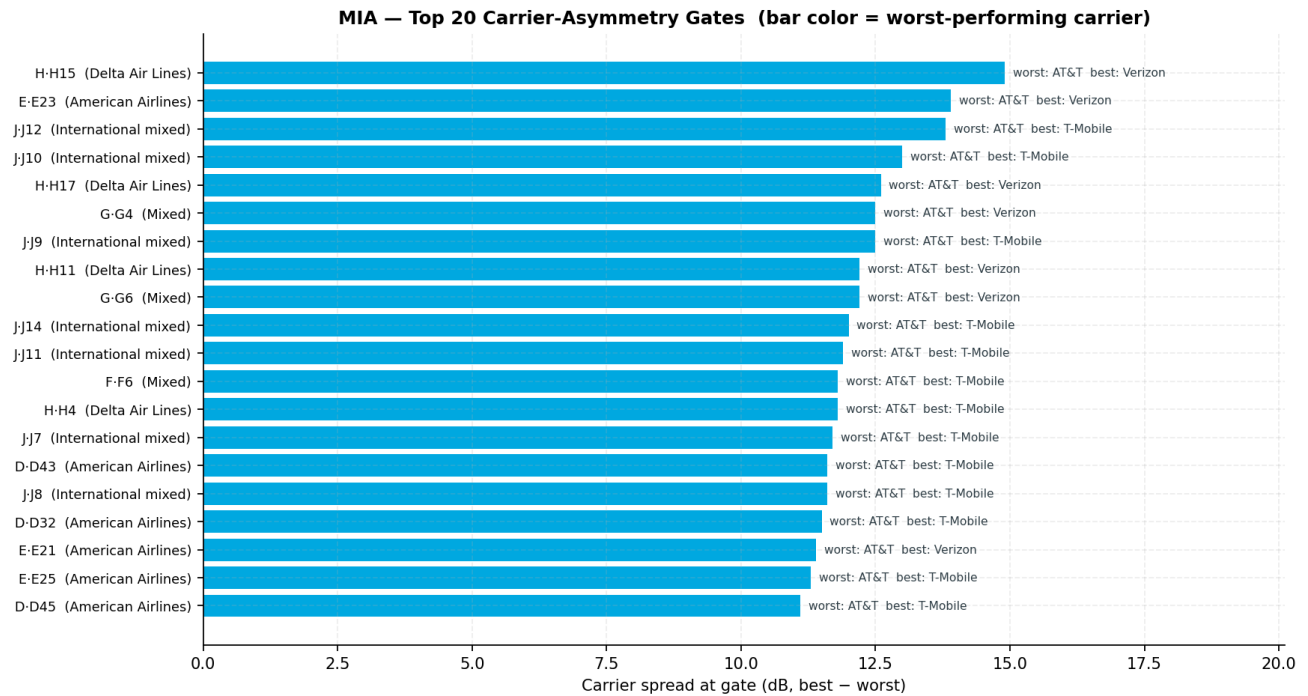


Figure. Top 20 gates ranked by best-minus-worst carrier 5G RSRP spread. Bar color = worst-performing carrier; the row label includes the winning carrier.

These twenty gates are the locations where MIA passenger experience varies most dramatically by carrier. They are useful for two purposes. First, as validation points for any post-cutover acceptance test of the new neutral-host DAS — the spread should compress substantially under a hosted-three-carrier design, and that compression is itself the cleanest measurable success criterion. Second, as worst-case examples in any stakeholder narrative around carrier-asymmetry impact at the venue today.

9. Geographic Carrier Coverage Maps

The comparative findings above are summarized at gate, tenant, and concourse resolution. Plotted in geographic space, they reveal the spatial structure of the carrier asymmetry — which carriers dominate which areas of the airport footprint, where the coverage gradient lives, and which zones are universally weak.

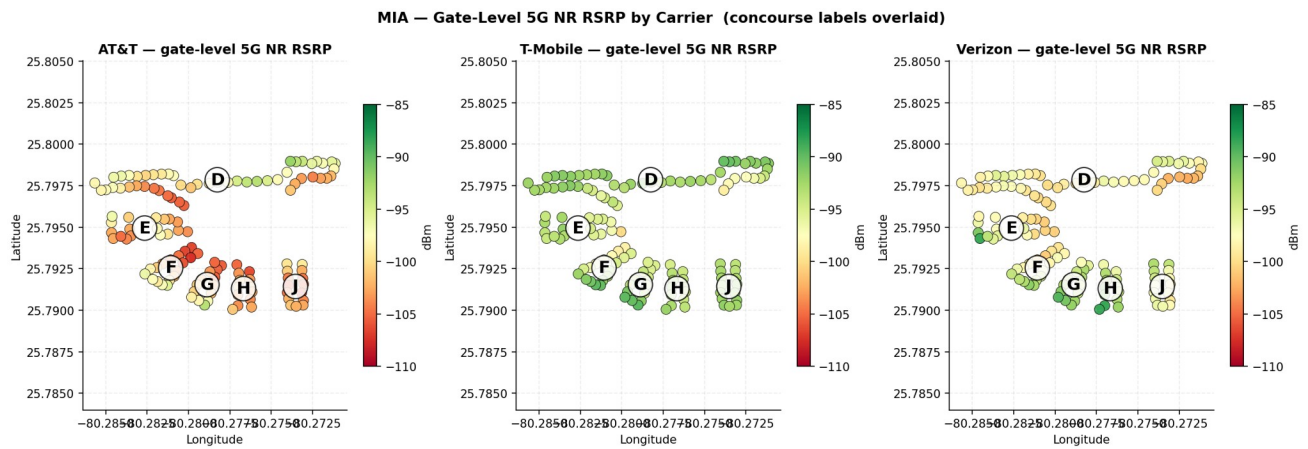


Figure. Gate-level 5G NR RSRP per carrier with concourse labels overlaid. The color gradient reads left-to-right (T-Mobile mostly green, Verizon mostly yellow-amber, AT&T mostly amber-red), the same ordering seen in the venue medians.

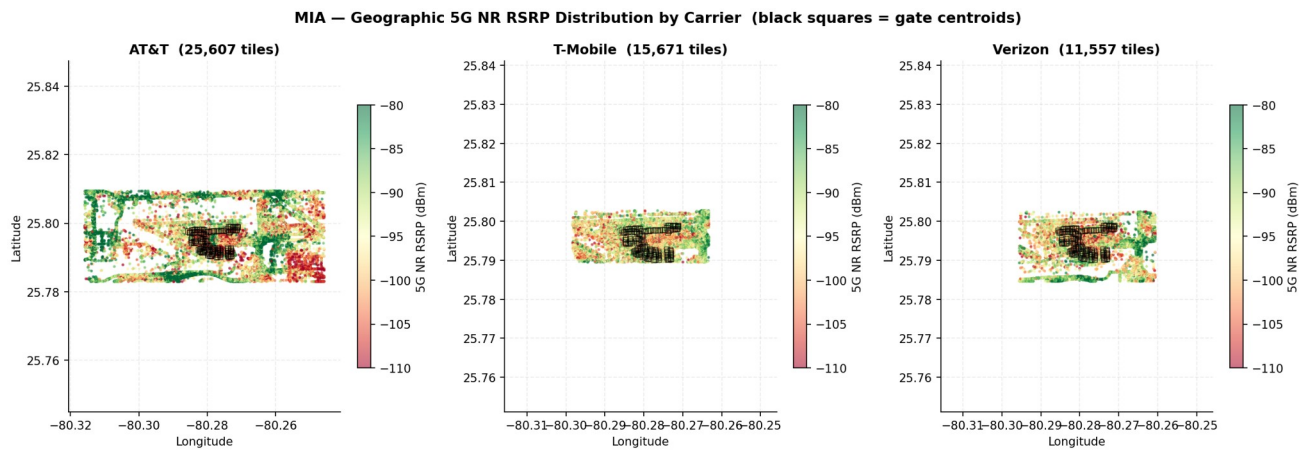


Figure. Tile-level 5G NR RSRP heatmaps per carrier across the full MIA airport footprint (terminal + landside + parking). Black squares mark gate centroids for orientation.

Reading the three carrier maps side by side:

- T-Mobile shows the densest green inside the terminal envelope, consistent with the attested in-building DAS. Landside coverage is mid-tier.
- Verizon shows a more uniform green-to-yellow distribution, with the landside and outdoor footprint as strong as or stronger than the terminal interior — consistent with strong outdoor macro plus a non-DAS in-building path that does not extend everywhere inside.
- AT&T shows the clearest indoor-outdoor split: bright outdoor coverage at the landside, parking decks, and terminal exterior; degraded coverage inside the terminal envelope, particularly in Concourses F, H, and J.

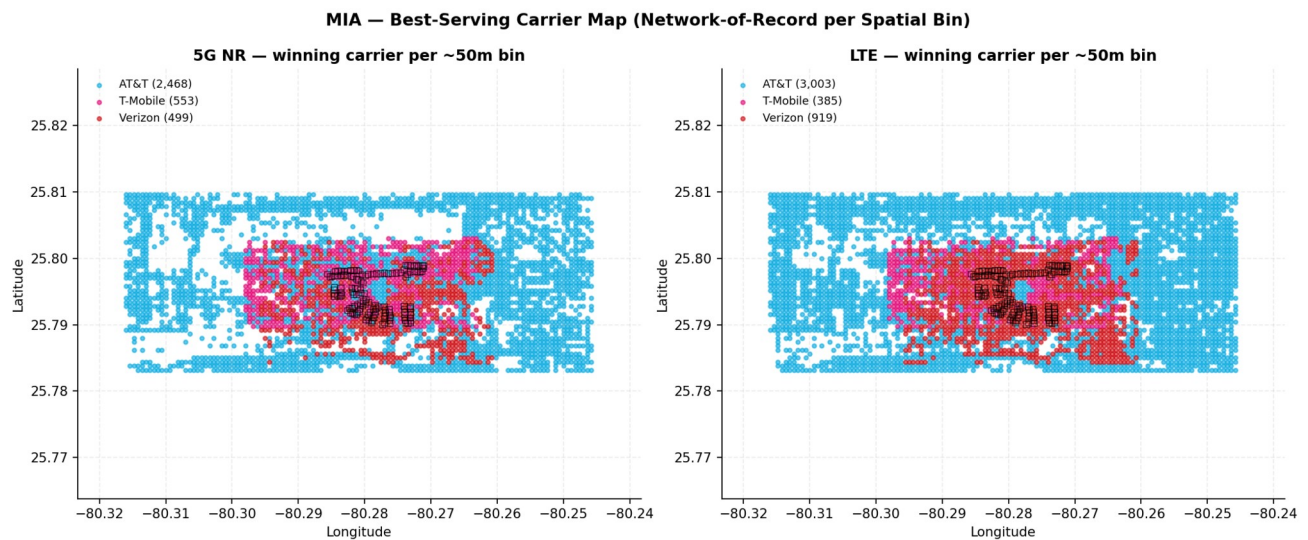


Figure. Best-serving carrier map per ~50m bin for 5G NR and LTE. Color shows which carrier wins that bin. The 5G map is mostly T-Mobile pink with Verizon-red clusters; the LTE map is overwhelmingly Verizon red.

The winner-map view collapses three measurements into a single answer per bin: which carrier delivers the strongest signal here? The 5G map shows the spatial extent of T-Mobile's coverage dominance and the Verizon clusters where the ranking flips. The LTE map is the cleanest single-frame illustration of Verizon's near-total LTE network-of-record position at MIA.

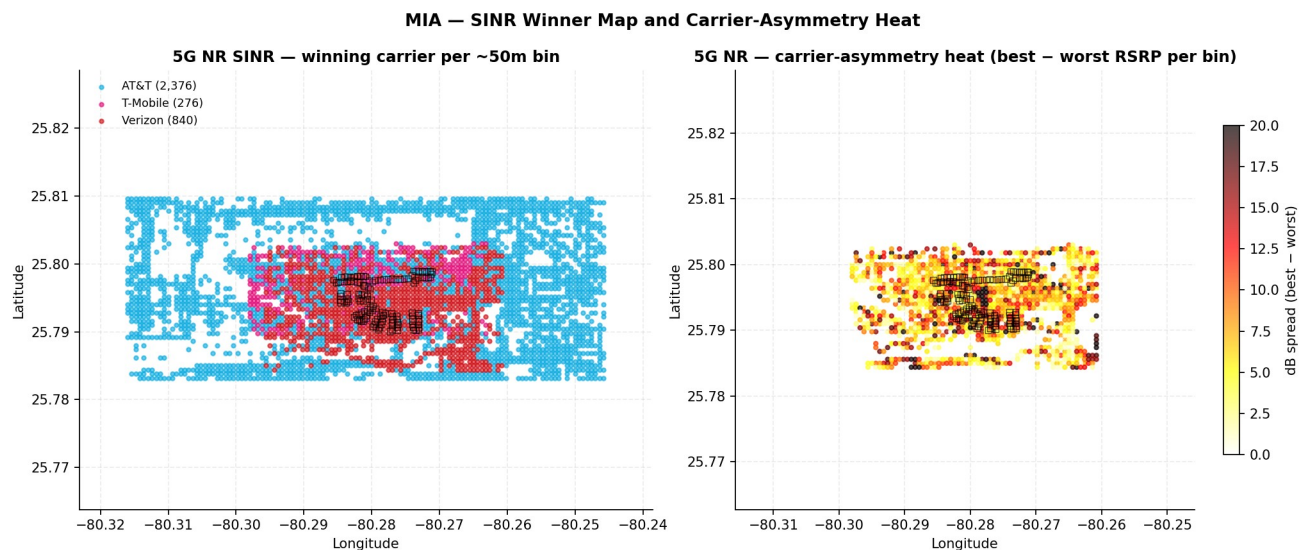


Figure. Left: SINR winning carrier per bin — predominantly Verizon. Right: carrier-asymmetry heat (best – worst RSRP spread). Hotspots correspond to gates where a passenger's experience varies most by carrier.

The asymmetry heat map is the geographic version of the asymmetry atlas in Section 8: the brightest pixels are the zones where a hosted three-carrier neutral-host DAS would produce the largest compression in passenger-experience variance. These are the post-cutover acceptance-test locations.

10. Wi-Fi as an Adjacent Layer (Explicit Scope Boundary)

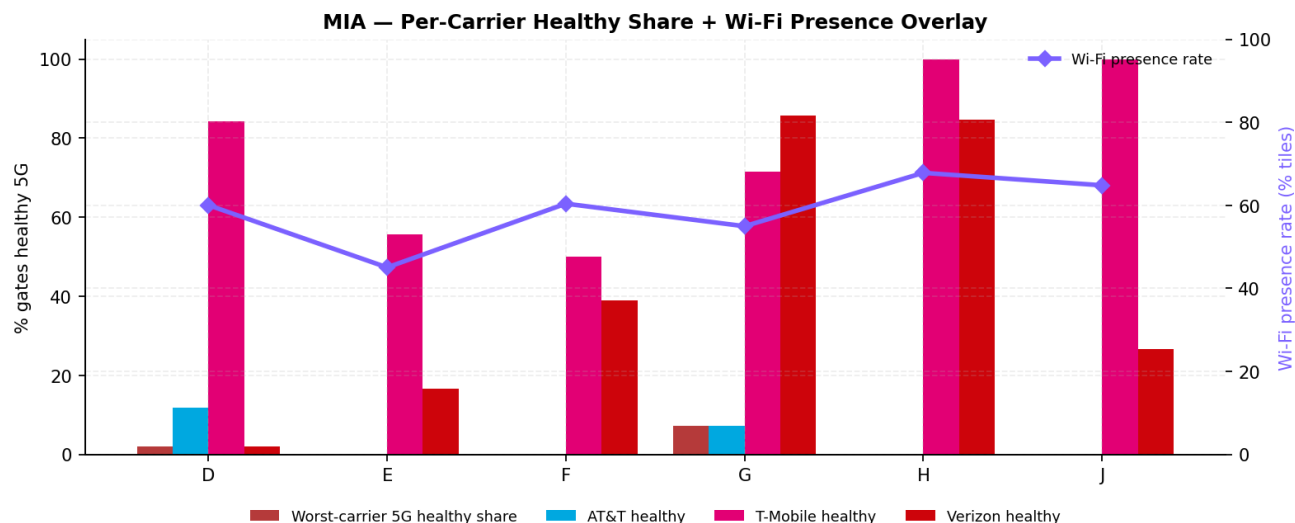


Figure. Per-carrier healthy share by concourse with Wi-Fi presence rate overlaid (right axis), shown as augmentation context and not as per-carrier offload behaviour. Presence is computed on deduplicated tile centroids — see the basis note below.

Wi-Fi is part of MIA's wireless lattice and is materially present everywhere measurable. It is, however, *outside the carrier comparison scope* in this report because the public measurement layer does not attribute Wi-Fi traffic to a specific cellular carrier's subscribers. The comparative statement the data supports is that the airport-owned, Boingo-managed, Passpoint-enabled Wi-Fi network is observed at 96–100% of measured tenants per category and at 56% of distinct measurement tiles venue-wide (per concourse: D 60% · E 45% · F 60% · G 55% · H 68% · J 65%); cellular weakness on the worst-served carrier is highest in the concourses where Wi-Fi presence is moderate-to-high, so the two layers overlap as a coverage-augmentation opportunity — even though carrier-specific offload behaviour is not derivable here.

Basis note. all_carriers.csv is a row-union of the three carrier panels: 80,783 rows over 54,654 distinct tile centroids, of which 44,106 carry a Wi-Fi reading and form the denominator above. Counting rows would therefore count a tile once per carrier panel that observed it and weight the venue figure by carrier sampling rather than by geography, so every Wi-Fi figure above is computed on deduplicated centroids. WiFi_Data_Usage is itself carrier-panel-scoped — it differs between carrier rows for the same centroid — so "presence" here means at least one panel observed Wi-Fi usage above zero at that tile. It is an observation rate, not a measure of AP coverage, signal strength or capacity, and it must not be read as one. Per-category tenant counts are in the figure; categories under the n≥30 floor (admin, lodging, lounge, other, services) are reported for completeness but are too small to rank. Tenant categories carried in the source data but outside this report's category list (lodging) are excluded from the per-category figures.

Adding Wi-Fi controller telemetry (airtime, retries, BSS overlap, AP density, client counts) and Passpoint attach-success metrics would convert this scope-bounded observation into a full carrier-vs-carrier-vs-Wi-Fi comparison. Until then, the comparison agent's framing limits Wi-Fi to the role of adjacent layer.

11. Private Wireless (PWN) — Comparison Frame Limits

MIA has an active joint FutureTech / Black Box Private 5G deployment attested in the airport-graph registry. The same Black Box that operates the T-Mobile DAS NOC is the co-provider of the PWN. The MDAD DAS RFP scope explicitly includes CBRS private-network technologies. The PWN therefore sits at the intersection of three reconciliation surfaces: the incumbent DAS (which will be replaced), the new neutral-host DAS (which will subsume CBRS), and the existing FutureTech / Black Box footprint (which must be either absorbed, expanded, or scoped to deliberately separate workloads).

From the comparison agent's vantage point, the PWN cannot be ranked against AT&T, T-Mobile, or Verizon today because the public Ookla measurement layer does not characterize private networks. The first analytical task is attestation: documenting the band, coverage footprint, and use cases of the existing PWN. Once that is in the platform, the comparison frame can extend to a four-network venue ranking (three public carriers + PWN). For now, the comparative output is limited to the three public networks.

12. Stability of the Ranking

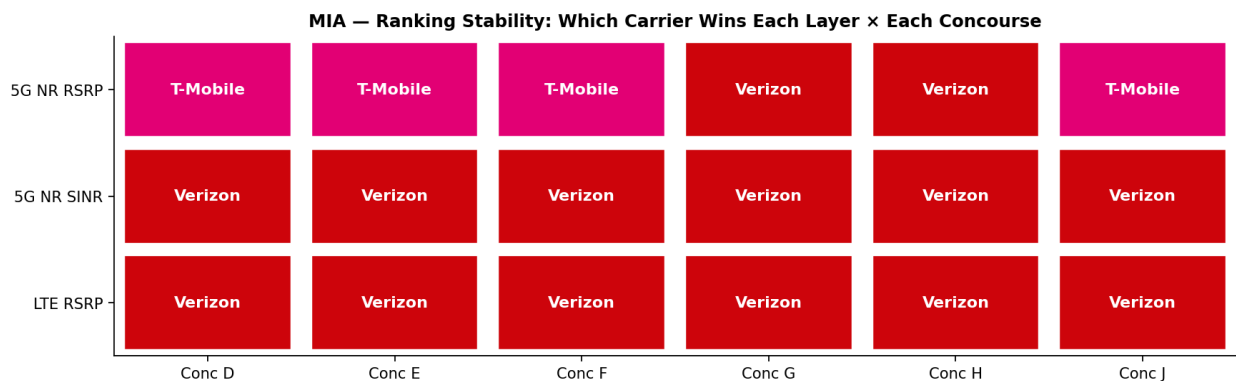


Figure. Layer × concourse stability of the network-of-record. The ranking is stable on SINR and LTE; on NR coverage it changes hands: T-Mobile takes D, E, F, J; Verizon takes G, H.

Comparative rankings are only useful if they hold up across the zones and time windows the customer cares about. The MIA ranking is stable on two of three layers (SINR and LTE) — Verizon wins in every concourse on both. NR coverage is not stable: across the 6 concourses, T-Mobile wins 4 (D, E, F, J) and Verizon wins 2 (G, H). Two of the six concourses therefore change hands on this layer, not one, which is the correct read of the winner matrix in Section 5 and matters for any zone-scoped acceptance criterion written against it. Concourse gate counts range from 13 to 51, so the per-concourse calls carry wider error bars than the venue-level ranking. Hour-of-day stability could not be assessed from the 12-month tile aggregates and would require a different measurement layer.

13. Layers Absent and Comparative Non-Claims

The comparison agent's discipline is to be explicit about what the dataset does not support. The following comparative claims are explicitly *not made* in this report, with the layer required to make them noted:

Comparative claim NOT made	Required layer to support it
Per-carrier Wi-Fi offload behavior	Carrier-attributed Wi-Fi attach records or controller-side

	Passpoint logs
Per-carrier Passpoint attach success rate	Per-device Passpoint association telemetry from Boingo
Hour-of-day or peak-load ranking	Time-binned Ookla data or active probe agents on a sample population
1-hour / 100m dominance ping-pong	Per-event handover records (carrier OAM or scanner data)
FutureTech / Black Box PWN performance	Private-network core telemetry
PWN vs public-cellular comparison	Side-by-side measurement on the same devices, both networks
Throughput / latency / jitter ranking	Active speed-test or application-layer measurements with operator attribution
Indoor BHS, MIA Mover, below-grade carrier ranking	Scanner walk-test inside those zones

14. Recommended Technical Actions

Each action below is bounded to the Carrier Comparison Strategist agent's approved categories. No commercial framing; technical-complexity labels only.

Action	Technical-complexity label	Comparative pathology addressed	IW handoff
Indoor comparative measurement campaign — Concourses F, H, J	Survey-required	Carrier asymmetry, single-carrier shadow (AT&T-J)	Yes — IW
Indoor comparative measurement campaign — CBP zones (D, J)	Survey-required	Tri-carrier at-risk in operational zones	Yes — IW
Walk test (multi-device, multi-carrier) — Concourse D Verizon NR	Survey-required	Verizon-D anomaly	Yes — IW
DAS health review on incumbent T-Mobile system	Live-network-change-required	T-Mobile DAS interference signature	Yes — IW (DAS operator coordination)
DAS carrier balance review for the new neutral-host design	Design-required	Carrier asymmetry (pre-empt under hosted three-carrier design)	Yes — IW
Carrier coordination review — pre-award commitments from AT&T, T-Mobile, Verizon	Multi-party implementation-required	Carrier asymmetry; legacy decommissioning per RFP	Yes — IW
Passpoint provisioning audit	Configuration-only	Resolves the Wi-Fi-offload non-claim above	Optional IW (depends on Boingo access posture)
Wi-Fi SSID and RADIUS configuration review	Configuration-only	Same as above	Optional IW
PWN client steering review / SIM provisioning review	Configuration-only	Resolves the PWN non-claim	Yes — IW (joint with FutureTech / Black Box)
Network selection policy review (carrier-side OS settings)	Carrier-coordination-required	Single-carrier shadow zone — reduces user impact at AT&T-J	Yes — IW
Roaming and handoff stability review	Carrier-coordination-required	T-Mobile DAS serving-cell volatility	Yes — IW

15. Imagine Wireless Handoff Packet

Trigger.

Open MDAD competitive DAS solicitation + measurement-confirmed carrier asymmetry + single-carrier shadow at international concourse + legacy standalone Verizon path explicitly contemplated for decommissioning in published RFP scope.

Recommended IW capabilities to engage:

- Indoor comparative measurement campaign (Concourses F, H, J + CBP zones)

- Carrier coordination review (tri-carrier pre-award commitments)
- DAS health review (incumbent T-Mobile system)
- DAS carrier balance review (for the new neutral-host design specification)
- Passpoint provisioning audit (resolve the Wi-Fi offload non-claim)
- PWN client steering and SIM provisioning review (FutureTech / Black Box footprint)

Data package to provide to IW for scoping:

- This report (charts + tables)
- Per-gate comparative deltas (Appendix A)
- Sample-density table (Appendix B)
- Full lounge comparison (Appendix C)
- Top 20 carrier-asymmetry gates (Appendix D)
- MIA row from das_master_feb2026 (T-Mobile DAS expired 2024, Black Box manager, FutureTech/Black Box joint PWN, MDAD-owned Wi-Fi/Boingo-managed)
- MDAD DAS Future Solicitation draft Scope of Services PDF

Immediate next technical step the customer can take in the meantime:

Pull the Ookla Compare Networks layer for the MIA building polygon and confirm the comparative ranking above against the current Ookla console. Then request indoor walk-test scheduling from IW for the Concourse F, H, J, and CBP zones.

Commercial scoping and pricing should be handled directly by Imagine Wireless. The comparative finding supports a scoped technical discussion, but this agent does not price work.

16. Methodology, Thresholds, and Caveats

Comparison framework: Carrier Comparison Strategist agent, default CIO Verdict surface plus Analyst Detail surface produced inline because the dataset supports it. Five-step loop applied throughout: Frame → Ingest → Compare → Diagnose → Recommend.

Canonical comparative thresholds applied:

Threshold	Bands	Cited in
Coverage percentile delta (% gates above RSRP threshold)	>15 pp dominant · 5–15 meaningful · <5 parity	Section 3, Section 5 (labels derived from the computed delta, never asserted)
Median RSRP / SINR delta (dB)	>5 dB dominant · 3–5 dB meaningful · <3 parity	Section 3
Minimum sample under any comparative claim	$n \geq 30$; bases below the floor are published with the shortfall disclosed and are not ranked	Sections 3–6, Appendix B
Single-carrier shadow zone	<5% healthy AND ≥ 10 gates in the zone	Section 5, Section 7
Network-of-record share	leader >50% in 3-candidate zone or unstructured	Section 4
Passpoint attach success	>85% robust · 60–85% functional · <60% broken	Not applied — layer absent
Offload share	>40% healthy · 15–40% partial · <15% w/ Wi-Fi present = failure	Not applied — per-carrier attribution absent
Dominance instability (flips per 100m / 1hr)	>3 ping-pong · 1–3 borderline · 0–1 stable	Not applied — tile aggregates only; serving-cell volatility used as proxy

Single-network KPI thresholds applied: platform V1 defaults. RSRP healthy ≥ -95 dBm, at-risk -95 to -110 , critical < -110 . SINR healthy ≥ 10 dB, at-risk 0 to 10 , critical < 0 .

Caveats:

- Ookla tile aggregation is outdoor- and gate-area-biased. Jet-bridge interior, below-grade people-mover, BHS corridors are not in the dataset.
- Per-carrier Wi-Fi attribution and Passpoint attach success are not derivable from the public layer; per-carrier offload framing is therefore avoided.
- FutureTech / Black Box PWN is attested but not characterized; the comparison frame is limited to the three public carriers.
- Hour-of-day and peak-load ranking stability are not assessable from 12-month tile aggregates.
- Serving-cell volatility is used as a tile-aggregate proxy for the canonical 1-hour / 100m ping-pong threshold, not as a substitute for it.
- Engineering inferences (cause of measured pattern) are labeled as such in the body text.
- Gate-basis and tenant-basis figures are not interchangeable and are never mixed inside a claim. Where a zone is stated on one basis, the other is given alongside it. The two disagree materially in places (Concourse E reads 0% healthy for AT&T across its 18 gates but 74% across its measured tenants), which is why no zone-level claim in this report rests on a single denominator.
- Every comparative label in this report (DOMINANT / MEANINGFUL / PARITY, shadow zone, density adequacy) is derived from the computed value against the thresholds above. None is a hand-entered string, and every comparative basis carries its n. Bases below $n=30$ are published with the shortfall disclosed and are not ranked.
- Correction in this revision: the per-concourse layer-winner function selected the minimum median on the two RSRP layers. Because RSRP is dBm, where a higher (less negative) value is better, that returned the worst carrier rather than the best — the winner matrix, the stability strip and the per-concourse winner table previously labelled AT&T the RSRP and LTE winner in five of six concourses, contradicting every caption around them. All three now select the maximum median and have been regenerated.

Appendix A — Per-Concourse Layer Winner Table

Concourse	Gates	NR RSRP winner (median)	NR SINR winner (median)	LTE RSRP winner (median)
D	51	T-Mobile (-92.5)	Verizon (+8.1)	Verizon (-83.7)
E	18	T-Mobile (-94.5)	Verizon (+10.2)	Verizon (-83.7)
F	18	T-Mobile (-95.0)	Verizon (+15.1)	Verizon (-85.0)
G	14	Verizon (-93.2)	Verizon (+17.9)	Verizon (-84.9)
H	13	Verizon (-93.2)	Verizon (+16.0)	Verizon (-81.3)
J	15	T-Mobile (-92.8)	Verizon (+14.1)	Verizon (-86.2)

Appendix B — Sample Density per Candidate per Layer

Carrier	Export rows	NR tiles	LTE tiles	Gates with NR data	Tenants with NR data	Density verdict
AT&T	45,427	25,607	43,915	129	357	Adequate
T-Mobile	18,721	15,671	14,337	129	171	Adequate
Verizon	16,635	11,557	15,279	129	171	Adequate

NR and LTE tile counts are non-null readings for NR_SS_RSRP and LTE_RSRP respectively, so they are always at or below the export row count for that carrier. The verdict column is derived from the $n \geq 30$ floor, not asserted. Note the per-layer asymmetry this table exposes: the carriers do not contribute equally to every layer, so any figure that pools tiles across carriers without stating its per-carrier n — band mixes, PCI counts, serving-cell volatility — is comparing unequal samples and is treated as indicative in this report rather than as a ranking.

Appendix C — Full Lounge Comparison

Conc	Lounge	AT&T RSRP/SINR	T-Mobile RSRP/SINR	Verizon RSRP/SINR	Best NR
D	Admirals Club (D30)	-102/+5	-94/+8	-100/+8	T-Mobile
D	American Airlines Admirals Club	-100/+5	-95/+5	-100/+8	T-Mobile
D	American Express Centurion Lounge	-98/+6	-94/+5	-100/+7	T-Mobile
D	Delta Sky Club	-104/+6	-100/+3	-100/+11	Verizon
D	The Eden Lounge	-96/+13	—	—	ATT
E	British Airways Lounge - MIA	-100/+6	-92/+9	-97/+11	T-Mobile
E	Military Hospitality Lounge	-96/+7	-100/+9	-102/+10	ATT
E	The Cigars Store lounge	-90/+16	—	—	ATT
F	Turkish Airlines Lounge - Concourse E	-101/+6	-99/+7	-102/+10	T-Mobile
H	Bud Light Lounge	-104/+5	-94/+5	-92/+17	Verizon
H	Delta Sky Club	-103/+5	-97/+7	-98/+13	T-Mobile
H	Turkish Airlines Lounge	-107/+4	-96/+5	-100/+11	T-Mobile
H	Turkish Airlines Lounge - Concourse H	-107/+3	-95/+5	-101/+11	T-Mobile
J	Avianca VIP Lounge	-100/+8	-93/+8	-94/+14	T-Mobile
J	LATAM Lounge Miami	-102/+8	-92/+7	-94/+14	T-Mobile

Appendix D — Top 20 Carrier-Asymmetry Gates

Conc	Gate	Operator	Spread	Worst carrier	Best carrier
H	H15	Delta Air Lines	14.9 dB	AT&T	Verizon
E	E23	American Airlines	13.9 dB	AT&T	Verizon
J	J12	International mixed	13.8 dB	AT&T	T-Mobile
J	J10	International mixed	13.0 dB	AT&T	T-Mobile
H	H17	Delta Air Lines	12.6 dB	AT&T	Verizon
G	G4	Mixed	12.5 dB	AT&T	Verizon
J	J9	International mixed	12.5 dB	AT&T	T-Mobile
H	H11	Delta Air Lines	12.2 dB	AT&T	Verizon
G	G6	Mixed	12.2 dB	AT&T	Verizon
J	J14	International mixed	12.0 dB	AT&T	T-Mobile
J	J11	International mixed	11.9 dB	AT&T	T-Mobile
F	F6	Mixed	11.8 dB	AT&T	T-Mobile
H	H4	Delta Air Lines	11.8 dB	AT&T	T-Mobile

J	J7	International mixed	11.7 dB	AT&T	T-Mobile
D	D43	American Airlines	11.6 dB	AT&T	T-Mobile
J	J8	International mixed	11.6 dB	AT&T	T-Mobile
D	D32	American Airlines	11.5 dB	AT&T	T-Mobile
E	E21	American Airlines	11.4 dB	AT&T	Verizon
E	E25	American Airlines	11.3 dB	AT&T	T-Mobile
D	D45	American Airlines	11.1 dB	AT&T	T-Mobile