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FIELD GUIDE | BUSINESS AVIATION CONNECTIVITY UPGRADES

The Inflight Connectivity Divide

NBAA MX 2026 InFlight Connectivity Panel

The Day We Stop Talking About Wi-Fi Speeds:
Fast Enough to Forget About It

What the panel got right, what it left out, and where your aircraft actually sits.

Reliable connectivity at the speed of flight.

Editor’s note

The NBAA 2026 Maintenance Conference was held in New Orleans May 5-7, 2026. On day two of the conference, four panelists took the stage for a session titled “The Day We Stop Talking About Wi-Fi Speeds — Fast Enough to Forget About It.” The premise was provocative: the industry has matured past the speed wars, and the real conversation is now reliability, mission profile, and the maintenance burden of chasing megabits.

There is real truth in that argument. There are also real gaps in it. This field guide does three things. First, an honest recap of what the panel said and where the consensus landed. Second, a candid look at what the panel’s framing left out — and why where you sit on the connectivity curve changes whether the panel’s advice applies to you at all. Third, a tier-by-tier playbook: where your aircraft actually sits today, what’s available to you on a real timeline, and how to defend your next decision in numbers rather than adjectives.

Apcela has a horse in this race. We provide ATG services to the business aviation market, including to operators migrating off legacy Gogo systems. We’ve tried to be honest about that throughout. Where this guide is useful, it’s because we’ve treated you as the technical reader you are. Where it disagrees with the panel, it’s on the merits.

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Part 1. What the panel got right

The panel: Josh Wheeler and Steve Borger (Gogo), Jim Huntoon (Viasat), Mike Morgan (Duncan Aviation), and Josh Wilson (Executive Jet Management). Wheeler moderated. Roughly an hour of moderated discussion plus audience Q&A. Three takeaways are worth carrying out of the session regardless of where you sit on the connectivity curve.

1. Two competing providers agreed on the same number.

The most useful takeaway from the session arrived early. Borger (Gogo) and Huntoon (Viasat) — two providers with different technology stacks and competing commercial interests — landed independently on the same threshold for what "enough" actually looks like in a cabin: roughly 25–30 Mbps of consistent throughput. Wheeler reinforced the point with his own data, noting a passenger maxing out streaming plus gaming on an aircraft pulled approximately 35 Mbps at peak. Above that range, additional headline speed produces diminishing returns on the actual experience.

> *"When you hit that 25 or 30, it's more about consistency, reliability and having it everywhere you want. We have hit a plateau where this can deliver that consistent user experience."*
>
> — Jim Huntoon, Viasat

2. The first response to a Wi-Fi complaint should be a device audit, not a hardware upgrade.

EJM's Josh Wilson made what was arguably the most operationally useful point of the session. When a principal complains the Wi-Fi feels slow, the reflex is to look at the hardware. Wilson's argument: look at the device count first.

- Average passenger today brings three to four connected devices on board.
- Instagram in background scroll mode burns roughly 500 MB per hour.
- Apple devices reconnect themselves to known networks even after the user thinks they've been disabled.
- ForeFlight, once a lightweight cellular-era app, can now consume 16 Mbps per device with weather and chart overlays running. Two EFBs running full-flight can meaningfully degrade what the principal experiences in the back.

> *"If you have a complaint on speed or performance on the aircraft, ask your provider how many devices were connected on that flight. Just do it for fun sometime. You will be amazed."*
>
> — Josh Wilson, EJM

3. "Legacy" is a vocabulary problem.

Wilson pushed back on a piece of industry shorthand that quietly shapes upgrade decisions. "Legacy," applied today to systems like Jet Wave Ka, carries an unfair stigma — implying outdated, slow, or due for replacement. His distinction:

- **True legacy:** Swift Broadband, Swift 64, BBML — technologies developed two decades ago for a different bandwidth era.
- **Not legacy, just established:** Jet Wave and current Ka, which continue to be developed and which deliver consistent performance in the 25–40 Mbps range the panel itself identified as the practical ceiling.

Huntoon added that Viasat's 20-year-old GEO assets are still operating today, and that the upgrade path from Jet Wave to current high-capacity Viasat constellations is direct — meaning operators on those systems aren't stranded.

The panel's most portable line

Asked whether DOMs are equipped to push back on owners chasing speed for its own sake, Wilson gave the panel's best line, and the one worth carrying out of the session:

> *"There's a lot of emotion involved in Wi-Fi services right now. Our job is to separate emotion from rationale and science. There's always going to be a plus and a minus to every solution."*
>
> — Josh Wilson, EJM

That framing — rational versus emotional — is the most portable takeaway from the panel. It is also, as Part 2 covers, exactly the framing the panel's own composition makes harder to apply.

Part 2. Who was on the panel — and who wasn't

The panel's thesis — that the industry has moved past speed and into reliability — is true for a specific population of aircraft. It is not true for the industry as a whole. The gap between those two populations is the most important thing the session left unsaid.

Composition matters

Two service providers. One MRO. One management company. All four with aligned commercial interests in moving the industry conversation away from peak speed and toward stability, redundancy, and managed upgrade cycles.

Viasat and Gogo cannot win a pure speed competition against Starlink and the broader LEO category, inclusive of Amazon just emerging and promising Gig speeds. As such, they have an obvious incentive to reframe the metric. Duncan benefits when upgrade decisions are deliberate and mission-matched rather than reactive — that's how a healthy MRO business is built. EJM operates fleets that already sit at the top of the connectivity spend curve, where the marginal megabit genuinely doesn't matter.

Starlink was not on the panel. According to the moderator, every provider was invited; the empty chair was acknowledged on stage with a joking reference to Clint Eastwood. A panel whose stated subject is whether the industry should stop talking about speed, held without the provider whose entire value proposition is speed, is not a neutral forum. It is a position statement.

> *"A panel about whether to stop talking about speed, held without the provider built on speed, is not a neutral forum. It is a position statement."*
>
> — Editor

The squeeze the Have-Nots are actually in

Two facts the panel didn't put together, but that operators on the wrong side of the divide are living right now:

> **Gogo 3G sunset: extended to November 8, 2026**
>
> Gogo Biz 4G has not launched and will not launch before that date. The status of Gogo's 5G product remains unclear. For operators planning their ATG migration, the runway has been extended — but the destination has not been clarified.

> **Starlink Aviation isn't actually the answer for this segment**
>
> It's the option the trade press keeps pointing to and the option principals keep asking about, but the economics don't work for most aircraft in the Have-Not population. Hardware in the $300K+ range and recurring service costs to match are a defensible spend against a $70M Global. They're a non-starter against an older Lear, Hawker, or Citation, or any other midsize charter aircraft generating $2,500–$7,500 per hour. The aircraft that need the upgrade most can least afford the option getting the most attention.

So the picture for the Have-Nots is this: the terrestrial system they've been operating on has a 6-month extension but no firm successor schedule, and the satellite option dominating industry conversation isn't economically viable for their airframes. "Stop talking about Wi-Fi speeds" is not the advice these operators need. What they need is: where do I actually go, on what timeline, at a cost my aircraft and operation can defend?

The Gogo migration nuance most operators miss

There's an important detail buried in the Gogo sunset that doesn't get talked about clearly enough. Roughly 1,000 aircraft have already upgraded to the Gogo C1 box, which allows them to continue operating on the Gogo 4G LTE network after the November 8, 2026 cutover — but with no improvement in performance over their current experience. They keep the lights on; they don't move forward.

Operators who upgraded to Gogo Avance L3 or L5 hardware see a more modest 10–20% performance improvement over the legacy 3G network. Better, but not a step-change — and still well below the threshold the panel itself identified as "enough."

In other words, the Gogo migration paths available today preserve service or marginally improve it. None of them deliver the jump from Have-Not to Middle, let alone to Have. That gap is exactly where the rest of this guide focuses.

Part 3. The framework: three tiers, not one

The panel offered one framework for one tier of operator. This guide offers three — because where your aircraft actually sits on the connectivity curve fundamentally changes what advice applies. The framework is built around throughput floor and ceiling rather than aircraft type, because the same airframe can sit in different tiers depending on what's installed in it.

Quick reference

Tier	Throughput	Representative systems	Framework applies?
Have-Nots	Sub-1 to ~5 Mbps	Swift Broadband, Swift 64, BBML, aging ATG	No
The Middle	5–25 Mbps	Jet Wave Ka (early gen), Gogo Biz 4G, mid-tier Ka	Partially
The Haves	25+ Mbps consistent	Modern Ka, Starlink, current LEO	Yes

The sections below walk through each tier — where it sits, what the realistic options are over the next 12–18 months, and the decision criteria that matter most for a DOM in conversation with a principal or CFO.

TIER 1 — Sub-1 to ~5 Mbps | 5,000+ aircraft

The Have-Nots

Who you are

Older large cabin jets, mid- and super-midsize charter aircraft, and light jets and turboprops generating modest hourly revenue. Aircraft running Swift Broadband, Swift 64, BBML, or older ATG installations. The cabin pipe runs anywhere from a few hundred kilobits to a couple of megabits. “Connectivity” means text and email-only (no attachments) and weather updates if you’re lucky, and a principal who has stopped trying to stream because they know it doesn’t work.

Why the panel’s framework doesn’t apply

“Mission profile matters more than megabits” assumes you have megabits to work with. When the pipe is sub-1 Mbps, mission profile *is* “I’d like email to work.” Device hygiene is a real issue at this tier — one ForeFlight session can saturate the link — but solving it doesn’t get you to a usable cabin experience. It just makes an unusable one slightly less unusable. The actual answer for this tier is throughput. The panel’s framework starts in Tier 2.

Your real options over the next 12 months

Option A: Starlink Aviation

What you get	Genuine high-throughput connectivity, LEO coverage that improves rapidly as the constellation grows.
Trade-offs	Hardware cost in the $300K+ range plus recurring service costs that are among the highest in the market. For most aircraft in the Have-Not population — older large cabin jets, mid- and super-midsize charter aircraft, and light jets and turboprops generating modest hourly revenue — the math is genuinely difficult. The hardware cost alone can run 1–3% of the airframe value, and recurring spend often exceeds what the aircraft generates in connectivity-related billable hours.
Honest read	Starlink is the option principals keep asking about and the option dominating industry conversation. For most Have-Not operators, it’s not actually the right answer. It’s the answer for aircraft that have already crossed into Tier 3 economics — high-utilization charter on premium airframes, owner-operators where cost discipline isn’t the constraint, large-cabin private operations. If those criteria don’t describe your operation, the more economically defensible options below deserve closer look.

Option B: ATG (next-generation terrestrial)

What you get	Significant throughput improvement over legacy ATG. Hardware and recurring costs that fit the economics of the airframes in this tier — a fraction of the satellite spend, defensible against the value and billable revenue of a midsize or smaller aircraft. A path off Gogo 3G/Biz 4G that doesn't require waiting on Gogo's 5G timeline. Apcela ATG operates in this category.
Trade-offs	CONUS-bound (terrestrial coverage). Not a solution for transoceanic operations. Best fit for operators whose mission profile is predominantly domestic.
Honest read	For the large segment of the Have-Not population that flies mostly CONUS — charter, regional, fractional, owner-flown turboprop — this is usually the most cost-defensible answer, and often the only one whose economics actually fit the aircraft.

Option C: Stay put, run the device audit, wait

What you get	No capex. Marginal improvement from disciplined device management.
Trade-offs	Gogo 3G sunsets November 8, 2026. If you're on Gogo Biz 3G, this option has a hard expiration date — though roughly 1,000 aircraft have already upgraded to the Gogo C1 box, which preserves operation on the Gogo 4G LTE network post-cutover but delivers no performance improvement. Operators on Gogo Avance L3 or L5 see a 10–20% improvement over legacy 3G, but still well below the panel's 25 Mbps "enough" threshold. If you're on Swift Broadband, the system continues to operate but doesn't get better.
Honest read	Defensible for short-term hold-outs or aircraft approaching sale. Not a strategy for an active fleet.

Decision criteria for this tier

- **Where do you fly?** If 80%+ CONUS, terrestrial ATG deserves a serious look. If you regularly cross oceans, satellite is the only real answer.
- **What's your timeline?** If the Gogo 3G sunset forces a decision in 2026, your window for installation and STC is shorter than it looks. Most upgrades — satellite or terrestrial — need 90–180 days from contract to in-service, and that's before any shop-floor scheduling realities.
- **What's the recurring spend tolerance?** Satellite operating cost is multiples of terrestrial. The right answer depends on what the principal will actually use.
- **What's the principal actually doing?** If the answer is email and the occasional Zoom, you don't need the Tier 3 solution. You need a working Tier 2 solution.

TIER 2 | 5–25 Mbps | Most of the installed base

The Middle

Who you are

Super-midsize and large-cabin aircraft with first or second-generation Jet Wave Ka. Late-model Citations and Falcons running current Gogo Biz hardware. Aircraft with mixed-mode installations — satellite as primary, terrestrial as backup or vice versa. The cabin works most of the time. The principal can stream, take video calls, and run office workloads — provided the link is behaving and the device count is reasonable.

Where the panel's framework starts to apply

At this tier, the device audit point becomes the highest-leverage move you can make. The infrastructure is there; the problem is usually that 12 devices are quietly synchronizing iCloud while the principal tries to take a Teams call. Mission profile matters at this tier in a real way: an operator flying 30-minute legs and an operator flying 8-hour transcons have very different system requirements even with the same airframe and the same passengers.

Where it doesn't apply: the panel skipped lightly past the question of when to upgrade. If you're running early-generation Jet Wave and the principal's complaints are concentrated around video calls and large file transfers, you may genuinely be at the ceiling of what the current system can deliver, and the answer is an upgrade path — not another device audit.

Your real options

Option A: Optimize what you have

What you get	Substantial improvement at zero capex. Device audit, SSID segmentation, crew/passenger pipe separation, and disciplined background data management often recover 30–50% of perceived performance.
Trade-offs	Requires operational discipline that's often hard to enforce. Doesn't address true capacity ceilings.
Honest read	Almost always the right first move at this tier. If the device audit doesn't resolve the principal's complaints, then you have real data to support an upgrade conversation.

Option B: Add a redundant link

What you get	Failover capability, additional capacity for crew or specific workloads, geographic coverage extension (e.g., adding ATG to a satellite-primary aircraft, or adding satellite to a CONUS-heavy ATG aircraft).
Trade-offs	Additional hardware footprint, STC complexity, ongoing service costs across two networks.
Honest read	The panel's "why not both" framing is genuinely correct at this tier. Redundancy is the single most underrated upgrade in business aviation connectivity.

Option C: Plan the next satellite upgrade

What you get	Move to current-generation Ka or LEO. Substantial throughput and coverage improvements.
Trade-offs	Capex, STC timeline, downtime. The future-proofing fallacy the panel discussed is real: whatever you install today will be superseded in 36 months. The question is whether what you install today is sufficient for the next five to seven years of mission requirements.
Honest read	Don't do this reactively. Do it because the data you collected during the device audit phase tells you the current system is at its ceiling for your actual workload.

Decision criteria for this tier

- **What does the data say?** Pull connected-device counts and per-flight data consumption from your provider portal. Most complaints resolve with this information in hand.
- **Is the principal's complaint about peak performance or consistency?** Different answers point to different solutions. Peak issues point to capacity. Consistency issues point to coverage and redundancy.
- **What's the crew using the network for?** If ForeFlight + EFB + flight planning is hitting the same pipe as passenger streaming, segmentation often produces more improvement than additional capacity.
- **What's the residual life on the airframe?** A long-haul upgrade decision for an aircraft three years from sale is a different conversation than one for an aircraft the principal plans to fly another decade.

TIER 3 | 25+ Mbps consistent | Modern Ka, Starlink, current LEO

The Haves

Who you are

Newer Globals, G650 and G700, large-cabin Falcons, BBJs with modern Ka or Starlink installations. Heavy managed-fleet operators. Aircraft where the cabin pipe is, by current standards, genuinely sufficient. The panel was talking to you.

The panel's framework applies here

Above 25 Mbps consistent, the most impactful improvements aren't about more throughput. They're about reducing the friction around the throughput you have. Five issues dominate at this tier:

- **Device count and background data.** Same problem as Tier 2, often worse. Principals at this tier travel with more devices and more synchronizing services. The device audit is just as important here.
- **Geofencing on streaming content.** Borger's point from the panel: Apple devices report position constantly, and content licensing breaks streaming services mid-flight when an aircraft crosses out of US airspace. Not a hardware problem; a content licensing problem.
- **Crew/passenger pipe segmentation.** Pilots running ForeFlight with full overlays, weather, and EFB sync can pull 16+ Mbps. If that's sharing a network with passenger streaming, segmentation is the single highest-leverage configuration change.
- **Cybersecurity.** The panel mentioned this and didn't develop it. At this tier, with this much exposed surface area — multiple radios, IoT-style cabin devices, BYOD policy gaps — the security posture deserves serious attention.
- **Redundancy posture.** A single point of failure on a Tier 3 aircraft produces a Tier 1 experience for the duration of the failure. Multi-system redundancy is the baseline expectation.

Decision criteria for this tier

- **When did you last run a device audit?** If the answer is "never," that's the highest-ROI action you can take this quarter.
- **Is your crew on the same SSID as your passengers?** If yes, you have an easy win available.

- **Have you reviewed your cyber posture in the last 24 months?** Connectivity architecture has changed faster than most flight departments' IT policies. The gap is where the risk lives.
- **If your primary fails, what does the cabin experience look like?** If the answer is "we don't know," that's the question to answer before your principal answers it for you.

On future-proofing

Morgan and Wilson were right on the panel: aircraft technology will never iterate as fast as consumer technology. Whatever you install today will be superseded. The right framing isn't "will this be obsolete?" — it will. The right framing is: *will this be sufficient for the next five to seven years of mission requirements, and is the upgrade path from this system well-understood and well-supported?*

Part 4. The device audit checklist

If you take one thing from this guide, take this. The single most underused tool in business aviation connectivity is the device audit. Before the next hardware upgrade conversation, before the next principal complaint escalates, run through this list. Print this page and keep it in the hangar.

Before the flight

- ☐ Pull last 30 days of connected-device counts from provider portal, by flight.
- ☐ Identify the three flights with the highest device counts. Review what was happening on those flights.
- ☐ Pull per-flight data consumption for the same period. Flag any flight using >3× the fleet median.
- ☐ Confirm crew devices (EFBs, phones, watches) are accounted for separately from passenger devices.
- ☐ Verify principal's connected devices: phone, watch, tablet, laptop, AirPods, additional family devices.

Configuration checks

- ☐ Crew and passenger traffic on separate SSIDs?
- ☐ Background app refresh disabled on crew devices?
- ☐ Auto-photo upload disabled on principal's devices? (Apple Photos, Google Photos, OneDrive)
- ☐ iCloud Drive sync set to Wi-Fi-only-when-charging on crew devices?
- ☐ ForeFlight in low-data mode when in-flight, or pre-downloaded for the leg?
- ☐ Streaming apps configured for SD or HD rather than 4K where appropriate?

Post-flight diagnostics

- ☐ If a complaint occurred: pull device count for that specific flight, not the principal's self-report.
- ☐ Identify the top three data-consuming devices for the flight.
- ☐ Cross-reference with what was actually in use vs. what was passively connected.
- ☐ Document the audit. The next conversation goes better with data.

> **What the panel said about this**
>
> "Always the first thing, if you have a complaint on any kind of speed on the aircraft, ask your provider how many devices were connected on that flight. Just do it for fun sometime. You will be amazed." — Josh Wilson, EJM

Part 5. The conversation script

Josh Wilson's framing from the panel — rational versus emotional — is the right standard for the conversation with a principal who is convinced the Wi-Fi is broken, the system needs upgrading, or the latest LEO offering is the answer. This section is a working script for that conversation, drawn from what works in practice.

When the principal says: "The Wi-Fi was slow on the last flight."

Don't: Agree, apologize, and start a hardware investigation.

Do: "Before we look at the system, let me pull the device count for that flight. On a typical flight, we see three to four devices per passenger connecting in the background — phones, watches, tablets, AirPods, laptops — even when those devices aren't actively in use. Once I have the numbers, we'll know whether this is a system issue or a configuration issue, and we can solve it accordingly."

When the principal says: "Why don't we have Starlink yet?"

Don't: Defend the current system or argue against Starlink on principle.

Do: "Starlink is worth evaluating on the merits, and I'll run the numbers. Two things I want you to know going in. The hardware cost runs in the $300K+ range, and the recurring service is materially higher than what we spend today. Against our aircraft and our actual usage, that might be the right investment or it might not be. I'd rather come back to you in two weeks with a comparison — Starlink, an upgrade to our current system, and a redundant-link configuration — with real numbers attached. Then we make the call together."

When the principal says: "Just put in whatever's the fastest."

Don't: Take the order. The principal will be unhappy when they learn what "the fastest" actually costs and when it can actually be installed.

Do: "I can do that. Before I commit the budget, I want to make sure we're solving the right problem. A $1,000 device in your pocket is the thing actually dictating what we install on a $70 million asset, so the conversation that matters is: what do you and your guests want to be able to do that doesn't work today? Once I know that, I can match a system to it and we'll spend the right money, not the most money."

When the principal says: "The Gogo system is going away — what's the plan?"

Don't: Promise a date you can't hold.

Do: "The Gogo 3G sunset has been extended to November 8, 2026. If we're on the C1 box, we keep operating on 4G LTE after that date but performance stays where it is today. If we're on

Avance L3 or L5, we get a 10–20% bump but still well below where the industry is converging on ‘enough.’ None of those are real upgrades. My recommendation is that we evaluate alternatives now — next-generation ATG for our CONUS-heavy flights, satellite for the international segment, or a hybrid. I’ll have a comparison on your desk in 30 days.”

The line worth keeping in mind

> *“There’s a lot of emotion involved in Wi-Fi services right now. Our job is to separate emotion from rationale and science.”*
>
> — Josh Wilson, EJM

The whole point of the device audit, the tier framework, and these scripts is to bring science to a conversation that usually runs on emotion. The principal isn’t wrong to want a better cabin experience. The DOM’s job is to translate that want into the right investment, on a defensible timeline, with a defensible upgrade path. That’s the conversation worth having — and it’s the one the panel was trying to get to, even when its framing made the path harder.

About this guide

The Inflight Connectivity Divide was prepared by Apcela as a vendor-perspective read of the business aviation connectivity market following the NBAA Maintenance Conference 2026 connectivity panel. Quotations from the panel are drawn from the public session and used for the purpose of commentary and criticism. Source: NBAA MX 2026, “The Day We Stop Talking About Wi-Fi Speeds — Fast Enough to Forget About It,” day two.

About Apcela. Apcela provides air-to-ground connectivity services to the business aviation market through Apcela ATG, with a particular focus on operators migrating from legacy Gogo systems. We have a horse in this race. Where this guide makes recommendations, we’ve tried to put the operator’s interest ahead of our own product’s.

Talk to us

If you’re evaluating your next connectivity move — particularly if you’re facing the Gogo 3G sunset and weighing terrestrial against satellite — we’d welcome the conversation. No sales pitch required, and no obligation. We’d rather you make the right decision for your aircraft than the wrong one for our product.

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