



IBC 2026 EDITION

WHERE DOES THE SIGNAL GO NEXT?

Navigating the distribution transition.
An industry event report from The Hive Group

Post-show report · IBC Show 2026, Amsterdam · October 2026



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"C-band is the gold standard for this type of content distribution."

Rebecca Hanson, Director General, NABA

"I boil it down to three things: capability, reliability and availability."

Ken Fuller, VP, Distribution and Technology, Paramount/CBS

"We need diversity and we need to make sure we stay on the air."

Matthew Goldman, Vice President Strategic & Technical Initiatives, Sinclair

"We built this media transport lab in Melbourne, Florida, which is one of the rainiest places in the United States."

Ted Korte, VP of Technology and Engineering, USSI Global

"Satellite is not a thing in Denmark."

Morten Brandstrup, Head of News Technology, TV 2 News

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If we had one Earthshot to reinvent TV from 2034, what is it going to look like?

Richard Lindsay-Davies, Chief Executive, Digital TV Group (DTG)



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Overview

The room agreed there is no single replacement for satellite distribution: the answer is a hybrid, shaped by each broadcaster's own footprint, and the work of testing it has to start now.

On Friday, September 11, 2026, just before the doors of IBC opened, The Hive Group brought broadcasters, technology providers and distribution leaders together at The Traveller in Amsterdam for *Where Does the Signal Go Next? Navigating the Distribution Transition*. It was the second Hive Group executive breakfast on the subject, following the Satellite Replacement Breakfast at NAB Show in Las Vegas, and the first with a European voice alongside the North American one.

The morning ran in three parts:

- › **The US panel**, chaired by Rebecca Hanson, Director General of the North American Broadcasters Association (NABA), with Ken Fuller (Paramount/CBS), Matthew Goldman (Sinclair) and Ted Korte (USSI Global), on what the FCC's upper C-band decision means for networks and affiliates.
- › **The European panel**, with Richard Lindsay-Davies of the Digital TV Group (DTG) and Morten Brandstrup of TV 2 News, Denmark, on why Europe is moving off traditional distribution even without a regulator forcing the date.
- › **The vendor panel**, moderated by Richard Lindsay-Davies, with seven technology and service providers: Alan Young (Zixi), Bryan McGuirk (LTN), Chris Clarke (Cerberus Tech), Deepak Mathur (SES), G Morgan (Globecast), Lena Tanaomi (AWS) and Michelle Munson (Eluvio).

Three messages ran through all of it. The first is that the FCC's order to auction 160 MHz of the 200 MHz upper C-band leaves only 40 MHz for incumbent users, so US broadcasters have to find something "substantially similar" to a service they regard as the gold standard. The second is that nobody on stage expected a single technology to do that: Ken Fuller put it as "probably a mixture... a hybrid solution", and Matthew Goldman reminded the room that whatever is built, "we have to

stay on the air". The third is that the transition is as much an opportunity as a replacement, with Richard Lindsay-Davies asking what the industry would build "if we had one Earthshot to reinvent TV".

This report draws on the recording of the morning and on written contributions from our sponsors, each of which reflects that sponsor's own perspective.



The US view: staying on air through the C-band change

In the US, C-band is how networks distribute content across the continent to affiliates and cable systems. Rebecca Hanson opened the panel by setting out the position: the FCC has ordered an auction of 160 MHz of that spectrum, leaving 40 MHz for incumbent operations, which is not enough for everyone. The FCC has said it will support solutions that are “substantially similar” to C-band, a phrase that, as Rebecca noted, is hard to apply to what broadcasters regard as the gold standard.

One option the FCC has mentioned is a hybrid of Ku-band and C-band with a terrestrial data packet recovery network, which SES is promoting. The panel was asked to weigh it from a network, an affiliate and a testing perspective.



We need diversity and we need to make sure we stay on the air.

Matthew Goldman

Vice President Strategic & Technical Initiatives, Sinclair

THE NETWORK VIEW

Ken Fuller, Vice President of Distribution and Technology at Paramount/CBS, said the hybrid looks viable on paper and that cross-strapping C-band up to Ku-band down is proven technology. His questions are about the packet recovery network: whether it will scale in a large weather event, and how current the ITU weather models behind SES's design are. The proposal places packet recovery in the southeast and the Pacific Northwest, where rain is heaviest. His goal for the network is “no interruption of service”, which means recovery has to be predictive rather than reactive.

He expects the outcome to be a mix of delivery methods rather than Ku-band alone, and noted that some larger station groups no longer want a satellite downlink at all, but a virtual hand-off into their cloud master control. He also ruled out low earth orbit (LEO) constellations as a replacement on their own: they operate in a band that gives no better weather performance and offer more downstream than upstream capacity, which puts them outside “substantially the same service”. They could still be one path in a larger hybrid.

THE AFFILIATE VIEW

Matthew Goldman, Vice President Strategic & Technical Initiatives at Sinclair, described a group that had seen the change coming. Around 90% of Sinclair's stations have moved to cloud-based operation and the group expects to be fully in the cloud by the end of the year. Everything it receives today still arrives by satellite, but its preference is a direct connection into the cloud, because taking a satellite feed locally only to send it back up to the cloud makes little sense.

The priority is unchanged: stay on air, 24 hours a day. Sinclair keeps a local playout box as disaster recovery and could, in the worst case, put a direct satellite feed to air, losing local advertising but not the signal. Matthew also flagged practical engineering questions that remain open: the switching time if the network is not proactive, and the latency of the new service, which nobody has yet stated.

He was equally direct on diversity. Fiber may reach a rural station, but possibly from only one carrier, and nobody will run a wired connection up a mountain to a transmitter site. For some sites that means microwave or LEO as a point solution. He therefore saw the “whiz bang box”, a receiver that combines Ku-band, 4G, 5G, managed and public internet and switches between them, as not overkill but necessary, provided the economics work.

WHAT THE TESTING SHOWS

Ted Korte, Vice President of Programs and Innovation Lab at USSI Global, reported that Ku-band satellite distribution and SRT/RIST IP delivery are each proven at scale. The new element is the two working together to recover packets from the satellite path during rain fade. USSI built a media transport lab in Melbourne, Florida, one of the rainiest places in the US, and has been testing through the wettest part of the year. Its heaviest storms, he said, are the kind where you wait in the grocery store rather than walk to your car, and it was open to all vendors without being asked by any one client. Ken Fuller said CBS will use the lab, which brings together C-band and Ku-band downlinks, 4G, 5G, LEO, public and managed internet.

Ted saw the market settling on an abstraction layer: broadcast when audiences converge, unicast when they diverge, and hybrid when availability matters most. Orchestration, potentially automated with AI, is what makes that workable.

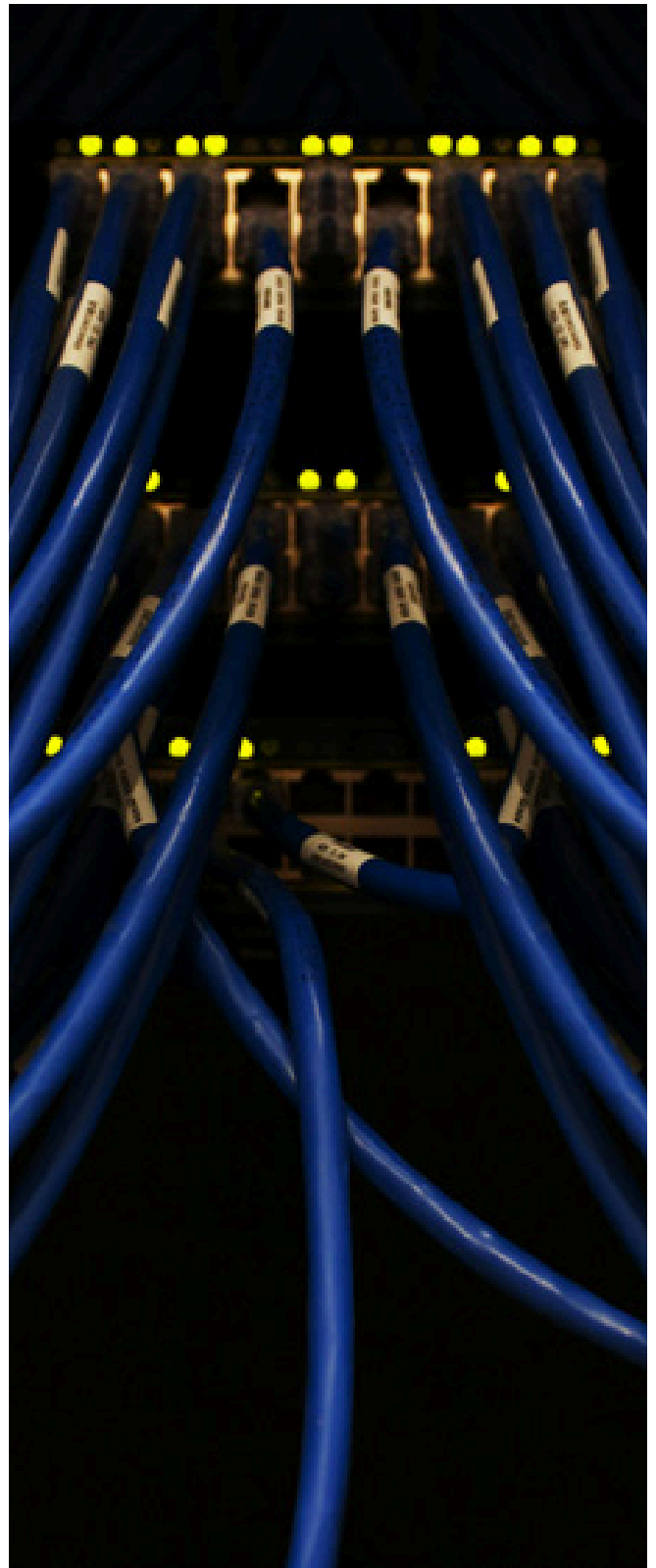


THREE BENCHMARKS FOR “SUBSTANTIALLY THE SAME”

Because nobody has defined “substantially similar”, Ken Fuller boiled it down to three tests: **capability, reliability and availability**. Reliability, he told the audience, can be built up within a hybrid model, so these three give a basis for design and for the argument with the regulator. Rebecca Hanson explained why it matters: the FCC has said it will reimburse the cost of achieving substantially the same service, but not “gold plating”, and where the line falls is still open. Operators also have to commit to a hybrid system before it is fully operational, an irrevocable decision.

THE COST QUESTION

The panel was blunt that the money is unresolved. Ken Fuller said the industry lobbied for compensation for operating expenses: today’s satellite transponders, uplink contracts and downlink antennas are capital expense, while terrestrial carriage is operating expense. It asked for ten years of support, expected five and received none. Finance teams expected terrestrial to be cheaper, but a managed or custom service will cost more than the three transponders CBS uses today. Matthew Goldman raised costs the FCC has not addressed at all: what happens to large C-band dishes that are no longer used, and who pays to remove them. Asked whether the remaining 40 MHz might be worth keeping, Matthew Goldman said the industry has to jump to the next step: he expected that spectrum to be taken in time too, once the aviation concerns above the band are resolved.



It'll probably be a mixture... a hybrid solution because I think that makes the most sense.

Ken Fuller
VP, Distribution and Technology, Paramount/CBS



The European view: no regulator, but the same pressure

In Europe, regulation is not setting the pace in the way the FCC is in the US, but the business drivers are strong. The second panel looked at what moving off traditional distribution means when the audience, rather than a spectrum auction, is the reason.



Satellite is not a thing in Denmark.

Morten Brandstrup

Head of News Technology, TV 2 News

THE UK: A FEDERATED SWITCH TO IP

Richard Lindsay-Davies, Chief Executive of the DTG, explained that the UK government's green paper, issued before the summer, sets out the switch-off of terrestrial TV, probably by 2034 and by 2044 at the latest if everyone cannot be reached. The future of satellite depends on Sky and its investment. The DTG chaired the government's planning work, and Richard spent the summer drafting a technology transition plan to move the UK to IP, which was due to go to government the week after the event.

He pointed out that this transition is very different from digital switchover. That program involved a single transmission network operator and a single satellite operator. This time there is no single provider and no single SLA running down the whole chain, from content through core and distribution networks to the home and around it. The DTG is working to act as a proxy single network operator, coordinating across the chain so that the outcome works for broadcasters' businesses and leaves no audience behind.

Policy is moving across Europe too. The European Commission has completed a consultation on public service media and how prominence will work for those services, with a further date in December. Italy, the Republic of Ireland and Germany are testing DVB-based approaches that keep a familiar linear channel experience and regulated prominence. Richard noted that the position differs by who owns the network: a broadcaster that owns its own satellite or terrestrial network is keener to keep it, while one paying a single vendor for an upgrade faces a harder economic case.

DENMARK: THE TRANSITION ALREADY MADE

Morten Brandstrup, Head of News Technology at TV 2 News, described a commercial, state-owned national broadcaster funded by advertising and subscription, in a market that moved to cable IP many years ago. Denmark has fiber almost everywhere, a government target of at least 100 megabits for every household and full 5G coverage from four independent operators. Satellite is "not a thing" there. TV 2 expects terrestrial distribution to end, probably when contracts are renewed around 2030, because the business case will have disappeared.

For global sports rights such as the Olympics, TV 2 receives most of its content over fiber or the public internet at receiving points around the world, and is moving into cloud production and playout so that it no longer has to take content itself but can access it in the cloud. Its strategy is to own the viewer relationship across linear and on demand, including acting as a gateway to services such as Disney+ and Apple TV, and it is by far the leader in its market. Its main concern, Morten said, is reaching the 20 to 30 year-olds that many broadcasters have lost, by serving them on every channel.

WHERE THE AUDIENCE IS

Richard made the point that the contest is for "the thing on the wall in the room": roughly 56% of YouTube viewing in the UK, he said, is on large-screen TVs. Broadcasters therefore have to be fully IP and find new business, content and partnership models, and he saw new opportunities, citing the rise of vertical video and micro dramas. The UK's Freely platform, which is IP-only, shows one route. He urged the room not to simply move today's television onto a new platform, but to ask what the big idea for TV is from 2034: "if we had one Earthshot to reinvent TV from 2034, what is it going to look like?"



The technology alternatives: what the vendors said

The closing session was a quick-fire panel of seven providers, moderated by Richard Lindsay-Davies. Each was asked what capabilities they bring to the transition, where the new value lies, and what is on their roadmap. Several tied their answers to the three tests Ken Fuller had set out earlier: capability, reliability and availability.

PROVIDER	SPEAKER	APPROACH IN BRIEF	ON THE ROADMAP
AWS	Lena Tanaomi, Senior Product Manager	A private network across more than 30 regions, managed services so broadcasters do not need cloud engineering teams, and multipath transport in MediaConnect designed to reach six nines. Pop-up channels and regional or language variants at low commitment.	Generative AI for monitoring and contextual metadata.
Cerberus Tech	Chris Clarke, Chief Revenue Officer and Co-founder	Managed distribution over unmanaged internet for ten years at a five-nines SLA, provisioned into public cloud. Copies satellite's division of responsibility: the source proves delivery, each receive site looks after its own connectivity. Also offered as self-serve.	Cloud disaster recovery stacks, Media over QUIC support, and observability across hundreds of receive points.
Eluvio	Michelle Munson, Co-founder and CEO	The Content Fabric distributes once and lets any number of receivers take from it without raising the cost, giving satellite-like economics over IP with direct-to-consumer reach (HLS and DASH). Streamed the World Cup in a commercial pilot.	Personalized virtual signage generated just in time from a single live feed, using AI inference on the live signal.
Globecast	G Morgan, EVP of Sales	Teleport operator that has removed 103 antennas in two years while moving to IP workflows, and runs the YouTube TV service for Google. Positions itself as the "Swiss army knife" across technologies.	A content exchange product so customers can self-serve distribution across its global service inventory of about 500 channels, and data analysis for predictive observability.
LTN	Bryan McGuirk, Chief Revenue Officer	Managed IP network founded in 2007, with an end-to-end written SLA at six nines, latency under 200 ms in the US and under 300 ms globally, and reach to small cable operators. Reports 30 to 40 percent savings against satellite bills. Rolling out a nationwide hybrid network for PBS across 330 stations, with two ISPs at each.	TR 101 290 telemetry for every feed in the customer portal, LTN Watch multi-platform monitoring, and 4K.
SES	Deepak Mathur, President, Media Vertical	Satellite keeps the ubiquity, cost and reliability broadcasters need; add packet recovery or fiber to make it hybrid. Ku+ in North America, SES CORE for monitoring and a single pane of glass, DVB-NIP elsewhere.	Delivering the North American transition responsibly and building converged hybrid networks with UK public service broadcasters and across Europe.
Zixi	Alan Young, VP of Strategic Business Development	Software that runs on standard compute over any IP network, recovers lost packets or switches paths packet by packet at each receive site, and controls latency so feeds arrive together. The ZEN Master control plane gives one view of the network.	Shared ZEN Master visibility between providers in a workflow, and schedule awareness so that what is on air drives which feed goes where, and informs advertising.

COMPLEXITY IS THE PRICE OF FLEXIBILITY

Satellite is simple: send it up and it goes everywhere. Alan Young observed that the IP world is hybrid, with far more to orchestrate, so a control plane is essential. IP is two-way, though, which brings telemetry back. Bryan McGuirk said customers value LTN presenting the same telemetry its own engineers see, so they can troubleshoot alongside the provider. Chris Clarke and others returned to the same problem from the other direction: a dashboard for 30 or 40 destinations is easy, but a thousand receive points need a contextual view that shows what needs attention and makes it safe to trust that the rest is green.

SATELLITE AS THE START OF SOMEONE ELSE'S WORKFLOW

Chris Clarke made the point that satellite has always been the stable end of one organization's workflow and the stable beginning of hundreds of others. Replacing it is therefore not one project: "you've got to take everyone along for the ride." Bryan McGuirk echoed it from the cable side, saying LTN's customers want to leave no eyeball behind.

WHERE THE NEW VALUE IS

The panel agreed the opportunity goes beyond replacing a pipe. Michelle Munson pointed to two things: converged distribution to both broadcast and direct-to-consumer from one feed, with no egress-charged fan-outs, and data carried inline with the signal, enabling personalization at scale. Lena



Tanaomi added that the low cost of testing new distribution markets, ad strategies and regional or language variants opens up new revenue. Alan Young described sending each receive site only the feed it needs, at the quality and protocol it can take, with SCTE messaging used to switch markets and to give advertisers the context of the content around a break. Bryan McGuirk added that IP lets a broadcaster present different signals to affiliates at different stages of their upgrade, which matters as 4K demand grows.

DIFFERENT VIEWS ON HOW TO BUILD IT

The vendors did not all agree. Deepak Mathur argued that a fifty-year-old technology should not be abandoned simply for its age and that major broadcasters across Europe and the rest of the world are still signing long-term satellite contracts. Bryan McGuirk positioned LTN as a step beyond packet recovery in Ku+, offering nationwide recovery, and said a hybrid with satellite can be run as belt and braces or the satellite can be switched off to take the saving. Chris Clarke challenged the idea of two ISPs at every destination as expensive and argued receive sites are better placed to buy their own local bandwidth. Michelle Munson challenged the premise that distribution should be built receiver by receiver, arguing that distributing once and letting everyone take from it is what restores satellite economics. Richard Lindsay-Davies closed by noting that, in his view, nothing needs to be invented to make the move: the tools for hybrid and resilience are already in place.

Key themes and strategic implications

THERE IS NO SINGLE TECHNOLOGY SOLUTION

From the network, the affiliates, the test lab and the vendors, the same conclusion came back: Ku-band, managed IP, public internet, cloud and LEO each have a place, with different trade-offs in cost, complexity and control. The practical design principle was to separate the service from its transport, so the best path can be used for each need.

“WE HAVE TO STAY ON THE AIR”

Reliability is judged by what viewers see. Broadcasters want recovery that is predictive rather than reactive, because a switch that happens after a failure is still an outage. The latency of the new services had not yet been stated, and it is one of the practical engineering questions still to be answered.

THE COST MODEL HAS CHANGED

Moving from capital expense (transponders, uplinks, dishes) to operating expense (carriage) was not compensated by the FCC. The definition of “substantially similar” decides what will be reimbursed, and until it is clear, finance teams cannot assume terrestrial will be cheaper.

THE LAST MILE DECIDES THE DESIGN

Diversity is hard where only one carrier reaches a site and impossible where nothing does. The panel expected affiliates to need a mix of fiber, microwave, LEO and satellite, which is why a receiver that combines several paths and switches between them kept coming up.

COMPLEXITY MOVES TO ORCHESTRATION AND OBSERVABILITY

Satellite hid the receive side. IP requires every endpoint to be known, monitored and managed. Providers on the panel were investing in control planes, telemetry, schedule awareness and AI-assisted monitoring because, at hundreds or thousands of receive points, an operator has to see at a glance what needs attention.

EUROPE IS MOVING FOR DIFFERENT REASONS

With terrestrial switch-off planned in the UK and Denmark already on IP, the European question is less about replacing a satellite link and more about keeping broadcasters relevant on the biggest screen in the home. The two regions share a need to leave no audience behind.

THE TRANSITION IS ALSO AN OPPORTUNITY

Pop-up channels, regional and language variants, 4K, personalization and data-driven advertising were all raised as reasons to move, not just consequences of having to. Richard Lindsay-Davies's challenge to the room was to design television for 2034, not to copy 2026 onto a new network.

PROOF BEATS PROMISES

Broadcasters were consistent that they want to see hybrid models working in practice. Testing is under way at USSI Global's lab in Florida, LTN is working with third parties to enable testing, and Sinclair is already close to fully in the cloud. The next step for everyone else is to map their connectivity and start testing now.



Sponsor contributions

The breakfast was made possible by our sponsors, and each was invited to contribute a piece to this report. These articles reflect each sponsor's own perspective and are presented in alphabetical order. They have not been edited for opinion, and spelling follows each author's own preference.



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WHERE DOES THE SIGNAL GO NEXT? THE INFRASTRUCTURE FOUNDATIONS FOR SATELLITE-TO-IP DISTRIBUTION



AWS (AMAZON WEB SERVICES)

The satellite-to-IP distribution transition is no longer a planning exercise. With the FCC advancing the auction of upper C-band spectrum by July 2027, and European broadcasters facing converging pressures around cost, flexibility, and production scale, the question confronting the industry is whether the infrastructure available to replace satellite is ready to be treated as core.

The foundations that core infrastructure demands

Before any broadcaster will commit to IP as a primary distribution path, three conditions must be met.

The first is deterministic transport performance. Broadcasters require confidence that a signal will arrive intact, on time, and without interruption. The transition to IP demands a controlled, end-to-end path that can deliver that confidence on a global scale. The AWS private backbone connects more than 30 Regions, and a live signal moving between Frankfurt and São Paulo never touches the public internet. This enables real-time monitoring and rerouting across all available paths, delivering the deterministic performance that broadcast workflows require. At the network edge, AWS last-mile connectivity solutions allow organizations to match local access options to their specific requirements for reliability, latency, and cost.

The second is operational simplicity. If the move to IP requires deploying and maintaining servers, patching software, and pre-provisioning capacity for every event, the operational burden has been restructured, not reduced. The transition demands fully managed services where infrastructure adapts autonomously, and operational overhead remains with the provider. AWS has built that model across transport, routing, encoding, packaging, and delivery.

The third is resilience that matches or exceeds satellite. AWS has demonstrated multi-path transport that distributes traffic across all available network paths simultaneously, rerouting around failures in real time, with architectures achieving six nines of availability. That translates to approximately 32 seconds of potential downtime per year. For an industry that trusted satellite for decades because it just works, that standard must be met and demonstrated.

Beyond replacement: what scaling around demand unlocks

In a fixed-capacity model, distribution is sized for the biggest day of the year. Every other day, most of that capacity sits idle. When a new opportunity arises, whether a temporary rights package, a pop-up channel, or a three-month sports season in a new market, the lead time is weeks or months.

When distribution infrastructure is cloud-based, that dynamic changes structurally. A new geographic market does not require permanent build-out. A new distribution partner can begin receiving a live feed in minutes. The incremental commitment for a regional variant approaches zero.

What changes is not just the cost structure. It is the threshold for what becomes worth attempting.

Once content flows through cloud infrastructure, it also connects natively into adjacent managed services, including encoding, personalization, AI-powered content analysis, and dynamic ad insertion. Each expands the platform's value without requiring additional integration.

Getting in and out of the cloud

The AWS private global network and regional infrastructure provide the backbone for reliable video delivery across regions and continents. Multiple options exist to match different source and destination requirements. Signals can be received and distributed over the public internet using reliable transport protocols such as SRT, transported

through dedicated wireless, MPLS, or fiber connections via AWS Direct Connect, or received and distributed through managed services such as AWS Elemental MediaConnect. For hard-to-reach locations, Amazon Leo satellite connectivity extends coverage where traditional terrestrial infrastructure is limited. On the delivery side, Amazon CloudFront provides CDN-based distribution through more than 600 global edge locations, integrating natively with AWS media services for reach at scale.

Fitting with existing infrastructure

The replacement architecture must coexist with legacy equipment and established vendor relationships. Partners such as Synamedia (Quortex) are building tightly around AWS media services and CloudFront delivery. MediaKind's MK.IO Beam provides edge video processing that complements cloud transport. EVS is integrating its Cerebrum broadcast controller directly with the MediaConnect Router API, driven by a customer requirement at Reuters for cloud routing into playout and master control workflows.

For existing receive-side hardware, the combination of open protocol support and device discovery standards like TR-12 provides a potential pathway for open discovery, control, and monitoring of on-premises devices such as decoders that could be used for C-band terrestrial replacement. TR-12, an open standard initiated through the Video Services Forum, provides automatic device registration through simple pairing codes. The goal is not wholesale endpoint replacement but a managed migration path where cloud infrastructure delivers to the devices already in the field.

Processing and personalization in the cloud

Satellite distribution is one-to-many. The same signal reaches every receiver. IP distribution, backed by cloud processing, enables a one-to-each model.

AWS Elemental MediaLive handles encoding and transcoding. MediaPackage manages packaging. MediaTailor enables server-side ad insertion and yield optimization, including for low-latency streams. Partners add orchestration and stream customization on top of this foundation, enabling regionalization, monetization, and personalized viewing experiences before content reaches any individual endpoint.

What to watch next

Cloud-native routing. AWS launched MediaConnect Router approximately one year ago. Sony used it in production for a major international sports broadcast, routing more than 90 live sources through cloud-based switchers. The roadmap includes clean switching, cross-account routing, and higher-capacity configurations for large-scale linear distribution.

Device discovery and management. In a satellite environment, device management is invisible. The signal goes up and every tuned receiver picks it up. When distribution moves to IP, every endpoint must be explicitly discovered, registered, configured, and monitored. For broadcasters with hundreds or thousands of receive locations, this is the kind of problem that does not surface in a proof of concept but decisively stalls a migration at real scale.

The cost of waiting

The transition is already technically possible. The question is whether broadcasters will begin on their own terms or wait until a spectrum auction, a contract expiry, or a regulatory mandate forces the decision with fewer options and less room for error.

The organizations that have navigated this most successfully did not wait for a forcing mechanism. They started while they still had the luxury of choosing how and when.



MAINTAINING THE SATELLITE VALUE CHAIN WITHOUT SATELLITE



CHRIS CLARKE, CHIEF REVENUE OFFICER AND CO-FOUNDER, CERBERUS TECH

Broadcasters are being asked to replace a distribution backbone that has worked quietly and reliably for decades. In North America the trigger is the FCC's upper C-band auction, and in Europe it is DTT switch-off. It is easy to treat this shift as a transport problem. At Cerberus Tech, we think the real challenge is solving for everything that sits around the transport.

Satellite was never just the end of one organization's workflow. For the broadcaster it was a stable end point. For hundreds of affiliates, headends and rights takers, it was also the stable beginning of their own workflows. If you replace the pipe without respecting that, you break everything downstream of it. Any credible transition has to take everyone along for the ride.

Mirroring the model that already works

Satellite has a simple division of responsibility. One organization gets the signal to the satellite and proves it is there. A thousand organizations are then each responsible for receiving it. The chain is decoupled at the satellite. Our approach to IP distribution deliberately copies that model, and we've delivered this way over unmanaged internet connections for 10 years while maintaining a five-nines SLA.

Through our Livelink platform, source owners provision distribution into public cloud. They can use any region across an expanding list of supported providers that currently includes AWS, Google Cloud, Akamai Cloud and DigitalOcean. Receive sites take responsibility for their own connectivity, using the ISPs and fiber providers they already work with locally. Why? They are better placed than any central vendor to maintain the right bandwidth in their own market. And the model avoids the cost of building dual circuits into every destination.

Livelink's source permissions extend the same logic to rights. A source owner can share an entire environment or individual feeds with another organization. It can decide how many delivery points that organization creates and who pays for them, while keeping visibility into stream health across every connection. This is the decentralized model broadcasters know from satellite and fiber switching, rebuilt for IP.

Familiar workflows, more capability

A recurring theme at The Hive Group's IBC breakfast panel, "Navigating the Distribution Transition," was that the transition should be an opportunity, not just a replacement. Familiarity is the starting point, not the ceiling.

Cerberus Tech customers who have moved from satellite to Livelink have found they can do more with the same feed. They launch pop-up channels in hours rather than weeks. They replace static, expensive satellite backup paths with flexible IP redundancy. Existing customers can onboard IP-ready affiliates the same day. (Our record for a new affiliate in the middle of the Indian Ocean is 37 minutes from introduction to signed-off delivery.)

None of that works if every new affiliate becomes an engineering project. Automation is what keeps the workflow familiar as it scales. We learned this early. When we became managed service providers in 2016, backfilling a satellite footprint gap across Asia with an IP service, it was clear the work couldn't be done manually. With Livelink, adding an affiliate is routine: the operator works with the platform, and the platform does the work.

The same principle applies to how broadcasters choose to operate. Some want a managed service. Others have their own MCR, NOC and engineering teams and want to keep working the way they do today. Six years ago we opened Livelink to them as a self-serve product, so they can spin cloud processing and distribution up and down without engaging us at all. That keeps us honest, because everything we do as a managed service has to work just as well for customers who never speak to us.

What comes next

As more broadcasters move distribution off satellite, their priorities are shifting from getting signals delivered to keeping hundreds of delivery points under control. Recent Livelink enhancements include cloud-based disaster recovery, with standby environments that can be brought online on demand. We are also beginning work on support for Media over QUIC (MoQ), an emerging distribution technology. But our current priority is improving observability. A dashboard for 30 or 40 destinations is straightforward. A thousand receive points present a different problem: the operator needs a contextual view that shows instantly what needs attention and makes it safe to trust that everything else is green. That is where much of our platform development is now focused.

Satellite gave broadcasters confidence because it rarely needed attention. IP distribution has to earn that confidence differently. When every receive point can report back, operators can see exactly what's happening across the whole network rather than wait to hear about a problem. Delivering that visibility at scale is how IP will match the trust satellite held for decades, and it's what we're building Livelink to do.



A NEW PATH FORWARD: DELIVERING BROADCAST ECONOMICS AND QUALITY VIA ELUVIO'S GLOBAL BROADCAST FABRIC



MICHELLE MUNSON, CEO AND CO-FOUNDER, ELUVIO

One lesson was abundantly clear coming out of this year's NAB and IBC shows. Broadcasters want to retain both the high quality and cost-efficiency of satellite distribution while benefiting from the addressability and versatility provided by IP. But, conventional legacy solutions are failing them because these twin goals remain architecturally incompatible.

Conventional cloud distribution approaches for live broadcast are built on a hub-and-spoke, egress-fan-out model: one ingest point fans out to "N" receivers, and both cost and resource consumption scale with "N". Satellite avoids this by broadcasting a single signal that every receiver can tune to, but at the cost of flexibility, addressability, and over-the-top integration. Point-to-point fiber alternatives preserve performance but sacrifice the one-to-many reach that satellite provides. No IP solution has simultaneously solved these competing interests, until now.

Eluvio's Global Broadcast Fabric is the first commercially available means to replace legacy satellite distribution, fiber point-to-point connections, and ground-to-cloud multi-point egress solutions for live broadcast feed distribution. It provides the first unified zero-copy platform for broadcast, streaming and AI video intelligence. One decentralized Content Fabric distribution simultaneously serves every downstream taker — B2B broadcast affiliates and D2C consumer endpoints — from a single ingest workflow, with no file copies at any stage.

For broadcasters, it represents a new path forward: a decentralized any-to-any content routing architecture in which one distribution through the network generates just-in-time outputs for any number of receivers without duplicating traffic or incurring incremental resource costs. Fundamentally, it's the first commercially viable means to replace satellite distribution without sacrificing broadcast quality or cost efficiency.

The Fabric is built on a proven decentralized content routing protocol layered over TCP/IP, designed to achieve any-to-any distribution at global scale. Unlike hub-and-spoke egress models where traffic is duplicated for each receiver, the Fabric's any-to-any routing generates just-in-time outputs for each downstream taker from a single distribution path. A broadcast affiliate receiving a transport stream over SRT, a remote production team accessing the VIP Command Center multi-view, and a D2C consumer endpoint receiving HLS or DASH all receive from the same Fabric distribution — with no file copies, no traffic duplication, and no incremental cost per receiver.

Global latency is sub-500ms end-to-end and jitter is sub-millisecond, ensuring exceptional broadcast quality. Path resilience is achieved through SMPTE 2022-7 decentralized multipath phase-lock synchronization — providing the kind of path diversity required for premium live sports and news, without centralized control or single points of failure. This is the first successful implementation of SMPTE 2022-7 at this scale over IP.

The economic model is a radical departure from legacy clouds and CDNs. There are no egress fan-out charges and no internal Fabric transit charges. Receiver count does not affect cost. Equally important, there are no fees for unused distribution time — a structural advantage over capacity models that charge regardless of consumption. The Fabric's any-to-any routing means the ten-thousandth receiver costs no more to serve than the first. This is satellite economics rebuilt for IP, extended with over-the-top flexibility and the operational control demanded by forward-looking broadcaster engineering teams.

Broadcasters ingest to the Fabric via standard technology and existing infrastructure: JPEG-XS, AVC/HEVC over UDP, RTP, and SRT, from cameras, encoders, and broadcast trucks on-site, or via SRT for wide-area contribution from remote venues. The same Fabric distributes it simultaneously to B2B affiliates via SRT/TS and to D2C endpoints via HLS/DASH, providing a unified stack that eliminates the resource and operational overhead of maintaining parallel distribution infrastructures.

Security is enforced at the architecture level, not bolted on. Multi-layer AES encryption with proxy re-encryption creates per-session key spaces. Per-session authorization automatically enforces availability windows, geo-restrictions, ACLs, and entitlements for both B2B and D2C endpoints. Multi-DRM for D2C delivery and SRT encryption for B2B are built in.

The Live Stream Manager provides API-driven operational control — inputs, outputs, routing, health and QoS dashboards, multilayer statistics, and batch configuration for simultaneous feeds — with a full SDK for partner automation. The VIP Command Center gives NOC, VIP, and remote production teams unlimited global multi-view at ultra-low latency, with brandable SSO and Fabric policy-enforced stream visibility from any desktop or mobile browser.

In addition, Eluvio also provides AI analysis and inference inline within the streaming media generation and distribution pipeline, producing frame accurate, fully-aligned textual and multi-modal labels, embeddings, and metadata, for both live and VOD content. It harnesses AI data just-in-time, enabling unlimited AI personalization and transformation of video, audio and image content. This first-of-its-kind implementation also operates with zero file copies, zero file movement, and zero re-transcoding at every stage: analysis, metadata generation, derivative creation, and delivery.

At Eluvio, we have been building toward this capability since our founding seven years ago. The broadcasters and sports organizations we are working with are running production workflows on the Global Broadcast Fabric. And, they are meeting broadcast-grade performance requirements over IP, with an any-to-any distribution model, at satellite-competitive economics. Broadcast transformation is not imminent. It is already here. Learn more at eluvio.io.

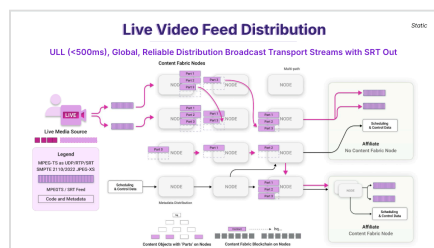


Figure 1: Live video feed distribution on the Eluvio Content Fabric.

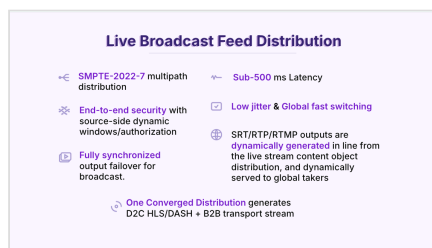


Figure 2: Live broadcast feed distribution: capabilities at a glance.

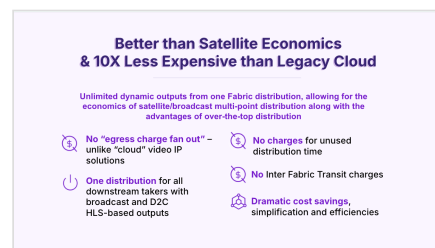


Figure 3: Better than satellite economics: one distribution, unlimited dynamic outputs.



GLOBECAST OPERATIONAL EXCELLENCE THROUGH THE DISTRIBUTION TRANSITION



GLOBECAST

GlobeCast takes responsibility for delivering the media services our customers depend on 24 hours a day, seven days a week. Our teams focus on keeping content on air, managing operational complexity and protecting service continuity. For broadcasters navigating C-band migration, that means an experienced partner who can design the transition, execute it and run the resulting service. Operational excellence is our daily responsibility.

Following The Hive Group's Where Does the Signal Go Next? event at IBC 2026, our message is clear. GlobeCast brings together global operating teams, technology integration and firsthand migration experience in one managed service relationship. We coordinate systems and suppliers, giving customers an accountable partner for delivery. Broadcasters can focus on their content, audiences and commercial priorities while we manage the technical operation that supports them.

Our own transformation demonstrates that experience. Through GlobeCast's global facility transformation program, we eliminated nearly 100 satellite antennas over two years as we shifted video intake and distribution toward IP infrastructure. This included our new Westlake Village facility and modernized operations in Paris, London, Singapore and Johannesburg. Working with customers and technology partners, we maintained service continuity for major cable networks, live sports and OTT platforms throughout that transformation.

That experience informs our approach to each customer. There is no single solution for every C-band migration. Satellite remains valuable for efficient delivery across large footprints and locations with limited terrestrial connectivity. Managed IP offers flexibility and visibility at individual receiving sites. GlobeCast can integrate these approaches into an operating model suited to the customer's service obligations, infrastructure and economics. Service requirements guide technology choices.

Operational excellence means disciplined monitoring, incident management, proactive maintenance and controlled change. We provide 24/7 support and use operational information to identify problems, coordinate responses and improve service performance. Customers need clear ownership when an issue crosses multiple systems or suppliers. GlobeCast brings those operational responsibilities together within the managed service, with defined service levels and escalation arrangements. Planned changes receive the same operational attention as incidents, because routine maintenance can also affect audiences.

Migration planning starts with understanding receiving sites and the workflows they support. We work with customers to assess connectivity, receiver capabilities, latency requirements and support arrangements. A remote location may require a different approach from a connected distribution hub. Understanding these differences helps us plan migration stages, define acceptance criteria and agree on fallback arrangements to protect delivery.

GlobeCast's Content Exchange supports this work through common orchestration of live and file-based media delivery across satellite and IP-based resources. Monitoring and provisioning capabilities give teams visibility and control across a diverse delivery environment. At IBC, we also previewed our Media Orchestration and Operations Management Platform (MooM), designed to extend this approach across production, playout, media preparation and OTT delivery. AI-assisted analysis can strengthen these tools by correlating operational data to help teams detect video degradation and investigate anomalies in SCTE 35 cues. Used alongside signal validation, these insights support faster responses, more consistent viewing quality and greater confidence in the timing and reliability of advertising and regionalization cues.

Resilience must be demonstrated across the complete workflow. Two connections can still share a carrier, physical route or power dependency. Testing needs to cover failure, congestion, maintenance and recovery, including what operators see and how they respond. Our role is to bring technology partners and customer teams together around a workable service design and an agreed operating process. We test performance before wider deployment.

Dependable video delivery and reliable signaling provide the operational foundation for new commercial capabilities. Better information from receiving sites helps verify performance and assess additional services. Flexible workflows can enable regional versions and local advertising opportunities where those fit the broadcaster's strategy and agreements. GlobeCast's contribution is to make the supporting delivery and operational processes manageable, giving customers a practical basis for testing new offerings while protecting the services already serving their audiences.

Commercial value still needs evidence. A SCTE 35 marker can identify an advertising insertion opportunity, but revenue also requires inventory rights, functioning insertion systems, demand and measurement. We help customers connect the distribution requirements to the intended business outcome. A representative pilot should establish whether a proposed capability works reliably, what it costs to support and whether the resulting value justifies wider deployment.

The business case should account for migration, equipment, connectivity, cloud consumption and ongoing operations. Savings must reflect costs that can actually be retired, while new revenue requires separate evidence. Our aim is to give customers a clear view of the service they are buying and the operational responsibilities GlobeCast is taking on.

Operational excellence is GlobeCast's commitment to our customers, 24/7. We combine migration expertise, integrated delivery capabilities and disciplined operations to keep their services running through change. Customers entrust us with their media supply chains, and we take responsibility for the services we manage every day.



THE SATELLITE TRANSITION IS HERE: BUILDING BROADCAST'S NEXT DISTRIBUTION BACKBONE



BRYAN MCGUIRK, CHIEF REVENUE OFFICER, LTN

For years, the broadcast industry has anticipated a fundamental shift in content distribution. Now, that shift is becoming urgent and it is happening.

That was a central theme at The Hive Group's "Where Does the Signal Go Next? Navigating the Distribution Transition" executive breakfast at IBC 2026 in Amsterdam. LTN Chief Revenue Officer Bryan McGuirk joined broadcasters, technology providers and distribution leaders to discuss the changing role of satellite and the transition toward IP and hybrid distribution models.

Several trends stood out, from growing interest in hybrid architectures and greater bandwidth to the opportunities around 4K, international expansion and more intelligent orchestration of video workflows.

One of the biggest shifts we're seeing is broadcasters moving rapidly from conversations about hybrid satellite and IP models toward implementation. Broadcasters want to see how these models work in practice. Proof of concept and testing are an important next step, and LTN is fully built out and working with select 3rd party organizations to enable testing. Broadcasters aren't evaluating theoretical future technologies. They're assessing infrastructure that can be deployed and proven today.

The coming months will be important as programmers and distributors evaluate which combination of satellite and IP provides the reliability, bandwidth, flexibility and economics they need.

Choice requires education

The transition is equally significant for multichannel video and cable providers. Smaller cable operators are facing important decisions around C-band, including whether to transition to Ku-band or pursue other available alternatives. Operators need to understand how those choices will affect reliability, capacity, cost and future flexibility.

Managed IP backup solutions adds another option. The LTN Network can receive and deliver IP signals nationwide across all 50 U.S. states and beyond, providing significant reach and flexibility. We are hopeful that hybrid IP backup solutions will take advantage of this opportunity.

The LTN also an open network that allows its Network and platform partners direct control over their mission-critical video including through API. That enables our partner broadcasters and platforms to get the telemetry and control they need.

This transition isn't only about replacing C-band. It's about what becomes possible next. 4K is a great example. Major

broadcasters are competing for audiences accustomed to high-quality video from internet and streaming services. Higher-fidelity signals require more bandwidth, and broadcast distribution infrastructure needs to support them.

We're also seeing growing international demand for content transformation. Media companies want to take successful content from one market and seamlessly bring it into another. That requires more than transport. Content may need to be encoded, transformed and prepared for the technical and commercial requirements of each destination.

LTN can transport a signal across its network, transcode the signal, add needed unique SCTE for Affiliates in different markets and add slates to cover content as required. The result is the delivery of a market-ready version at the other end. This fresh version of valuable content can be distributed and monetized in a new market.

As international media organizations look at the transformation underway in the U.S., we're seeing increasing interest in how these capabilities can support modernization and growth around the world.

Orchestration comes next

Ultimately, the future isn't about transport alone. It's about orchestration. LTN brings together transport, feed control, workflow management and telemetry within one technology environment. Instead of requiring broadcasters to piece together multiple systems and vendors, these capabilities can be controlled and presented through a single pane of glass.

Transport is one instrument, but delivering the complete performance requires every element to work together — moving the signal, transforming it, monitoring it, controlling it and delivering it exactly where it needs to go.

The transition is happening now

The industry has anticipated the move toward IP for years. What's different today is the urgency. Broadcasters, programmers and distributors are actively testing alternatives, evaluating hybrid models and determining where they want their infrastructure to be. LTN is pleased to be part of this important process and we look forward to the results over the coming months.



ONE STREAM IN, ONE STREAM OUT: A SATELLITE-GRADE IP PATH FOR THE DISTRIBUTION TRANSITION



MARK MAHLE, CEO, NETACTUATE, AND ELKE HUNGENAERT, VP OF PRODUCT MANAGEMENT, QUORTEX

In July, the FCC moved the C-band sunset from theoretical to scheduled. The Commission's order clears 160 MHz of upper C-band for auction by July 2027, with wireless services due in the top 75 markets by December 2030.

At the Hive Group breakfasts in Las Vegas and Amsterdam, broadcasters were clear about what any replacement must preserve: quality, reliability, availability, latency, and deterministic switching. What's become clear to us is where the real challenge for the industry lies moving off of C-band — running multiple paths through the core network and the last mile as one observable and manageable system.

NetActuate and Quortex have integrated a platform around those two problems.

Satellite simplicity, rebuilt on a network you can see

C-band's great strength has always been simplicity. The signal goes up, affiliates point to a dish, and the feed arrives. IP distribution has struggled to match that because most IP paths are overlays stitched across carriers that neither the broadcaster nor the vendor can see into.

The NetActuate Media Substrate takes a different approach. It is a global transport layer for live video running on a network NetActuate owns and operates, including the ASN, the prefixes, and the BGP control plane. It spans more than 50 locations, 22 of them in the United States, with a presence in every major North American media market.

Broadcasters send one stream and receive one stream. Beneath that exchange, the substrate runs diverse paths and merges them at egress, so when a path degrades or goes dark, the output does not blink. Redundancy becomes something the network absorbs rather than something every broadcaster has to engineer.

The substrate is protocol neutral. SRT, RIST, UDP, MPTS, MOQ, ST 2022-7, SMPTE ST 2110, RTMP, WebRTC, WHIP and WHEP ride through without rewrapping, so quality stays attributable to the network rather than a codec change. Every flow is measured hop by hop for latency, continuity, and loss, and routing re-optimizes continuously beneath the transport. NetActuate sells no encoders and no content. We sit underneath the tools broadcasters already trust and deliver end-to-end solutions through partnerships.

The last mile challenge

Key challenges for the distribution transition are overcoming internet instability and last mile connectivity issues. There are a myriad of causes at play here and no quick fix for the industry.

However, what often presents as a last mile failure is actually congestion at carrier peering points. The substrate

measures those interconnects continuously and routes around them with no action required from the broadcaster or the carrier. Where the access line itself is the weak link, broadcasters have five ways in: public internet via anycast, dedicated circuits, a managed last mile, LEO paired with fixed line, or diverse dual ingress and egress. Each affiliate gets the connectivity model its site actually needs, and every one lands on the same measured substrate.

Transport plus control

Key challenges for the distribution transition are overcoming internet instability and last mile connectivity issues. There are a myriad of causes at play here and no quick fix for the industry.

Under the global agreement we announced at IBC 2026, the Quortex Edge CDN control plane now runs inside the NetActuate network, enabling caching across all 50 locations. Quortex Edge, Quortex PowerVu, and vDCM are integrated directly with the Media Substrate. PowerVu extends content protection, operational control and last mile visibility for satellite into IP. vDCM brings broadcast-grade processing into the same environment. Edge delivers one-to-many scale where and when demand requires it. MEG brings intelligent last mile switching and edge processing extending service availability.

The result is a media-aware distribution platform covering everything from ARQ-protected transport to edge CDN delivery, with last mile intelligence built in. It delivers the one-to-many reliability broadcasters expect from satellite, without the spectrum dependency, and without the high commits and multipurpose traffic of a public CDN.

"Broadcasters shouldn't have to choose between the reliability they've always had with satellite and the flexibility they need from IP," said Elke Hungenaert of Quortex.

Available now

Last spring's Hive Group report concluded that the transition is not waiting for the technology to be ready. It is waiting for the industry to act. The FCC has now set the clock.

The NetActuate and Quortex platform is available today to broadcasters preparing for the distribution transition in the US and globally. The broadcasters who begin mapping affiliate connectivity and testing hybrid configurations now will make their decisions with data and leverage, not under deadline pressure.

"Together, we're giving broadcasters and content owners more control over their infrastructure and their workloads," said Mark Mahle, CEO of NetActuate.



WHERE DOES THE SIGNAL GO NEXT? THE CASE FOR A HYBRID FUTURE



DEEPAK MATHUR, PRESIDENT, MEDIA VERTICAL, SES

The media industry is in the middle of a fundamental shift. Audiences are watching more content than ever, but how they watch is changing fast. They expect programming to follow them onto whatever screen they choose, delivered through a mix of traditional broadcast and IP-based services.

So where does that leave satellite?

To my mind, the real question isn't whether satellite survives the move to an IP-centric world. It's how we make the most of what satellite already does exceptionally well, while adapting it to the realities of today's media landscape.

Broadcasters have always cared about three things: ubiquity, cost and reliability. Satellite has delivered all three for decades. It carries a signal across vast geographies, reaches massive audiences efficiently, and offers a level of resilience that broadcasters still depend on.

Being mature doesn't make a technology outdated. If anything, satellite's longevity shows how well it solves the fundamental challenges of media distribution. Technologies don't become obsolete simply because something newer arrives; what matters is whether they continue to deliver value.

Satellite clearly does. There has been plenty of debate about its future in markets such as the UK, yet major broadcasters continue to sign long-term satellite contracts. Despite the rapid growth of IP, that is a strong signal that satellite remains a core part of the delivery ecosystem.

Still, we can't ignore how much consumer behavior has changed. Broadcasters need the flexibility to reach audiences across multiple platforms and delivery paths. That is where the next stage of network evolution gets interesting.

The answer is hybrid delivery

A hybrid network combines satellite with fiber and IP, so broadcasters keep satellite's strengths while meeting the demands of an increasingly IP-based environment. It adds connectivity and resilience, supports packet recovery or permanent fiber links, and gives operators far greater visibility into how their network is performing.

At SES, we're building this approach through solutions such as Ku+ and SES CORE. They bring different delivery paths together and include monitoring that helps operators spot signal loss and respond proactively.

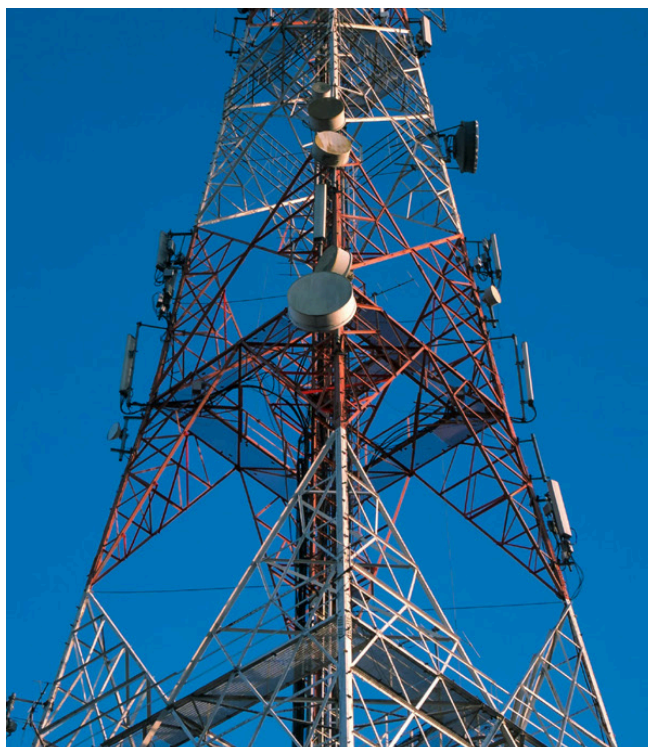
This marks a real change in what a network is for. The priority used to be getting the signal from A to B reliably and in the most cost effective manner. Today, broadcasters also need intelligence about that journey: visibility across the network, flexibility in how content is delivered, and the ability to head off disruptions before viewers ever notice them.

The right solution won't look the same everywhere. Every market has its own infrastructure, viewing habits and commercial realities. In North America, Ku+ offers one route; elsewhere, technologies such as DVB-NIP may better suit local needs. The principle stays constant: combine the right technologies to deliver the best outcome for the broadcaster and, ultimately, the viewer.

That's why I don't see the future of media delivery as a choice between satellite and IP. It's time to move past that binary.

Satellite has proven its ability to deliver scale, efficiency and reliability. IP brings the flexibility and connectivity that evolving viewing habits demand. The opportunity lies in combining these strengths, not discarding one for the other.

The future of media delivery will be hybrid: built on satellite's proven strengths, and made more flexible, intelligent and responsive by IP, fiber and new technologies, in step with how audiences watch today and in the future.



THERE IS NO CUTOVER DATE. THERE ARE HUNDREDS OF THEM.



JONATHAN LOW, VP CHANNEL SALES & PARTNERSHIPS, ZIXI, AND KEIR SHEPHERD, CHIEF SOLUTIONS OFFICER, ENCOMPASS DIGITAL MEDIA

What BBC World Service's move off satellite shows about where the signal goes next

The question on the slide at the Hive breakfast was: where does the signal go next? The better question came from the wider discussion: what does it do when it gets there?

For most of broadcasting's history, satellite made that question unnecessary. You uplinked once, and every receive site in the footprint got the same feed at the same moment. One organization proved the signal was in the sky; hundreds of others were each responsible for taking it down. The industry built its operations, contracts and accountability around that simplicity.

IP removes it. Every receive site now gets its own feed, over its own network, into its own equipment, at its own level of readiness. Teams that try to rebuild satellite on IP, sending every feed to every site, inherit all of satellite's waste and none of its simplicity. The broadcasters getting this right treat the individual feed as the point. If each site gets its own stream, you decide what goes in it.

What one migration actually looked like

BBC World Service distributed on satellite for decades, across six satellite platforms worldwide. Encompass Digital Media, running the service on, and in partnership with, the Zixi Platform, spent 18 months moving it to IP. At a session in London ahead of IBC, the Encompass team shared how they worked in conjunction with Zixi, the BBC and hundreds of partner receive sites around the world to manage a seamless migration to IP.

The migration involved 60 services, consisting of a mix of TV channels and audio-only feeds. Each operates over four paths into two cloud points of presence, equating to upwards of 480 streams serving over 260 partners. Feeds leave two BBC sites over diverse private connectivity, not the open internet.

The challenge with such a migration is that there was no single cutover; the migration had to be carefully planned to allow for regional and local nuances. In the Americas, where C-band changes made satellite harder to justify, services moved straight from the incumbent satellite operator to IP. In Asia, television moved to IP because the partners taking it were city-based with good connectivity, while some audio stayed on satellite. Africa stayed on satellite: many partners there are small FM transmitters where internet delivery is not yet dependable. Ascension Island, home to a BBC shortwave site, stayed on satellite too.

The solution is a hybrid estate, not inherited but specifically designed to best use the old and new infrastructure as needed. Each region was a decision. Each partner was a decision. The transition was never a one date cutover, it was hundreds of them, and required flexibility for future change.

What made it work

None of the three things that mattered most was bandwidth.

The partner list. You can only migrate the partners you know about, and every migration identifies sites nobody knew were taking the feed. The accuracy of that list sets the timeline more than any technology choice.

Repeatable onboarding. Encompass's International Operations team built and shipped receivers with setup instructions, and its MCR configured each partner as a target in the Zixi platform. Templates are what turn 260 partners from a project into a process.

Visibility. Satellite never told you whether a site was receiving. IP does, because it runs both ways. Encompass takes return feeds from the cloud back into its MCR multiviewer, with audible and visual alerts, and knows the moment any of the four private paths into a point of presence drops. That is the transport and visibility layer doing its job. When a stream glitches somewhere along a chain of vendors, telemetry from every point replaces finger-pointing with evidence which allows the managed services layer to fault-find and resolve quickly.

Communication. Such a complex and elongated migration timeline requires clear, concise and open communication across multiple parties. Given Encompass' global footprint, central role in services and existing relationships with both the BBC and Zixi, it made sense for them to lead the project and be the central hub for communications. The longstanding Zixi and Encompass relationship was particularly important, as the joint understanding of technology and ways of working enabled them to define a repeatable deployment procedure, while allowing for the nuances of individual partners across the globe.

Where the individual feed pays off

The most telling detail is local news. Using SCTE 35 markers matched against a SCTE 224 schedule, edge locations switch themselves to a local bulletin at the right moment. The BBC no longer needs a separate stream per region for every opt-out. The decision is made at the edge. The switch happens inside the compressed stream, on a clean frame boundary with timestamps corrected, so downstream decoders never notice.

Satellite could never do this economically. Once each site receives its own feed, content, quality, protocol and advertising can all vary by site. A partner that only takes SRT gets SRT. A partner with a Ku-band primary path gets packet recovery. A market that needs a different ad load or a blackout gets one, driven by the schedule, not by another uplink.

What this means for European broadcasters

Europe has no single forced deadline of the kind US broadcasters face. That makes waiting more tempting and a deliberate hybrid design more valuable. The question is not whether to leave satellite. It is which sites, which services, in what order, and what each should receive once it moves.

Answering that hundreds of times needs one platform underneath: reliable transport over any network, orchestration that treats hundreds of destinations as one system, and telemetry back from every site. With that in place, the transition stops being a migration you survive. It becomes the moment you start sending every partner exactly what they need.





The transition is coming. The question is who will be ready.

The morning at IBC showed an industry that has moved from asking whether to leave satellite behind to asking how to build something that is at least as dependable. The advice from the stage was consistent: map connectivity site by site, test hybrid configurations against the benchmarks of capability, reliability and availability, and open vendor conversations early, while there is still room to choose.

Thank you to our sponsors, Amagi, AWS, Cerberus Tech, Eluvio, Globecast, LTN, NetActuate, SES and Zixi, to our panelists and moderators, and to everyone who came out before the doors of IBC opened.

THE CONVERSATION CONTINUES

The Hive Group's program on distribution continues in New York with:

The Broadcasters' Road to C-Band Replacement on Wednesday, October 21, the opening day of NAB Show New York, and with the NABA Cyber University 2.0 the day before NAB.

The recording of the IBC session and further white papers are available in the [resources portal on wearehivegroup.com](https://wearehivegroup.com).

THE
HIVE
GROUP 



About The Hive Group



The Hive Group is a specialist marketing and intelligence consultancy serving the media and entertainment, broadcast technology and AV industries. It was founded by industry leaders Clare Plaisted and Lisa Collins, bringing together the expertise of PRComs and Dovetail Creative, and combines deep sector knowledge with data-driven strategy and a strong network of industry relationships.

Alongside its consultancy work, The Hive Group produces independent research, white papers and executive briefing events through its Sector Intelligence program, which brings senior leaders together around the defining challenges for broadcast and streaming. Current focus areas are satellite infrastructure and replacement, IP transition, cyber security, streaming and OTT evolution, and broadcast technology innovation.

The Hive Group supports clients at IBC, NAB Show, ISE, InfoComm, Broadcast Asia, MPTS and CABSAT.





THE HIVE GROUP

Where does the signal go next?

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