



Beyond Replacement:

Orchestrating the Distribution Transition

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On both sides of the Atlantic, the infrastructure broadcasters have relied on for decades is undergoing significant change. In North America, the FCC's upper C-band auction is removing most of the satellite spectrum used for network distribution. In the UK and Europe, broadcasters facing new technical and commercial challenges are looking to IP as an answer.

The triggers differ, but the question is the same: What replaces a distribution backbone built on decades-old assumptions, and how do you move without putting live services at risk?

The instinctive answer is to find something that behaves exactly like what came before. Satellite and terrestrial networks have been the quiet workhorses of broadcast distribution, and the workflows built around them were refined over many years. But asking how to make IP behave like satellite sets the bar too low. Modern distribution infrastructure doesn't need to imitate the past. It can improve on it.

Transport is not the hard part

Moving a live feed over IP is a solved problem. The difficulty lies in everything around the transport. When engineers bring up a live feed, they are starting many things at once: the video path, monitoring, alerting, metrics, billing, firewall rules, logging and stream visibility. In most environments each is a separate task, and each must be torn down separately when the feed ends, often manually at the end of a long shift.

Orphaned services rarely announce themselves. A billing meter left running shows up later on a cloud invoice. An open firewall rule quietly widens exposure. Across hundreds of events, those misses add up. When systems sit side by side without being connected, the human becomes the integration layer.

That is why orchestration, not transport, is the real replacement for the operational simplicity that satellite and terrestrial networks provided. In our Livelink platform, a modern control plane for live broadcast workflows, we apply a principle borrowed from database engineering: atomicity. A workflow is a complete, self-contained unit. Launching it brings the full operational environment online in a single action, with monitoring, metrics, billing, firewall rules, logging and alerts in place from the first packet. Stopping it removes all of them at the same moment. Workflows exist in full, or not at all.

For heads of operations, that means more predictable cloud spend, a tighter security posture and an audit trail that reflects what actually happened. For the engineer at the desk, atomic orchestration enables automation of sequential tasks, focusing manual interventions on higher-value work. And the knowledge needed to deploy a service consistently lives in the workflow, not only in the head of whoever is on shift.

Doing more with the same feed

Once the operational layer is handled, IP opens up capabilities that fixed infrastructure never offered:

- **Virtual transponders on demand.** Complete virtual "transponders" can be spun up when needed and shut down when not. Broadcasters pay for capacity when they use it, not for capacity sitting idle.
- **Per-destination outputs.** The same feed can be sent to many destinations with different rules per output.
- **New variants.** Versions can be created for different frame rates, resolutions, audio selections or bitrates, which matters when one channel serves takers across several markets.
- **Live visibility.** Instead of an opaque "signal lost" message, operators see latency trends and quality metrics for every path as they happen.

The British Forces Broadcasting Service (BFBS) shows this in practice. From late 2023, it moved TV and radio services for Diego Garcia, Brunei and Nepal from geostationary satellite to IP delivery with Cerberus Tech and removed the satellite capacity. Because each location now receives its own transport stream, BFBS can give each site its own time delay and a bespoke channel line-up. The move delivered significant cost savings while maintaining service quality. Ascension Island is next, this time over a LEO satellite internet connection.

A practical path forward

Whether the deadline is set by the FCC or a national switch-off plan, the priority now is readiness. We recommend six steps:

1. **Map dependencies.** List every feed, receiver and site that still depends on C-band, satellite or terrestrial distribution.
2. **Run a parallel pilot.** Operate an IP path alongside the existing workflow to measure quality, latency and operational impact.
3. **Design for redundancy.** Build diverse IP routes, and if needed retain some existing capacity for disaster recovery during the transition.
4. **Preserve metadata.** Validate that ad triggers such as SCTE-35, captions and compliance data pass cleanly end to end.
5. **Model costs.** Compare current transponder or transmission costs against IP distribution, including egress and monitoring, to find the crossover point.
6. **Plan the exit.** Schedule the move while you still control the timing.

Wherever it happens, the transition will be judged first on whether broadcasters keep every service on air. The ones who come out ahead will be those who used it to build distribution that is faster to deploy, easier to scale and simpler to run than what came before.