

Keeping Up With a World That Won't Stop Scrolling

How a global short-video platform rebuilt its backbone for sustained global scale with Tata Communications



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With more than two billion users and billions of concurrent sessions, this global short-video platform wasn't just growing - it was operating at sustained scale that the internet had only ever seen in the OTT space. At that level, performance became less about features and more about the infrastructure supporting it.

The Breaking Point of Rapid Growth

In the early years, expansion was simple; Add connectivity market by market, engage suppliers as needed and rely on commercial CDNs. It worked - until scale changed the equation.

- International connectivity ran across **20+ suppliers**
- **Costs rose** in proportion to traffic
- **Latency variations** across long-haul routes (especially Asia-US) became measurable, adversely **impacting platform performance**
- **CDN models** became **harder to optimise** at extreme concurrency levels

Nothing had broken, but the model beneath the platform wasn't built for unprecedented global scale. The platform needed a backbone designed not just for growth - but for sustained, high-volume performance.



The Turning Point: From Patchwork to Backbone

In early 2020, at the height of **global COVID-19** disruption, Tata Communications was engaged to deploy backbone connectivity between Singapore and the US. Something that typically takes **10-12 weeks**, we delivered in under **6 weeks**. That first corridor became the foundation for something much larger.

From One Route to Global Core

Over the next three years, the relationship expanded across **Asia-Pacific, North America and Europe**. Today, Tata Communications provides core global backbone services connecting replicated data centre architecture across regions.

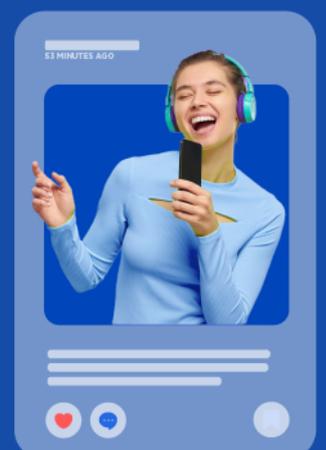
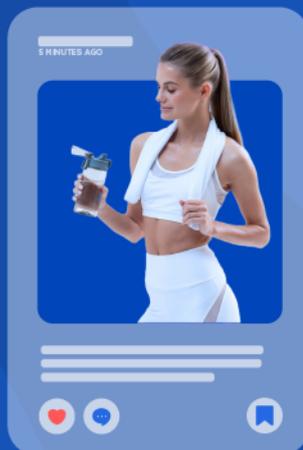
On key corridors such as Singapore-US:



- Capacity scaled **4-5x**

- **~5 Tbps** deployed

- Representing **30-40% of total backbone capacity on those routes**



A Strategic Shift: Owning the Edge



In 2021, the platform made a structural decision - move away from commercial CDNs and operate its own CDN within its edge network. This would give it greater control over performance, lower long-term expansion costs and optimise peak concurrency management.

But owning the CDN raised the bar for the underlying network. The platform needed:

- Tier-1 IP transit
- Deep global peering
- Low-latency routing
- Optimised subsea paths

Tata Communications' **Tier-1 IP network** (300+ global peerings) **powered this architecture.**

The impact:

At billions of sessions milliseconds matter.

Asia-US latency
reduced from
~190-200 ms
to
~165-170 ms

~15%
latency
improvement
on critical routes



From Complexity to Efficiency

As the backbone stabilised, the supplier model transformed. The previous patchwork of 20+ international suppliers consolidated to 4 Tier-1 global partners, with Tata Communications amongst them. Scaling stopped being about stitching networks together - and became about expanding a proven architecture.

Measurable Outcomes:

- **20-30% cost savings** through on-net global connectivity
- Additional **10-20% efficiency gains** as capacity scaled to multi-terabit levels
- **Reduced operational complexity**
- **Faster regional expansion**

Beyond Connectivity: Supporting the Full Engagement Chain

With infrastructure in place, the platform could now focus on enhancing the customer experience. The **Tata Communications' Kaleyra™ Customer Interaction Suite** now supports transactional and promotional A2P SMS, voice messaging and programmable voice OTP - particularly in markets where SMS delivery success rates are inconsistent.

From global backbone to user authentication, Tata Communications now supports the entire engagement journey.



The Result: Global Scale that is both sustainable and future-ready



Today, the platform operates with:

- **Multi-terabit** backbone capacity
- **Tier-1 IP transit** across 300+ peerings
- **Reduced latency** on critical international routes
- **Consolidated supplier** ecosystem
- **Integrated messaging** infrastructure

What began as a single accelerated deployment evolved into a long-term global infrastructure partnership. Because when the feed never stops moving, the backbone behind it can't afford to pause.

