

# Powering a 100G Uncompressed Media Backbone for the Future

Super-Fast Fibre Channel Transmission in Media and Entertainment

## Overview

With the adoption of 4K and Ultra High-Definition (UHD) standards for videos at an all-time high, video will make up a staggering 82% of all traffic in 2021. With OTT and streaming media giants making 4K content accessible to consumers and increasing file size, both content creators and providers will need high network bandwidth with lightning-fast throughput in the near future. The move to newer digital video formats, advent of special effects and advanced CGI in movies, gaming, and TV calls for a robust networking infrastructure capable of supporting multiple UHD video streams.

As mobile devices evolve and establish newer high-definition standards for content, demand for richer viewing experiences will add exponentially to the network pressure. In addition, new and complex communication formats such as AR/VR video come with highly challenging delivery requirements while enabling remote production workflows and transmitting uncompressed video (especially in the sports and eSports domain).

This growth raises an all-important question: How far can current underlying networks scale to accommodate the growing content/ traffic on the Internet? The shift to 10G is already choking and even 40G capacity is getting utilized soon! To stay ahead of the curve: media businesses need to strategize today to be future-ready.

## Creating an Ecosystem for Hybrid Media Transmission with 100G

To cope and keep pace with bandwidth demands of next-generation connected devices, a 100G networking backbone is what the industry needs right now. Tata Communications' 100G media backbone delivered in collaboration with Net Insight – enables broadcasters, sports organisations, OTT companies and e-sports businesses to offer their audiences:

100G	Advantages
<b>Advantages for Consumers</b>	<b>More immersive viewing and gaming experiences and transform how they operate through full remote production</b> <ul style="list-style-type: none"> <li>Delivering seamless, transformative video experiences in 4K UHD</li> <li>Possibility of live 360° video in 8K UHD – the ultimate digital TV experience</li> </ul>
<b>Advantages across the Media Value Chain</b>	<b>Boosting efficiencies, streamlining technical aspects of video production, and generating cost savings</b> <ul style="list-style-type: none"> <li>Enables content creators and distributors have secure and dedicated network bandwidth</li> <li>Robust fibre channel media framework that can provide increased throughput and maximum bandwidth availability</li> <li>Lowers the barriers for global sports organisations to move from satellite-based content distribution to fibre across entire continents too</li> <li>Lower latency and high-performance delivery for new cutting-edge media technologies such as 8K and 4K video, AR and VR formats and other visual enhancement technologies like wider colour gamut, high frame rate (HFR) and high dynamic range (HDR)</li> <li>Endless possibilities in live video broadcasting and viewing</li> </ul>

## Applications in Remote Production & Workflows

100G WDMs deployed over Tata Communications' own fibre channel network allows ability to handle remote production with ease, with a strong impact on remote production workflows too. Combination of the 100G media backbone and workflows on Tata Communications' media ecosystem will help more and more broadcasters and rightsholders switch to full remote production.

### Video Mastering & Finishing

Color corrections, checking for transitions, gaps, visual errors, and broadcasting delays in real time

### Video Ingesting

Collating, transmitting, or importing multiple types of image, audio, or video files into an existing editing workflow

### Digital Asset Management

Protecting & utilizing rich media assets better with stringent permission allocation

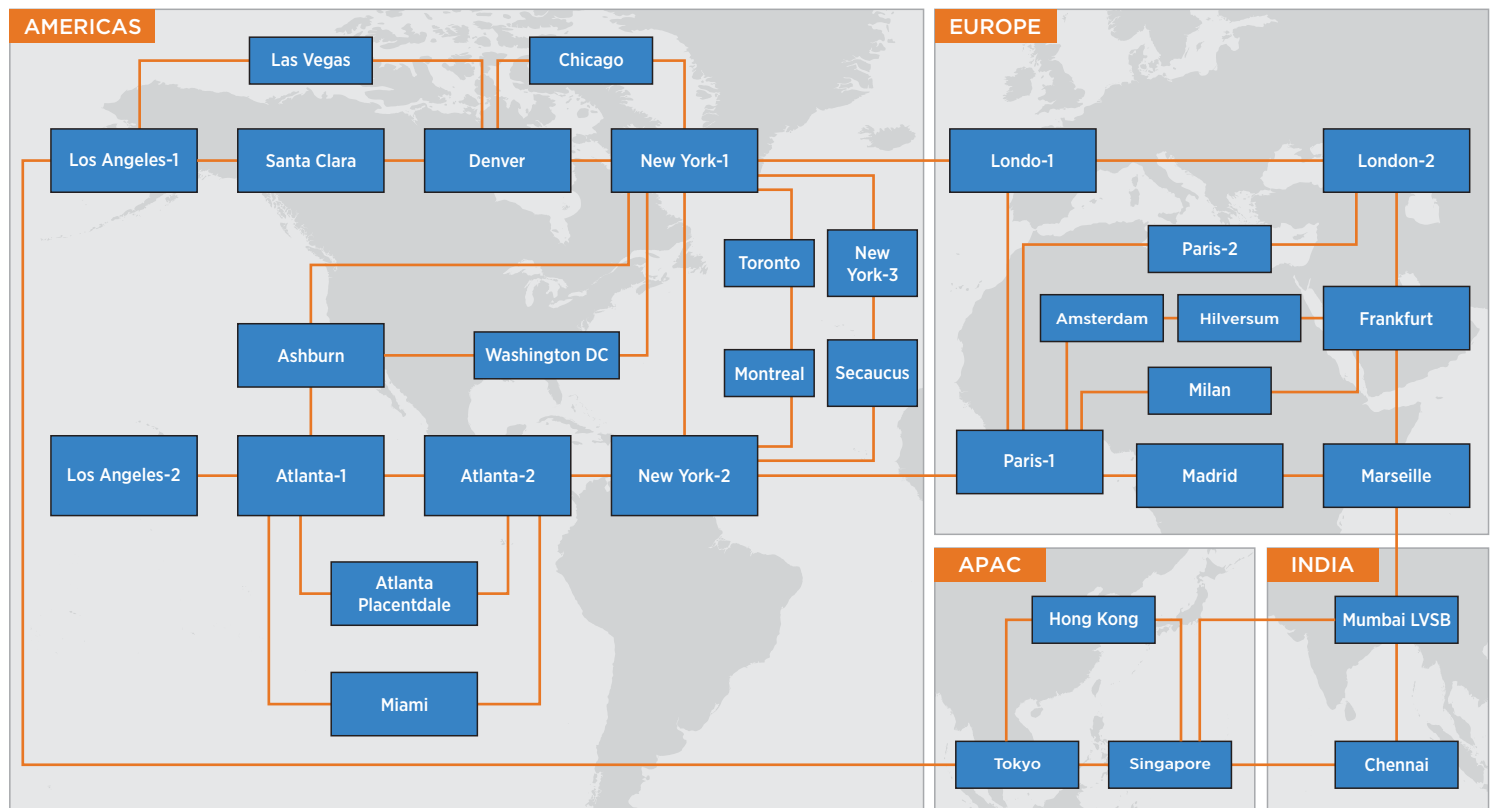
### Distribution & Playout

Allocating no-fail commercial requirements for broadcasting servers

### User Security with Data Retrieval

Allows users to retrieve content stored on SSDs, HDDs and tapes while transitioning to high-end storage array technology

## Bringing 100G to Life



## The Tata Communications Advantage

With expertise across both traditional and new-age broadcasting methods, Tata Communications is the preferred partner of media, sports, e-sports, and OTT companies across the world; with our 100G media backbone enabling uncompressed media transfer on a global scale. Our reach is backed by:

- A world-leading, fibre-based, global media transport network with over 300 media hotspots across 125 cities that supports broadcast quality real-time video
- End-to-end service suite backed by stringent SLAs, including a dedicated Media Service Operations Center (MSOC) for global monitoring

## Customers Who Have Benefitted from Our Solutions



Talk to one of our experts today for 100G Capacity at [MES@tatacommunications.com](mailto:MES@tatacommunications.com)