



### Satellite distribution will always be a part of global media delivery, but its role is evolving.

Within the industry, there has been a seismic shift in satellite delivery due to the repurposing of C-band spectrum for 5G services. The move has done more than just get providers to adopt a "lift and shift" strategy to point to another orbital location. It's compelled many companies to start exploring new delivery models that weren't available to them until now.

Terrestrial distribution can open up exciting new possibilities for media providers; it's a way to achieve operational efficiencies and cost savings while simultaneously providing richer service offerings that boost revenue per user. Comcast Technology Solutions (CTS) has poured decades of leadership and expertise into this new option for MVPDs and operators to explore: a solid step forward in digital transformation that can position media brands for success in this decade and beyond.

This guide will explore five reasons to consider transitioning to Managed Terrestrial Distribution.

### Financial optimization

### Stay competitive while lowering operating costs

#### Reduced equipment footprint

Perhaps the most compelling reason to include Managed Terrestrial Distribution (MTD) is the fact that this model enables MVPDs and operators to expand their reach to remain competitive, while still realizing lower operating expenses. By incorporating terrestrial distribution, operators can decrease expenditures while adding new services.

Additionally, terrestrial distribution enables providers to recoup a portion of monthly expenditures on rack space, power, and cooling, by consolidating up to 20 receivers into two servers and networking equipment for a total of six rack units. This translates to lower power and cooling costs related to fewer racks in your data center or headend.

For example, with MTD, a headend cable system fully using eight XOSs with ~100–150 services would enjoy an approximate 65% drop in total power consumption.

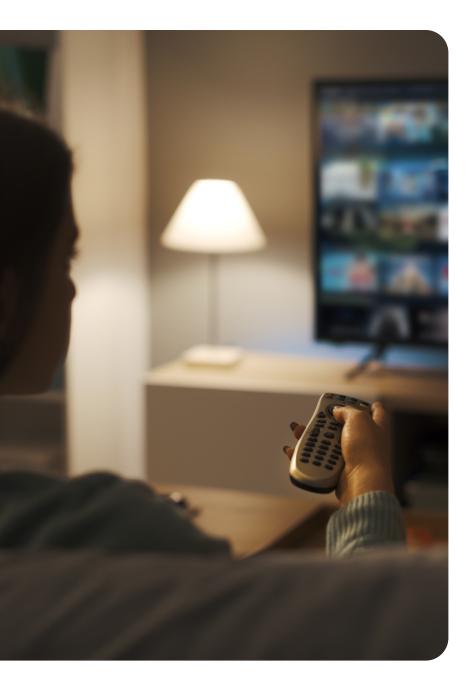
#### Reduced overhead

Not only does MTD shrink your equipment footprint, but it also removes the need for an IP direct connection to each programmer, and likewise eliminates the IP processing setup fee for each individual feed. This means that you can use existing internet connections, thereby further reducing overhead expenses.

### MTD optimizes resources by:

- Including initial deployment costs of MTD equipment, as well as any necessary hardware/ software refreshes.
- 2. Reducing expenses with little to no capital expenses (CapEx), as well as including technical support. MTD is a cost-effective way to improve and expand services.
- 3. Extending the life of existing equipment: MTD is designed to integrate into your system's unique architecture.





### **REASON 2**

### Quality

### A clean, clear signal

### Enhance your customers' viewing experience

MTD expands the customer experience. Customers benefit from HD delivered in MPEG-4, without any additional hardware requirements. This results in a clean, clear signal quality.

### Packaged format

- SD MPEG-2
- HD MPEG-4
- Encrypted
- HLS/DASH

#### **Distribution**

- Comcast (CDN)
- Direct connect or broadband network
- ~ 1G bandwidth for fully redundant video delivery

### Compatibility

- Translates HLS/DASH
- Format to TS needed for QAM
- HLS/DASH format use for IP/streaming platforms

### Equipment

- Redundant configuration
- Two HP DL20 servers
- Two VPN devices
- Two switches
- Total six rack units (RUs)

### Reliability

### An uninterrupted viewing experience

Fiber's impressive reliability provides another compelling reason to add it to your distribution line-up. Terrestrial distribution is not subject to the impact of extreme weather or interference from other transmitting sources.

In addition to the primary server, terrestrial distribution also has a backup server so that delivery can continue in any condition. It also includes support for automated failover systems in case of outages or service degradations.

MTD reduces the risk of environmental interference, provides a reliable channel for content delivery, and offers diversified video services. It continues to use feeds from satellites as an added layer of protection and to ensure maximum uptime of video signals. MTD is backed by Comcast's robust CDN so MVPDs access a network that benefits from a deep annual investment in innovation. Not only is there security and encryption to protect a business's interests and assets, fiber distribution also offers speed, scale, and reliability that customers can count on.

#### Fiber wins a gold medal

Terrestrial distribution made its debut during the 1980 Winter Olympics held in Lake Placid, New York, when networks used fiber-optic cable for the transport of broadcast television signals. The successful delivery kicked off a 40-year-long history of fiber as a medium of transporting video signals and offers further proof that fiber-based broadcasting is a reliable option in the broadcasting ecosystem.





#### **REASON 4**

## Efficiency

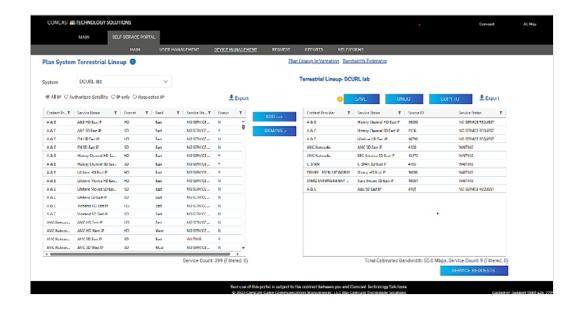
### Simple, flexible management

### Streamlined management from the online portal

CTS makes terrestrial distribution an appealing option by offering simple, flexible tools to manage signals. The online portal allows operators to request, manage, and track all services from a single location.

### Simpler management of feeds

For maximum efficiency, you can use the portal to customize output to QAM. Maximize control and efficiency without sacrificing simplicity by creating your own output with drag-and-drop usability.



### Opportunity

### Drive business forward with fiber

Not only does MTD reduce expenses, but it also offers the opportunity to grow video revenue, offer expanded channel line-up and other services, and future-proof business by capitalizing on CTS' existing infrastructure and investments.

MTD allows you to increase service line-ups and offer more HD channels than other services.

It provides a path to IP video, driving overall digital transformation. And the best part? It's built on the infrastructure that CTS has already developed, removing the risk for individual operators. With fiber channels, growth is only limited by bandwidth, instead of by the physical number of satellites.

"It's an opportunity for MVPDs to reimagine the way consumers can engage with their content and clear the way for an evolution to full IP delivery to customers. With MTD, a distributor can effectively double the amount of channels they offer and triple the amount of MPEG-4 HD content, but the actual hardware investment is drastically reduced."

Allison Olien, VP and General Manager, Comcast Technology Solutions



# A trusted partner for growth and innovation



MVPDs and operators are working to serve customers in an increasingly competitive, constantly evolving video market. Managed Terrestrial Distribution from Comcast Technology Solutions offers a new way to reduce cost, simplify operations, and maximize value from your subscriber base. Our Managed Distribution Suite provides guidance and technology for both satellite and terrestrial delivery models to strengthen your video business while providing a path to IP video.

If you'd like more information on how to leverage what has already been built and tested for 20M+ subscribers, please get in touch with one of our experts to learn how Managed Terrestrial Distribution can serve your business goals.

# About Comcast Technology Solutions

Comcast Technology Solutions, a division of one of the world's leading media and technology companies, brings Comcast Corporation's proven technologies to an evolving list of industries worldwide.

We believe in continuous innovation, always looking for new and better ways to connect with our customers, as well as aggregate, distribute, and secure our own content, advertising, and data. We invest in and test these solutions, so you don't have to — freeing you up to focus on accelerating your business, not your tech stack. We bring these innovations to the global marketplace, enabling our partners to think big, go beyond, and lead the way in media, technology, and cybersecurity.

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