For media and entertainment companies, changes in consumer demand and industry dynamics mean that adaptability is the endgame.

The Need for Agility, Visibility, and Security Drives Connected Strategies for Media and Entertainment

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Introduction

Global industries continue to grapple with how to adapt policies, operations, and service to ensure business resiliency after the disruption of the past two years. For media and entertainment, the answer may be that there is no longer a "normal" to which to return; rather, the "new normal" will require flexible systems to support rapid innovation and navigate unpredictable market changes. For example, studios were forced to shutter operations and move the workforce to a hybrid model, content creation shifted away from large production and toward individual contributions, and content delivery moved to a purely digital delivery model. Even news organizations had to adapt, with individual anchors broadcasting live from home. Business disruption was significant, and many organizations found themselves in a race to adapt to the change.

The past two years have highlighted how media and entertainment organizations must be ready to adapt to the new and ever-changing reality of the digital-first world. Connecting consumers with media has always been a priority to drive revenue, and keeping the entire organization connected is equally important to ensure business resiliency. These factors continue to push the media and entertainment industry to become an amalgam of physical and digital, with companies facing greater pressure to deliver consistent, connected, and smart experiences for employees, customers, and partners. To support the evolving demands of their workforce, customers, and partners, media and entertainment organizations must now embrace connectivity as a key enabler of adaptability, recognizing the importance of having a resilient network strategy that enables the business to be always on and productive and keep critical business data in motion.

AT A GLANCE

KEY STATS

According to IDC:

» 44.8% of media and communications companies said they plan to increase investment in business agility (internal IT investment in connectivity to improve business efficiency and performance) and operational agility (employee-focused connectivity investments to drive productivity) over the next 12 months.

» 78.9% of media and entertainment companies admitted that investments in edge computing will require significant changes to network architectures over the next two years.

KEY TAKEAWAY

Media organizations that prioritize adaptability and make strategic investments in agile infrastructure will be best positioned to drive profit, improve customer satisfaction, increase efficiency, and boost employee productivity and satisfaction.
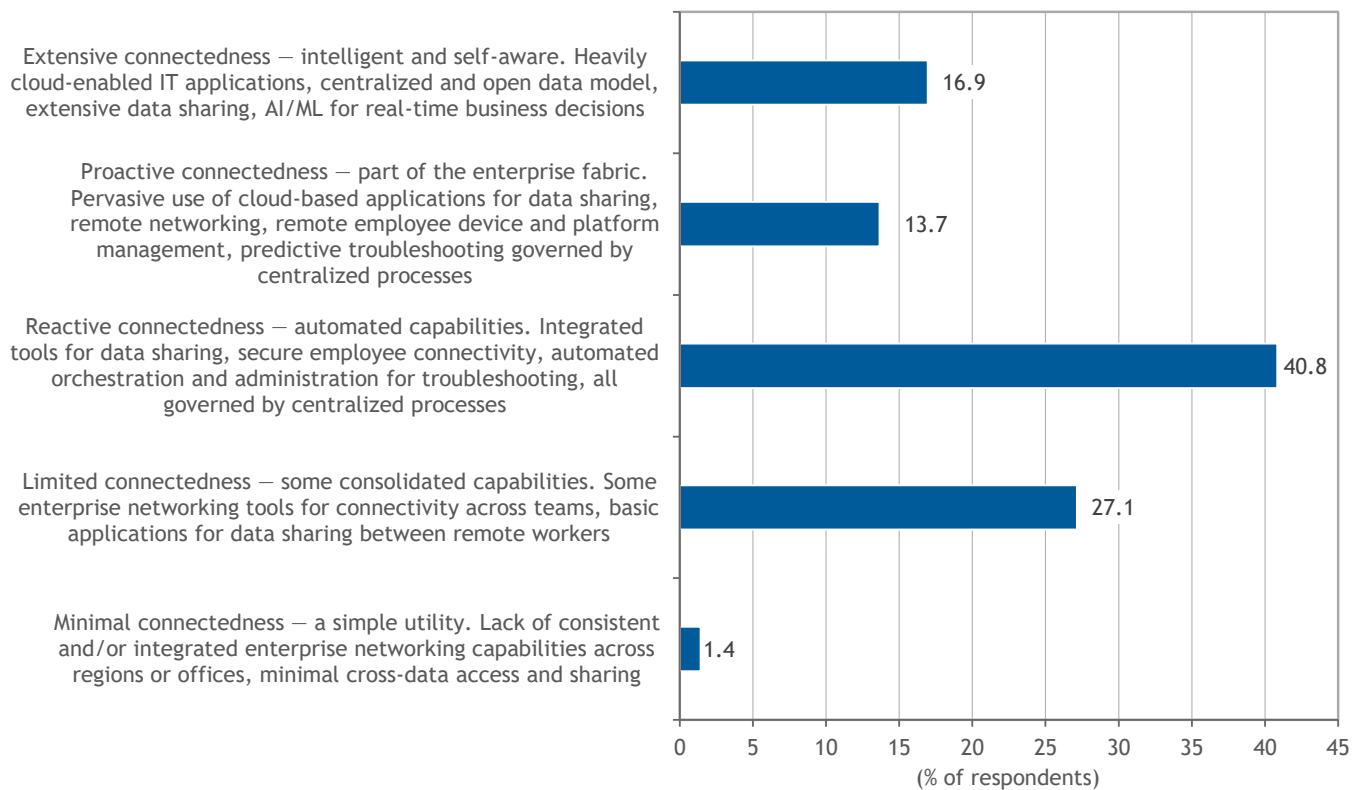
According to IDC's October 2021 *Future Enterprise Resiliency and Spending Survey, Wave 10*, 44.8% of media and communications companies said they plan to increase investment in business agility (internal IT investment in connectivity to improve business efficiency and performance) and operational agility (employee-focused connectivity investments to drive productivity) over the next 12 months. Meanwhile, 41.3% will boost spending on customer agility (customer-focused connectivity investments to improve the customer experience [e.g., augmented reality/virtual reality, video interaction, contact channel integration, or contact center to the cloud]).

The pandemic amplified the importance of digital resilience and adaptability as content consumption greatly accelerated the trend toward digital content, driving the need for faster access to digital content across devices and more augmented reality/virtual reality capabilities in gaming environments. To successfully enact these applications, media and entertainment companies need underlying infrastructure to access, analyze, and manage data across operations to better understand consumers in real time, meet consumer needs efficiently and securely, and empower the workforce.

Transforming Media and Entertainment into the Adaptable Enterprise

Today's media and entertainment organizations must adapt business and operational principles to support the evolving demands of the industry. Content creation and delivery have already moved to higher-quality 4K and 8K formats, and pre- and post-production now leverage the cloud. As business processes become increasingly distributed, data intensive, and connected, network capacity and bandwidth must scale and adapt to keep the business resilient. These changes have been rapid, and in many cases, the legacy systems powering media and entertainment companies are playing catch-up. As business demands increase and delivery timetables accelerate, media companies must prioritize technologies that support new ways of working, such as agile networking, cloud- and edge-based solutions, and robust analytics and infrastructure.

According to IDC, 74.3% of media and communications organizations said that comprehensive end-user experience and analytics are critical for optimizing digital infrastructure operations (source: IDC's *Future Enterprise Resiliency and Spending Survey, Wave 10*). The majority of media and entertainment companies (71.4%) assessed their infrastructure connectivity as minimal, limited, or reactive (see Figure 1).

FIGURE 1: *Organizational Connectivity in Media and Entertainment*

Source: IDC's Future Enterprise Resiliency and Spending Survey, Wave 10, October 2021

Robust network strategies are key for enterprises to achieve efficiency and drive productivity. Data from IDC's July 2021 *Future of Connectedness Survey* reveals that media and entertainment organizations identify several operational areas that are most impacted when connectedness is lacking, including the ability to provide easier access to productivity tools, offering 24 x 7 network availability and performance, and improving remote employee IT system administration.

To be truly adaptable, organizations require a scalable and intelligent network strategy to ensure that people, processes, content, devices, and systems are all connected, enabling people to have consistent access to real-time insights. Strategic investments to facilitate such access should address the following:

» **Robust network security.** Security remains a top concern for worldwide organizations, and advanced measures are needed to protect businesses against rogue agents, viruses, and DDoS issues. Adding to the need for strong security posture are risks surrounding application security, not only for employee and other internal applications but also for customer-facing applications.

» **Adoption of faster and more virtual technologies (i.e., Wi-Fi 6, 5G, SD-WAN) and cloud-based applications.** Investment in advanced technologies is needed to ensure studios, offices, and remote locations can stay connected to critical data and each other.

» **Reduced latency.** Leveraging edge solutions to streamline accessibility and availability of data will enable faster production times and improve business agility.

» **Seamless delivery of content.** Systems must be able to deliver content across the organization while guaranteeing high-quality content delivery (streaming quality) wherever and whenever necessary.

» **Network performance visibility.** Organizations require real-time insight into network traffic and needs aligned with business demands as internet access and performance are essential to business operations.

» **Integrated customer data.** Customer data analytics must be integrated across systems and customer channels (web, video, messaging, chatbot, etc.) and customer-facing applications and processes so that organizations can have complete insight into what content is trending and how, when, and where it is distributed.

» **Ability to do more with less.** Because organizations are underskilled or understaffed, employees across the enterprise need easier access to productivity tools to drive efficiency and effectiveness. Media organizations need resources at their disposal to deal with increased production costs, reduced production times, and reduced staff.

Benefits

Worldwide enterprises are still recovering and finding their footing from the changes thrust upon them due to the global disruption of the past two years coupled with ever-changing customer preferences and rapid innovation. Media and entertainment saw unprecedented demand for streaming content across increased platforms and had to rapidly adapt to new business models to support remote workforces, production and content delivery. As the speed of digital transformation (DX) continues to accelerate at an unparalleled pace, media and entertainment companies must make adaptability a priority to achieve broader business objectives and to stay competitive.

Business outcomes are increasingly dependent upon digital infrastructure, and scalability is more important than ever. According to IDC's October 2021 *Future Enterprise Resiliency and Spending Survey, Wave 9,* the top business goals for media and entertainment organizations are driving profits (38%), improving customer satisfaction (36%), enhancing employee productivity (34%), increasing innovation (34%), and improving operational efficiencies (32%). By creating adaptable business models, media and entertainment companies will be better able to achieve these strategic objectives while being ready to pivot to new customer and business demands quickly and effectively.

Media and entertainment content is intrinsically human centric, as it depends upon a certain level of creativity for development and then personal preference in terms of demand and delivery. The processes between content creation and delivery are increasingly digitized and distributed, from signal acquisition over IP or satellite to cloud storage and delivery over content delivery networks (CDNs). They benefit from having systems that are seamlessly and consistently connected.

More than half (58.9%) of media organizations indicated they have a formal strategy in place for business resiliency and are beginning to accelerate and integrate digitalization. According to IDC's *Future Enterprise Resiliency and Spending Survey, Wave 9,* 84% of media and communications firms reported they have seen positive impact on their respective businesses' bottom lines as a direct result of implementing DX initiatives. Implementations have driven positive outcomes in improved production times (37.5%); organizational agility (33.9%); customer advocacy, loyalty, and retention (30.4%); and revenue generation from new products and services (30.4%).

When it comes to DX implementation in media and entertainment, the potential positive outcomes from enterprises adopting strategies for adaptability will require a strong platform for connectivity but will yield a broad swath of benefits:

» **Improved quality of service.** The media and entertainment industry has been irrevocably transformed, and consumer expectations are at an all-time high. Speed and convenience are the hallmarks of what viewers expect with OTT content. Media and entertainment organizations that are empowered with the appropriate tools can connect consistently to end users to seamlessly deliver superior video content, driven by data-powered insights while minimizing frustration and preventing loss of revenue. Connected systems empower organizations with actionable insights that allow them to monitor and be more proactive/predictive to anticipate and solve issues ahead of time, such as outages or increased bandwidth needs, error rates, and time to first byte. Service can also be enhanced by leveraging cloud edge when appropriate to reduce latency and ensure data and content are delivered in a seamless fashion without interruption to content delivery or payment methods, as can occur with authentication time-outs.

» **Enhanced digital experience.** Optimized applications will allow employees to seamlessly switch between offices, studios, or other locations and remain connected anywhere at any time. Open APIs and integrations across multiple systems and providers will ensure consistent, high-quality delivery of content regardless of screen size, format, or digital interface. Seamless, high-quality, and consistent delivery of data will help ensure employee and partner productivity.

» **Increased agility and scalability.** A solid network allows organizations to more easily add or change applications at a lower cost as well as offer bandwidth flexibility to scale up and down along with spikes and downturns in demand to reduce costs and enhance efficiency.

» **Enhanced security.** As the number of connected devices and the amount of business and operational data grow exponentially, media and entertainment companies face an expanding attack surface that needs to be secured and protected across the entire operation. Partners for adaptable network solutions must address new security threats with automated threat detection and mitigation strategies.

» **Enhanced efficiency and cost savings.** Enterprises that utilize databases for web hosting offer faster speeds for customer- and employee-facing applications. Connected enterprises are also better positioned to enable automated solutions across operations, which drives cost savings, lowers labor costs, and reduces errors.

» **Improved employee experience.** Faster access to data allows employees to provide better customer service and reduces the frustration employees feel when they have to deal with slow or ineffective critical applications.

Trends

Numerous trends are impacting the media and entertainment industry. The following are among the most significant:

» **Digital-first distributed workforce and operations.** Media and entertainment organizations must contend with an even more distributed workforce. About 30% of media and entertainment organizations plan to increase spending in mobile/remote worker productivity tools, according to IDC's *Future Enterprise Resiliency and Spending Survey, Wave 9*. Even as employees return to corporate facilities, a full "return to normal" is unlikely. Studio operations, even as they move back onsite, benefit from increased digitalization of processes that allow real-time access to data and move content through the transformation workflow. Connectivity becomes a cornerstone of adaptability, helping ensure relevant data is available to key resources, reduce production bottlenecks, and accelerate content production times.

» **Flexible content delivery and consistency.** As content consumption methods expand and innovation continues to develop, adaptable networks will be needed that scale based on business demands to deliver appropriately. As consumer adoption of augmented and virtual realities and other innovations expands, so will the need for flexible content delivery/formats, bandwidth, and data analytics. Consumers who view and engage with content through gaming platforms increasingly expect to be able to seamlessly toggle between platforms and make in-game or in-app purchases. This will require robust integrations and open APIs as well as seamless user authentication and payment capabilities. Data from those purchases and activities can be appropriately and securely utilized for marketing or customized, enhanced services.

» **Security concerns.** According to IDC's *Future of Connectedness Survey,* data security is the top connectivity challenge for media/communications (53%), which is consistent with responses from other industries. With increased scrutiny on how customer data is being utilized and secured, and concern about a wide array of threats and fraud, organizations are challenged to maintain the security of more and more data across cloud, edge, and IoT applications and proactively mitigate threats.

» **Real-time data availability.** More than one-third of media and entertainment companies (34%) plan to increase spending in data connectivity, and 39.3% said that data management and protection is the top digital infrastructure investment to drive overall business success. Keeping data in motion, identifying areas for improvement, and exceeding performance objectives are critical capabilities that enable organizations to identify new opportunities and deliver premier services to customers. This data is used to monitor not only user behavior but also performance. Access to data and analytics will drive edge investments to reduce latency and improve security. According to IDC data, 78.9% of media and entertainment companies admitted that investments in edge computing will require significant changes to network architectures over the next two years (source: IDC's *Future Enterprise Resiliency and Spending Survey, Wave 10*). More than 80% said that edge computing initiatives are creating significant challenges for new data governance, compliance, and privacy management. The complexity of deploying such edge solutions is causing many media and entertainment companies to seek assistance from managed service providers or enlist additional services management from integrators and solution providers.

Considering Lumen

For more than 30 years, Lumen has provided services to many of the world's broadcast media companies and continues to offer a portfolio that addresses many of the pain points for modern media and entertainment organizations. With a global client base that includes nine of the 10 largest media companies and eight of the 10 largest gaming companies, Lumen has demonstrated an ability to scale worldwide with its network footprint and software capabilities. Lumen brings to the table an ability to provide support and resources to worldwide organizations. The company's open ecosystem approach is designed to allow players to develop or take away components from Lumen's edge computing platform. In addition, Lumen offers the ability for organizations to add tools on top of the platform that are beneficial for media content creation and help bring products to market faster.

Lumen brings to market solutions that are designed to enable media and entertainment organizations to manage and control the end-to-end content delivery experience. To do so, the company offers solutions that span the entire media workflow, from video acquisition to transformation, enrichment, origin, caching, security, and optimization.

As media and entertainment organizations are increasingly challenged with the demands to scale content delivery, Lumen's wholly owned fiber IP network and content delivery network provide the robust capacity and reliability to support massive growth of OTT content.

Lumen's CDN is used by global media companies to optimize and push content to multiple sites seamlessly and instantly. Built on Lumen's IP backbone, the CDN features 170Tbps of global capacity and utilizes advanced edge technologies to deliver on end-user expectations with high-quality experiences. Lumen's CDN helps organizations achieve their top business objectives by offering scalability to help drive profit by growing customers, programmability to enable DevOps teams to build differentiating experiences, and multivector threat mitigation across Layers 3, 4, and 7.

With its 2019 acquisition of Streamroot, Lumen expanded its video delivery capabilities, designed to handle issues such as rapid scale, high-quality connectivity and content, and unpredictable traffic. Solutions in the expanded product suite focus on bringing content closer to the customer and include client-side multi-CDN load balancing as well as device-side optimization for video and gaming with peer-to-peer delivery.

Lumen's connectivity solutions such as Vyvx Cloud Connect combine the managed service provider relationships with cloud providers such as AWS, Azure, and Google to bring video content from media and entertainment companies' cloud environments into a host of chosen solutions. Meanwhile, the cloud-based Lumen Media Transformation solution addresses media companies' need for content adaptability by offering encoding, transcoding, and enrichment capabilities for on-demand and live OTT content. This solution also offers content enrichment capabilities such as dynamic ad insertion, geofiltering, and digital rights management. Lumen's solutions can help address issues around latency and modified workflows — issues that are more prevalent as work has become remote and applications have migrated to the cloud. In this scenario, data must be moved closer to users and workloads must be moved closer to where digital interactions occur.

Challenges

Lumen's greatest challenge in the media and entertainment space may be overcoming the market perception that the company is a strong provider of network services only. The varied offerings Lumen provides put the company in a position where partners are also competitors. Lumen will need to work to educate its customers about the benefits offered from leveraging its platform in terms of both implementing its components and architecture and utilizing its managed services offerings.

To address media and entertainment organizations' concerns and indicators for success, Lumen must highlight the breadth of its capabilities as well as the ability to offer fast deployment and upgrade times. To address top concerns for media and entertainment organizations, Lumen should address how its user interface design helps employees and yields positive results in staff retention and satisfaction, which is a key KPI for 40.4% of media and entertainment companies, according to IDC's *Future Enterprise Resiliency and Spending Survey, Wave 10*. IDC data also reveals that 87.2% of media and entertainment companies want their strategic partners to take more day-to-day administrative and operational responsibility for infrastructure so internal staff can focus more on the business. This is an area of opportunity for Lumen to highlight the benefits of utilizing its managed services and consulting offerings.

Conclusion

IDC believes that media and entertainment organizations that prioritize adaptability and make strategic investments in agile infrastructure will be best positioned to drive profit, improve customer satisfaction, increase efficiency, and boost employee productivity and satisfaction. As media and entertainment continues to evolve due to changing customer expectations and rapid technology advancement, organizations must put in place strategies and partnerships to foster adaptability across the enterprise. For 49% of media and entertainment organizations, network infrastructure and edge systems will provide the greatest strategic advantage to business success (source: IDC's *Future Enterprise Resiliency and Spending Survey, Wave 10*). This will require a focus on digital resiliency and flexibility to empower employees across the organization to be connected and have access to the appropriate insights and tools. Supported by robust network infrastructure, enterprise platforms and tools must have strong integrations to offer end-to-end, seamless, and flexible solutions. The need for adaptability will drive organizations to seek partners that offer open APIs and support for organizations to operate consistently and efficiently.

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About the Analyst

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Dorothy Creamer is Research Manager for IDC's Hospitality and Travel Digital Transformation Strategies service, providing research and advisory services for hotels, casinos, restaurants, and travel organizations. Ms. Creamer's research will focus on how these business segments are transforming and leveraging technology to increase efficiencies, deliver operational benefits, and identify new revenue streams.

MESSAGE FROM THE SPONSOR

Lumen is a technology company that enables organizations to benefit from emerging applications that power the 4th Industrial Revolution. We deliver the fastest, most secure platform for next-gen applications and data to help the media and entertainment industry deliver amazing experiences subscribers, viewers, and employees.

Lumen solutions integrate network infrastructure, cloud connectivity, edge computing, connected security, voice, collaboration, and enterprise-class services into an advanced application architecture across industries. As technology advances the way we live and work and as data is dramatically shaping the future, Lumen is working relentlessly to unleash the potential of data, leading to more capable and efficient edge computing and pervasive technologies across devices, systems, and workloads.

Learn more about how Lumen supports media and entertainment customers, visit: Lumen.com/media-entertainment.

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