



THE
DISTRIBUTED
PRODUCTION
ENVIRONMENT

How Cloud Technology Will Reshape
Media Creation and Delivery



The world of media production has been teetering on the edge of a major philosophy shift as more and more business moves to the cloud. With recent events accelerating change across the entire industry, what was expected to take years is now happening in weeks. Avid, in partnership with Microsoft, is determined to not only ease the transition to the cloud for the production world, but to be a catalyst for an evolution that will reshape and improve how film, television, news, sports, and digital media content is created and delivered.

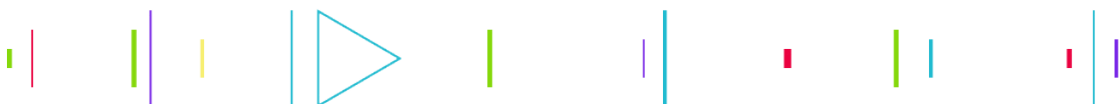
Long-standing fears of change are common in the production world, resulting in reliance on legacy, on-prem infrastructures, closed loops of communication, surmounting costs, and an overall resistance to evolution. But today, embracing change is no longer an option, it's a necessity.



UPENDING LEGACY PRODUCTION MODELS

The production world has long relied on legacy models with large crews, exorbitant hardware and equipment costs, and the need for tight security to protect intellectual property.

For the past decade, there has been an ongoing shift toward end-to-end digital production, from editing on premises to editing from anywhere, and from large crews to smaller teams. Yet the idea of working and collaborating in the cloud still felt like an eventuality, not an urgency. Now, with a societal shift revoking the option to work on premises and accelerating the timeline for remote environments that support greater mobility, the production world is rocketing into the cloud and—in just a few months—is reshaping the way content is collected, edited, and delivered.



ADDRESSING INDUSTRY NEEDS

Among the most pressing issues that studios, broadcasters, and production teams are facing today is the shift to remote editing and answering the fundamental question—how do we make sure we can continue to collaborate and keep our business going as we face new priorities across business and communities? Simply put, it requires addressing today’s new requirements and business problems with technology that enables working smarter, faster, and better than ever before.

Avid, leveraging the inherent capabilities of Azure, is providing the answer and delivering what editors, producers, and creators are demanding:

NEED FOR SECURITY

It is no industry secret that the production world has always been very, well, secretive. Many studios are accustomed to having their editing environments completely segregated from the internet, with no outside access allowed, and with high investment in on-prem infrastructures to keep content safe. Despite cloud gaining traction in recent years, the fear lingered that non-prem environments are not secure. But the truth is, cloud environments are now as secure—if not more so—than traditional on-prem environments.

Avid cloud offerings hosted on Microsoft Azure provide security capabilities that mimic or improve upon on-prem environments. Media Composer® ensures security both for content in flight and at rest leveraging the industry-leading security already baked into Azure, including highly-secure playback for all devices, AES clear key and multi-DRM license delivery, and on-the-fly dynamic encryption.

Additionally, not all studios or broadcasters have the same needs. While some want to free editors from constraints while working remotely, on the flip side are those that want to constrain editors from freely taking and potentially distributing content. Avid provides flexible security that can be dialed up or dialed down depending on the individual requirements.

“Avid Edit on Demand was designed with security in mind from the very beginning,” says Richard Duke, Chief Cloud Solutions Architect at Avid. “In our service-led engagements we work very closely with each studio or production facility to meet their individual security requirements and ensure that their cloud environment is a secure environment.”

NEED FOR A FAST, HIGH-QUALITY USER EXPERIENCE

The transition to remote working has understandably raised numerous questions across the media industry, which until recently relied heavily on well-equipped, expensive studio setups and on-site collaboration across large teams. One of the big questions now becomes—how do you get 40-50 TBs of content out to users working on home internet connections while enabling them to maintain the same collaborative, effective production?

Avid provides a modern, robust distributed environment that enables all users to access and collaborate on the same, cloud-hosted content from multiple locations—from an existing on-prem studio environment, to an at-home office, to out in the field. Quick setup has users up and running in a matter of hours, providing an exceptional experience even from home-based internet, without the need for a massive data pipeline and with minimal latency—a mere 40-50 milliseconds. Users can quickly upload content from any location in fast through accelerated secure file transfer tools.

For scenarios that utilize UHD content at higher bit rates and resolutions, users can leverage Microsoft's ExpressRoute, which provides a direct connection to the cloud environment to speed up the connection process and enable rapid transfer and playback of content to and from the cloud. It will soon be possible for personal devices to contribute to cloud environments leveraging standard internet connections, and SRT (Secure Reliable Transport) protocol, or other industry-standard protocols, converting and delivering content in a broadcast-quality stream that can be accessed in an Avid cloud production environment. It can be deployed where and when it is needed, anywhere around the globe, reducing geography to zero and moving content around the world at record pace.



“You can take in viewer video and eyewitness reports, and with new technology be able to deliver it with broadcast quality streams, and then instantaneously go to air... I think that television and particularly journalism can be better than it’s ever been before.”

Bill Kaczaraba,
Industry expert and President of Esperance Media

NEED FOR COST CONTROL AND EFFICIENCY

As broadcasters migrate toward models that leverage IP (4G and 5G LTE, or Wi-Fi), they can cover far more with significantly less. What used to require a truck with multiple people, a satellite connection, a camera crew, and a reporter can now be accomplished by a lone reporter equipped with just a tablet and Avid MediaCentral® to connect directly to an Avid production environment.

Having the ability to go live, acquire and record new content, search for and find historical content, edit in the field, add graphics, and publish to social and digital platforms, not only streamlines the entire process, but enables mobile journalism to happen from anywhere there is a connection. Locations are no longer limited to broadcast truck access or satellite links, and coverage of an event can be expanded in a more economical and efficient way. Remote production allows media companies to deploy significantly fewer resources while enabling broader coverage, all without compromising quality. Cloud and IP technologies are lowering the barrier of entry and enabling the creation of digital-first content while also facilitating expanded coverage for the linear broadcast.



“It’s completely configurable from the performance side, the security side, and the throughput side to ultimately help the storytellers tell the stories.”

Richard Duke, Chief Cloud Solutions Architect, Avid

Avid Edit on Demand brings the collaborative power of Media Composer and Avid NEXIS® to the cloud:

- › Built on the scale, security, and power of Microsoft Azure to deliver a lower total cost of ownership and a 50% increase in total infrastructure efficiency
- › Turn-key, cloud-based video editing enables a 100% increase in collaboration ability through on-demand access to tools and data to speed content creation
- › Accelerated upload and download of media with secure file transfer tools and protocols
- › End-to-end, straightforward workflows built specifically for media/entertainment deliver 7x the workflow efficiency and a 7x reduction in time to market

GORILLA TV: A CASE STUDY

Gorilla TV, a UK-based full-service post-production house specializing in broadcast media and film, has three separate locations running over 100 Avid systems. Prior to the onset of the COVID-19 pandemic, Gorilla TV had already been testing a demo of the cloud-based Avid Edit on Demand. Yet the rapid shift to work-from-home accelerated the need to adopt a full implementation that would enable all editors to work remotely without disruption—and with a global crisis to cover, they needed it fast.



Image courtesy of Gorilla TV



AVID EDIT ON DEMAND TURNKEY CLOUD-BASED EDITING AS A SERVICE

“In Wales and the UK, in general we don’t have great connectivity at home, yet everything works very well with the [Avid] technology that we’re using. We need it to collaborate without geographical boundaries,” says Richard Moss, Managing Director at Gorilla TV.

For Gorilla TV’s now-distributed workforce, connecting to Avid cloud tools is straightforward and “lightning fast,” ensuring that they are able to carry on business as usual in the most challenging of times. It has in fact been such a seamless transition for editors that many often don’t even realize they are working in the cloud—they feel as though they are still remote accessing the on-prem system.

“I would definitely recommend Edit on Demand. You forget that it’s a virtual PC, you forget that you’re streaming media from the cloud. It’s fantastic,” says Alun Edwards, Editor at GorillaTV.

LOOKING TO THE FUTURE WITH CLOUD-ENABLED PRODUCTION

While the media production world continues to adapt to the “new normal,” one thing is certain—these changes are here to stay. The ways of old will be a fond memory as the industry charges head-long into a cloud-forward, always-on future. Cloud will continue to ensure business continuity in support of distributed production environments, while the need for hybrid scenarios will grow to enable a seamless and ubiquitous experience across both on premises and cloud.

Not only does cloud enable greater efficiencies throughout the entire production process, but AI and machine learning services can enable more powerful search capabilities along with better media automation and orchestration for any workflow. As more and more options present for accessing content, being able to deliver to a growing number of platform partners in different packages is paramount.

“This shift is enabling users to work more efficiently, to collaborate where, when, and how they need to, and with the amount of content being consumed and

created these days, users need more of that flexibility. What Avid is doing is providing that agility,” says Colleen Smith, VP of Market Solutions at Avid.

Avid professional services-led engagements provide a comprehensive plan for implementing a phased cloud migration approach, working closely with each media client to understand their immediate and long-term needs. While workflows vary across news, sports, television, film, and commercial production, there are common core capabilities that apply across all. Avid applications like MediaCentral sit on a common infrastructure tuned to address different needs and workflows, including a variety of ingest, storage, editing, asset management, and distribution solutions—all built to leverage the accessibility, elasticity, scalability, and security of Azure.

Today, the Cloud & SaaS Practice at Avid is engaged with some of the world’s largest media companies and, in partnership with Microsoft, is helping industry leaders make a successful and effective shift to the Azure cloud—not only optimizing the way content is captured and delivered, but ensuring better experiences with greater efficiency.

To learn more visit: avid.com/microsoft



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