

M+E

JOURNAL

WHAT'S NEXT?

An M&E industry that's learned to adapt and excel after a year like no other, for one

LOCALIZATION

Dubbing from home is a work in progress

SECURITY

How to beat piracy and secure your business during a pandemic

SMART CONTENT

The new ways content players are using data to connect with consumers

NEW WORKFLOWS

Adopting the latest tools fuels a successful change to remote work

20.02

BRING-YOUR-OWN-ARTIST TO THE CLOUD

From animation to dailies, editing to rendering, the breadth of technologies at play means nothing will be the same

By Joel Sloss, Senior Program Manager, M&E Security, Compliance, Microsoft Azure

ABSTRACT: World events are tipping production more definitively into the cloud, and we all need to understand the breadth of technologies at play and how they will transform content creation. From animation to dailies, editing to rendering, nothing will be the same. Indeed, to “bring your own artist” and collaborate worldwide requires fundamental changes in network design, (virtual) infrastructure deployment, and security practices. Get ready to innovate.

One of the more interesting — if not opportunistic — evolutions in media and entertainment production today is the change from large in-house studio post teams to independent artists making their mark on the world. This is, in-part, due to the tremendous pace of TV and film which make it impractical for companies other than major studios to directly employ such legions of creators. Original streaming services and cable networks often turn to external resources for content development.

Moreover, the increasingly collaborative nature of content creation, the geographic distribution of talent (global content for global audiences), and the menagerie of production tools demand a unified platform encompassing them all. Is it even possible to further modernize these complex workflows with cloud security and efficiency?

Bring-Your-Own-Artist (BYOA, trademarked ... I just came up with that) could be that defining tenet of the new roaring '20s. Couple that methodology with the WFH model, plus the global ubiquity of cloud services for workstation virtualization, and you have a recipe for artist-anywhere production.

TRANSFORMATIVE CREATION

What differentiates content creation from other knowledge-worker scenarios is a desire and willingness to embrace individual contributors from everywhere around the globe, even on more sensitive assets; this cannot be as easily achieved in other sectors such as healthcare or

government. Spurred by both need and opportunity and enabled through a trusted cloud, content owners can broker collaboration without increasing the risks to their IP.

While not everything can easily migrate to the cloud just yet, such as highly subjective artistry like color-grading, some workflows can make the move via native or hybrid deployment (e.g., editorial), and some can be 100 percent cloud-native (rendering). The next step in alleviating the on-premises burdens of content creation is virtualized workstations.

TECH AND TOOLS

Across the industry we see advances in technology that now make it practical to virtualize production, in addition to the development of best practices for securing content and identity. These include GPU-based virtual machines, dedicated high-speed WAN, scalable cloud rendering, intelligent security services, and both customizable and turnkey platforms for virtual desktop infrastructure (VDI). In Microsoft Azure today, studios are deploying powerful edit workstations with Adobe and Avid, VFX tools, GPU render workloads, and multi-peta-byte archive + asset management systems. Plus, network partners are delivering high-bandwidth ExpressRoute connections to the studio lot for secure bulk content transfer.

As a result, you can quickly deploy workstations and render farms from any datacenter around the world to put resources close-at-hand for artists, anywhere they like, while maintaining critically-important low latency for 4K and high bit-rate content.

Want your VFX sup or producer to review dailies? Need to index camera and scene metadata? Does your editor need to quickly piece together a new set of animation sequences for marketing? Days of work before, hours (minutes?) now.

REMOTE WORK

But as important as that is, you need the guidance, automation, prescriptive policies, continuous monitoring/

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alerting, and governance regimes to ensure content stays in one secure repository.

So, what does it mean now that both your usual workstation and your content are physically out of reach? Not only are you virtualizing production, but you are remoting, as well. Some studios were able to get back to work quickly during the pandemic by relying on VPN tunnels into their corpnets for remote desktop sessions on individual machines. However, this is not optimal for a variety of reasons, security being one, and doesn't function well for latency-sensitive tasks on throttled networks (all of a sudden, all employees are saturating your Internet line at once, and sometimes from very far away). It can also present a problem for accessing on-prem storage and render capacity. The same conditions apply to physical production needs, since new restrictions mean fewer people to support DIT, color, and immediate workflows.



For the last 20 years, Joel Sloss has been on the razor's edge of enterprise IT and security. He originally joined Microsoft in 1997 and has managed product lines ranging from BackOffice to ISA Server, mobile services, and — most recently — compliance initiatives in the Azure engineering team. His focus now is on the digital M&E industry. jsloss@microsoft.com @Azure

HOW TO BYOA

Shows are coming (or have already) back online in 2020, but in a very different way relative to the last 100 years of production. With minimal on-set staff allowed, more movie makers are participating from afar, including key creative teams. Each needs to be securely connected to the same assets and tools, even to the set itself, with a common platform comprised of distributed resources.

In olden times (i.e., last year), it took — quite literally — a [video-] village to film a picture. Now it is barely more than a 65-inch screen and a video stream. Editors, DPs, and others log in remotely to monitor activities in real-time and view dailies. Azure running solutions such as 5th Kind, Technicolor Pulse, Teradici PCoIP, and many others make it possible to host asset ingest / management, workstations, editing, animation / rendering, private connectivity, and collaboration, among a growing complement of creative tools.

Deploying a secure production environment in the cloud can be largely automated through PowerShell and similar CLIs, with embedded monitoring and analytics which enable auditing and control. Azure Active Directory helps unify authentication / authorization between different solutions to make it easier to onboard / offboard users during the production lifecycle.

Whether you're using something turnkey such as StratusCore for creative workstations, rolling your own setup for fully virtualized Premiere, or subscribing to edit-on-demand SaaS with Avid, if you've wanted to re-invent show business, now's your chance. ■



How secure is your cloud?

Azure Security Center prevents, detects, and responds to threats using advanced analytics and threat intelligence to improve data protection.

Download the security report at
aka.ms/msftsecurityreport