

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

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SECURITY

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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

EVERYTHING MUST BE ONLINE

And accessibility, searchability and security must come with it



ABSTRACT: As we exit the year, object storage has shifted from being an archival tier of storage to enabling online and on-demand workflows. This article will look at how object storage, as part of a cloud service offering or on-prem deployment, helps M&E organizations keep assets online, searchable and accessible.

By Adrian J. Herrera, VP Marketing, Caringo

Ask any expert in innovation and they will tell you that things won't change until a certain threshold of discomfort is surpassed and sustained. Well, 2020 has certainly delivered a healthy dose of discomfort to just about everyone on the planet.

For the M&E industry as a whole, the initial focus was to scramble and get everyone setup for remote workflows. From content creation, production and distribution professionals to software and hardware vendors, everyone collaborated to quickly deploy remote workflow solutions. Most organizations executed on their initial requirements by fall; however, these

changes were not necessarily innovative. In fact, most were just an acceleration of plans that were already in place. What did happen was that the foundation for ubiquitous access of content and, more importantly, the conditioning of viewers to expect convenience was laid. The cat is out of the bag, the genie is out of the bottle — however you want to say it, one thing has become crystal clear: everything must be online.

Never before in our collective history have we had the underlying infrastructure to rapidly move to remote ... well, remote everything. From grocery shopping, healthcare appointments, dance lessons, soccer practice,

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birthdays, funerals, weddings, school, work and everything in between, most of the technologically advanced countries maintained a certain level of normalcy not possible even a short time ago. A decade from now we are likely to reflect on this world-wide pandemic and see that the most profound impact is how the changes influenced the expectations of our youngest generation of content consumers. The adaptability of Gen Z and Gen Alpha has been astounding. Gen Z and Gen Alpha have learned to expect convenience and the ability to separate function from a specific location. So, what all other generations knew as functions of life associated with location — you go to work, you go to school, you go to the theater, etc. — will be challenged by them. They will understand that wherever information and data can be sent is where they can learn, entertain themselves and connect with others. To achieve this ideal state, everything must be online.

When I say “online” I don’t mean that everything must be stored in the cloud or on a content distribution network (CDN). Quite the contrary ... I think a large portion of content should remain within your office, data center or residence. What I am saying is that content (which in a digital world is data) must always be searchable and accessible regardless of the location of the data store or the requestor. And, more importantly, it should be protected.

WHAT DOES IT TAKE TO MAKE CONTENT SEARCHABLE?

Two things: a method of scalable, fluid search and metadata (i.e., data about the data). Interestingly enough, scalable, fluid search is probably the easier of these requirements to meet. There are a number of NoSQL open source platforms on the market today, like Elasticsearch, that are great at this. Metadata, on the other hand, is a little more challenging. The chal-

lenge isn’t with the existence of metadata, it’s with the sheer amount and proprietary approaches to metadata collection. There are standards that are gaining momentum; but, for new and innovative applications to take off, these standards must be adopted by the entire technology stack. Metadata cannot be locked in a single application. As we enter 2021 and beyond, innovative services will be driven by leveraging metadata.

WHAT DOES IT TAKE TO MAKE CONTENT ACCESSIBLE?

Traditionally the first point of access for many pieces of content was on a local area network (LAN), uploaded to some form of storage area network (SAN) or network-attached storage (NAS) in the office. I predict that moving forward this will be the secondary method of access. The primary method will be accessing content over HTTP in a secure, efficient method. Distributed workflows, VOD services and mobile device content creation will all continue to proliferate. TCP/IP (transmission control protocol/internet protocol), HTTP (Hypertext Transfer Protocol) and the S3 protocol have laid the foundation for this new paradigm of access. For getting content to various locations reliably and quickly, there will always be user datagram protocol (UDP) enabled solutions running on TCP/IP. However, as we enter 2021, look for these trends: those who can afford it will continue to upgrade their broadband; advancements in home mesh networks; increased consumption of 5G; reliance on wide area network (WAN) acceleration; and, of course, the continued popularity and rapid adoption of native HTTP storage solutions like object storage.



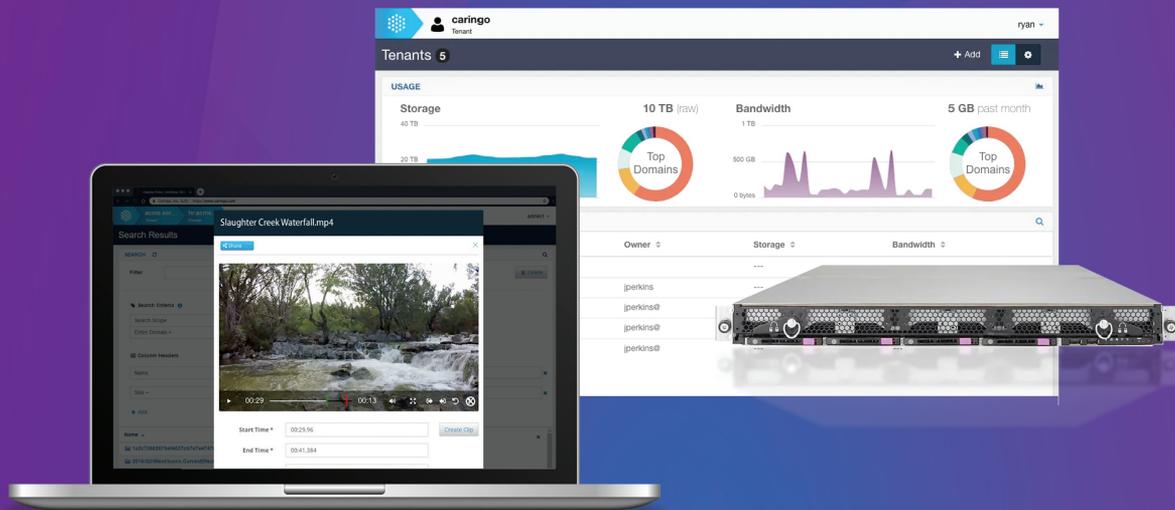
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How do you protect content (data)? There are literally hundreds if not thousands of ways to protect your data, so maybe I need to qualify this phrase a bit more: You shouldn't lose data. Makes sense, right? Unfortunately, due to the size, scope and opportunities presented by the cloud service providers, a lot of IT professionals are prioritizing quality of service over protecting data from loss. When we talk about data loss, that also encompasses the ability to find data and, in some respects, is a superset function of search and accessibility. If you have your content locked in a closet and can't search for what you need or access the closet, then how do you know it's really there? For all intents and purposes, it is lost to you. As we enter 2021, it is up to IT professionals and solutions architects to ensure that data isn't lost. This sounds a lot easier than it's going to be, as the number of files an organization manages is sure to grow from millions to billions in this decade.

To that point, I would like to bring it back to viewers — the consumers of content who determine what is successful. As content libraries and the files in them become larger and viewing methods become more sophisticated (e.g., multiple camera angles and augmented reality), personalization and the ability to recommend content will be critical to success. I am excited to see what the future holds for the M&E industry as we bring everything online and the rate of innovation has accelerated to meet the increased demand and expectations from the ravenous consumers of content. ■

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