

Cleveland Art Museum Uses Tintri IntelliFlash™ to Power ARTLENS Gallery

IntelliFlash

THE CLEVELAND MUSEUM OF ART

Founded in 1913, The Cleveland Museum of Art is one of the world's most distinguished and comprehensive art museums. As a principal civic and cultural institution in the Midwest, the museum aims to bring the world's greatest art to the public with high aesthetic, intellectual, and professional standards.

With the help of Tintri and BlueBridge Networks, a world-class cloud services provider in Cleveland, the museum created ARTLENS Gallery, a multi-faceted, innovative experience that connects the viewer with art masterpieces while encouraging personal and emotional engagement.

ARTLENS Gallery is a multi-faceted, innovative experience that allows visitors to look closer, dive deeper, and have fun discovering the museum's collection using award-winning digital technology. Visitors can create their own original artwork in ArtLens Studio, engage with masterworks of art and touchscreen-free interactives in ArtLens Exhibition, and connect with the museum's world-renowned collection at the ArtLens Wall. The ArtLens App enables visitors to save the artworks, learn about any photos taken during their interactive experience, and then map their visit throughout the museum with the app's responsive wayfinding technology. At the entrance, a 20 feet-wide screen features whimsical stop motion to pull live visitor creations from the other components. ARTLENS Gallery was fully completed in September 2017.

The Challenge: Scale and Grow with the Museum's Art Collection

In 2010, the Cleveland Museum of Art set forth with a bold, innovative goal: to completely rethink and re-engineer the museum experience. "In an art museum, it is imperative that the art should be at the forefront, rather than the technology," said Jane Alexander, chief information officer at the Cleveland Museum of Art. However, the technology infrastructure needs to be in place to use technology interpretation that still allows the art to shine. We wanted to create an experience about the art and where the technology is invisible, yet ubiquitous in the viewer experience," said Ms. Alexander. "The best exhibits make you aware of the art, not the technology."

However, creating a world-class, innovative, and interactive exhibit is no easy task. The Digital Innovations and Technology Services department did not only have to digitize, organize, and centralize structured and unstructured data and interactive components for more than 45,000 pieces of art, but they had to find a storage infrastructure that could handle the performance, capacity and scale required.

"Storage is the foundation of everything we do. When technology is so intertwined with the viewer experience, the foundation of our entire museum is built upon our SANs, our storage network, and our replication," said Tom Hood, Director of Technology Operations at the Cleveland Museum of Art. "We needed systems that could safely scale and grow with the museum's collection and the data associated with it, and make sure the user experience wouldn't be affected."

The Solution: Tintri IntelliFlash HD-Series Systems

Two years into the project, Hood realized that The Museum's Digital Innovations and Technology Services department couldn't embark on this project alone. "Our data had already grown exponentially. We were having issues with capacity, as well as the amount of effort it took to backup and maintain everything. Things were really getting out of control. Infrastructure demands were quickly reaching beyond the limits of what a museum could do."

At this point, the museum turned to BlueBridge Networks, Ohio's premier cloud services provider, for help. "BlueBridge became the primary and secondary source for the infrastructure and applications that the Cleveland Museum of Art built," said Kevin Goodman, managing

Challenges

- The Cleveland Museum of Art needed a storage solution that could effectively handle structured and unstructured data for interactive art exhibits with more than 700,000 visitors annually and 45,000 pieces of art

Solution

- Tintri IntelliFlash HD-Series

Results

- Extremely low latency delivers a seamless visitor experience through cutting-edge technology
- 50% data reduction to enable growth of art collection without issues
- World-class customer support
- Unparalleled museum experiences

**Tintri**
Intelligent Infrastructure

director at BlueBridge Networks. "We've got a 100-gig pipeline between Cleveland and Columbus, which means that even though the museum is storing their data in the cloud, they're actually able to get speeds that are faster than if they had stored their data on-premises."

However, to take advantage of this speed, The Cleveland Museum of Art needed storage that could handle highly unstructured data, while still providing unprecedented levels of performance, data consolidation, simplicity, and economics. "Being an art museum, everything to us is visual," said Hood. "As technology improves and allows us to capture images or collect our collection in higher detail, we needed something that could grow with that. In fact, a lot of our artwork is captured in 3D now for our interactive exhibits." The Cleveland Museum of Art's photography studio uses photogrammetry, a technique where the photographer shoots an object from all angles. The result is a 3D video.

As soon as BlueBridge heard the museum's needs, the choice of storage system was a no-brainer: they chose Tintri's IntelliFlash HD-Series. "When you're looking for all-flash that not only delivers high performance, but is also extremely scalable at an affordable cost, it really narrows the focus candidly to IntelliFlash," said Goodman.

At the core, the IntelliFlash HD-Series is the same platform that powers all Tintri's award-winning IntelliFlash intelligent infrastructure. The IntelliFlash platform brings together several architectural innovations in flash management, data persistence, data management, and analytics to deliver unprecedented levels of performance, data consolidation, simplicity and economics. With IntelliFlash HD-Series, companies can easily consolidate multiple mixed workloads and data onto a single system to achieve the best balance of performance and economics at scale.

The Results: An Unparalleled Museum Experience

With high throughput at low latency for mixed workload consolidation, IntelliFlash HD-Series help the museum handle any type of unstructured data, no matter how big.

"Our database queries run incredibly fast," said Hood. "Having extremely low latency is so important to the visitor experience, and everything runs smoothly. With latency in sub-millisecond range, patrons are able to seamlessly enjoy a world-class art experience without interruption."

The museum has had no issues with the growth of their digital art collection either. "We're getting a data reduction rate of 50 percent for The Museum," said Goodman. "With that, we can grow the collection without any issues, and when needs arise we can scale capacity with ease."

Roger Mitan, CTO BlueBridge Networks is impressed with Tintri's customer support. "We really see their team as an extension of our own," Mitan said. "We know the engineers by their first names, and they really believe in the museum's mission. The lengths they go to help us are just incredible."

All-in-all, IntelliFlash HD-Series has helped the Cleveland Museum of Art execute on their artistic vision and helped them become one of the most innovative and impressive museum experiences globally.

"ARTLENS Gallery bridges the gap between visitors and art in a transformative experience, empowering people to learn through play and to build lasting relationships with CMA's world-renowned collection. Visitors can take the toolsets they develop in ARTLENS Gallery, and apply them to works of art anywhere, even beyond CMA. The CMA never uses technology for technology's sake and will continue to create innovative, immersive experiences that intertwine art and digital innovation," said Alexander. "We are grateful to BlueBridge for partnering with the museum to help support our project and to bring in great resources such as the power of IntelliFlash HD-Series," said Hood.

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