

Library District Offers Leading-Edge Patron Services with Nutanix

About Arapahoe Library District

Industry: Public Sector

Location: Englewood, CO

Website: www.arapahoelibraries.org

Applications

- Library applications
- Patron-facing services

Products:

- [AOS Storage](#)
- [Nutanix Cloud Platform \(NCP\)](#)

Ready to get Hands-On?

Take a Test Drive

Arapahoe Library District relies on Nutanix solutions to streamline operations and serve its community better

Overview

With eight libraries throughout central Colorado, Arapahoe Library District is not only dedicated to literacy, but to providing citizens with the services they need to explore a growing world of information. When the district began to experience issues supporting growing, evolving network environment, its IT team migrated to a hyperconverged infrastructure environment (HCI), based on Nutanix Cloud Platform. The new solution is simpler to manage, and makes it easy for IT to experiment with new service offerings like AI for patrons and staff.

Key Benefits

Hyperconverged infrastructure simplifies management

Small form factor provides plenty of capacity with room to grow

Agile infrastructure supports testing of new services for administrators and patrons



Nutanix gives us the flexibility we need to spin up resources, spin them down, and update them quickly, without adding

hardware. It helps us stay on the leading edge and foster an innovative culture.

Joseph Van,

Manager of IT Infrastructure, Arapahoe Library District

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Challenge

Serving a diverse array of citizens in central Colorado, Arapahoe Library District is dedicated to community connections by connecting people as resources for each other, virtually and in person. The district's IT team plays a key role in helping the organization achieve its mission, while supporting its values of innovation, collaboration, and equity.

“We've got nine locations with all different personalities,” said Joseph Van, manager of IT infrastructure at Arapahoe Library District. “We support all the library application systems that make our libraries run, such as cataloging, sorting and processing applications, and general IT infrastructure. We also manage multiple internet connections at every location for high redundancy, as well as patron services from printing, computer usage, and meeting spaces.”

As the district's infrastructure grew and evolved over the years, managing all the different components and environments in the system become cumbersome.

“Our group started out with a few servers, then added equipment as needed to support new workflows and processes,” said Van. “We ended up with seven different servers that weren't talking to each other; they were just standalone boxes operating on their own.”

Arapahoe Library District needed a way to simplify its network infrastructure, and manage all its sites in a consistent, centralized way.

Solution

After considering several options, the district migrated to the Nutanix Cloud Platform, which offers hyperconverged compute, storage, virtualization, and networking at the core. The Nutanix solution not only provided a more consistent, simpler way to manage the district's infrastructure, but is also more efficient.

“When we were planning the solution, our partner said they could scope everything out that we were doing in our four-node cluster in a 2RU server,” said Van. “I didn't believe everything could be replaced in a 2U server, but they were absolutely right—in fact, we were over-scoped.”

The new solution is not only centralized, but offers improved availability compared to the previous solution.

“A major benefit has been having one place to manage our infrastructure, with redundancy built into the servers,” said Van. “Previously, if we lost one server, we would probably lose three virtual machines that would be difficult to recover just because they were on different hardware. We're using AOS, which is the Nutanix operating system, and I'm glad we did because there's so much visibility into that product, and the management piece is night and day—everything just worked.”

Customer Outcome

By consolidating its disparate devices onto Nutanix, Arapahoe Library District has not only made management more consistent but enabled its IT team to take advantage of a more agile HCI environment.

“One capability that's very beneficial to us is that it's super easy to spin up VMs,” said Van. “For example, I recently had to spin up a VM while on a support call, which would have been nearly impossible previously. We were troubleshooting a backup system, and I was able to spin up a clone VM of our backup server in seconds, so we could resolve the issue.”

Maintaining and updating the district's infrastructure is faster and easier as well.

“It's much easier to spin up resources, spin them down, update them, or add NICs and other components,” said Van. “We were recently having a reliability issue with a third-party Wake on LAN solution, so we spun up some Linux boxes, imported them into Nutanix, and cloned them all out. We were able to get it out to eight of our branches pretty quickly. It's a lot easier to create and adjust resources.”

The improved resiliency of the solution also helped Arapahoe recover quickly from the recent CrowdStrike outage that impacted organizations worldwide. Arapahoe had 38 of its 40 VMs go down during the outage, but was able to bring them back within two hours.

“When CrowdStrike had their big outage, we were able to go in quickly and restore to previous known good backups,” said Van. “It was amazing because most companies were dealing with the issue for a week, while we were up and running really in two hours.”

Next Steps

The new Nutanix solution gives Arapahoe Library District the freedom it needs to experiment with new technologies to better serve its

patrons—and explore ways to make its own operations more efficient.

“We are in the process of learning the different AI technologies,” said Van. “We want to educate our staff and patrons and trying to find new ways to provide access to a lot of tools and services.”

“We can quickly provision new environments to try out administrative services, or implement new ideas that we may have,” he adds. “We have an innovative culture that allows us the flexibility to try new things and we can “fail fast” if we find it doesn't fit our environment or if we need to invest more time and resources on potential technology that helps our staff and patrons.”

Learn more at www.nutanix.com

Partner

Arapahoe Library District focuses on empowering a literate, informed and fulfilled community. It is dedicated to being the best public library for the communities it serves by providing outstanding, personalized service to everyone seeking access to the world of information and ideas.

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