

VMware Cloud on AWS Helps New Jersey School District Ensure Continuity and Seamless Virtual Education



Executive Summary

VMware, an AWS Public Sector Partner, helps West Windsor-Plainsboro Regional School District deliver uninterrupted virtual education to its 10,000 students, save 50–75 percent on hardware replacement costs, and recover data in 10 minutes. The district deployed VMware Cloud on Amazon Web Services (AWS) to provide seamless access to critical learning applications for students and teachers.

Riding Out the Storm Using VMware Cloud on AWS

For more than a decade, New Jersey's [West Windsor-Plainsboro Regional School District](#) has supported the technology needs of 10,000 students in 10 schools.* The comprehensive public school district, which educates students in pre-K through twelfth grade in the West Windsor Township and Plainsboro Township region, relies on [VMware](#) virtualization software for server management and a VMware Horizon virtual desktop infrastructure (VDI) for students. VMware is an [AWS Advanced Technology Partner](#) and an [AWS Public Sector Partner](#).

To support critical learning applications and infrastructure during natural disasters such as hurricanes, the district chose to augment its data center environment by implementing [VMware Cloud on AWS](#) to extend its on-premises VMware vSphere environment. "We evaluated different cloud vendors, but AWS and VMware offered the best solution for moving our workloads quickly and seamlessly from on premises to the cloud, and back to the on-premises environment from the cloud," says Harry Doctor, technology manager for West Windsor-Plainsboro Regional School District. Doctor and his team moved data from desktops, print servers, file servers, application directory federation servers, and domain controllers to VMware Cloud on AWS.

The district immediately saw the safety of being on the cloud when strong storms hit the region. "We need to ensure a level of service to the district, and we were able to keep things up and running even through heavy, hurricane-like winds," says Doctor.

Ensuring Uninterrupted Education

Several months after deploying VMware Cloud on AWS, West Windsor-Plainsboro Regional School District faced a new challenge when the state governor closed all schools and issued a stay-at-home order for all residents. "Suddenly, the business model completely changed," Doctor says. "Instead of just providing disaster recovery, we needed to support virtual learning for all students and teachers right away."

To meet this challenge, the district suggested expanding the use of VMware Cloud on AWS beyond disaster recovery to make virtual resources available to all staff and students teaching and learning from home. The team moved 43 application servers to VMware Cloud on AWS over the course of two weeks, while continuing to run its VDI environment from the data center. By further extending its data center to AWS, the district freed up local infrastructure to host hundreds of additional virtual desktops for students.

Delivering Reliable Application Access to 10,000 Students

Using VMware Cloud on AWS, West Windsor-Plainsboro Regional School District ensures educational services can continue during a statewide school shutdown. As a result, the district can provide the same learning experience for teachers and students that they are used to, even while state schools remain closed. "High uptime is essential for our critical learning applications," says Doctor. "Teachers continued their instruction and students continued learning during weather events and the shutdown because none of our systems went down."

About VMware



VMware, based in Palo Alto, California, is a global provider of cloud computing and virtualization software and services. The company offers software-defined data center, hybrid cloud, and end-user computer products designed to support modernizing data centers, integrating public clouds, empowering digital workspaces, and transforming security.

Without implementing the solution, the district would have had to invest additional resources in its on-premises environment to facilitate the transition to virtual classrooms. Even after spending time and money purchasing more servers and storage, the district still might not have been able to support the resources staff and students required. Now the district can grow its IT infrastructure instantly.

Cutting Hardware Replacement Costs by 50–75%

By moving workloads to AWS, the district saves money by avoiding the need to buy and replace physical hardware. “We were averaging about three to four servers every three to four years,” says Doctor. “Instead of buying three to four servers, I can now buy one or two. As long as the CPUs are supported by the VMware ESXi version we are running, I might even be able to drop that down to just one every three to four years.”

Recovering Data in 10 Minutes

After implementing VMware Cloud on AWS, the district improved its overall resilience. Now, using VMware Site Recovery, Doctor and his team can quickly spin up a VMware environment on AWS and replicate data with a 10-minute recovery point objective.

Overall, West Windsor-Plainsboro Regional School District is better prepared to ensure application uptime and seamless education, regardless of storms or school closures. Previously, the district would have to ensure that its generators were working and then hope that applications remained available when a storm was expected. By using VMware Cloud on AWS, as long as firewall and internet connections are powered on, the district is now confident applications will stay up and running at all times. “We no longer have to factor in additional equations just to solve the problem of uptime,” Doctor says. “There is no downtime on VMware Cloud on AWS, and that gives us a lot of confidence for the future.”

*Information in this case study was used by permission from Forrester, “VMware Cloud on AWS Improves Organizational Preparedness and Reduces IT Operating Costs” (based on “The Total Economic Impact of VMware Cloud on AWS,” which was commissioned by VMware), May 2020. https://www.vmware.com/content/microsites/learn/en/332376_REG.html

About West Windsor-Plainsboro Regional School District

West Windsor-Plainsboro Regional School District serves the central New Jersey municipalities of West Windsor and Plainsboro—diverse suburban communities of about 42,000 residents. Approximately 10,000 students are motivated and inspired daily by the district’s faculty and staff.

