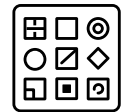**Scales more than 10x faster to keep classes going and resources available for remote learning**

Offers an easy-to-use virtual desktop experience for students and faculty

Strengthens disaster recovery capabilities for business continuity

Enables high performance and resiliency for critical applications

School District Keeps Learning Moving with VMware Cloud on AWS

At West Windsor-Plainsboro Regional School District (WW-P), a rich diversity of academic programs, alternative education options and extracurricular activities expand learning beyond classroom boundaries. VMware technology plays a key role: VMware Horizon virtual desktops help the district prepare students for 21st-century careers by giving them real-world experience with Adobe Creative Cloud, AutoCAD, Autodesk Maya and other powerful applications on any device.

When the governor of New Jersey closed schools and issued stay-at-home orders in response to COVID-19, the district needed to keep students learning and faculty productive. In response, WW-P immediately extended its data center to the public cloud using VMware Cloud on AWS, freeing up local infrastructure to host hundreds more virtual desktops. This quick pivot allowed learning and teaching to continue seamlessly, providing the same great experience for staff and students they have come to expect, even while New Jersey schools remain closed.

Enhancing learning and productivity with virtual desktops

WW-P has long been on the cutting edge of technology, using VMware vSphere to virtualize its data center and Horizon virtual desktops for remote learning. In addition, the district supports 1:1 computing with Chromebooks for every student in grades K–12, enhanced with Horizon to keep students engaged with a robust array of teaching and learning tools that would be difficult to access using Chromebooks alone.

Located midway between New York City and Philadelphia, West Windsor-Plainsboro Regional School District serves the central New Jersey municipalities of West Windsor and Plainsboro, diverse suburban communities of approximately 42,000 residents. Approximately 9,900 students are motivated and inspired daily by the district's faculty and staff.

INDUSTRY
Education (K–12)

HEADQUARTERS
West Windsor, New Jersey

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VMware HCX®
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"With VMware Horizon virtual desktops, we can give students, faculty and staff the same experience at home as they would have on site," says Harry Doctor, technology manager, West-Windsor Plainsboro Regional School District. "That allows us to provide the same high-performance learning experiences to every student while making the most of our budget."

Strengthening business continuity with hybrid cloud

Because virtual desktop availability and performance depend on the district's data center and server infrastructure, Doctor and his team wanted to provide resiliency for Horizon and critical applications. New Jersey has its share of storms and inclement weather, and the district wanted a way to keep virtual machines (VMs) available even if its local infrastructure went down. To strengthen disaster preparedness, it deployed VMware Cloud on AWS, seamlessly extending its on-premises vSphere environment to the AWS public cloud.

"It was important for us to be able to not only seamlessly move workloads to the cloud, but to also be able to use vMotion® to bring them back down to on premises without any application downtime," says Doctor. "VMware Cloud on AWS allows us to do live migrations with the VM powered on, and it's very easy for my team to do. There's very little learning curve as they're already comfortable with VMware solutions."

Moving workloads to the cloud without application downtime

When it was confirmed that New Jersey schools would remain closed for the rest of the 2020 school year, Doctor and his team shifted their strategy to support a massive increase in the number of concurrent virtual desktops needed for remote learning. Instead of using VMware Cloud on AWS as a disaster recovery platform as planned, they leveraged it as a new cloud-based data center, moving VMs to the cloud to free up local infrastructure to host more virtual desktops. Thanks to VMware Cloud on AWS, the district was able to immediately burst its infrastructure to support remote learning for nearly 10,000 students.

"VMware Cloud on AWS gave us a lot of flexibility when our schools suddenly closed, allowing us to respond more than 10 times faster to support the sudden increase in remote learning," says Doctor. "Deploying additional physical servers needed for the increased workloads would have taken at least eight weeks, and we would have lost the rest of the school year. Instead, we were able to keep learning and operations as close to business as usual as possible, even in the face of unprecedented challenges."

Even with spiking internet traffic and pressure on the world's broadband infrastructure, the district can avoid paying for an AWS Direct Connect connection by using VMware HCX to schedule migrations between on-premises and cloud environments during lower-traffic, overnight periods via VPN. The district leverages VMware HCX to extend the network, eliminating the need to reconfigure IPs when they migrate their workloads to and from the cloud.

"Sure, our internet connections are extra stressed right now," says Doctor. "Traffic is slow coming in and slow going out. But it doesn't matter how long it takes when you have VMware Cloud on AWS because there is no application downtime. Virtual machines stay powered on going in, and they stay powered on coming back out."

"VMware Cloud on AWS gave us a lot of flexibility when our schools suddenly closed, allowing us to respond much faster to support the sudden increase in remote learning."

HARRY DOCTOR
TECHNOLOGY MANAGER, WEST WINDSOR-PLAINSBORO REGIONAL SCHOOL DISTRICT

vmware®

Looking ahead

As the district heads into an uncertain future in which distance learning may be the norm for some time, it can scale easily with VMware Cloud on AWS—and scale back down again when the need subsides. It's also in a much better position to provide business continuity during the harsh weather events that often strike New Jersey.

"We will continue on our path of virtual and remote instruction with purpose and determination," says Doctor. "Thanks to VMware solutions and my very talented team, our students and teachers were able to finish out the school year strong."

Learn how @WWP_Schools kept students engaged with remote learning using #VMware and #VMConAWS.