



Digitalizing Citizen Services Across Clark County with VMware

Clark County, Nevada governs one of the US' largest counties, with jurisdiction over an area of 476 square miles including the Las Vegas Strip. Clark County provides services to more than 2.4 million citizens and 45 million visitors every year.

Industry

Public Sector

Strategic priorities

- Anywhere Workspace
- App Modernization
- Multi-Cloud
- VMware Security

Partner

Dell is an American technology company. It is committed to transforming businesses, shaping the future of innovation, and developing technologies to drive human progress.

VMware footprint

- VMware Workspace ONE®
- VMware Cloud™ on AWS
- VMware Horizon®
- VMware Carbon Black Cloud™
- Dell EMC VxRail
- VMware vSAN™
- VMware vRealize® Suite
- VMware NSX® Data Center

Clark County, Nevada, is not your usual government organization. It's pioneering more citizen-centric services, greater mobility for staff, and is becoming a go-to destination for visitors and businesses looking for a smarter city experience. The organization was one year into a three-year mobility plan with VMware and Dell when the COVID-19 pandemic hit, and thanks to this strong partnership it accelerated its laptop deployment over just a few weeks. Leveraging VMware Workspace ONE® on Dell laptops, employees across multiple departments pivoted to remote work, offering citizens better access to crucial services in the field, creating a new 'work from anywhere' culture. Staff enjoyed better access to workplace technology while ensuring no disruption to citizen services. Behind the scenes, a host of VMware solutions supports the county's wider service digitalization strategy, including a centralized citizen portal, virtual meetings, and more robust infrastructure. During the COVID-19 crisis, Clark County was able to handle more than double the number of cases to ensure vulnerable people survived the most devastating impact to the economy the county has ever faced. Strengthened by this experience, the organization can now implement more digital capabilities, further raising productivity.

Giving citizens an 'automagical' experience

Clark County is home to more than 2.4 million people. With its world-famous Las Vegas Strip and stunning national parks, the region attracts around 45 million visitors every year. The organization responsible for running citizen services employs around 10,000 people across 140 locations and 38 departments; to improve its services and act as a single agency, this sprawling organization is aligning multiple disparate services through digital transformation.



“We want to serve people more efficiently through the power of technology, from giving citizens a better experience on our website, to shaping our services around their needs, and improving digital engagement,” says Nadia Hansen, CIO. “My vision is for an ‘automagical’ experience, where accessing services is so simple it seems like magic to the citizen. To achieve that, we needed to accelerate our cloud strategy, increase automation, and virtualize more of our infrastructure.”

Moving to a digital-first operating model will also help the county to achieve its sustainability targets; replacing in-person with virtual meetings and eliminating paper printouts will help reduce its carbon footprint.

Turning a crisis into a catalyst for change

The organization launched its mobility strategy in 2019 with a three-year plan to equip field staff with laptops and tablets to help them work better during citizen visits or at remote park locations. “At first people were suspicious of cloud and concerned about security; there wasn’t a huge appetite for remote working. Citizens expected to come in and see people behind a desk,” explains Martin Bennett, Technical Services Manager. “But although the team didn’t realize it, there was a huge opportunity to make their life easier with mobile devices.”

Operating without mobile devices meant staff could not take digital notes, make photographic documentation, print forms, or update records from the field, requiring repeat trips to the office and wasted time driving to meetings.

To create a better experience for residents across a broad range of ages and needs, the county wanted to provide seamless omnichannel services, enabling people to visit in person or online, depending on preference. But Clark County’s website had aged and was difficult to navigate, requiring up to 18 separate logins to access its entire range of services.

“When the COVID-19 pandemic hit, we were forced to adopt remote working very rapidly, and the reluctance to embrace cloud disappeared. People were more concerned with being able to do their jobs and ensuring there was no disruption to citizen services,” Bennett adds. “For that reason, it was important to procure user-friendly devices so people could upskill quickly and easily.”

Ensuring staff safety during COVID-19 yielded benefits for county residents, too. Pivoting to remote meetings and virtual hearings enabled families challenged by inflexible work schedules or transportation issues to attend sessions remotely.

To conduct lessons in virtual classrooms, the education department needed to equip children with devices and ensure adequate broadband access, while also making staff available to address reports of truancy.

When homelessness and requests for rent support more than doubled, the team needed to be able to collaborate seamlessly with third parties, like homeless charities, to provide wraparound services. But efforts were also directed to citizen wellbeing, too, and the parks and recreation department responded with entertaining virtual activities and classes to maintain a sense of community, even installing Wi-Fi in nearly 80 percent of its parks.

“Accelerating our roadmap meant we needed to simplify bureaucracy to get people access to secure services fast, but we also needed to balance budget constraints, procurement guidelines, and compliance regulations,” says John Parker, Senior Systems Programmer.

“We had really positive feedback after the rollout because with VMware, everything simply worked.”

Martin Bennett, Technical Services Manager, Clark County



Embracing mobile to work from anywhere

To accelerate its mobility strategy, Clark County turned to its long-term partners, VMware and Dell. “We really value our trusted partnership with VMware; when we’re faced with a challenge the team helps us design a solution, which goes far beyond a simple vendor relationship,” says Hansen. “VMware also works really well with Dell technology, which we use extensively across our estate.”

In the early stages of the implementation Clark County standardized and streamlined its infrastructure to reduce operational complexity and automate processes. This more robust and reliable environment was crucial to supporting virtual schooling and other bandwidth-intensive operations across various departments.

The county was already using VMware NSX® Data Center to enable software-defined networking, and VMware Carbon Black Cloud™ to provide intrinsic security and an enhanced antivirus solution. Infrastructure was standardized on Dell EMC VxRail HCI P570 with VMware vSAN™ storage. VMware vRealize® Suite provides greater visibility into utilization and resource consumption and automates features to accelerate deployment.

Using vMotion enables the county to fundamentally change the way it delivers IT services. Parker’s team can carry out maintenance in the middle of the day without impacting other systems or causing an outage; and backup and restores for virtual machines are much faster. “My team used to be on call 24/7, but now we have a much more stable and reliable environment. We can work normal office hours, which has had a huge impact on our work-life balance,” Parker says.

Around 95 percent of the county’s applications and servers are hosted on the VMware vSAN hypervisor and VxRail, including a mix of Linux and Windows servers.

“The VMware solutions make maintenance and admin much simpler, and the integration within Dell VxRail means we have one interface for all hardware and software tasks,” says Parker.

With a more virtualized environment, spinning up servers and services is much faster, and virtual machines can be deployed in around 20 minutes to support new applications. “With VMware we can optimize resource allocation. Each virtual machine has its own CPU and memory, which helps us provide more seamless services—and we’ve got 1,500 virtual services,” Parker adds.

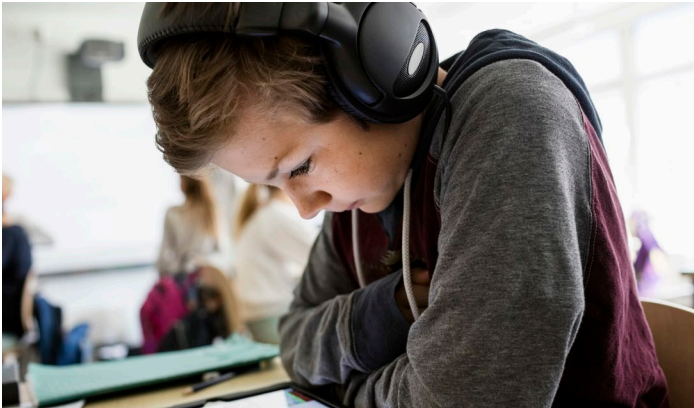
As part of its public cloud strategy, the organization has begun using VMware Cloud™ on AWS, which helps reduce the cost of running legacy applications and optimizes network and storage costs through greater transparency of resource consumption.

To mobilize the workforce, Dell added 1,000 extra laptops to the county’s 10,000; using VMware Workspace ONE and VMware Horizon® to image the devices and manage apps and data, county staff had everything they needed to work securely from home or the field. And the solution enables the IT team to protect sensitive data by remotely wiping devices when employees leave the organization.

VMware Professional Services provided design, installation and deployment guidance, including a dedicated Technical Account Manager responsible for ongoing support.

“The VMware solutions make maintenance and admin much simpler, and the integration within Dell VxRail means we have one interface for all hardware and software tasks.”

John Parker, Senior Systems Programmer, Clark County



Safeguarding service availability and unlocking greater efficiency

In addition to rolling out new devices, the infrastructure team needed to increase network bandwidth and testing, providing a VPN and direct access for devices. “We had really positive feedback after the rollout because with VMware, everything simply worked,” says Bennett. “We pivoted quickly and seamlessly to get our users up and running and offered them training to help them adapt to home working.”

The rollout was game changing. For departments across the organization, office staff could work seamlessly from home with new laptops, headsets and docking stations, with access to the right apps and data for their job role and security level. Field workers were able to plan visits to make the most of their time, updating records and creating photo documentation on the go.

Less time on administrative tasks allows staff to spend more time with residents, focusing on higher-value tasks with greater impact on the people they serve—key to helping the county demonstrate accountability to taxpayers.

Switching meetings from in person to virtual helped align multiple stakeholders to accelerate decision making. “For services such as child welfare, making those decisions faster can have a really big impact on safety if we need to intervene and take a child into care,” says Tim Burch, Director of Human Services.

Mobile devices help keep staff safe, with GPS tracking capabilities monitoring staff on their rounds. “As well as tracking devices, we can arrange virtual check-ins between frontline staff and their supervisors, which is really important when staff are exposed to traumatic situations,” adds Burch.

“You can’t always tell if someone’s okay in an email, but being able to see them over Microsoft Teams makes a huge difference to being able to offer them the right level of support.”

And with more comprehensive data captured and less duplicate entry, the county plans to use predictive analytics to make sure services are as effective and person-centric as possible. As Eboni Washington, Assistant Director for Juvenile Justice Services, explains, “When a young person enters the justice system, we can look at historical data and the details of their case to make better predictions about what interventions will be needed to get the best possible outcome for that individual. It could mean preventing someone from ending up in a detention center.”

In addition to the positive impact on its people, Clark County’s transformation is helping it meet sustainability initiatives; the county has reduced paper consumption by 75 percent and has cut vehicle emissions by eliminating the need to attend meetings in person.

Looking ahead

Continuing its mobility strategy gives Clark County workers greater flexibility to work from home, on-site, or in a mix of the two. The organization plans to expand its public cloud offering to enhance remote capabilities, further optimizing costs. The team is eager to use predictive analytics to get smarter about optimizing citizen services and plans to tap VMware solutions for identity management and expanded virtualization.

“The collaboration between VMware and Dell is the best vendor partnership we’ve ever experienced,” says Hansen, “and we wouldn’t have been able to adapt and thrive during this difficult time without them.”

“For services such as child welfare, making those decisions faster can have a really big impact on safety if we need to intervene and take a child into care.”

Tim Burch, Director of Human Services, Clark County
