

# HOW LAS VEGAS CREATED AN INFRASTRUCTURE FOR THE FUTURE

Las Vegas attracts nearly \$60 billion in tourist dollars each year. To keep those dollars rolling in, city leaders must ensure infrastructure functions well. To appeal to new businesses and residents, they must also prove they are innovative.

A few years ago, city IT leaders realized their complex, dated IT infrastructure was holding them back. The city used numerous systems from nearly every large IT vendor, and almost 80 percent of its IT budget was spent maintaining those legacy environments. The city struggled to respond to citizens efficiently and effectively, enhance worker satisfaction and productivity, and compete with other municipalities.

“In no other time in history have cities competed with one another for businesses, for citizens, for everything like they do today,” says Michael Sherwood, director of Innovation and Technology for the city of Las Vegas. “Everything is about time-to-market. Staying competitive means having the right data to produce proposals and handle citizen requests. All those things take time, which was something we didn’t have.”

In March 2016, the Las Vegas City Council created an Innovation District. “The goal was to test new technologies to see how they might help us revitalize parts of the city, improve communications and mobility, increase public safety and create a better community overall,” says

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Sherwood. “We were looking for new approaches to some of the age-old problems cities face.”

City leaders quickly realized they needed to move away from hardware-dependent systems and adopt a more agile IT infrastructure. All signs pointed to cloud as a tool to modernize, streamline, reduce costs and innovate.

Las Vegas looked to Oracle and partner Arisant for help. Oracle and Arisant proposed migrating the city to Oracle Cloud at Customer — essentially placing a piece of Oracle’s public cloud inside the city’s data center. Doing so would give the city all the advantages of public cloud, in an on-premises model.

The city began migrating to the cloud in 2017, starting with its business suite, including payroll, human resources and purchasing systems. Working with Oracle, Las Vegas is using a lift-and-shift strategy, keeping some systems on-premises while gradually rolling other systems to Oracle’s managed platform in the cloud.

“We are not a hardware maintenance company,” says Sherwood. “We wanted to move away from things we aren’t good at, to shift that load to experts so the labor we have can be reallocated to more value-add tasks.”

The city’s goal is to eventually move roughly 50 percent of its systems from a physical environment to the cloud.



### DATA, TALENT AND ANALYTICS

It’s still early in the migration, but city IT developers have already drastically reduced the time it takes to build and test new IT environments. And because core functions like backups, failovers, patching and security are now automated, city staff have more time to work on higher-value tasks. Rather than manage hardware, staff use cloud and data analytics to help the city maximize efficiency.

“I’m able to put workers in new areas where they are mining data, producing reports and training on software modules rather than worrying about disk utilization and upgrades,” says Sherwood. “It allows me to focus my resources on things that can help the city grow, attract new business, increase safety and improve citizen services.”

The city recently developed a mobile app called Go Vegas that allows residents to take pictures of potholes, graffiti and other city blights and upload those photos directly to city personnel, who can then quickly address those issues.

“That’s something we wouldn’t have been able to build and implement if we were still managing all the legacy

components of our previous environment,” says Sherwood. “It’s a huge opportunity to improve citizen service. It’s also a way to promote economic growth and development because it highlights how Vegas is different.”

Sherwood says the changes are also providing his IT staff with opportunities for growth and advancement, while leveraging the Oracle cloud platform has helped the city attract and retain new IT talent.

“By doing things that are new and revolutionary, we’re creating a buzz,” says Sherwood. “The word is out that the city is on the right path with technology.”

Cloud also enables the city to leverage data and analytics. Using a combination of cloud, Oracle BI and Internet of Things (IoT) sensors to monitor traffic flow, air quality, trash collection and more, the city can better manage operations, analyze data in real time and make faster business decisions.



### THE VALUE OF GOOD PARTNERS

Modernization is important for Las Vegas, but the city is also wary of risk. “Las Vegas is known for gambling, but our strategic technology plan is not something we want to gamble with,” says Sherwood.

Sherwood says the city’s strategic partnership with Oracle and Arisant was key to minimizing risk. “As a government agency, we always have concerns about storing citizen’s personal data. The Oracle solution enables us to store data locally as well as leverage the benefits of cloud,” says Sherwood.

Moving away from physical hardware to the cloud will also help the city better prepare for the future. “With new technologies and things like autonomous vehicles on the horizon, we need to be agile,” says Sherwood. “We also need access to data that will help us understand our community and what our citizens need so we can meet future challenges.”

The cost savings are also already significant. The city went from spending \$1.4 million a year on IT maintenance and hardware, network storage and staff to a much smaller spend and a higher value-per-dollar.

“By continuing to put money into hardware, we were putting huge resources into things that weren’t helping the city succeed,” says Sherwood. “Freeing ourselves from legacy infrastructure is allowing us to spend more time on things that make a difference for the community. It’s the future of our city. If we don’t have that cloud advantage, we’re going to be behind.”



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