

Transforming state government IT



Customer profile



“Two Dell products in particular have been key in helping us withstand cyber attacks globally: PowerProtect Cyber Recovery and PowerProtect DD.”

Steven Harpe

Chief Operating Officer,
State of Oklahoma

Business needs

For the State of Oklahoma, the unique circumstances of 2020 made IT transformation a must. Partnering with Dell, they moved 2.6PB of data and tens of thousands of databases to a remote data center to modernize disaster recovery. Updating their processes and digitizing services, they estimate they've moved their information services forward by 20 years.

Business results

- Modernized disaster recovery by moving 2.6PB of data and 10,000+ databases to a remote data center
- Eliminates IT silos and enables innovation
- Safeguards against cyber attacks

Solutions at a glance

- [Dell EMC PowerProtect DD series appliances](#)
- [Dell EMC PowerProtect Cyber Recovery](#)
- [Dell EMC PowerFlex storage](#)
- **Partner:** [NTT DATA](#)

State governments are among the largest, and certainly most critical, service organizations in the country. Like any service organization in the Data Era, they're facing both the opportunities and challenges of digital transformation. As institutions with long traditions and processes dating back to the 20th, 19th and in some cases the 18th century, how do states cope with 21st century expectations for timely, digitally delivered services? How do they safeguard against 21st century threats such as cyber attacks? And how do they deal with the realities of 21st century budgets?

The State of Oklahoma has embarked on a digital transformation journey that provides some answers. Recently, under direction of their governor, the state modernized their IT processes and infrastructure, choosing Dell EMC PowerProtect DD series appliances, PowerProtect Cyber Recovery and PowerFlex software-defined storage.

With a businesslike approach and a solid partnership with Dell Technologies, Oklahoma has moved their information services forward by 20 years in just a little over a year's time.

To find out how they did it, our Dell Technologies team spoke with Governor Kevin Stitt and with Steven Harpe, Chief Operating Officer, State of Oklahoma. Here's their story.

Governor Kevin Stitt: I know what technology does to deliver better services

"Obviously, Oklahoma to me is the best state in the country. It's just a wonderful place to visit, grow up in, do business in, vacation in. We love it here. Coming from the private sector, I was in the financial services, the banking mortgage industry, and I know what technology does to deliver better services to consumers. I look at being the governor as being the chief executive running a big service organization.

"In the private sector, in my company, we did business in 40 states, and as I traveled other states, I knew that we weren't performing as well as we should in the State of Oklahoma. I ran for governor to help us be a top 10 state. We all want the same things: the best roads and bridges, the best healthcare, education, the best economy. And to achieve that, I knew that we needed better technology.



"Technology plays an important role in connecting the four million people in Oklahoma and making it easy for them to consume our services."

Kevin Stitt

Governor, State of Oklahoma



“PowerProtect Data Manager enables us to take a very diverse environment and be able to use a single platform to help us protect our data.”

Steven Harpe

Chief Operating Officer,
State of Oklahoma

“I brought a lot of folks in from the private sector. We’ve got great partnerships with different industries and we want to be the smartest state in the country. We want to be the most technology savvy state. We want to deliver services to our consumers, through technology, through their cell phones.

“When I looked at it, no governor in state history had included a digital transformation secretary in their cabinet. I saw how siloed everything was across state government and I thought transformation was important. I wanted one secretary that focused on that transformation. So, I brought in Steve Harpe, who’d worked with me in the private sector. Steve is also the Executive Director of the Office of Management and Enterprise Services for the State of Oklahoma.”

Steven Harpe: We needed to radically change how people consume state services

“When I got that call from the governor, one of the largest challenges was that we simply weren’t providing the services. I mean, straight up, we were challenged in every way. The service desk, the hardware delivery – it would take on average more

than 90 days to get equipment in. And it wasn’t because of the providers. It was mainly because of our own internal processes. We weren’t measuring the right things in terms of our data center.

“The number one thing as we host all these systems for the state is that we have to have great availability. We have to be reliable. We have to make sure that we’re performing services at a high level, but that wasn’t being driven home. We needed to radically change how people consume services from the State of Oklahoma. Up until our effort, it had been 10, 20 years of just not being innovative in how we looked at customer journeys.”

Governor Stitt: Now we can be proactive and get a handle on costs

“Really, it was a pretty low bar when we got here to upgrade and to bring in better technology. I’ll give you one example, in the tourism department. When I got here, when you rented campsites, literally there was a box on the tree where people put in cash, which wasn’t efficient. It was just small things like that, where the State had forever ignored technology that was used in the private sector to get a handle on costs and improve revenue. With campsite reservations now managed online, we can ask people if they want to rent their spot next year. Now we can be proactive.”

Steven Harpe: We’ve changed from using just anyone for IT to focusing on enterprise partners

“When I moved into this role, OMES was probably the governor’s number one target to get things fixed.

“In 2020, Oklahoma obviously was dealing with unprecedented change. We’d also had an energy crisis and an unemployment crisis. Oklahoma was dealing with so many things, back to back to back, that we needed someone we could rely on. I went to Jerry Moore, our CIO, to have him help me figure out who the right partner was. Jerry and his engineering team quickly figured out that Dell was someone we could trust to meet our timelines.

“I tasked Jerry and his team with modernizing our processes so that we could digitize things. As challenging as 2020 was, I have to say that it brought us the opportunity to ramp up and move the state forward by literally 20 years in terms of the projects we

were able to do. We changed our stance from just using anyone for IT to really focusing on enterprise partners – which makes sense, because we're a \$22.9 billion entity, the size of a Fortune 100 company if you want to think of it that way.

“So, we've built our new Office of Management and Enterprise Services – OMES. It's all driven around customer service. It's all driven around digital experiences, journey mapping, making sure that the citizen experience is our gold standard. And from there we build technology and bring in the right platforms and services to make that magic happen; whereas in the past, a lot of the agencies would actually operate in silos, so you would have different experiences. You'd have technologies that wouldn't talk to each other.

“Dell also is a partner that we can count on around the clock, which is super important to me, because it's not just about reliability. It's about when you call, when you have a problem and issue that you've got a partner that you know is going to be there. State services can't afford to be down. In the end, I'm oversimplifying the process, but the truth is it got us to the right place. We just had to elevate the right people into the right positions. And that got us into making better technology decisions.”

Governor Stitt: By partnering with Dell we're unleashing our team to innovate

“I'll leave it up to the experts, but I've toured Dell's facility and I'm excited about the partnership that we have with Dell. When we order hardware, computers for our state employees, I know that Dell behind the scenes is drop shipping those directly to where they need to go. Everything preloaded, all the software that we need, the capabilities that we were used to in the private sector. Sometimes government does things backwards. By partnering with Dell, we're unleashing our team to innovate and use best practices and learn from folks that know how to do things effectively. We want to be the smartest state in the country.”

Steven Harpe: Manually intensive disaster recovery for 2.6 petabytes is a scary proposition

“I had an exercise, I sat with 28 engineers, passed out a piece of paper to each of them, they had to write it down on their own, and tell me how long it would take us to get our systems up if we lost



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Steven Harpe

Chief Operating Officer,
State of Oklahoma

our primary data center. And it was everything from days, weeks, to years, to “never” – I actually got “never” from a couple of them. That's a scary proposition.

“We realized we needed to be able to protect and restore Oklahoma information in the case of a disaster. And our previous mechanism for doing that probably wouldn't work and even if it did, it would be very manually intensive. We really had to do some deep dive in. And part of that was understanding the information, the more than 2.6 petabytes of information that we needed to move. It's all over the place. We have 189 agencies, affiliates and municipalities that we support at OMES. That's public safety information, DHS information, ODOT. If you name an agency in Oklahoma, we are the ones providing that backbone in those databases. We literally would be facing a shutdown of state government and the services they provide if we weren't able to do it.

“And then on top of that, you look at the different layers of the information, right? We had every product known to man in terms of database types. All the midrange systems that we moved,



“In five years I want us to be digitally first. I think that’s realistic. We’ve got tons of partners in the state agencies that share that vision.”

Steven Harpe

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Steven Harpe: We came to Dell with a big ask. Now we have a top-tier secondary data center.

“We came to Dell with a big ask and a big need. And they were able to go to one of their partners, NTT DATA, that has a data center in Texas, and get us married so that Dell could provide a platform that we would build all these services on. We could actually physically put in all this equipment and make sure that our citizen data is protected, that we don’t have to worry about weather and power outages. And it’s engineered the right way. NTT DATA in partnership with Dell Technologies has provided a top-tier data center for us to put our disaster recovery in.

“Using Dell EMC storage and data protection as a solution in both our primary, and now secondary, data center in Texas enables us to recognize a disaster and within hours be up and functional and running.”

Steven Harpe: We’ve withstood 3.8 trillion cyber attacks. Dell EMC data protection has been key.

“Even since January of this year, Oklahoma has fought off more than 3.8 trillion cyber attacks. And we see them from all over the place. You’d think it’s mainly global, it’s not. We’ve had them coming in from Florida. We’ve had all types, not just the standard like DDoS, we’ve had defacement, all kinds of things. We needed to keep our backups more secure. And Dell has been a big partner in that space.

“We have a robust suite of products in our Dell solution, but two Dell products in particular have been key in helping us withstand cyber attacks globally: PowerProtect Cyber Recovery and PowerProtect DD series appliances.

“Overall, we wanted to settle on some core technologies. We worked with Dell to implement some of those. PowerProtect Data Manager enables us to take a very diverse environment, specifically around systems and databases, and be able to use a single platform to help us protect our data. Cyber Recovery gives us peace of mind that we’re able to recover from attacks. It’s a layered approach that has absolutely been key.”

over 6,000 systems and almost 9,000 databases, were incredibly diverse. Our Dell solution was able to help us do that and do it seamlessly. It literally lets me sleep at night now, because our number-one function in the State outside of providing services is protecting that information. But also making sure that we can bring it back to life in the fact that we have an issue.”

Governor Stitt: Sometimes government should rely on the experts in the private sector

“The stories I heard from the folks that were behind the scenes was that if we had crashes there was no way to recover the data. The backup systems, nothing was on the cloud. We were in the hardware business, trying to build out different disaster centers across the state. Sometimes the government tries to get into things that are better left to private-sector experts.”

Steven Harpe: We want to be the smart state leading the nation

“In five years, it sounds like a long time, but it really isn’t, I want Oklahoma to be completely modernized. I want us to be digitally first. I want us to do business out of our palms, out of our hands, out of our iPads. I think that’s realistic. We’ve got tons of partners in the state agencies that share that vision.

“We want a citizen to be able to consume services, see what those services are regardless of the agency, and also be able to transact financially with the state in a way that most people do with their banks today. We’re a cloud-based organization. That’s where we’re heading.

“Here at Oklahoma, we want to be the smart state leading the nation. We want to set the gold standard. We want for people

across the nation to come to us and see what we’ve done. With the help of Dell, we’ve moved thousands of systems, tens of thousands of databases and 2.6 petabytes of data, and we did it in five and half months.”

Governor Stitt: Get the right people, trust them to move the needle

“My hope for the future is that Oklahoma continues to lead the way in everything that we do to become a top 10 state. Technology plays an important role in connecting the four million people in Oklahoma and making it easy for them to consume our services. If you look at being a state governor as the job of a CEO, it’s pretty simple. You get the right people and then trust them to go and move the needle.”

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