



SOLUTIONS AT A GLANCE

Organization: City of Avondale, AZ

Industry: Local Government

Challenge: To effectively address the City's aging data storage, server replacements, and power infrastructure. Upgrades were necessary to increase performance, scalability and back-up. Avondale's storage space was running low and their electrical system was being tapped at 96-98% of available power. The city explored multiple Storage Area Network solutions. Previous ones had seriously degraded performance as their disk space neared 50% capacity. They also wanted to address longer-term virtual desktops (VDI), expansion, and disaster recovery goals.

Solution: As Insight's team assessed the City's storage situation, they answered Avondale's power, computing and performance issues. The City had acquired a Cisco Unified Computing System with a single B200 unit, purchased the previous year. Insight proposed a FlexPod solution to integrate the equipment, streamline their computing and storage systems and increase speed and efficiency across Avondale's IT environment.

Results: De-duplication and thin provisioning have allowed Avondale to reduce used storage space by 40%. The FlexPod installation has eliminated the need for certain SAN solutions, which will save the City about \$30,000 per year in maintenance fees. The new architecture has positioned the City for a move to a virtual desktop infrastructure in 2013. Overall power draw has been reduced by more than 50%.

SOLUTIONS TO POWER A CITY ON THE RISE

Case Study

Cities are living entities, right? They don't just "stop," do they?

As officials from Avondale, Arizona looked at their city's aging data storage system, they had to contemplate what could happen. Almost all of the City's functions—public works, utilities, finance, human resources, city engineering and public safety—rely heavily on IT. Chief Information Officer Rob Lloyd said Avondale's aging UPS system was drawing too heavily on its power capacity. "According to the electricians, our electrical system was being tapped at 96 to 98 percent of available power and we needed to respond to new needs."

Avondale, a city of more than 76,000, sits on the west side of metropolitan Phoenix – one of the most rapidly-expanding areas of the country. Civic leaders were progressively-minded; Avondale had already won national honors for technology innovation in city government. Lloyd said City officials knew Avondale's infrastructure had to address both current and future needs. "In [City] government, you must design things for a five- to 10-year horizon, but conservatively enough to make it practical on the budgeting side."

That's why they called Insight.

TACKLING AN IT TANGLE

Avondale had already been an Insight client. "We had worked with them before, on their networking and peripheral issues," Insight Sales Specialist Tony Monroe recalled. "But this was our first collaboration on a storage solution." It turned out to be a challenge—precisely because it wasn't just a storage solution. "Avondale did need terabytes of storage," Insight Account Executive John Briggs explained. "But they planned to address other issues, as well."

Those issues included: the extreme power draw the existing systems required; a confusing array of different Storage Area Network (SAN) systems; and technical issues in some of those SANs, which increasingly degraded performance with use. "Avondale's power had to be updated for the new system," Briggs said. "And they decided on Cisco UCS (Unified Computing System) after assessing their needs, options, and costs."

A complicated and contradictory tangle of systems isn't unusual when IT departments are trying to keep pace with rapid growth. "We're usually solving a myriad of problems, because organizations are facing multiple business challenges," Monroe explained. "They want to refresh what they have, they want to embrace emerging technologies; at the same time, they need to drive down capital or operating expenditures and have better business agility to support their work in the field." When Insight started, Avondale was already starting to look beyond a single-vendor, short-term solution. They wanted to re-architect to their needs, including capacity to support VDI in the future minus a large additional capital expense. Monroe and Briggs both recognized that a lasting solution for Avondale meant addressing their current problems but also creating a unified vision going forward. Monroe suggested the FlexPod.



The NetApp FlexPod Data Center Solution offered both the functionality and the versatility that Avondale required. It could accommodate the City's needs while still embracing the heterogeneous make-up of their existing IT environment. But NetApp's FlexPod would also streamline their challenges across their computer, network and storage environments. "The FlexPod solution involved getting multiple pieces to fit together and work in unison," Briggs explained. "Network and storage are not going to be separate anymore. You're bringing it all through the Data Center. One of the big virtues of FlexPod is its one-call service. If something goes down, you can call a single, premium support number and get it fixed. That had tremendous appeal to Avondale after their experiences getting caught between vendors."

SINGLE FOCUS, TEAM WIN

Insight and NetApp representatives met with Avondale officials to pitch the FlexPod concept. The City liked the design—especially FlexPod's ability to simultaneously address computer, network and storage issues. Once the plan was approved, an intricate implementation process began. "We went in and there was a lot of complexity to work out—and a lot of variable worksheets," Briggs said. "Insight worked with NetApp to get good pricing and the right configuration. We got a Cisco configuration off their UCS."

Working with an organization as large as a city requires strong cooperation in design meetings and a steady, disciplined approach throughout procurement and implementation. "We had a good number of meetings to hit the performance specifications and cost limits we had defined." Mark Neerings, the City's Assistant CIO, explained. Since outages would affect Avondale's basic services, Insight also worked with the City to manage installation and parts deliveries and coordinate the electrical work to minimize outages. "A key element was that all the partners were in the loop and dedicated to project success," Neerings said.

Insight helped create a true team solution: NetApp supplied the FlexPod. Eaton updated the power supply. And the City implemented the FlexPod solution. "We were using VMware storage servers and Nexus components—which are top of the line for speed." Briggs said. "This is one of the biggest FlexPods ever closed."

Over in Avondale, they're reaping the benefits. "Migrations are ongoing," Neerings said. "We are eliminating our other SAN solutions in favor of our NetApp-Cisco UCS-VMware Vsphere FlexPod solution." The City's cost savings will approach \$30,000 a year, while also resolving the old performance issues. And the new system's data de-duplication and thin provisioning abilities have freed up 40% percent more storage space. "This kind of streamlined system is where the technology is headed," Briggs said. The simplified structure has given Avondale the ability to improve their disaster recovery program. And the FlexPod's new FastCache architecture has positioned them for a move to virtual desktops—a technology they'll explore on a pilot program this winter.

And the power draw? "That has dropped," Lloyd reported, "from 96% down to 45% of available power. And we are looking forward to our Virtual Desktops initiative."

"I think this worked out well for everybody," Briggs said. "An incredible win."

INSIGHT – A WORLD OF TECHNOLOGY RESOURCES

- Global provider of information technology (IT) hardware, software and service solutions to business and public sector organizations
- \$5.3 billion in revenue in 2011
- 5,300 teammates worldwide
- Operations in 23 countries, serving clients in 191 countries worldwide
- 2,300+ product and industry certifications
- Global software reseller with extensive License Management Services
- Software lifecycle support for 80 percent of global Fortune 500
- Number 471 on the 2011 Fortune 500

