

TAPPING INTO VIRTUALIZATION:

HOW CORDICATE IT HELPS AQUA
AMERICA USE TECHNOLOGY TO KEEP
BUSINESS OPERATIONS FLOWING

 AQUA™





[THE PROJECT AT A GLANCE]

Client: Aqua America

The Challenge: Physical server and storage sprawl and overall under-utilization of physical resources

The Solution:

EMC CX3-40C SAN

Dell PowerEdge Blade System

VMware ESX VirtualCenter

The Results:

- Reduced physical footprint from more than 200 square feet to one rack
- Reduced power consumption by nearly 20 percent
- Reduced hardware costs by over 800k over a three year period
- Reduce provisioning time from 2-3 weeks to minutes
- Reduced time for Disaster Recovery system restore from 3 days to 4 hours

From humble beginnings as a local water supplier in Pennsylvania nearly 125 years ago, Aqua America has grown into one of the nation's most respected utilities, providing water and wastewater services to approximately 3 million people in 13 states. The firm has built its business and its reputation on the principles of quality, consistency and integrity.

Those characteristics are readily apparent throughout every aspect of Aqua's business and the information technology group is no different. The team is always looking to improve the efficiency and effectiveness of its systems in an effort to serve the Aqua operations team better. Most recently that meant a huge consolidation initiative, where the firm virtualized nearly 70 percent of its physical servers.

Business Growth and Server Sprawl

The rapid business growth Aqua has experienced required the IT group to adjust on the fly, continually adding new physical servers and storage to simply keep up. But as the servers piled up, so did the energy consumption, the maintenance and support costs, and the time to back up the systems, just to name a few.

Recognizing the need to consolidate, the Aqua team made the strategic decision to move to a virtual server environment. Once the decision was made, Aqua turned to its longstanding partner Cordicate IT to recommend the right solution to meet the firm's business needs and budget constraints.

Staying on the Cutting Edge

"We've relied on Cordicate through the years to keep us on the leading edge with the latest technologies," said Jeff Walworth, Aqua America's Manager of Information Systems. "They do a real nice job of not just trying to sell us products but of hearing our needs and our constraints and coming up with something that works for us."

In this case that something was an EMC Storage Area Network (SAN) with a VMware ESX Virtual Center. That was the solution that best fit Aqua's need to virtualize some 80 physical servers down to only 10 relatively quickly, with little to no system interruption and within the firm's budget guidelines.

On-Time, On-Budget as Usual

In order to eliminate the need to manage two environments simultaneously Aqua and Cordicate planned to implement the consolidation over a 90-day period. The plan worked to perfection.

"The transition took three months as planned and cost exactly what Cordicate told us it would," said Walworth. "We're used to that. Over the course of our five plus year relationship, the words on-time and on-budget have become the norm."

Beyond its timeliness, the consolidation was by all accounts a seamless transition that delivered new functionality with zero business interruption.

"We would virtualize servers and people wouldn't even know," said Lisa Nichols, Network Manager. "There was absolutely no negative impact to the business. When we considered this project I didn't think it would be hard but I didn't think it would go as smoothly as it did. That's a tribute to Cordicate, to our team and the tremendous partnership we have."

The Tangible Results of Virtualization

The process was smooth, but the true measure of any project is the results. The results of this initiative were textbook.

By going from 80 physical servers to just 10, Aqua:

- o Reduced physical footprint from more than 200 square feet to one rack
- o Reduced power consumption by nearly 20 percent
- o Reduced hardware cost by \$800K over a three year period
- o Reduce provisioning time from 2-3 weeks to minutes
- o Reduced time for Disaster Recovery system restore from 3 days to 4 hours

An A+ for DR

Of all the functionality provided by the virtualization, the new efficiencies in the disaster recovery system were seen as the most impressive and integral to the Aqua team.

After implementing the server virtualization Aqua performed a full-scale disaster recovery rehearsal. The results were dramatic. The time to implement a full system recovery was reduced from nearly three days to less than 4 hours.

"You can't put a dollar value on the capability this gives us from a disaster recovery and business continuity standpoint," said Walworth. "It keeps the business running and I don't know how you put a price tag on that. You read about it, you hear about it, but when you actually see it in the real world, it's shocking."

One thing that didn't come as a shock to Aqua was the manner in which Cordicate approached the project and the results it delivered.

"They always work with us as a partner to provide smart solutions that work for Aqua," said Walworth. "They know us, they know our infrastructure and we know they've got our best interests in mind. That's why we've worked with them for so long."

In the end that's why the partnership has been so successful in keeping Aqua America's technology operating at peak performance and its business operations flowing — like water.

The transition took three months as planned and cost exactly what Cordicate told us it would.

– Jeff Walworth,
Manager of Information Systems,
Aqua America

Technology Flow – The Cordicate IT, Aqua America Partnership

