

SUCCESS STORY

MIGRATING FROM NOVELL TO MICROSOFT ACTIVE DIRECTORY Future Proofs Gaston County Schools Network



What Data Networks did for Gaston County Public Schools

- Performed an Active Directory and network health assessment
- Developed a Novell to AD migration strategy and implementation plan
- Implemented and integrated district level Active Directory
- Migrated Hyper-V servers to VMware ESXi cluster
- Performed site level migration pilot (4 schools) and migration production (60 sites)
- Consolidated file servers to district data center
- Detailed validation and testing to ensure acceptable performance

Abstract

This Novell to Microsoft AD migration strategy and implementation plan helped future proof this school district's network and data center.

The challenge

Located in the Piedmont region of Central North Carolina, Gaston County Schools is the 9th largest school district in the state. With 56 schools serving an enrollment of approximately 32,000 students, one of the schools district's goals is to provide each school with up-to-date technology to support teaching and learning to meet the unique needs of every student.

Gaston County Schools had already made the strategic decision to migrate from their Novell environment to Microsoft Active Directory, when they contacted Data Networks. But they still faced a number of challenges. Support ending for Windows XP created an urgency to have the Novell to AD migration completed quickly - prior to the planned upgrade from XP to Windows 7 - to prevent sacrificing end user productivity. They also needed to consolidate and centralize their Microsoft Server 2012 domain controllers, file servers, print servers, and DHCP in the central data center, all of which were currently being delivered locally. Most challenging, however, was the district IT staff's relative unfamiliarity with Microsoft technologies as most had been working primarily in Novell environments to this point.

The solution

An AD environment (running on Hyper-V on an MS Server 2012 cluster) and 1-school pilot were created prior to Data Networks' engagement on the project. Data Networks performed a AD and general network health assessment and found the AD environment to be generally sound and in line with Microsoft best practices. However, it was determined that, in order to best scale out to the number of sites required for this project, the existing Hyper-V servers would need to be migrated to the VMware ESXi cluster and additional configurations would need to be performed.

The Data Networks recommended migration solution was broken down into phases, the implementation of which was coordinated with

the XP to Win 7 upgrade. Data Networks recommended centralizing the MS Controller (authentication), print services, and DHCP services as part of the site level migration phase, leaving the file servers and access to file shares local until all sites had been migrated and all eligible workstations upgraded from XP to Win 7. The consolidation of file servers to the GCS district data center would be done as the final phase. Major phases included:

- Implementation plan development building upon GCS's existing architecture; develop an overall Novell to AD migration strategy
- District level implementation and integration (based on AD assessment results and including the Hyper-V to ESXi migration)
- Site level migration pilots (4 schools); validation and testing
- Site level migration production (remaining 60 sites) using pilots as a benchmark
- District level file server/file share centralization
- Overall validation and testing
- Knowledge transfer
- Documentation

A detailed validation and testing check was developed as part of the migration plan. As each site migration was completed, a sample set of workstations was logged into, applications launched, file shares accessed, and documents printed to test the basic services to be utilized by end users. With each site migration, Data Networks monitored WAN links as well as CPU, RAM, Network Traffic, Disk reads, Disk Writes and the MS domain controllers, allowing Infrastructure changes to be recommended and implemented to ensure acceptable performance.

Mission accomplished

Data Networks' planning and implementation experience allowed the AD migration to be coordinated with the XP to Windows 7 upgrade preventing any interruption to end user productivity. Throughout the project Data Networks had school district staff members shadow the lead engineers as the migrations were performed. By accomplishing knowledge transfer as the project progressed, Data Networks ensured Gaston County Schools' staff has a solid understanding of the infrastructure and the ability to troubleshoot and make enhancements in the future. This large migration project was accomplished within specified time and budget restrictions and put GCS on a robust, supported platform that will grow along with their needs.

"We couldn't be happier with the results," says Cindee Matson, Assistant Superintendent at GCS. "There were a lot of moving parts to this project, but Data Networks made it happen and our new environment is performing well."

About Data Networks

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INNOVATIVE TECHNOLOGY

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