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DATA NETWORKS IMPROVES STORAGE SUPPORT for cecil county public schools with SAN Installation and Server Virtualization

What Data Networks Did for Cecil County Public Schools

- Consolidated servers with VMware virtualization technology
- Used VMware's Capacity Planner to facilitate server consolidation design
- Installed and configured a Storage Area Network (SAN) at the main Data Center
- Minimized downtime and met Recovery Time Objectives

Abstract

This network transformation helped this school district build a next generation network to deliver a 21st century learning experience.

The challenge

Cecil County Public Schools, located in northeastern Maryland, serves more than 15,000 students with 30 elementary, middle and high schools. The schools environment consists of approximately 45 physical Windows 2003 and Windows 2008 servers with Direct Attached Storage to support a network of approximately 7,000 computers.

Cecil County Public Schools engaged Data Networks to design a solution that would reduce the number of servers in the environment, eliminate single points of failure to minimize downtime and meet Recovery Time Objectives, and provide a robust, flexible, scalable, and reliable storage infrastructure to support the education and business goals of the school system.

Cecil County Public Schools had rapidly-growing data storage requirements, driven in part by a robust Student Management System. To meet the demands, the school system was adding servers on a regular basis. This proved expensive and increasingly difficult for the school system's relatively small staff to manage. In addition, Cecil County Public Schools had growing concerns over a lack of redundancy in their server environment.

The solution

Data Networks recommended a server consolidation solution leveraging VMware virtualization technology and including installation and configuration of a Storage Area Network (SAN) at the main data center location of Cecil County Public Schools. The proposed solution included a technical assessment, implementation of SAN installation and server virtualization, and documentation and training for this technology.

Data Networks implemented a comprehensive solution that included:

- Technical and organizational review of the current environment and data storage strategies including the use of VMware's Capacity Planner to be able to design the server consolidation solution

- Installation and configuration of the CX4-120 system including Navisphere and SnapView software at the Cecil County Public Schools Main Data Center

- HOST integration services using EMC Best Practice Guidelines including configuration of RAID groups, LUNS and Storage Groups for the host servers

- Installation and configuration of the two (2) HBAs into each of the vSphere 4 servers to provide high availability

- Connection and configuration of vSphere 4 servers as a cluster including testing and verification

- Migration of VMs to CX4-120C and distribution of VMs across the vSphere 4 server cluster

- Documentation and training with Cecil County Public Schools' IT staff for their new server consolidation solution

"Data Networks implemented a solution for Cecil County Public Schools that increased their storage capacity and performance," says Rick Fairhurst, Data Networks Account Executive, "while reducing their hardware and maintenance costs at the same time."

Mission accomplished

Leveraging Race-to-the-Top funding, CCPS was able to gain a solution that reduces the number of servers in the environment, eliminates single points of failure to minimize downtime and meet Recovery Time Objectives (RTO), and provides a robust, flexible, scalable, and reliable storage infrastructure to support the education and business goals of the school system.

CCPS benefits include reduced hardware and maintenance costs, increased performance and storage capacity, highly available network resources, and lower electrical power and cooling costs in the data center.

About Data Networks

Data Networks provides effective technology-based solutions to meet your unique needs. Our solutions are specifically developed to help you drive productivity and manage change.

INNOVATIVE TECHNOLOGY

By partnering at the highest levels with the industry's most respected manufacturers, Data Networks can deliver the right products for your environment with the most aggressive pricing possible. Our strong vendor relationships also bring technical training opportunities, expedited help desk resources, and professional service liaisons for consulting and project engagements.

INSPIRED ENGINEERING

Our goal is to be your trusted technology advisor. So we staff highly-qualified engineers who bring years of experience and the most advanced technical certifications to every engagement. We assign them a single area of technical focus, a unique approach that allows them to continually update their skills and expand their specialized technical knowledge. And we arm them with documented best practices developed over more than 30 years of public-sector service.

We invite you to learn more at datanetworks.com or by calling 800-283-6387.