

CASE STUDY

Improving Counties' Network Performance by Leveraging Cisco's HyperFlex



CUSTOMER OVERVIEW

San Benito County
Office of Education

HEADQUARTERS

Central California

INDUSTRY

Education

COMPUTERLAND CUSTOMER

Since 1995

VISIT

www.sbcoe.org

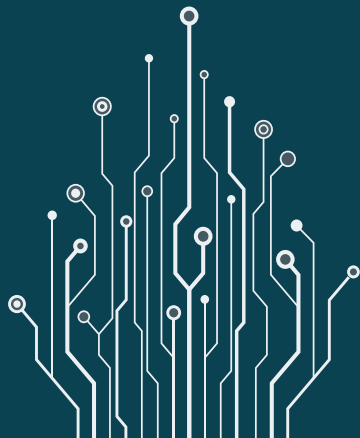
"Our network performance wasn't where it needed to be to meet the current and future needs of the county. So we reached out to our strategic partners at ComputerLand to help us build an IT environment that met today's needs and could scale to meet tomorrow's."

- Roy F. Sims,
Director of Technology,
San Benito County
Office of Education



“Our strategic partners at ComputerLand helped us analyze our current IT environment and create a plan to consolidate our data center with Cisco HyperFlex. The installation was seamless and the new technology has enabled our organization to provide the right amount of capacity and backup, as well as improve our overall network performance.”

- Roy F. Sims,
Director of Technology,
San Benito County
Office of Education



The San Benito County Office of Education (SBCOE) is a public agency responsible for operating a variety of programs for children, youth, and families. It also supports the county with academic, business, consulting, and vocational services, provides IT and networking support for all schools in San Benito County, and serves as a facilitator between other governmental agencies.



CHALLENGE

Power the Future Needs of the County, and the Population it Supports, With an Adaptive, Enterprise-Class Infrastructure

The growing county population and the need for up-to-date educational resources created increasing demands on the county’s aging data center—taxing it beyond its current capacity. The SBCOE needed new infrastructure that could be managed from one single point, while accommodating today’s technology and addressing the need of a multi-site campus with secure, reliable performance.

The challenge was complex. SBCOE’s new IT system needed to be scalable and responsive to changing capacity levels while deploying applications to a broad audience across all educational platforms. The solution also had to manage large amounts of data and provide a secure, dependable backup and data recovery system.

SOLUTION

Deliver Powerful and Flexible Best-in-Class Performance with HyperFlex, an Enterprise-Level Hyperconverged Environment with Single-Point Management

Understanding Client Needs

ComputerLand took a systematic approach to understanding SBCOE's business objectives and their existing IT environment. This included an assessment of their current systems, physical server details, workloads, networking design, physical space limitations, and power supply sources. It was also important to minimize any potential downtime, migration, and power issues to ensure a smooth transition to the new solution.



Selecting a Hyperconverged Solution

After comparing different solutions, ComputerLand selected the Cisco HyperFlex because of its ability to centrally manage computing, storage, and networking functions from one single point. With this hyperconverged solution in place, ComputerLand consolidated SBCOE's data center into three servers and two Cisco Fabric Interconnect Switches.

In the new hyperconverged environment, all three of the county's servers were virtualized, enabling them to share the same resource. This allowed SBCOE to maximize the output of each server, leverage flexibility, and shift network demands between servers to improve performance and delivery for all users on the network.



HOW HYPERFLEX DELIVERS BEST-IN-CLASS PERFORMANCE

Single-Point Management

Using software defined storage (SDS), IT administrators are able to manage the system from a centralized point, no matter how many servers are involved, making it easier and faster to scale to new or changing network demands.

Powerful and Flexible Connectivity

The Fabric Interconnect Switch connects all the servers on the system to facilitate computing, storage, and networking for anyone connected to the system. All configurations and deployments are initiated from this fabric, which is interconnected through one centralized operations management point.

Improved Performance

Applications, operating systems, and virtual desktops can be easily and quickly deployed through the Fabric Interconnect Switch for faster startups, reduced complexity, predictable latency, and improved productivity.

Resource Optimization

By using the same servers for many different tasks, SBCOE makes better use of hardware and more efficient distribution of data—enabling IT resources to be re-deployed to work on high-priority projects.

Backup and Disaster Recovery

In the event of a server failure, data can easily be retrieved from the other virtualized servers, without interruption, downtime, or the risk of lost data.

“ComputerLand understands what it means to enable their clients to drive new business and expand opportunities with the IT infrastructure and service they provide. This project was a great example of that. The company helped us build a new IT environment, improve our applications, and reduce IT costs.”

- Roy F. Sims,
Director of Technology,
San Benito County
Office of Education

ABOUT






ComputerLand of Silicon Valley is a leading provider of comprehensive technology solutions with a focus on enabling clients to achieve their business goals through advanced technology solutions. We provide reliable, personalized service while controlling costs and mitigating risk in the forefront.

For more information about ComputerLand, visit:
www.cland.com

For more information about the Cisco HyperFlex platform, visit:
cisco.com/go/hyperflex

RESULTS

Lower Costs for Future-Ready Tech

-  Faster Application Deployment
-  Decreased Application Response Time – with the new 10G network
-  Reduced Cooling Costs – With a more efficient IT solution in place, servers were more reliable and ran cooler. As a result temperatures in the server room were reduced from 80 to 73 degrees, resulting in HVAC cost savings
-  Reduced Physical Space Needs – Less room was required to house the Cisco equipment, so space could be re-allocated for other purposes
-  Improved Productivity – High storage bandwidth and I/O operations per second (IOPS) improved network response time for all users

CONCLUSION

ComputerLand Equips SBCOE for Success with Modern Network Infrastructure

The Cisco HyperFlex solution modernized SBCOE’s data storage, computing, and networking platform, equipping them with better technology to power the future needs of the county, its school systems, and the students and teachers it supports.

The hyperconverged infrastructure, the platform’s architecture, and the software-defined storage approach provided a high-performance, enterprise-class data management solution that helped the county reduce costs, improve productivity, and deliver an adaptive IT infrastructure to meet the needs of today, as well as those of tomorrow.

Featured Products and Services

- Cisco HyperFlex (HX-SP220M4SEI-1A)
- Cisco Fabric Interconnect (UCS-HX-FI96P)
- Eaton Rack With UPS and Remote Monitoring PDU (EMI104-10)
- Cisco ASA Firewall With FirePOWER (ASA5516-FPWR-K9)