

# New Data Center Design Saves \$600K for University of Colorado

In a scenario repeated in colleges and universities across the United States, the University of Colorado data center was straining at the seams. Three hundred standalone servers used for administration and research applications consumed nearly all available space, power, and cooling capacity. Staff struggled to manage these servers and the 1000 cables connecting them to the network and storage, but the budget didn't allow for increasing headcount.

## When Less Truly Is More

The University of Colorado's University Information Services (UIS) team knew that consolidation and virtualization would solve the space problem and simplify management. But they also needed to make sure that a new server platform would not compromise the performance and reliability of mission-critical applications.

The university found its answer in the Cisco Unified Computing System™ (Cisco UCS™), an advanced server that combines compute, networking, storage access, and virtualization in a cohesive system. The servers connect to the network through Cisco Nexus® switches. "For me, the 'aha' moment came when I saw how Cisco UCS Manager allows you to control and configure the environment from a single interface," says Keith Lard, director of Enterprise Cloud Services for UIS. "This way, we would have to train our staff on only one system and can develop expertise much more quickly."

## Lower Costs, Higher Performance

To date, benefits include:

- **96 percent less space:** Consolidating from 300 servers to just two Cisco UCS blade servers shrank the data center footprint from roughly 5000 square feet to 200 square feet.
- **Reduced management:** Instead of managing 1000 cables, the team manages just the handful that connects all servers in all chassis to the network and storage.
- **Lower energy bills and a greener data center:** Power consumption dropped by 90 percent, contributing to \$600,000 savings in the first year alone.
- **At least four times faster enterprise resource planning (ERP) application performance:** "After moving to UCS, we ran performance benchmarks to compare with our legacy environment," says Lard. "We were able to run twice the number of transactions using half the number of servers." The performance gain is especially noticeable for people using the research administration application. Batch jobs that used to take hours now take minutes.
- **Room to grow:** UIS now has the headroom to increase system capacity and server memory as needed to support new research projects.

Lard concludes, "As we continue to remove our legacy software and hardware environments, we hope to increase our cost savings even further. The Cisco UCS really is the technology of the future."



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To read the full case study on University of Colorado, visit:

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To learn more about the Cisco Unified Computing System, visit: [www.cisco.com/go/ucs](http://www.cisco.com/go/ucs)



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