

# Nonprofit Improves Service Delivery with Virtualization



## Executive Summary

### National FFA Organization

- Nonprofit
- Indianapolis, Indiana
- 130 employees

### Challenge:

- Enable organization to meet aggressive expansion goals quickly
- Support enterprise-class business applications critical to day-to-day operations
- Gain ability to scale data center resources to meet rapidly changing needs

### Solution:

- Cisco Unified Computing System (UCS) streamlines the data center environment
- Cisco UCS B200 and B300 Series Blade Servers support virtualization and improve resource utilization
- Cisco Nexus 5000 Series Switches improve reliability and scalability

### Results:

- Reduced time spent managing physical servers by 80 percent
- Lowered power consumption by 40 percent
- Decreased time to provision new server resources from five days to 20 minutes

National FFA Organization utilizes data center solutions to consolidate infrastructure and support rapid expansion.

## Challenge

National FFA Organization (formerly Future Farmers of America) is a national nonprofit organization dedicated to growing students' leadership skills, personal development, and career success through agricultural education. Founded in 1928, FFA has 540,379 dues-paying members, who belong to 7487 chapters located in all 50 states, Puerto Rico, and the Virgin Islands.

As one of the largest youth organizations in the country, FFA faces IT challenges that set it apart from other nonprofits. Not only does it serve thousands of members and teachers nationwide, it must also support an enterprise-class computing environment. "Unlike most nonprofit organizations, FFA has a number of business lines that depend on enterprise software," says Mark Cavell, the organization's IT director and chief technology officer. "Keeping those systems up and running is critical to our operations."

FFA built a data center to host its mission-critical applications more than a decade ago, but Cavell and his team found that their environment was becoming difficult to manage and could not accommodate their plans for rapid expansion. "We created our infrastructure in a more or less traditional way, but were outgrowing our ability to maintain it with our 10-person staff," says Cavell. "Moreover, we were planning to launch a portal and wanted to grow our active user base from about 12,000 to 800,000 and beyond, something that our infrastructure could not sustain. We knew we needed a different approach."

## Solution

The FFA team saw virtualization as the perfect means to optimize its infrastructure. When it considered its options for virtualization solutions, the team decided to turn to one of its most trusted vendors, Cisco. "We've had a long-standing relationship with Cisco and view them as the industry leader," Cavell says. "We've already had a very positive experience with Cisco, so they seemed like the best choice to update our switch fabric and move to a virtualized environment."



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— Mark Cavell,  
IT Director and Chief  
Technology Officer,  
National FFA Organization

During the planning and deployment phase, FFA worked with its longtime gold-certified Cisco partner, CoreBTS, to select products and integrate them into FFA’s primary data center in Indiana and its collocated data center in Virginia. Now, these data centers utilize Cisco Unified Computing™ (UCS™) B200 and B300 Series Blade Servers, as well as Cisco Nexus® 5000 Series Switches and Catalyst® 3750 Series Switches. In addition, the infrastructure utilizes Cisco 2800 Series Integrated Services Routers and Cisco ASA 5500 Series firewalls.

FFA also uses VMware in its data centers, a solution that the organization has found to be ideally suited to the UCS platform. “When you put UCS and VMware together, it works better than any other configuration we’ve tried,” says James Wetzel, senior network administrator at FFA. “The combination makes up the backbone of our virtualization efforts, and the stability of the solution is unsurpassed.”

According to Wetzel, UCS is also ideal for running enterprise business software, particularly the Microsoft applications that FFA relies on for its day-to-day operations. “We’re a 100 percent Windows environment running Microsoft Exchange 2010, multiple Microsoft SQL Servers, and Microsoft SharePoint,” he says. “Even with hundreds of simultaneous users, the UCS platform delivers strong application performance and reliability.”

## Results

After deploying UCS and a Cisco switching fabric, FFA has been able to virtualize much of its data center environment, helping the organization to realize significant reductions in several key areas. “We’re about 90 percent virtualized and we’ve been able to decommission an entire rack of servers,” says Cavell. “Now the time we spend managing physical servers is 80 percent lower, and we’ve been able to reduce our power consumption by 40 percent. Going with UCS was clearly the right move for us.”

In addition, FFA has experienced a significant decrease in the amount of time that it takes to scale resources in its data centers. “With the number of systems we support, we’ve got development and test environments coming and going all of the time,” Cavell says. “Before UCS, even if we had the gear, we were lucky to spin up a few servers in three to five business days. Now, when requests come in, it’s a matter of 20 to 30 minutes, and they’re up and running.”

With a virtualized data center environment built on Cisco solutions, FFA has also established the infrastructure to support the organization’s plans to reach an even greater number of users. “Our portal project is an online career network that will ramp up our user base to 800,000, and then one or two million after that,” says Cavell. “It’s a massive project, but with Cisco solutions in place, we feel confident that we can accommodate that kind of growth with ease.”

## Next Steps

Looking ahead, FFA will continue to move forward with its aggressive expansion plans. The organization also plans to explore creating its own private cloud environment. “We’re always looking for ways to serve FFA members more effectively,” Cavell says. “Technology is a critical part of that, and we’ll continue to rely on Cisco for the infrastructure that will enable us to deliver innovative tools and systems to our members.”

## Product List

### Data Center Solutions

- Cisco Unified Computing System (UCS)
- Cisco UCS B Series Blade Servers

### Routing and Switching

- Cisco Nexus 5000 Series Switches
- Cisco Catalyst 3750 Series Switches
- Cisco 2800 Series Integrated Services Routers

### Security

- Cisco ASA 5500 Series Adaptive Security Appliances

### Applications

- Microsoft: Exchange, SharePoint, SQL Server

## For More Information

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

To find out more about Cisco Nexus Switches, visit: [www.cisco.com/go/nexus](http://www.cisco.com/go/nexus).

To learn more about Cisco Catalyst Switches, visit: [www.cisco.com/go/catalyst](http://www.cisco.com/go/catalyst).



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