

Cisco Enhances Learning Environment with First-Ever K-12 vBlock Solution in a Unified School District



Andover USD implements custom-fit collaborative solution for server consolidation and virtualization

Executive Summary

ANDOVER UNIFIED SCHOOL DISTRICT

- **Industry:** K-12 Education
- **Location:** Andover, Kansas
- **School County Size:** Over 5,300 students; over 600 faculty and staff

CHALLENGE

- Enable efficient use of space in a growing data center
- Connect limited IT resources, personnel, and manufacturers through one point of contact
- Cut exorbitant costs

SOLUTION

- Engage local partners to design and deliver first ever custom-fit K-12 vBlock solution
- Utilize Cisco's platform to accommodate complete virtualization needs including desktop, data server, and unified communications
- Leverage existing relationships to upgrade several different network systems and grow the SAN environment

RESULTS

- Achieved cooling and power consumption cost-savings
- Leveraged existing technological knowledge to implement a scalable solution
- Delivered consistent and effective customer service

Challenge

Andover Public Schools (Unified School District 385) in Kansas serves elementary, middle, and high school students across ten campuses and an online learning program available to full-time K-12 students across the state. With each physical and virtual classroom come challenges of managing IT resources, personnel, and infrastructure. To address these issues while accommodating an existing UC move to a virtualized platform, Andover USD officials decided to consolidate its server environment, allowing for more efficient use of space in a growing data center through a manageable, scalable, and cost-effective solution. Rob Dickson, Andover USD's Director of Technology shared, "Our data center was so packed we either had to build a whole new data center for over one million dollars, or find a more cost-effective solution." Dickson continued, "We are the second fastest growing school district in Kansas [and] we would not be able to provide the services we do had we not chosen to consolidate."

Solution

The decision for Andover USD to implement a vBlock solution was simple and logical. Local partner Alexander Open Systems (AOS) immediately proposed a vBlock solution to the customer, as it would address each of the client's challenges, as well as leverage existing customer relationships, and build upon existing knowledge around managing Cisco, EMC and VMWare solutions and technologies. Dickson notes, "It began with the introduction of the Cisco UCS platform and I think because of the marriage I already had between EMC and Cisco networking and so many Cisco resources, the vBlock was a natural migration for us." One of the largest push points for the customer was the tangible cooling and power consumption savings that would result from the newly proposed platform, compared to its current environment.

Addressing the need for a streamlined management process, Cisco's team knew this solution would resonate with Andover USD's "single pane of glass management concept" in running the complete data center. In fact, this solution provides the customer with a single point of management for all technical operations – not only for needs at Andover USD's data center, but also for all requests to Cisco, EMC and VMWare. With this "consolidated yet siloed" architecture, Andover USD will also meet its complete virtualization needs – desktop, data server and UC – on Cisco's platform. Dickson notes, "The ability that we've been able to bring from a network standpoint has helped us tremendously" and Cisco's memory expansion capability will support this change and future growth.

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“The vBlock provided us with the means to expand our existing technology services yet create a smaller footprint so we didn’t have to build a new data center, saving us thousands of dollars”

Mark A. Evans

Superintendent of Schools, Andover
Unified School District

While Cisco was responsible for understanding and communicating the client’s needs to a team that would execute upon them, AOS and EMC assumed leadership roles in the design stage of implementing the vBlock solution. AOS, EMC and Cisco continue to be intimately involved in the implementation process.

Results

One of the main benefits of using Cisco products was the ability to integrate Cisco UCS and Nexus with existing technologies to streamline the IT management processes at Andover USD while saving money in the process. In doing more with less, this customized solution utilized products familiar to the client, eliminating the need to retrain end users. Dickson notes, “We’re looking at the end users to have the exact same experience” with the exception that “end to end resources last longer because I can provide upgrades...and save thousands of dollars” in the process.

The decision to consolidate has enabled Andover USD to leverage manufacturers and resources through a single point of contact, and upgrade several different network systems while growing the SAN environment. This is particularly significant, as Andover USD has engaged in a number of large rollout projects, putting this vBlock solution to the test. Now with a single management contact across all existing solutions companies, Andover USD can use its custom-fit vBlock solution to expedite management processes and to approach projects on a proactive, rather than a reactive, basis. In recent months, Andover USD has been incredibly proactive in optimizing the benefits of implementing the vBlock solution.

According to Dickson, Andover USD is implementing a “video surveillance rollout with all Cisco equipment and [we] didn’t even have to blink as to whether we had enough resources” to complete the task. With over 220 high definition Cisco cameras being distributed across the school district’s classroom facilities, video surveillance is still “a very new area.” Previously, not all the elementary and middle schools were equipped with video surveillance, and high schools managed with standard definition cameras. Most districts in Kansas still have standard definition cameras because most of them “do not have the funding available to put high definition forward.” However, Dickson ensures there is a “cost savings” because the “view of the HD cameras catches such a view that in many instances, you would need fewer cameras.” In the next month, all classrooms in Andover’s USD will move to high definition, greatly increasing security for students, faculty, and campus visitors.

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Product List

NETWORK MANAGEMENT

- VCE Vblock
- Cisco Unified Computing System
- Cisco Nexus 5000 Series
- Cisco 6500 Series
- Cisco Catalyst Switches
- Cisco Unified Communications
- Cisco IP Video Surveillance
- Cisco Wireless Solution
- Cisco Security Solution

Next Steps

In continued collaboration with Cisco's solutions representatives, Andover USD officials will reexamine additional cost-cutting opportunities in the next year. This includes an assessment of wireless networks and clean air, a process Dickson describes as "adding a level of protectiveness where we would be able to gather wireless frequencies that might dirty up our wireless infrastructure." He points to "seeing cost savings in terms of administration and management" when determining why wireless isn't working in the classroom. In some cases, the problem can be as simple as having a microwave sitting in the closet. With a single point of service contact coordinated through Andover USD's custom-fit vBlock solution, Dickson is able to troubleshoot different arenas with over 300 access points in the district with ease and better coordination. Now operating with a "DRS enabled on the vBlock", Dickson also points out a visible lack of system down time. Previously having to "take the system down to work on it during the day, it seems like we're [now] up all the time" which contributes to an enhanced learning experience, student productivity, and tangible cost savings. Dickson explains, "Everyone can finish their work during normal working hours – we don't need to pay staff overtime."

Cisco's virtual computing environment message of creating a single architecture for compute, virtualization and storage, resonated with Andover USD as it searched for a way to condense, virtualize, and grow its server environment. In its collaboration with a local partner and other solutions representatives, Cisco's team demonstrated knowledge and expertise in finding the most suitable solution for its client, offering an unmatched level of value. Nurturing this professional relationship, Cisco's team continues to help Andover USD officials gain the most value from its investment in the vBlock solution. With optimized system use, opportunities for future growth, increased management capacity, and multiplying financial value, Dickson states, "financially, it was a good idea even in the beginning to implement the vBlock solution," as Andover USD continues to realize long-term savings resulting from both the implementation and additional projects made possible through the vBlock solution. Dickson considers Andover USD's custom-fit vBlock solution to be more than a system. He explains, "A system you don't plan to build on for long. The vBlock is definitely architecture—it is there for the long haul and we will continue to build upon it for decades to come."

