



## Converge, Consolidate, Conserve for More Effective Schools

Cisco is helping to create connected, on-demand learning environments. By engaging students with innovative teaching methods and inspiring new technologies, educators can bring renewed excitement to the classroom to keep students interested while promoting employability and social equity.

As our learning environments continue to evolve, the education we provide must change as well. Education must adapt to provide students with the skills required to compete effectively in the 21st century.

Schools, colleges, and universities today face a variety of challenges and must:

- Gain greater efficiencies
- Maximize current investments
- Provide next generation learning environments
- Make it easy to add new applications
- Increase IT responsiveness
- Provide for safe learning environments

Cisco, a change agent in education, helps educational institutions to build the right infrastructure and implement technologies that help create 21st century Connected Learning environments to meet the needs of the next generation of learners.

We do this by helping providing educational institutions with a roadmap for Connected Learning. This roadmap is helping educational institutions to navigate through troubled times.

Figure 1 The Connected Learning Roadmap



### The Cisco Converge, Consolidate, Conserve Approach

To maximize savings and reinvest in creating next generation learning environments, schools, colleges, and universities are converging, consolidating, and conserving. These institutions are realizing significant cost containment by converging various systems onto the network and consolidating resources to create better efficiencies, to realize resulting conservation savings, and then building on these increased efficiencies and reinvesting the savings into other educational priorities.

#### *Converge Multiple Networks*

In typical educational environments, essential systems run on disparate networks, creating inefficiencies throughout the system. Educational institutions can gain efficiencies and realize savings by:

- Converging multiple, disparate systems onto one IP network
- Layering conventional network voice, video, and data services as well as environmental and building controls such as HVAC, lighting, and energy management systems on a secure, multiservice wired and wireless IP infrastructure
- Managing all applications and devices over a single IP network

A reliable, converged IP network not only ensures that school administrators, faculty members, and students have the data they need when they need it, but it also provides the capability to deliver lighting, water systems, power, indoor air quality control, alarm/access control, video surveillance, Unified Communications, mobility, and more.

By converging disparate services onto a single IP network, schools, colleges, and universities save time and money. Additionally, a converged network provides:

- A seamless, integrated network that is centrally managed
- Interoperability of previously independent or siloed systems
- An intelligent, robust network with embedded, proactive security monitoring and management, for higher availability
- Improved safety and security
- The ability to deliver next generation learning environments
- Layered, multiple applications and an easily scalable design
- Ubiquitous wired and wireless network access
- Reduced total cost of ownership
- Savings in power consumption

## San Ramon Valley Unified School District, California

### Demographics

- 19 elementary schools
- 7 middle schools
- 3 comprehensive high schools (one continuation, one independent study)
- 22,857 students
- 1160 teachers

### Challenge

- Need cost-effective, districtwide communications
- Difficult to reach all schools simultaneously

### Solution

- Cisco® Unified Communications with Berbee InformaCast and IP speakers, for IP-based bells, clocks, and paging

### Results

- Districtwide paging over the IP system
- 50-percent cost savings over total traditional PA system, especially in areas of conduit, cabling, and installation
- Easy configuration
- Zero service calls
- Centralized management
- Simple integration with Cisco Unified Communications Manager
- Combined savings of more than \$35 million a year
- Expected ROI within one year
- Saved more than 205 million pounds of carbon dioxide, 307,000 pounds of nitrogen oxides, and 583,000 pounds of sulfur oxides

## Consolidate Servers, Applications, and Desktops

Once various networks have been converged onto a single network, the next step is consolidation. By consolidating and embedding services and applications into the network, educational institutions reduce the number of disparate endpoints, avoiding separate updates of multiple computers in multiple locations across the district. IT becomes a service provider of shared services over the network, focusing primarily on managing network transport with virtualized servers, applications, desktops, and mobile devices interoperating seamlessly across the district's integrated IP network.

Consolidating services and applications onto a single network provides various benefits, including:

- One network and series of applications and services to manage
- Centralized virtual desktop deployment, which reduces overall cost
- Consistent, standardized support models
- Extended investment protection of existing technologies
- Better functionality through systems interoperability
- Systems modularity for flexibility in district changes
- Access to district applications and resources from anywhere and on any device by students, faculty, and staff
- Availability of content throughout the district
- Delivery of learning 24 hours a day
- Better control of energy use through comprehensive, centralized management of diverse systems and operations (HVAC systems, lighting controls, etc.)

## Conserve

Educational institutions that have converged and consolidated disparate services and applications across a single network can further increase campus- and district-wide savings through conservation. First, the network becomes an integral part of managing and reducing energy costs. Second, IT resources are better utilized through centralized management of network and applications, standardization with the common network platform, extended equipment life, power-saving implementations, and reduced application deployment time.

A network that enables conservation provides schools, colleges, and universities with:

- Standardization that helps reduce costs of managing multiple networks, applications, devices, and support
- Increased administrative, operational, and energy efficiencies
- Savings that can be reinvested in educational priorities, including new technologies that enhance learning
- The ability to use capital expenditures to reduce operating expenses



## Benefits of a Cisco Converge, Consolidate, Conserve Solution

By implementing a Cisco Connected Learning network solution with the Converge, Consolidate, Conserve approach, schools, colleges, and universities can:

- Gain greater efficiencies
- Maximize current investments
- Provide next generation learning environments
- Make it easy to add new applications
- Increase IT responsiveness
- Provide for a safe campus and learning environments
- Enable students, teachers, and faculty to have access to district applications and resources from anywhere and any device
- Enable learning 24 hours a day

## Why Cisco?

We work closely with public and private schools, colleges, and universities to anticipate and respond to the demand for new approaches that promote employability and social equity. Cisco offers you our:

**Strong understanding of and commitment to education:** Cisco recruits employees with education backgrounds to help guide product development for schools. Cisco is a strategic partner in the Global Education Initiative, led by the World Economic Forum, as well as other worldwide education programs.

**Commitment to customer service and customer success:** Cisco provides a broad range of service offerings to help schools, colleges, and universities achieve administrative efficiency, safety and security, and next generation learning.

**Technical expertise:** Cisco and our partners help to make networks, applications, and people work better together. We make sure Cisco products and network operate efficiently and benefit from up-to-date system and application software. Cisco Advanced Services integrates solutions from Cisco and our partners and helps you lower your operational costs, increase network availability, and optimize performance.

**Industry-leading, interoperable, standards-based solutions:** Cisco's standards-based solutions interoperate with hardware and software from other vendors, enabling you to extend the value and life of your investment in Cisco networks.

**Cisco Capital finance programs:** Innovative financing enables schools, colleges, and universities to easily acquire, deploy, and optimize solutions. Options include Tax-Exempt Lease Purchase, Fair Market Value Lease, and Cisco Technology Migration Program.

## Learn More

To learn more about the Cisco Converge, Consolidate, Conserve approach, visit: [www.cisco.com/go/education](http://www.cisco.com/go/education)




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