Digital Media in Schools: Enhance Communications, Safety, and Educational Excellence

What You Will Learn

By distributing live and prerecorded video and motion graphics on digital signage and PCs, schools can:

- Enhance communications with parents, students, and the community
- Quickly disseminate emergency alerts and instructions
- Enrich the classroom experience
- Broadcast live events such as graduations and in-service trainings to people who cannot attend in person

This solution overview describes the ways that schools are using the Cisco® Digital Media System for digital signage, desktop video, and Enterprise TV applications. You can create, schedule, and manage digital content for all three channels using a network-based central management system, reducing costs and administration time.

Challenge

School and district communications consumes a lot of time--and paper. Parents need to be informed about events like PTA meetings, testing days, and school funding issues. Students want to know what's on the cafeteria menu and the dates of games and plays. Teachers and staff need in-service trainings and up-to-the-minute alerts about campus emergencies. And teachers want to select educational videos from a district-wide content library, not just their own school's collection.

The value of digital media for school communications and education is widely accepted. Until now, the barrier to adoption has been the complexity of managing these solutions. With most digital media systems, content for each type of application--digital signage, video portal, and Enterprise TV--must be separately stored and managed. If graduation ceremonies will be shown on the desktop video portal as well as digital signage, for example, the video must be separately managed on both systems. This increases the costs of servers, storage, management software, and staff time.

Benefits

Now school districts can communicate more effectively, and with less time and effort. The Cisco Digital Media System is a comprehensive suite of digital signage, desktop video, and Enterprise TV applications that you can manage centrally. You can start by deploying one application, such as digital signage, and then add other applications whenever you are ready.

Disseminate District News and Emergency Information with Digital Signage
Cisco Digital Signage provides eye-catching multimedia content on large screens connected to the school's existing network (Figure 1). You can deliver the same content to all signs in the district, such as reminders of testing dates, or deliver different content to different schools. Within the same school, you might display the cafeteria menu on one digital sign and information about an upcoming bond election on signs where parents pick up their children.

Figure 1.   Digital Signage Promotes School Events and Provides Emergency Updates

Popular uses of digital signage schools include:

- Emergency notifications and instructions
- District news from the superintendent's office
- Event announcements, such as PTA meetings, sports, and more
- Classroom assignments
- In-service training
- Live graduation ceremonies

Mobile County Public Schools Strengthen Community Relations

Located in Alabama, the Mobile County Public School district has 96 elementary, middle, and high schools serving 63,000 students. The district takes advantage of the Cisco Digital Media System to publicize its accomplishments and keep the school community informed about funding issues. Parents and others who visit any district location can watch video on digital signage to hear district news. The district publishes the same videos on the Cisco Video Portal, without any incremental costs other than a minute or two to set up the links. Using the digital signage and Cisco Video Portal to provide streaming video of graduations creates community goodwill.

The Cisco Digital Media System has also reduced costs. For example, by distributing videos of in-service speakers on the Cisco Video Portal, the district is saving US$3000 to $5000 annually that it used to spend to rent a space to hold all 9100 employees, as well as the time, fuel costs, and environmental impact of individuals driving up to 50 miles to a central location.

The Mobile County Public Schools district plans to increase the return on its investment in digital signage to distribute campus safety alerts, share district news with voters on off-campus digital signs, and possibly replace classroom cable TVs.

Enrich Classroom Instruction with the Desktop Video Portal

Teachers can enrich classroom instruction by assigning students to watch related videos on the Cisco Video Portal, either on classroom PCs or at home. Students can visit the portal to search for videos by category or keyword and play them in full motion (Figure 2). They can even search for words or phrases within a particular video. Students who are deaf or hearing-impaired can click a button to see closed caption text embedded in the video.

Administrators can use the management interface to easily indicate which users are authorized to access a particular video. They can also associate other content with the video, such as presentation slides or websites. Teachers can even generate reports showing who watched what video content, and when.

Figure 2.   Cisco Desktop Video Portal

School districts can take advantage of the Cisco Video Portal to provide:

- Educational video that students can watch at learning stations at school or from their home
- Interactive webcasts for homebound students. During live webcasts, students can click an Ask Question button to type a question for the presenter
- Lectures from guest speakers anywhere in the world to augment regular classroom instruction
- Marketing videos on school websites that promote schools to prospective students and teachers
- In-service training and safety instruction for teachers and staff
- Live streaming and replay of school functions such as graduation or theater productions for friends and family who cannot attend in person

Facilitate Group Instruction with Cisco Enterprise TV

The latest addition to the Cisco Digital Media suite of solutions, Cisco Enterprise TV lets schools distribute the same content that they publish on the desktop Cisco Video Portal to large video displays. While desktop video is intended for individual viewers, Enterprise TV provides the large, high-definition displays needed for an entire class or group of teachers to watch a video together. Staff and students use a remote control to access video content from on-screen menus and program guides. High school students can even produce their own content, using familiar digital media tools, and deliver it over the campus IP network. Enterprise TV uses the same management platform as Cisco Digital Signage and can even use the same displays, reducing operational costs and simplifying deployment.

Applications for Enterprise TV in school districts include:

- Educational video in the classroom or cafeteria, during lunchtime
- Emergency broadcasts
- External TV programming, such as a science channel, broadcast over the IP connection to classrooms. This requires additional equipment

Solution

The Cisco Digital Media System lets you use one interface to create, manage, and deliver digital content to digital signage, desktop video, or Enterprise TV:

- **Create**: Digital Media Encoders convert audio and video sources to a digital format that you can transmit over the campus network. The destination can be digital signage, the desktop video portal, or Enterprise TV.

- **Manage**: Cisco Digital Media Manager provides one intuitive interface to schedule content, set up live webcasts, import videos, and organize and publish the content for digital signage, Enterprise TV, and desktop video, as shown in Table 1. Individual departments can use the software to control their own content, including scheduling and user access.

- **Deliver**: Cisco Digital Media Players handle digital media content display and playback across the high-definition displays used for digital signage and Enterprise TV.

Table 1. One Management and Design Interface

Manage Content	Design Content	Manage User Access and System Components
- Manage content assets and create playlists for digital signage and desktop video - Schedule instant and future content deployments and playback schedules for digital signage, Enterprise TV, and desktop video - Report on playback schedules for digital signage and on video usage for desktop video - Manage Q&A for live desktop video broadcasts - Synchronize slides for both live and video-on-demand desktop video events	- Customize screen layouts and zones for digital signage - Customize and brand Enterprise TV skins and menus - Customize and brand the Cisco Video Portal interface for desktop video	- Control video viewing permission levels - Configure and manage Cisco Digital Media Encoders for desktop video - Remotely configure, manage, and monitor digital signage networks - Manage event-based alerts and server appliances

Simplified Video Production

Schools can publish practically any media file without worrying about the format, using the Cisco MXE 3000 Media Experience Engine. It extends the value of the Cisco DMS by enabling staff, teachers, or even students to create content once, customize it as needed, and distribute it in the right format to play on digital signage, the Cisco Video Portal, Enterprise TV, and even on mobile devices. The Cisco MXE 3000 takes in content from a wide range of video sources, including the formats used by commercial video-editing software, and then transcodes it to most formats, including QuickTime, Windows Media, and MPEG-4. Easy-to-use editing and production capabilities allow you to customize content with school logo overlays, transitions, file clipping, and color and video quality enhancements to create a broadcast-quality video experience.

Why Cisco?

Cisco brings extensive experience working with schools and leadership in video content delivery. The Cisco Digital Media System meets the needs of school districts in the following ways:

- **Low total cost of ownership**: A single system can be used to manage and publish digital assets for digital signage, desktop video, and Enterprise TV. This reduces capital and operational costs compared to purchasing separate systems, even if the first system costs less than the Cisco Digital Media System.

- **Video expertise**: More than 600 organizations worldwide are already using the Cisco Digital Media System, and thousands of customers use Cisco IPTV solutions.

- **Corporate strength and stability**: Cisco is an established, financially sound company that you can count on to support your solution as needs change.
- **Comprehensive services**: Cisco and our certified partners provide comprehensive service offerings to help design, deploy, and operate the solution, as well as consultation on your content strategy. We also offer the Cisco Academy of Digital Signage, a global qualification program that teaches media professionals to create and optimize content for digital signage.
- **E-Rate eligibility**: Parts of the Cisco Digital Media System are eligible for E-rate discounts. For more information, consult your Cisco representative.

Conclusion

Digital media has become an important and exciting part of school communications, safety, and instructional strategies. The Cisco Digital Media System gives you the flexibility to deliver digital assets in different ways--digital signage, desktop video, and Enterprise TV--without having to purchase additional management software. You get more value from your digital assets, and with a lower total cost of ownership.

For More Information

To read more about the Cisco Digital Management System, visit: http://www.cisco.com/go/dms.

To read more about Cisco Education solutions, visit: http://www.cisco.com/go/education.

To read more about Cisco Services, visit: http://www.cisco.com/go/services/digitalmedia.

To read more about the Cisco Academy of Digital Signage, visit: http://www.cisco.com/go/dms/ads.