

CISCO VIDEO APPLICATIONS IN K-12— DENTON INDEPENDENT SCHOOL DISTRICT

INTRODUCTION

Denton Independent School District Overview

Denton Independent School District (ISD) borders the northern suburbs of Dallas, Texas. The community is culturally and economic diverse and is evolving rapidly. Housing construction is booming and families are moving in from all over the region. This rapid growth provides the school district with a unique set of challenges and opportunities.

Currently, the district has a total of 20 schools, including 3 high schools, 4 middle schools, and 13 elementary schools. There are 16,000 students today, but with the rapidly growing population the district plans to add at least one new school every year for the next 10 years.

Denton ISD Leadership

The superintendent and school board are technology savvy and have a progressive vision for the school district. In the late 1990s, they transformed the district technology by recruiting a leading technology information officer (TIO) and by providing him with the latitude to drive change.

Technology Overview

Denton's commitment to technology is illustrated in its cutting edge infrastructure. Through an innovative financial approach, the district has installed a proprietary fiber optic network between all district buildings. The network is managed by a state-of-the-art network center and provides a growth platform that generates significant savings. These investments started Denton on the road to technology leadership.

INVESTMENT IN VIDEO TECHNOLOGY

In 2000 Denton was exploring IP video technology, but it was the events of September 11th, 2001 that drove home the value. Teachers and administrators, concerned for their students and families, felt isolated and did not have access to breaking news and video. The superintendent had limited communication channels to reach out to staff and students to calm nerves and help ensure emergency procedures were followed.

Soon after, Denton finalized its commitment to install a range of IP video technology, including IP/TV, Cisco Application and Content Networking System for video on demand, and video conferencing. In presenting the proposed investment, the TIO was able to generate a positive ROI merely by assessing the cost savings in the technology budget for one new school and the reduction in VHS tape procurement costs. The long list of other benefits, detailed below, were icing on the cake.

VIDEO APPLICATIONS

Denton uses video technology for a range of purposes, including enhancing the curriculum, staff development, and administrative communication.

Curriculum Enhancement

The curriculum at Denton ISD has been enhanced primarily through distance learning and the inclusion of additional video in lesson plans.

Distance Learning

Denton is striving to meet the needs of all segments of students. In many cases, however, gifted students did not have access to advanced classes. The limited number of students needing a specific class did not reach the district's requirement to bring on new teachers. By using videoconferencing technology, the district now offers a range of advanced classes in a cost-effective manner. Examples include advanced Spanish for high school students and geometry for gifted middle school students.

Video Clips and Features

Like most school districts, Denton ISD recognizes the immense and growing value of video in the curriculum. Historically, it had a VHS library in each school and had VCRs on carts. The Cisco video on demand solution allows the district to cut costs, increase oversight, reduce potential liabilities, and build a platform to support further inclusion of video.

- *VHS costs*—Costs have been reduced by replacing multiple copies of a VHS title by one district-wide digital license. As the district grows, these savings will expand.
- *Central control*—Centralizing video content to a district digital library helps ensure that teachers use appropriate content and that copyrights are respected.
- *Hazards and liability*—Moving AV carts around school hallways is a hazard that digital delivery has eliminated.
- *Growth of video usage*—As teachers become more comfortable with digital delivery, the additional ease raises the amount of video in the curriculum and the associated benefits to students.

Staff Development

As with all school districts, Denton recognizes that the level of student education is highly correlated with the training of teachers. Investments in video technology allow the school district to facilitate teacher continuing education and development in a cost-effective manner.

- *Third-party courses*—Teachers now complete some of their continuing education requirements through third-party online programs.
- *District programming*—The district uses programming on IP/TV to play a range of instructional content such as Microsoft tutorials on Word and PowerPoint.
- *Regional training*—Teachers utilize videoconferencing equipment to participate in interdistrict development programs. For example, one school currently participates in a yearlong regional training program on special education. Videoconferencing has allowed teachers that otherwise could not attend to participate, and has saved significant travel expense.

Administrative Communication

The events of September 11th 2001 heightened the importance of emergency procedures and communication. Denton uses video technology to address this in several ways:

- *Live news video in each classroom*—Each classroom has a computer with numerous live cable TV feeds including CNN.
- *Emergency communications*—The district superintendent is able to broadcast live video to every classroom and administrative office in the district in the event of a similar emergency.

VALUE TO THE DISTRICT

Denton's investment in video provides immeasurable benefits to taxpayers, students, teachers, and administrators.

- *Capital budget*—Financially, the district made the investment without asking for additional capital funding. Savings in previously budgeted capital items covered the entire video capital budget. Furthermore, the district is positioned to reap capital budget savings well into the future on items such as VHS libraries.
- *Operating budget*—The operating budget is positively impacted in areas such as travel and personnel costs.
- *Students*—Students in all grades find that the additional use of video helps to bring the curriculum to life and keep them engaged. Gifted students have the opportunity to take courses that the district could not otherwise offer.
- *Teachers*—Digital delivery of video is easing the hectic lives of teachers by simplifying the location and use of video for classes, and by allowing staff development to be completed at their own pace and schedule.
- *Administrators*—Video supports Denton's administrators in meeting their ultimate purpose of providing the best education in a safe environment.



Corporate Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: 31 0 20 357 1000
Fax: 31 0 20 357 1100

Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems, Inc.
168 Robinson Road
#28-01 Capital Tower
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the **Cisco Web site at www.cisco.com/go/offices**

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Cyprus
Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland
Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland
Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden
Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

All contents are Copyright © 1992-2004 Cisco Systems, Inc. All rights reserved. Cisco, Cisco Systems, and the Cisco Systems logo are registered trademarks or trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Web site are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company.
(0402R) JK/LW5886 03/04