



Customer Case Study

School District’s Educational Vision Overcomes Funding Limitations

The Fort Bragg Unified School District defied conventional wisdom to deliver innovative services that benefit students, staff, and administrators.

EXECUTIVE SUMMARY	
Fort Bragg Unified School District	
<ul style="list-style-type: none"> • Education • Fort Bragg, California, United States • Seven schools and 2100 students 	
BUSINESS CHALLENGE	
Provide students with the educational opportunities enjoyed by their peers in urban areas during a community’s economic downturn.	
NETWORK SOLUTION	
Migrated the network infrastructure, using the Cisco Service-Oriented Network Architecture, to create a network platform for delivering unified communication, video, and wireless services.	
BUSINESS RESULTS	
<ul style="list-style-type: none"> • Improved communication between teachers, administrators, and parents • Saved \$500,000 in infrastructure costs and \$1800 per month in voice costs • Enabled rapid delivery of new services, which enhance teaching and learning with fewer resources 	
VISION FOR THE FUTURE	
<ul style="list-style-type: none"> • Provide multimedia classes and increased access to education • Attract and retain excellent teachers • Improve safety and security 	

BUSINESS CHALLENGE

Conventional wisdom would suggest that a small school district with declining enrollment and funding would be the least likely to deploy a state-of-the-art network for delivering innovative new services to its students, educators, and administrators. Conventional wisdom obviously never heard of the Fort Bragg Unified School District (FBUSD).

Located along the rugged Northern California coast, Fort Bragg is two-and-a-half hours from the nearest metropolitan area. Its economy was traditionally based on fishing and timber harvesting, but with those industries in decline and families moving away, school enrollment has steadily declined. And as enrollment decreases, so does funding. The district faced a serious challenge – how to manage economic realities while giving students the educational opportunities enjoyed by their peers in urban areas.

“Even though a rural district like ours cannot afford to do exactly the same things as a large urban district, kids deserve the same educational opportunities,” says Steve Lund, superintendent. “The best way for us to proceed as a district was to put in place a network infrastructure that would allow us to deliver new services for enhancing teaching and learning while creating new educational opportunities.”

To support the district’s strategy, FBUSD’s network manager, Kevin Pimlott, determined that the district would need to upgrade its network foundation. The new network would support multiple concurrent services, such as unified communications, video, Internet access, and data transfer, and be able to easily and cost-effectively adapt to future needs. To Pimlott, Fort Bragg could actually become an information technology leader in Northern California and attract students from around the region to take advantage of special courses and expertise that would otherwise not be available to them.

NETWORK SOLUTION

FBUSD chose to upgrade their network to an intelligent and integrated network infrastructure based on the Cisco® Service-Oriented Network Architecture.

Table 1. Cisco Integrated Foundation

Service Enablement	Benefit
Enables IP communications	Reduces complexity
Provides connectivity anytime and anywhere	Simplifies deployments
Supports new applications	Enables faster problem resolutions

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– Steve Lund, superintendent of schools

“Only the Cisco network solution completely integrated voice, video, and data,” says Pimlott. “We are able to provide the latest capabilities – reliably and securely – to all seven FBUSD sites for \$1.2 million, which represents a \$500,000 savings from the original amount allocated.”

Today every classroom in the district now has broadband Internet access and a Cisco Unified IP Phone. With unified communications capabilities in place, FBUSD could take advantage of innovative applications from Cisco partners to improve student, faculty, and staff communication. PhoneTop K–12 Application Suite from AAC, Inc. enables teachers and administrators to take attendance, issue hall passes, find school personnel in the directory, manage student activities, and issue daily bulletins. Berbee’s InformaCast application allows school officials to page individuals or groups anywhere in the district, as well as broadcast announcements, using IP phones and external loudspeakers. Berbee also provides the district’s bell-scheduler application.

“This technology will enable us to tap into resources that will benefit our staff and students while simplifying logistics and reducing costs,” says Lund.

BUSINESS RESULTS

- **Improved Communication** – With a Cisco IP Phone in every classroom, it is easy for a teacher to call for assistance without leaving students unattended. “Cisco Unified IP Phones in the classroom expedite day-to-day activities as well as handling of crises,” says Cate Hawthorne, school psychologist and special education teacher at Dana Gray Elementary School. “To schedule a meeting, I can send a single voicemail to all attendees’ extensions instead of trying to reach them individually.” The superintendent and school principals also report increased productivity, dialing teachers directly instead of waiting for someone to walk to the teacher’s classroom to relay a message.
- **Improved Safety** – Teachers can use classroom phones to call emergency numbers or the school nurse. Classroom phones also provide extra assurance for teachers who work after school or during the summer.
- **Improved Learning** – History and social studies teachers augment lessons with video clips, downloaded over the Internet from United Streaming or from DVDs, and material gathered from the Internet during class. High-school students can improve specific skills, such as math, accelerate learning in a course, prepare for exit exams, or take courses approved by the University of California using the CyberHigh program. The new technology also expands summer-school programs beyond math and English, enabling one teacher to help students improve in world history, U.S. history, health, English, math, algebra, and integrated science in the same lab at the same time.
- **Increased Staff Productivity** – Video conferences using the Cisco VT Advantage Solution save long roundtrips for teachers and principals, and save the district from having to reimburse staff for gas.
- **Maximized Funding** – FBUSD was able to install a single Cisco network that serves all seven campuses for \$500,000 less than the total amount of funding available for the project, in addition to the additional \$700,000 covered by the federal E-RATE program. When the IT team had to build a temporary voice and data network, Cisco wireless solutions enabled them to do it for less than the

cost of traditional wiring alone. And by eliminating 120 Centrex lines through the use of Cisco IP telephony solutions, FBUSD saved \$1800 per month.

- **Increased IT Efficiency** – The IT staff of two part-time people manages twice as many network devices in less than half the time as before. When he is not teaching, Pimlott spends his time taking care of district needs and identifying new services for district use. “I can add services now without having to change anything,” he says.

NEXT STEPS—VISION FOR THE FUTURE

The new infrastructure and unified communication services represent an important first step. Lund’s vision is to create an educational experience on par with much larger and more affluent districts. “There are extraordinary possibilities for us with this capability,” says Lund. “We will be able to connect students with universities and other resources anywhere in the world to support students’ educations.”

- **Provide multimedia courses** – FBUSD foresees expanding multimedia learning resources to elementary and middle-school classrooms. In the future, the district plans to increase the use of media resources in remedial programs, special education classes, and for specific skills development.
- **Expand access** – “Video will become an increasingly important medium for us,” says Pimlott. With the ability to access video gateways at universities, FBUSD will become a regional hub for students to take advanced placement courses, receive tutoring, and take tests over the network. Teachers will gain access to new resources—all with minimal time and expense associated with traveling outside of the district.
- **Increase campus security** – Security monitoring will be implemented on the campuses to discourage vandalism and increase safety of staff and students. With the network infrastructure in place, adding this new capability is as easy as plugging a camera into a switch port.
- **Attract and retain outstanding teachers** – The state-of-the-art network can play an important role in FBUSD’s efforts to attract and retain qualified teachers – traditionally a challenge in rural districts. The network-based communication and collaboration services enable teachers to receive world-class, video-based training and to extend their teaching reach, in spite of funding limitations.

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To find out more about Cisco Service-Oriented Network Architecture, visit: www.cisco.com/go/sona

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To find out more about Fort Bragg Unified School District, visit: www.fbUSD.org

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- Cisco 7600 Series Routers
- Cisco 3700 Series Multiservice Access Routers
- Cisco Catalyst® 4500 Series Switches
- Cisco Catalyst 3550 Series Switches
- Cisco Catalyst 3560 Series Switches

Security

- Cisco Security Agent
- Cisco PIX® 500 Series Security Appliances
- Cisco Intrusion Detection System (IDS) 4200 Series Sensors

Unified Communications

- Cisco Unity® Unified Messaging
- Cisco Unified CallManager
- Cisco Unified CallManager Express
- Cisco Unified IP Phones 7920, 7940, 7960, and 7970

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- Cisco Unified Video Advantage

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- Cisco Aironet® 1200 Series Access Points

This customer story is based on information provided by Fort Bragg Unified School District and describes how that particular organization benefits from the deployment of Cisco products. Many factors may have contributed to the results and benefits described; Cisco does not guarantee comparable results elsewhere.

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