

## Texas School District Enhances Safety and Communications

Executive Summary
<p><b>Customer Name:</b></p> <ul style="list-style-type: none"> <li>Arlington Independent School District (ISD)</li> <li>Arlington, Texas, United States</li> <li>63,000 students</li> </ul>
<p><b>Business Challenge</b></p> <ul style="list-style-type: none"> <li>Ensure effective emergency communication</li> <li>Cost-effectively provide telephone coverage for every classroom</li> <li>Reduce communications operating costs</li> </ul>
<p><b>Network Solution</b></p> <ul style="list-style-type: none"> <li>Upgraded network and deployed new communications solutions and phones</li> </ul>
<p><b>Business Results</b></p> <ul style="list-style-type: none"> <li>Enhanced school safety with communication capabilities in every classroom, on playgrounds, and at school bus loading zones</li> <li>Reduced telephone line costs by 70 percent</li> <li>Enabled comprehensive wireless data connectivity for teachers, principals, and administrators throughout the district</li> </ul>

Arlington Independent School District deploys Unified Communications to cost-effectively enhance school safety.



### Business Challenge

The Arlington Independent School District (AISD) is the ninth largest school district in Texas, with 74 school campuses and 63,000 students. Like all school districts, Arlington ISD must be able to help ensure that teachers, principals, and administrators at each school can quickly request help and communicate efficiently in the event of an emergency. However, with a large number of locations spread over a wide area, providing even basic telephone service to every classroom was prohibitively expensive.

In the past, Centrex phone lines cost the district approximately US\$100,000 a month. To control costs, phones were installed in strategic areas of each building, and teams of several teachers shared a telephone. If an emergency occurred, teachers had to leave the classroom to find a telephone or use their personal cell phones, which were often unreliable because of spotty cell phone coverage in many areas.

Arlington ISD had also purchased two different wireless communication systems, which were used to provide network connections between portable buildings and for wireless voice service on the school grounds. Because the wireless systems did not work well, some schools had never bothered to deploy them. At schools where the wireless system did work, teachers could use wireless laptop carts in some classrooms but there was no widespread wireless coverage.

Arlington's Centrex contract was due for renewal in March 2007. So early in 2005, Arlington ISD decided to look at alternative solutions for providing districtwide voice and data services and deploying a telephone in every classroom. The AISD team evaluated a new Centrex contract, Cisco® Unified Communications Solutions, and several third-party IP telephony systems. The team chose Cisco Unified Communications and a Secure Wireless Network as the most cost-effective solutions for meeting its needs.

### Network Solution

Arlington ISD was already in the process of connecting all 74 school locations with a carrier-managed metro Ethernet WAN when the four-person Arlington ISD Network Services team began deploying the Cisco solutions in June, 2005. Within two years, the team had installed and begun operating the new equipment at every school—all without adding any human resources.

**Product List**

**Routing and Switching**

- Cisco Catalyst 4506
- Cisco Catalyst 3560 switches
- Cisco Catalyst 3750 stackable switches

**Voice and IP Communications**

- Cisco Unified IP Phone 7920 and 7921
- Cisco Unified IP Phone 7912
- Cisco Unified IP Phone 7970
- Cisco Unified IP Phone 7940
- Cisco Unified Communications Manager 7845
- Cisco Emergency Responder
- Berbee Informacast

**Wireless**

- Cisco Aironet 1240 AG Series access points

Cisco Unified Communications Manager provides the district’s call processing functionality and extends telephony features to each school location over the network. Cisco Catalyst® switches are deployed at each school to connect it to the network. Each school uses a range of Cisco 7900 Series Unified IP phones, including a Unified IP 7940G Phone in every classroom, several 7970G phones with color displays, and several single-line Unified IP Phones.

Arlington ISD replaced its previous wireless systems with a new Cisco Secure Wireless Network, which now provides transparent wireless voice and data coverage across all locations, including providing connectivity to all portable buildings. Each school received approximately a dozen Cisco Unified Wireless 7920 IP Phones, enabling principals to extend wireless communication capabilities from classrooms to playgrounds, school bus loading zones, playing fields, and parking lots.

The Cisco Emergency Responder application is deployed on all phones, enabling any user to notify a principal, assistant principal or school nurse about an emergency, as well as notify a deputy superintendent and security personnel. Cisco Emergency Responder enhances basic emergency 9-1-1 functionality, helping ensure that Cisco Unified Communications Manager will send emergency calls to the appropriate Public Safety Answering Point (PSAP) for the caller’s location, and that the PSAP can identify the caller’s location and return the call if necessary.

In several high schools, the single-line Unified IP Phones are used to replace aging pay telephones, for which service is no longer available. The school can easily make the phone available to school guests, parents, or students who need to call a parent—simply by taking the telephone and plugging it in anywhere in the school. When the caller is finished, the phone can be stored or used in a workroom or lounge area. The versatile IP phones eliminated the need to replace pay phones. They are not subject to the same high level of abuse as pay telephones, and they allow phone calls to be made without staff or teachers’ individual phone numbers being used to contact parents or other outside individuals.

At the Arlington ISD main administration building, Berbee Informacast is deployed to deliver live, recorded, or scheduled audio and/or text messaging to any Unified IP phone in the building. In the event of an emergency situation, everyone can be quickly notified in a simultaneous broadcast to his or her individual phone.

“Moving a phone is as easy as picking it up and walking down the hall to plug it into the nearest network port. We now also extend telephone coverage to playgrounds and to the bus zones. Teachers or assistants now have the ability to make calls or report an emergency right in their hands.”

—Lance McCutchen, director of Network Services, Arlington ISD

“School safety is our priority, and today’s demands require us to expand the scope of our security measures without the benefit of expanded funding to match them. Our new communications capabilities are both effective and cost-effective—the best of both worlds.”

—Steven Harvey, Assistant Superintendent of Technology and Telecommunications

## Business Results

“The new wired and wireless phone systems met our goals and exceeded our expectations,” says Lance McCutchen, director of network services for the Arlington ISD. “Our staff programmed the phones and delivered them in their boxes to each campus. We suggested that each school give a phone to every teacher and plug it in. They were amazed that it was just that easy.”

In addition to being easy to use, McCutchen says that the new phone systems were easy to deploy and have significantly simplified management and reduced operating costs. It only required four staff members to completely deploy the Unified Communications and Secure Wireless network solutions districtwide—and these same people easily manage the system. In the past, moving a phone line required calling the carriers, waiting 10 to 14 business days, and paying at least US\$120. With more than 4000 teachers at 74 locations, even simple moves added up.

“Moving a phone is now as easy as picking it up and walking down the hall to plug it into the nearest network port,” says McCutchen. “We also extended wireless telephone coverage to playgrounds and to the bus loading zones. Teachers or assistants now have the ability to make calls or report an emergency right in their hands.”

Today in most Arlington ISD schools, the principal has a wireless Unified IP phone, as do staff on bus duty. Mobile staff members, such as the school’s building technology contact, carry a Cisco Wireless Unified IP phone as they make the rounds to work on computers or facilities. Teaching teams have a wireless phone as well, so any teacher on playground duty can pick up the handset from the teacher’s room and take it with them on the playground. In each high school, each athletic department has a wireless handset so that coaches have instant access to communication capabilities while on the field. In addition, principals or mobile staff can use their wireless Unified IP phones from a parking lot of any Arlington ISD school, thanks to the extended wireless coverage. Principals, assistant principals, or school nurses are also notified whenever a 9-1-1 call is placed from their school, so they can quickly render aid if needed.

“School safety is our priority, and today’s demands require us to expand the scope of our security measures without the benefit of expanded funding to match them,” says Steven Harvey, Assistant Superintendent of Technology and Telecommunications for Arlington ISD. “Our new communications capabilities are both effective and cost-effective—the best of both worlds.”

With the Unified Communications and wireless network solutions deployed, the cost of telephone lines has dropped by at least 70 percent. This reduction represents a huge savings and accelerates the AISD’s return on its investment. For McCutchen, there is an added bonus as well.

“With wireless coverage in all of our buildings, we have been able to provide additional productivity benefits for teachers and principals who use laptops,” he

says. "We have converted an old movie theater to a professional development center, and now administrators, teachers, and principals can hold meetings and take classes whenever they want and still enjoy wireless access to applications and communication."

### Next Steps

The Arlington ISD is currently evaluating student notification systems, which would enable it to meet new Homeland Security requirements and simplify parent notification. For example, the system would have to be able to automatically call nearly 40,000 households within two hours in the event of an emergency lock-down or inclement weather.

"Going forward, anything else is extra for us," says McCutchen. "We met our original objectives and now we can explore other applications that may enable us to innovate further or deliver even more benefit from this infrastructure."

### For more information

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To learn more about the Arlington ISD, visit  
[www.aisd.net](http://www.aisd.net)

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