



Indoor/outdoor WLAN connects students and teachers to each other... and the world



"By empowering teachers and students with wireless technology and access to the Internet, Goliad ISD is enhancing the learning process in schools and improving the teachers' productivity,"

- Sam Atwood, Superintendent, Goliad, TX Independent School District
(Goliad ISD)

Situation: Anytime, anywhere learning

With a county population of 6,000, Goliad ISD is a pre-k through 12 school district serving 1,325 students. Goliad, the only town in the county, has a population of 2,000. The residents inside city limits can receive DSL. "Residents outside the city have a choice of dish, satellite or dial up. Internet capability is minimal outside of the city limits due to the slow speed or the high cost," says, Anna White, Technology Director, Goliad ISD.

Seeing an opportunity to improve education and help teachers work more productively, the school board approved a four-year lease/purchase agreement to obtain laptops: one for every faculty/staff member and one for every student in grades 7-12. Linking the computers would require a wireless network. But not just any network. It would require seamless coverage across multiple buildings and throughout the campus, both indoors and outside. The district considered other vendors, but those contacted could not offer outdoor coverage, or others quoted costs well beyond Goliad's budget.

Solution: Motorola wireless LAN solution and local support

Goliad turned to a trusted partner the school had worked with before: Victoria Communication Services (VCS). VCS, through a relationship with Motorola, submitted a quote to Goliad. VCS made the extra effort to meet Goliad's aggressive installation timetable to reduce disruption at the school, and the offer was approved.

Result: Improved productivity, student excitement

The WLAN provides staff and students the opportunities to extend their learning in more ways than ever before. The laptops are taken home by students and used to complete and review assignments as well as explore other areas of interest. Teachers are able to access information in order to complete their work from alternative locations and to support learning in a variety of situations.

The experience of using computers and the internet is affecting students, and they carry that enthusiasm home. "More high school students want internet in their homes," says David Luna, Assistant Technical Director, Goliad, ISD. "Fifty-plus percent of students now have Internet access (in their homes), where before only twenty percent had connectivity. Because of the laptop program, county residents who have children in the school district now want to subscribe to a service for the home," says White.

Goliad Independent School District

- Pre-Kindergarten to Grade 12
- 1,325 Students
- 200 Staff members

Campus

- Five main buildings (280,812 sq. ft.)
- Multiple smaller and portable buildings and three separate gymnasiums
- Athletic field
- Three parking lots (121,000 sq. ft.)

WLAN Solution

- RFS7000 and AP300's for in-building coverage
- AP5181 for outdoor coverage

Computers

- 862 for faculty, staff, and students in grades 7-12

Benefits

- Seamless indoor/outdoor coverage
- Low total cost of ownership
- High scalability for future expansion
- Reliable and secure



“The primary goal of this project is to infuse technology into every aspect of the learning environment. To prepare our students for the future workforce or optimize their entry into a college, university or technical school of their choice,”
 - Kelly Parker, Assistant Superintendent, Goliad, ISD

Funding options

Although Goliad County’s population is a rural community with modest income levels, the school district has benefited from rising oil tax revenues. Infrastructure expenditures help to secure state funding and, as White says, “the superintendent figured out that wireless connectivity is infrastructure – laptops, too.”

Cost-effective coverage over multiple buildings

VCS proposed a Motorola indoor + outdoor wireless 802.11 based infrastructure. VCS deployed Motorola AP300 access ports in the high school, middle school, elementary school and administration buildings, and AP5181 access points to cover the outdoor areas and parking lots, all centrally and conveniently managed by a Motorola RFS7000 wireless switch. A redundant RFS7000 switch ensures network resiliency. And the RFS7000 is 802.11n ready to support expansions and upgrades to a 802.11n network when needed.

Swift deployment

The entire deployment took three months:

- July 2007 - Goliad ISD makes the decision to deploy a WLAN
- August 2007 - the solution is approved and installation begins
- September - Teachers receive laptops
- October - WLAN is deployed and training begins; students receive laptops

The solution, once installed & deployed, was fully integrated between the four sites within 10 days.

Future expansion

The network will continue to evolve with the district’s needs. A fifth building, now under renovation, will soon be added to the network. There have been no complaints about speed from students or faculty.

The district is looking for still higher bandwidth as technology upgrades become available in the future. “I see video on the horizon for Goliad,” says White. “We can use it for staff development, video conferencing, and teachers want to create video for their classes and download videos for class viewing.”

Trusted partners

Together, VCS and Motorola formed a team that gives Goliad ISD dependable local support. “VCS is very happy with the relationship between Motorola and our business and is comfortable knowing it allows us to bring top of the line support to our customer at all times,” says Jennifer Hartman, Owner, VCS.

“Only 20% of our students had Internet access at home. We wanted to give them a network connection regardless of their location at school: in classrooms, in hallways, in the lunch room, on the football field, and in the parking lot,”

– Anna White, Technology Director, Goliad ISD

Victoria Communication Services (VCS)

Headquartered in Victoria, TX, and founded in 1985, VCS assists customers with a variety of technologies including broadband, two-way radio, cellular/wireless solutions, security systems and networking.



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