

Success Story



Metro-Scale Mesh Networking Defined™

Getting Education On the Right Track in Amory, Mississippi

Customer Highlights

Challenges

- Provide a valuable community network that would improve quality of life – education, local economy, city services
- A single reliable network that could be used by the public and for municipal services anywhere in town

Solution

- \$1 million cost of network was underwritten by non-profit Gilmore Foundation
- Free community-wide Wi-Fi network with easy access, accessible throughout the city
- Provides police officers with access to public safety information, and ability to submit reports from the field

Results

Users

- Encourages education, computer literacy, and economic development for citizens of Amory
- Improves efficiency of police officers enabling them to spend more time in the field protecting the community
- Foundation for municipal services that improve public safety and increase efficiencies of mobile city workers

Service Provider

- Network was planned, deployed, and operational in less than 90 days

Systems and Services

- Tropos Networks MetroMesh 5320, 5210 and 4210 routers
- CSG Data Networks: Network planning, deployment and ongoing network operation

Working with CSG Data Networks, a plan was developed to create a network that is robust enough to support steady use by the residents and businesses, and reliable enough for the city's employees to use both in everyday use and emergency situations. CSG deployed Tropos MetroMesh Wi-Fi routers in a 10-square mile area, covering in just 90 days – from conception to completion.

120 years ago, railroad planners designated the midpoint between Birmingham, Alabama and Memphis, Tennessee - and Amory, Mississippi was created. The local population grew and thrived as local industry was attracted to the area. Today, Amory is a transportation crossroads for trains, river craft, cars, and airplanes. Now, city officials want to embrace the next generation of wireless networking technology to improve city services and benefit schools, citizens and businesses.

THE CHALLENGE

The city already had access to several wired Internet services, but broadband access was not available to every household within the city limits. Lack of high-speed Internet connectivity affected many groups, including the school district, where more than one out of four students dropped out of high school - not atypical in a state that ranks low in many education rankings. Local officials, business and community leaders, and educators saw inadequate broadband Internet access as a community issue and together formed a community action group, AmoryNet, to explore and analyze the benefits of an improved Internet infrastructure. The result was a plan for a broadband wireless community network that would be accessible to anyone, anywhere in the city.

The Gilmore Foundation, a private, not-for-profit organization serving northeast Mississippi, worked with AmoryNet to focus the vision on how free Internet access would benefit the community. Specifically, the community values envisioned were use of the network to improve teaching methods and provide access to resources for the local schools to encourage education; improve productivity for mobile municipal and utility workers, improve the effectiveness of mobile public safety workers, and raise the overall level of computer literacy in the town.

RESULTS

The Gilmore Foundation accepted AmoryNet's proposal and moved quickly to implement a high-speed wireless network for the town. The goal is to empower an entire community, providing access to information technology resources and enabling more people to become competitive in education, business, and healthcare.



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“The deployment of the wireless Internet will provide our community a cutting edge advantage for education, public safety, and business. This opportunity puts us in the forefront as the pioneering digital community in Mississippi and the Southeast.”

Danny Spreitler
Executive Director
Gilmore Foundation

The total cost of constructing the network was just over one million dollars, and the entire expense was covered by the Gilmore Foundation without any cost to the city or taxpayers. The Gilmore Foundation owns the network, and pays for the management and operation. After only a few months of operation, more than 1,000 users log in every day.

AmoryNet is the first metro-scale Wi-Fi network whose construction and operation is entirely funded by a private foundation. The residents of Amory now have access to the network, free of charge, with easy access from schools, homes, businesses and virtually anywhere around town.

The Gilmore Foundation is further promoting education and computer literacy in the community by providing laptops for use by groups such as senior citizens and high school students and encouraging them to use the free Internet access. Laptops are also donated to all students who graduate from high school to help promote advanced education and lifetime learning.

TROPOS SOLUTION

When CSG Networks was considering wireless network equipment for the project, the primary features they needed were performance, reliability, and flexibility. They selected Tropos Network MetroMesh routers for the AmoryNet deployment because Tropos offers the industry's most sophisticated metro-scale mesh routing solutions with many reference accounts who can testify to their excellent performance, reliability and flexibility. Designed from the ground up to optimize throughput in a dynamic metro-scale Wi-Fi mesh environment, Tropos MetroMesh 5320 routers offer carrier-grade centralized element management and a purpose-built hardware platform with superior Wi-Fi radio performance.

Tropos MetroMesh 4210 mobile routers are used on police cars. Police can file reports from the field, and access databases from the laptops located in their patrol units. The wireless traffic associated with public safety is on a separate VPN, securing it from residential access. Mobile routers are also used on the town's bookmobiles, enabling patrons and staff to have access just as if they were in a conventional building.

Tropos System Integration Partner, CSG Data Networks, planned, installed, maintains and operates the network. CSG provides a full range of wireless networking services, including large-scale municipal broadband solutions. “We are pleased to have the opportunity to join with the Gilmore Foundation to provide this advanced technology network from Tropos for the City of Amory,” said Peter Friedman, Vice President of CSG.

LOOKING FORWARD

AmoryNet is moving ahead with plans to expand the applications enabled by their metro-scale Wi-Fi mesh network.

- Video Surveillance - Creating a video surveillance system to monitor activities in high crime areas.
- Mobile Municipal Workers - Enabling municipal workers in the field to file reports and access information from centralized and Internet-based databases, improving worker efficiencies and quality of service provided to community.
- Expanded Business Applications - Adding business-specific applications and capabilities, the city hopes to attract more businesses to the city, improving the local economy and creating more employment opportunities.
- Network Expansion - Over the next few years, the Gilmore Foundation hopes to expand the network to the entire county, creating one of the only counties in the U.S. with a comprehensive Wi-Fi network.



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