

## K-12 Network Case Study by Waters Network Systems

### Fayette County School District Fayette County, Georgia

High Schools: 4  
Middle/Junior High Schools: 5  
Elementary Schools: 13  
Lafayette Technology Center

#### Case Study Highlights

- ▶ Rapidly growing district located 30 miles south of Atlanta, Georgia
- ▶ Over 19,000 students in 22 schools, all attached to one district-wide LAN/WAN
- ▶ Waters' connectivity solution provided the tremendous bandwidth they required for multiple users without degrading utilization speed during high periods of usage
- ▶ One fiber wiring closet in each school minimized space used while connecting over 700 devices into one LAN
- ▶ Waters' ProSwitch®-Secure series of enclosed switches installed in every classroom offered easy upgrades to higher speed switching
- ▶ The Waters solution provides easy remote monitoring and management from one location
- ▶ Waters' fiber infrastructure provides easy upgrading to Gigabit

#### WATERS NETWORK SYSTEMS [www.watersnet.com](http://www.watersnet.com)

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## “Waters is Unmatched in Terms of Flexibility, Cost, Reliability and Service”

John Bartles, Network Engineer, Fayette County School District



*“Waters' fiber LAN design using enclosed classroom switches resulted in a great savings for Fayette County Schools by requiring only one wiring closet per school and dramatically reducing the overall cost of cabling and hardware. Plus Waters gives us outstanding service, and technical support we need -- when we need it.”*

#### The Technology Objective

The technology objective for the district is to provide each student with access to on-line resources and the Internet. Fayette CSD felt this type of access is necessary to provide research and learning opportunities for both students and teachers. Additionally, Fayette expanded the use of these resources by allowing the adult education program to fully utilize the LAN system in the evening. The district also wanted a design that would allow for expansion and flexibility at an affordable cost. Fayette CSD realized that the cabling infrastructure should easily allow the electronics to be upgraded to emerging technologies.

#### The Waters Network Systems Solution

After evaluating Fayette's needs, Waters Network Systems designed an Ethernet fiber LAN infrastructure using one wiring closet in each building. Incorporating a fiber zone cabling solution, fiber was installed from the main wiring closet (MDF) to a fiber/copper switch in every classroom and lab. This allowed for easy addition of new workstations and devices without requiring the installation and associated costs of recabling for new users.

To minimize collisions with multiple users, Fayette selected Waters' ProSwitch Flexport QS series of modular switches with 100Base-TX/FX modules to connect classrooms and servers and routers in the wiring closet (MDF).

Waters' ProSwitch®-Secure fiber/copper classroom switches were installed in every classroom and lab. All Waters' classroom products are designed specifically for K-12 LAN applications and are constructed as a one-piece design enclosed in a rugged, tamper-resistant housing. Media conversion is inclusive in all Waters' fiber/copper classroom switches. Conventional copper cabling was used to connect each classroom device to the classroom switch.

The entire LAN/WAN system is currently monitored and managed remotely from one location at the Lafayette Technology Center. Future plans include upgrading the current 10/100Mbps fiber/copper switches to Waters' new managed ProSwitch®-Secure series 100Mbps fiber/copper classroom switches. The current fiber infrastructure will provide an easy migration path for upgrading to Gigabit technologies.

Waters can help your district maximize its technological resources -- call 800-328-2275.