

K-12 Network Case Study by Waters Network Systems

**Paulding County School District
Dallas, Georgia (Atlanta Suburb)**

High Schools: 3
Middle/Junior High Schools: 5
Elementary Schools: 16
Alternative School: 1
Board of Education: 1

The Waters' Solution

Incorporating fiber zone cabling allowed the district to:

- ▶ Create an infrastructure that provides high bandwidth access for all users
- ▶ Reduce costs of wiring closet electronics
- ▶ Prevent tampering of electronics in the classroom and labs with Waters' ProSwitch®-Secure classroom switches
- ▶ More easily manage its network at a cost the community can afford
- ▶ Easily upgrade to higher bandwidths simply by changing the electronics on both ends

“Waters’ Classroom Switching is the Most Cost-effective Solution for Installing Fiber to the Classrooms”

Chris Ragsdale, Chief Information Officer, Paulding County School District



“We have enthusiastically used Waters Network Systems’ products for over seven years. That’s because Waters’ migration path from 10Mbps hubs to 10/100Mbps managed switching has allowed us to take full advantage of our fiber zone cabling infrastructure and provided easy implementation for VoIP in our district.”

Networking History

1991 Created technology plan to provide network access for the entire district.

1992 Installed Token Ring LAN using zone cabling network design.

1995 In cooperation with local CATV provider, created Wide Area Network by installing singlemode fiber from Board of Education (BOE) to all district schools.

1996 Determined that all future schools would be cabled with 62.5/125 multimode fiber using a single Main Data Facility with "home runs" to each classroom location.

1999 One or two drops of fiber cabling (depending on environment) were attached to a ProSwitch®-Secure hub in each classroom, lab and office at Hiram HS.

2000 District grew to 26 sites, some 16 miles apart, with 3,500 administrative and student workstations. Decision made to upgrade to Ethernet switching.

2001 Began upgrading all schools using fiber-based zone cabling with one central wiring closet. Original Token Ring converted to 100Mbps Ethernet.

Analysis

Paulding School District realized early on that careful, thoughtful planning, based on a vision for the future, would allow them to meet their objectives and stay within their limited budget. By choosing fiber zone cabling, they created a network that is flexible enough to serve their increased bandwidth needs far into the future, at an economical cost.

By focusing on fiber for their future technology, Paulding is able to take advantage of higher bandwidth devices without recabling.

In its latest upgrade, Paulding once again chose Waters' ProSwitch®-Secure series for their Ethernet classroom switches. By using this type of design, Waters and Paulding took the customary function of Ethernet switching and made it almost "bulletproof". Multimode fiber cable from the wiring closet was connected directly to Waters' ProSwitch®-Secure classroom switches, then connected to all classroom devices using conventional copper cabling.

Currently, district-wide voice over IP (VoIP) has been implemented using a 1Gbps Ethernet fiber backbone with 100Mbps fiber to all the Waters' ProSwitch-Secure classroom switches. The existing fiber network will allow for future growth to a 10Gbps backbone with 1Gbps to every classroom without recabling any buildings.

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

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