

Schools linked through broadband network upgrade

BY JOHN L. GUERRA , Citizen Staff

It was a big job.

Two Monroe County school information technology employees spent several days before school reopened building a redundant fiber-optic loop that connects all of the public schools in the Florida Keys to district headquarters. They connected school buildings from Key Largo through Marathon and Big Pine Key to Key West.

The gigabit ethernet loop provides redundancy, or backup, in case the wide area network (WAN) that runs the district's voice, data and video systems fails, said Ken St. James, the district's instructional technology director. The system is the backbone of the district's communications, including office phones, Internet access for administrators and students, and video conferences between schools and the district. The WAN also enables distance learning and lets a single teacher educate students simultaneously in two or more classrooms in different parts of the Keys.

That's not all; the School Board broadcasts its meetings, workshops and public hearings over the WAN. At other times, the channel runs continuous district job openings.

The backup will ensure continued service if the primary loop is severed by digging, knocked out by weather or other accidents, Schools Superintendent Randy Acevedo said Tuesday. Service has been lost temporarily in the past.

"If one school lost power, the school on the other end of the loop lost power," he said. "This upgrade prevents that from happening."

St. James and his assistant, Miguel Gonzalez, started the project on Aug. 2 and finished the installation in time for a testing of the loop before school reopened.

Comcast owns the fiber-optic pipe that runs the length of the Keys, so St. James and his staff tied the backup loop from the schools into the Comcast line, a notice from the district said. The gigabit network, which is a fire hose compared with a straw in the home version of broadband capacity, also runs office and school phones, including an automated dialing system that quickly can call students' homes throughout the Keys.

St. James and Gonzalez were recognized during Tuesday's School Board meeting for the installation.

In an unrelated event, the district's IT department also recently received a \$191,593 grant from the U.S. Department of Education. The "Developing Digital Engineers" grant was obtained by U.S. Sen. Bill Nelson, D-Fla.

The money will help the district expand remote learning and other Web-based education tools.

"As teachers and students expand the creation of projects with enhanced multimedia and access real-time distance learning opportunities, the need to upgrade storage devices and backup capabilities will be paramount," St. James said. "Increased data storage will let teachers store teaching materials and text and multimedia teaching programs for retrieval from one school year to the next."

Students also can use the storage to store text, videos and other data for their class projects, homework and collaboration they perform with students online.

jguerra@keysnews.com