

Increasing Productivity in State and Local Government with Gigabit Ethernet

Darren Smith had a problem...

The government network of Orange County, California was too slow. Each high-resolution image from the satellite-mapping system took about 30 seconds to load on the screens of their PC's. A Gigabit Ethernet network became the clear solution but had a catch: Much of the premises would have to be re-cabled with fiber because of long runs. Then Darren learned about WideBand Corporation.

"I was looking at budgeting tens of thousands of dollars in fiber cable, and labor to install it. After installing your product [WideBand Gigabit Ethernet switches and adapters], we were amazed that we were getting Gig at the desktop over Cat 5. Some of our runs are over 250 feet. Our download times been decreased by 75%. That is amazing!"

- Darren Wm Smith, CEO I/S Supervisor, County of Orange, California

Darren learned what many city, county and state government agencies are finding out – rewiring is no longer necessary with WideBand's Gigabit Ethernet products.

The Gigabit Ethernet (GbE) Revolution

GbE Developed for the Backbone

Originally, there were several good reasons why GbE was just for the wiring closet:

- Too expensive for use at the desktop
- PC's could not utilize the speed of GbE
 - Network utilization was 20-30% max
 - Actual transfer rates were about 200Mbps
- Not reliable over Category 5 cable

Gigabit Ethernet Now to the Desktop

Since that time everything has changed:

- GbE prices have dropped dramatically, making the difference between it and 10/100 almost negligible
- PC's are much faster
 - Transfer tests show 5-fold gain in transfer rate
 - Applications now load faster from servers than local hard drives
- WideBand's GbE products work reliably over all network cables (Gigabit Ethernet Without Rewiring)

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WideBand GbE is demonstrated carrying data reliably over poorly installed Cat 3 cable – and even over Barbed Wire!

Gigabit Ethernet Without Rewiring

WideBand Corporation, a U.S. manufacturer of high-quality networking products, has designed and produced a complete line of gigabit ethernet switches to work over existing cabling.

WideBand's gigabit ethernet products have been evaluated on over 100 different brands of Category 5 cable, representing the vast majority of the U.S. installed base. WideBand's products passed on all of the cables, even at the full 100-meter cable length.

WideBand's transmission capability is so robust that it has even been demonstrated transmitting data reliably on eight strands of BARBED WIRE. Starting with Cat 3 cable – in an installation including many wiring "taboo's" such as staples poking through the wire, extreme bends and angles, and A/C current running alongside it, and adding eight strands of BARBED WIRE – WideBand's gigabit ethernet products still transmit large files and even DVD-quality video over this "less-than-ideal" cable and installation.

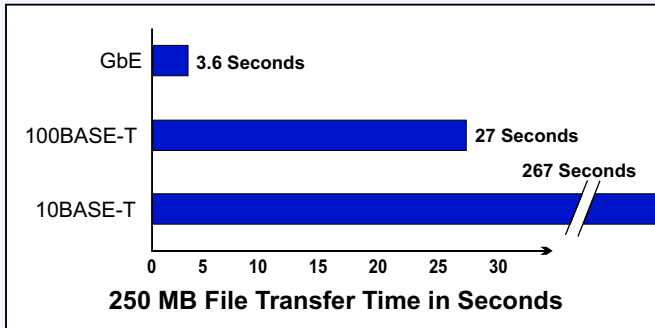
*Not tested with all Category 3 cable types.

Widespread Adoption

The result of these changes has been staggering growth as demand for high-speed networking has increased. Worldwide sales of GbE networking products have surpassed sales of 10/100 Ethernet products.

Increased Productivity

Network Managers have identified the network as a key to increasing productivity. In deploying GbE, they have found that now faster is "faster". Files can be copied and opened at a substantially higher rate.



As State and Local agencies depend more and more on computing in their jobs, decreasing the associated "wait time" has become very significant. Because of the increased productivity, the impact of upgrading to GbE can be measured against overhead expenses such as employee salaries. This makes justifying costs to Management easier for Network Managers.

Applications for High-Speed

There are a diverse range of network applications used at State and Local agencies, which are enhanced or enabled by GbE, including:

- Digital photography and satellite imaging
- GIS mapping
- Document Imaging
- Faster database access
- Streaming video for conferencing or surveillance
- Real-time file transfers and back-ups
- More effective e-Communications
- Large documents
- Professional content creation

Migration Strategy

For most State and Local agencies, it is not feasible to retrofit the entire network all at once. A phased migration to GbE along these lines is recommended:

- Specify GbE on all new servers, workstations and desktop purchases to future-proof your network
- Implement GbE adapters and switches to high-traffic servers
- Deploy GbE switches in the backbone
- Upgrade wiring closet to provide GbE throughout
- Retrofit desktops of power users with GbE

Gigabit Ethernet Managed Switches

Twenty-eight, sixteen or eight ports of blazing performance over your existing cabling at an affordable price.



Eight copper ports and eight mini-GBIC slots which can be populated as needed for gigabit fiber connectivity.



WB28GMPRO	28-port Managed Gigabit Ethernet Switch
WB16GMPRO	16-port Managed Gigabit Ethernet Switch
WB8GMPRO	8-port Managed Gigabit Ethernet Switch
WB8G8FMPRO	8+8 Managed Gigabit Ethernet Switch

Gigabit Ethernet Adapters

Separate models for powerful servers and high-performance desktops eliminate long delays while waiting for large files and even executable programs to load over the network.



WB1000T32PRO-B	32-bit Gigabit Workstation Adapter
WB1000T64PRO	32/64-bit Gigabit Server Adapter

Terabyte Network Storage Servers

Teran II Professional Servers are the best choice for the most demanding and mission critical applications including databases, video editing, and financial accounting. Available in 1, 5, and 10 Terabyte models



Features Include:

- Direct Connection Architecture
- Dual 64-Bit Processors
- Dual Gigabit Connections
- 1.2 Million Hr. MTBF Drives
- Hardware level RAID
- Redundant power supplies
- Massive Storage Capacity
- OS Tuned for Specific Hardware

FXTII-1	fs[ix] Teran II Server w/ 1 Terabyte
FXTII-5	fs[ix] Teran II Server w/ 5 Terabytes
FXTII-10	fs[ix] Teran II Server w/ 10 Terabytes

For more information Contact: