

# Trading on Mid-Band Ethernet

## Investment Firm Discovers Superiority of Mid-Band Ethernet

By Elizabeth Starr Miller

CTS Strategic Investments is a quantitative investment firm with \$150 million in assets under management and investments spread throughout the financial industry, including small and large cap companies, socially responsible investments and hedge funds. Like most small businesses, CTS used to rely on T1 lines to access essential business services. But when the firm moved its offices and evaluated available solutions, it found that a new service—offered in their area by XO Communications and enabled by Hatteras Networks— offered superior reliability, scalability, and most importantly, the high performance required for their critical business data needs.

### The Bottom Line

Founded in 2003, CTS monitors portfolios from 7 a.m. to 6 p.m. every day using real-time data feeds from the NYSE, NASDAQ, AMEX, CME, and CBOT. As a result, reliable symmetric performance is imperative because having data just a few seconds old or a delay in transmitting a trade can translate to significant financial losses for the firm. But CTS' bandwidth demand doesn't end with the close of the markets. It continues through the night.

From midnight until 4 a.m., CTS downloads all of the previous days trading data—all the opens, closes, highs, lows, and divisors—for every stock on the Russell 2000 and the S&P 500 from Market QA, a division of Thompson Financial. The firm then runs an analysis on all of these stocks in order to re-optimize its portfolios.

After three years in its shared office space, CTS sought a space of its own. For its new office space, the firm required an abundant supply of reliable data networking bandwidth at a reasonable price in order to process the expansive amount of information essential to its daily operations.

The firm assumed it would continue to use T1 lines, the most common option presented by service providers, for its data networking needs. However, when approached by XO Communications, CTS realized the superiority of Mid-Band

Ethernet technology, a solution afforded through the partnership between XO Communications and Hatteras Networks' HN4000 central office equipment. Mid-Band Ethernet delivers scaleable, reliable, high bandwidth symmetric Metro Ethernet services over existing copper telephone lines already available at CTS' facility.

### An Easy Decision

XO Communications offering was clearly a superior choice over T1-based offerings. With the XO Private Data Networking Service, CTS could take advantage of the familiar 10Base-T, RJ-45 jack as a service demarcation point, symmetrical data rates of 10 Mbps, and a state-of-the-art OC-192 Internet Protocol (IP) backbone network backed by industry-level Service Level Agreements.

"We would have needed six, 1.5 Mbps T1 lines to get the bandwidth we needed," said Patrick Buck, chief financial officer for CTS Strategic Investments. "But because our application is so data intensive, it made more sense to go with a single larger 10-Mbps Ethernet service. In addition, I had used XO in the past and was comfortable with them because they have excellent customer service."

To implement its Private Data Networking Service, XO uses the Hatteras HN4000 Mid-Band Ethernet switching and

aggregation platform in the central office to serve multiple customers and the Hatteras HN408-CP Mid-Band Ethernet customer premise solution within each customer site. The HN408-CP provides a 10/100 Base-T handoff to the enterprise customer's network.

### A Savvy Investment

From day one, CTS knew that its business would grow and network scalability was a key consideration when choosing to go with XO Communications' service. With Mid-Ethernet, CTS can seamlessly scale to higher bandwidths without any equipment changes. As an investment firm, CTS cannot tolerate any bandwidth constraints or performance delays. Mid-Band Ethernet offers the low latency and no performance delays that are imperative to CTS business.

Whereas T1 lines have the propensity to jam and transfer rates slow when capacity is stressed, Buck continues his praise of the muscle of the XO-Hatteras solution. "The larger pipeline from the Mid-Band Ethernet solution does a better job of managing traffic spikes. As a result, we have experienced no performance delays," he says. In addition, the Mid-Band Ethernet bandwidth is much more easily expandable, when CTS business needs demand, compared to the cumbersome T1 lines.

Overall, the XO-Hatteras solution has continued to prove itself as a savvy investment. To date, CTS has saved more than 65% each month on its data networking services, according to Buck. "T1 lines cost \$700 to \$1,000 (including taxes) for a 1.5 MB connection, which means it would have cost between \$4,200 and \$6,000 per month for the six lines we needed to meet our bandwidth requirements," he says. "Today, we pay a total of \$1,481 per month for our 10 Mbps Mid-Band Ethernet connection from XO. That's a savings of between 65% and 75%, depending on current T1 costs. That is a huge savings."