

# Next Generation Financial Extranets Must Deliver Speed and Scalability

By S. Keao Caindec

During the past five years, electronic trading volume at the world's largest exchanges, global banks and other platforms has grown at an unprecedented rate. The rapid migration to electronic trading in equities, options, commodities and many other markets has brought with it considerable advances in efficiency, transparency and volume capacity. While these have been a boon to the financial community, the trend also poses significant network challenges - challenges that remain surprisingly under the radar given the stakes involved. Simply stated: The traditional financial extranets that are relied on today cannot support these levels of expansion.

## Electronic trading driving the need for speed and scalability

According to a recent report by the TABB Group, electronically routed buy-side orders will increase from 1.2 billion shares a day in 2004 to more than 3.1 billion shares in 2007. The TABB Group estimates that electronically communicated institutional U.S. equity order flow will grow from 69 percent today to nearly 80 percent by 2007.

Options exchange volume and the size of market data feeds continue to grow aggressively as well. Matt Simpson, associate director of the electronic trading architecture of the Chicago Mercantile Exchange (CME), recently reported the Options Price Reporting Authority (OPRA), which consolidates feeds from the six major equity options markets, projects highs of 173,000 messages per second (MPS) by July 2006, compared to peaks of 130,000 MPS in January 2006. Bandwidth requirements for the OPRA feed are expected to reach 98.6 megabits per second (Mbps) - far exceeding the capabilities of traditional shared network financial extranet providers.

With hundreds of thousands of trades per second communicated electronically, one millisecond of network delay can determine whether an order is filled or not, making speed and scalability absolutely critical.

## Issues with current extranets

The entire financial community relies on private, secure "extranet" connections to carry pricing quotes, trading information and other vital data that cannot stop for even a fraction of a second. These extranets tie the financial community together to permit effective and efficient global commerce. Unfortunately, traditional established extranets simply do not provide the speed, scalability and flexibility to support the increasing demands of electronic trading.

Traditional extranet providers deliver shared-network services to interconnect exchanges, banks, brokerages and trading platforms. Initially developed more than 20 years ago, these networks typically serve bandwidth needs

