



Critical Market Infrastructure

SFTI SPELLS CONTINUITY FOR THE FINANCIAL INDUSTRY

An important example of efforts to strengthen and protect the nation's critical infrastructures and assets is a technology solution called Secure Financial Transaction Infrastructure (SFTI). Pronounced "safety," this ambitious project was conceived by The Securities Industry Automation Corp. (SIAC®), the technology subsidiary of the NYSE. The SFTI network has been hailed as a solution to the need for greater resiliency in the communications networks that support the financial industry.

"SFTI is critical to protecting the underlying infrastructure of the U.S., if not the global, capital market system," says Brian Roseboro, Under Secretary of the U.S. Treasury Department, which President George W. Bush has charged to work with the private sector and state and federal regulators to ensure the resiliency of the financial system. The U.S. Treasury Department has established the Office of Critical Infrastructure Protection, which reports to Roseboro, to carry out this mission in conjunction with the private sector.

Roseboro participated in a recent NYSE press conference marking SFTI's 600th brokerage-firm customer. "Bringing me here today is the opportunity to recognize a private-sector initiative that has done great work in strengthening that resiliency," he said. "It's important that we recognize SIAC and the NYSE for their successes. They understand that the pursuit of business continuity is a race that has no finish line. Continued progress is a necessity."

"The SFTI initiative was conceived post 9/11, when the issue was that many broker-dealers had either lost or had very significantly impaired connectivity to our data centers, and that was true of other markets' data centers as well," said NYSE President and Co-COO Robert G. Britz at the press conference. "Everything today depends on that connectivity — delivering communications at the speed of light — and SFTI was developed to address that issue."

Although the NYSE and SIAC still had the ability to support trading, roughly 55 percent of all order lines into SIAC's data centers, which support the NYSE, were lost on 9/11 as a result of damage to a vendor's switching facility and lines in lower Manhattan, explains Stephen Romano, SFTI's general manager and senior vice president of SIAC. SIAC designs, constructs, operates and implements the NYSE's technological infrastructures. The loss of data and voice connections to market centers and customers that most broker-dealers experienced clarified the need for a more secure and resilient network infrastructure, he says.

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THE SFTI NETWORK

With that goal in mind, SIAC undertook the development of SFTI, a network that provides broker-dealers with continuous telecommunications resiliency, as well as a secure means of connecting to trading, clearing and settlement, market-data distribution and other services. SFTI replaces point-to-point circuitry, which existed prior to 9/11, with highly reliable, geographically and physically diverse routing. As Romano

points out, SFTI is becoming "the de facto industry standard for all financial-services communications activities."

The new infrastructure facilitates the move from legacy communication standards to TCP/IP, a network protocol that automatically routes around failed circuits, Romano reports. So instead of circuits running directly to SIAC's data centers, he explains, broker-dealers now connect, using their choice of data-transport vendors, to two or more access centers within and beyond the Boston, Chicago and New York metro areas.

An innovative, ring-based, self-healing fiber-optic architecture provides numerous access nodes (as opposed to just one previously) for broker-dealers to connect to. Further, the infrastructure allows the routing of data traffic around areas when telecommunications services are disrupted.

For example, in the event of a severed line or other types of failure, traffic is rerouted in the opposite direction along the circular paths. Once the communication reaches these access points, SFTI carries the signal to SIAC, which then routes the orders, messages or reports to the appropriate exchange, market center or other industry utility, such as the Depository Trust & Clearing Corp. All of this happens instantaneously.

CRUCIAL RESILIENCY

Merrill Lynch & Co. Inc. (MER) is one customer that currently supports both its front-office (cash equities and program trading) and back-office processing with SFTI, and by year-end will have all activity on SFTI, according to Stephen Norman, chief technology officer of infrastructure and data services at Merrill Lynch.

“SFTI is critical to maintaining our businesses,” he says. “SFTI benefits Merrill Lynch by providing network resiliency, faster time to market for new system connectivity and lower costs. Migration to SFTI afforded us the opportunity to consolidate our numerous point-to-point network connections to SIAC and to simplify our network architecture. Operating costs were minimized by reducing the number of connections and man-hours required to support the environment,” he adds.

An important partner to SIAC in bringing its customers this service is **Consolidated Edison Inc.** (ED). “SFTI also improves SIAC’s ability to restore systems and to transact business as quickly as possible following a crisis,” says Eugene McGrath, Con Ed’s chairman, president and CEO. “We were very pleased when, in September 2002, SIAC named us its first infrastructure vendor to develop SFTI.”

“SFTI represents an important element in a firm’s business-continuity effort, providing a resilient communication path to exchange-market centers and clearing corporations,” says Don Kittell, executive vice president of another SFTI supporter, the Securities Industry Association.

Adds Joe Sack, the executive vice president of the Bond Market Association: “SFTI offers redundancy and geographic diversity to

financial-service participants across the country. The rapid rate at which the industry has adopted SFTI is understandable, given its practicality and ingenuity of design.”

As a result of SFTI’s access-node structure, access to SIAC services is no longer contingent on SIAC’s geographic location, says Romano. Companies can connect to SIAC through fewer lines, even if they’re outside the New York region, which lowers costs, he adds. “Now a firm doesn’t have to connect through a data site for the SIAC-hosted services,” says Romano. “They can go to one of the access nodes, and we will get them to our sites.”

SEAMLESS IMPLEMENTATION

As Norman explains, “the SFTI support team worked diligently with Merrill Lynch engineers and operations staff from initial planning through final cutover and implementation. Cutover to SFTI was seamless for our systems and clients. Continuous and reliable connectivity to the NYSE by all members of the financial community is critical to ensure a continuous and orderly marketplace. Resilient connectivity for Merrill Lynch assures our ability to be a market participant and to service our client’s needs.”

Beyond equities, SFTI also supports the connectivity needs of the fixed-income, options and futures market, as well as other securities businesses, and is expanding into those areas, according to SIAC.

As Roseboro and others agree, SFTI has important implications for issuers, investors and all market participants. “An issuer wants a market that is liquid and functioning — a market that can absorb and process information and have that reflected in adequate price discovery,” says Roseboro. “Any disruption to that process is ultimately a disruption to the issuer’s underlying business,” he adds. “An investor, by definition an owner of the company, must also have confidence in the market. Having confidence in backup systems, that transactions will settle and clear, is important, because confidence in the trading system,” he concludes, “leads to confidence in the entire economic system.” □

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