

## NSCC Applications Successfully Insourced, FICC Queued for '05

By Crystal Bueno

With all National Securities Clearing Corporation (NSCC) applications now successfully insourced and transitioned from the Securities Industry Automation Corporation (SIAC) data center to DTCC's own data centers, attention has turned to bringing the Fixed Income Clearing Corporation (FICC) applications into DTCC's data complex.

The FICC insourcing project, which began in [continued on page 4]

## Campaign to Eliminate Paper Certificates Adds New Tools, More Participants

By Jim Conmy

Building on the success of its campaign in 2004 to streamline the handling of paper certificates and ultimately eliminate them, the security industry has begun launching new programs and recruiting new participants for its dematerialization drive in 2005.

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How DTCC Quantifies Risk

# DTCC Hits New Record on January 4 for Transactions Processed

By Edward C. Kelleher

The Depository Trust & Clearing Corporation (DTCC) processed a record 32.2 million transactions on January 4, surpassing by almost 7% the previous record of 30.2 million transactions set on May 10, 2004.

DTCC, through its National Securities Clearing Corporation (NSCC) subsidiary, provides clearance and settlement services of virtually all broker-to-broker trades done on the New York Stock Exchange, Nasdaq, the American Stock Exchange and for all regional exchanges and electronic communications networks (ECNs) in the United States.

"We've seen the record for daily volume transactions broken five times during 2004 alone," said Thomas Costa, DTCC managing director and general manager for Equity Clearance and Settlement. "The average daily transaction volume for 2004 was over 22 million, compared to an average daily volume of 18.9 million transactions in 2003. And the January 4

transaction volume - 32.2 million transactions - was 41% higher than the average number of daily transactions in 2004."

At NSCC, each transaction represents either one buy or one sell side of a trade. The 32.2 million transactions on January 4 represented a total of 4.5 billion shares traded that day.

"In addition to processing the growing increases in average daily transaction volumes, NSCC has to be prepared to handle the unpredictable spikes in volumes that can occur at any time," said Donald F. Donahue, chief operating officer, DTCC. "Just as DTCC helped solve Wall Street's paperwork crisis in the '70s, we have to be prepared to prevent an electronic logjam in transaction activity today. We continue to expand our capacity

to process large transaction volumes - currently we can handle more than 60 million transactions a day - just as we continue to take steps to ensure certainty and resiliency in our business continuity efforts by decentralizing our operating and data facilities."

Aside from providing the capacity to process transactions on high volume days, NSCC also reduces the number of trade obligations requiring financial settlement through a process called "netting," which both minimizes securities movement and reduces risk for the industry. On the peak day of January 4, 2005, NSCC reduced financial obligations from \$550.5 billion to \$11.6 billion, a netting factor of 98%. @



## Here is a summary of January 4 transactions and other record days of the past two years:

	June 6, 2003	May 10, 2004	January 4, 2005
<b>Transactions</b>	26 million	30.2 million	32.2 million
<b>Value of Transactions</b>	\$465.3 billion	\$494.6 billion	\$550.5 billion
<b>Final Settlement Value</b>	\$13.3 billion	\$12.5 billion	\$11.6 billion
<b>Netting Factor</b>	97%	97%	98%

# FSSCC Issues First Annual Report

By Steve Letzler

The Financial Services Sector Coordinating Council for Critical Infrastructure Protection and Homeland Security (FSSCC), in its first annual report, detailed significant progress in identifying and reducing physical and cyberspace vulnerabilities, and ensuring the overall resiliency of the nation's financial services infrastructure to withstand terrorist or criminal attacks.

FSSCC, a network of financial trade associations and private firms representing thousands of financial services organizations, works closely with the U.S. Department of Treasury, financial regulators and other government agencies to coordinate the private sector's preparation for events that could disrupt the normal business of the financial services industry.

"Over the past year, FSSCC has achieved an unparalleled level of coordination and action planning to safeguard our financial services infrastructure," said Donald F. Donahue, sector coordinator and chairman of the FSSCC. Donahue is also chief operating officer of DTCC. "These efforts build on the individual initiatives of financial service firms that have been underway since September 11, 2001, and they represent the industry's ongoing strategies for ensuring sector-wide preparedness.

"While the public – and Congress – should have greater confidence based on the progress that's been made, we understand this process is ongoing and requires continued vigilance," he said. "This annual report is intended merely to provide some insight on our activities, without compromising safety and security."

"This report shows the outstanding progress the Financial Services Sector Coordinating Council has made in protecting the critical infrastructure in

2004," said D. Scott Parsons, deputy assistant secretary of the Treasury for Critical Infrastructure Protection and Compliance Policy.

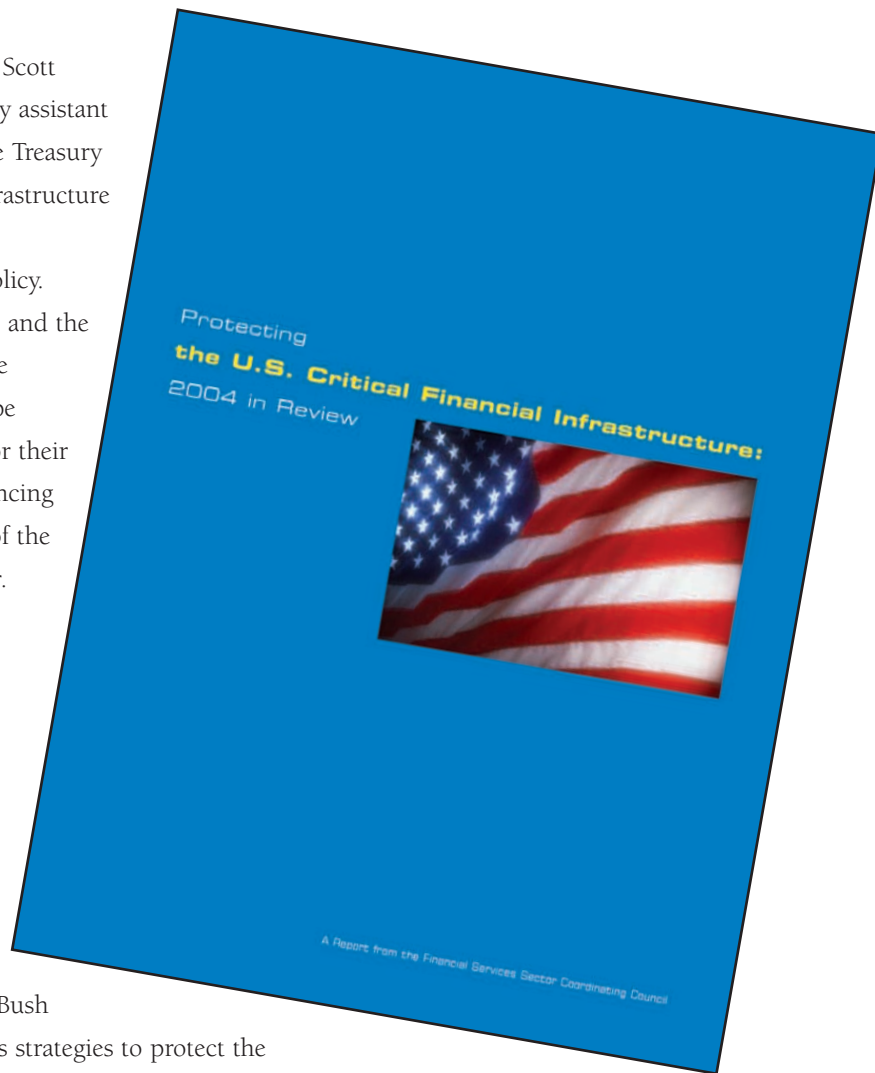
"Don Donahue and the members of the FSSCC are to be commended for their efforts in enhancing the resilience of the financial sector.

The close cooperation between Treasury and the FSSCC exemplifies the public-private partnership that President Bush called for in his strategies to protect the nation's critical infrastructures."

Among the accomplishments of FSSCC, its member organizations and financial services firms in 2004 were:

- Expanding the level of ongoing coordination, strategic action planning and sharing of "best practices" on business continuity initiatives among a broadly diverse group of financial industry organizations and government agencies.
- Enhancing financial sector-wide preparedness for communication and collaboration in a crisis.
- Improving the resiliency of the financial sector's own telecommunications networks to ensure connectivity and recoverability.

Among some of the specific sector accomplishments cited by the report in 2004 were:



## Coordination and Planning:

- Increased membership in the Financial Services/Information Sharing and Analysis Center (FS/ISAC) during the year. FS/ISAC membership grew more than 1,300%, from 66 members to nearly 1,000 by year-end, thanks in part to a number of efforts by FSSCC members and FSSCC itself, as well as FS/ISAC's own marketing efforts. FS/ISAC provides a 24-hour, seven-day-a-week center that can assist financial firms in fighting cyber and physical threats.
- Coordination of extensive "table-top exercises" to simulate how the sector might respond to particular events. These table-top exercises were broadened [continued on page 10]

# NSCC Applications Insourced *Continued from cover*

mid-2004, will be accomplished in a set of incremental steps throughout 2005.

Moving FICC's applications will complete the project to insource all applications hosted by SIAC to DTCC's own data centers, which will ensure consistent business continuity planning (BCP) capabilities across all DTCC services, as well as result in other operational efficiencies and lower costs for data processing in 2006 and beyond.

SIAC will continue to serve as the principal processing hub for the New York Stock Exchange and will continue to feed NYSE trading data into DTCC's systems in real-time for clearance and settlement processing.

## **Business Continuity Strategy**

According to George Perretti, managing director, DTCC Business Continuity Planning, the business continuity strategy of insourcing the various applications into DTCC's data centers meant that these insourced applications could be hosted and managed from DTCC's multiple operating facilities, and connected to

customers with DTCC's SMART network.

"This end-to-end management of the entire complex - hosting our applications at DTCC's multiple operating centers and connecting everything via SMART - makes it possible for us to routinely exercise contingency capabilities, even without coordinating special industry-wide tests," said Perretti.

"Rather than maintaining business continuity capabilities in standby, we can now treat all the sites, servers and our SMART network as a unified complex that's always on, and always operational," he said. "And what's really 'smart' about this configuration is that it is completely transparent to our customers. We can switch centers seamlessly."

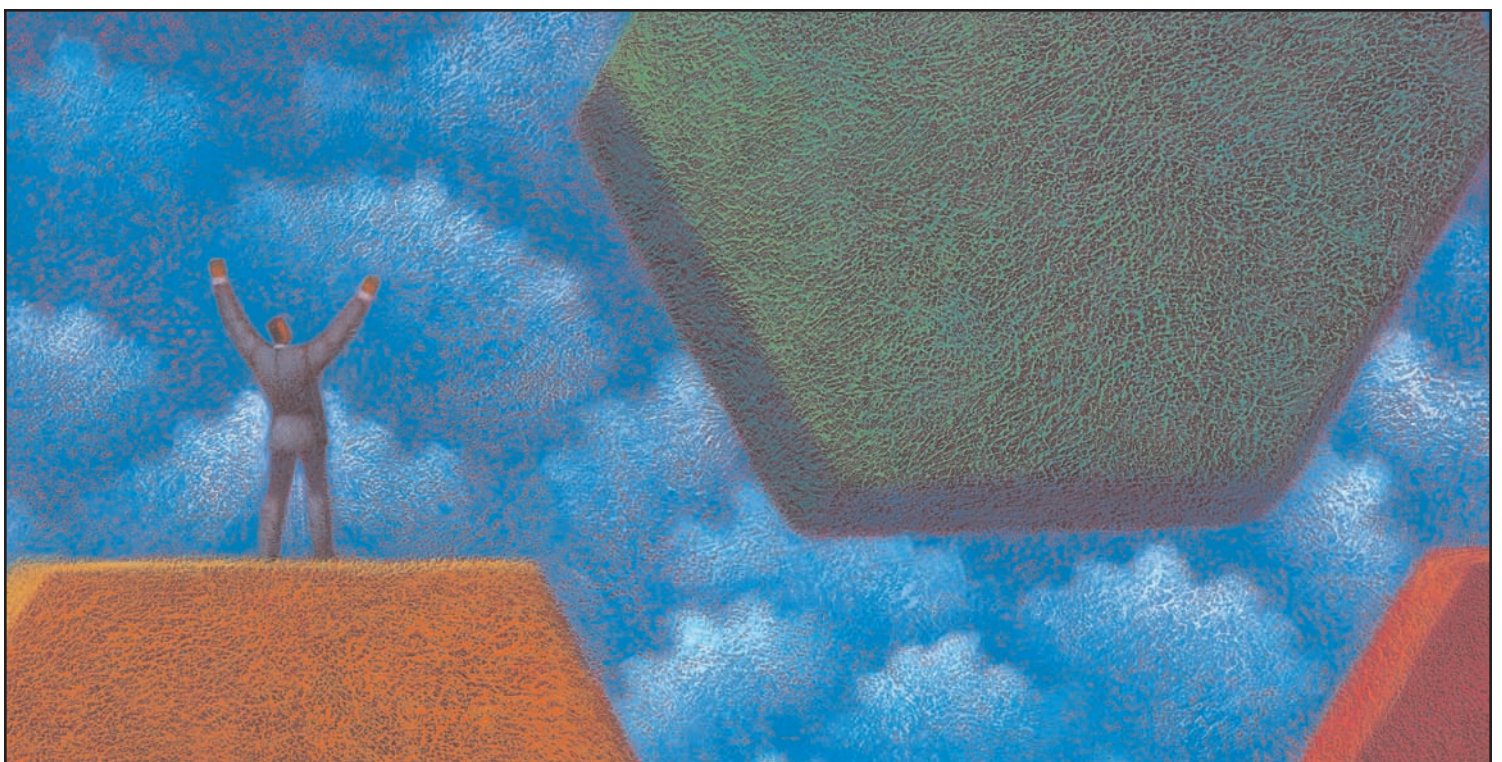
Because of these business continuity advantages, the first phase of FICC's insourcing effort involved expanding FICC's processing to DTCC's out-of-region data centers in 2004. Specifically, in the second quarter of 2004, FICC successfully implemented the Government Security Division's (GSD) core transaction processing system, and in the fourth

quarter of 2004, FICC successfully deployed the Electronic Pool Notification (EPN) and General Collateral Financing (GCF Repo<sup>®</sup>) processing into production at DTCC's remote data centers.

## **Insourcing in Increments**

The first phase of the NSCC insourcing project began with rewriting some of the core clearance and settlement applications scheduled for updates. Later, the insourcing project also involved directly "re-hosting" some applications running at SIAC to move them into production at DTCC. At the same time, as the insourced applications were successfully tested and re-launched one by one through 2004, the legacy versions of these applications running at SIAC's data centers were either decommissioned, or eliminated completely.

Insourcing FICC's technology into DTCC's data centers will follow the same series of incremental steps as did NSCC this year, with each phase involving a direct move of FICC's relatively newer, non-mainframe applications. @



# How DTCC Quantifies Risk to Help Manage It

By Melanie S. Best

In a quiet corner of DTCC's New York headquarters, a team of employees spends each workday considering stress scenarios. No, this is not some new health-and-fitness area of the company. Rather, it is a part of Risk Management – specifically, the department's Quantitative unit, which plays a key role in helping the DTCC organization manage the ever-widening range of risk in financial markets.

“Assessing and managing risk have become far more complicated with the globalization of financial markets, the growth of complex instruments and new technology,” said Cheryl Lambert, managing director, DTCC Risk Management. “The Quantitative unit uses advanced, innovative methodologies to help us understand and manage these new categories of risk.”

This entails devising formulas and running simulations that model the impact of stress scenarios – or extreme market conditions – to calculate the financial exposure faced by DTCC subsidiaries. That information helps Risk Management ensure DTCC has sufficient capital, to protect itself, and the industry.

## Changing Face of Risk

Heading up the Quantitative unit is Jiping Guo, vice president, Risk Management. A native of China, Guo came to the United States in 1987 on a Ford Foundation grant to study for a doctorate in mathematical economics. Guo's time at the University of Pennsylvania and the University of Rochester coincided with the early interest in quantitative risk analysis as an important discipline on Wall Street.

Financial institutions needed a way to respond to the growing interconnectedness of world markets, where a currency meltdown or oil supply shock in one place could reverberate across many stock exchanges. Also changing the face of risk were increasingly complex investment products – like derivatives, options, swaps and futures – designed by financial institutions to meet investors' demand for new profit opportunities.

The emerging quantitative analytical methods gained favor because they were well suited to managing complex portfolios. As a result, banks and brokerage houses built quantitative risk departments in the 1990s. DTCC also focused on this area of expertise and began building its quantitative analysis group.

## Vital to DTCC

As an example of the magnitude of financial risk carried by DTCC, look to the responsibility shouldered by the organization's clearing corporations, specifically those that serve as central counterparties (CCP) for certain of their customers' trades. As CCPs, the clearing corporations eliminate contra-party risk for the transactions they guarantee. In other words, say one of DTCC's

clearing corporations has guaranteed a trade in which Member A buys securities from Member B. If Member A goes bankrupt, then the clearing corporation will pay Member B for the delivery of those securities.

To cover this type of exposure and ensure the organization has sufficient assets to back up these obligations, it is the Quantitative unit's responsibility to assess the market risk and ensure the clearing corporations are always collecting sufficient collateral.

In doing this, Risk Management continually measures and monitors the creditworthiness of members and the risk posed by failed, as well as unsettled, positions. The Quantitative unit plays a key role in this and overall risk management for all DTCC subsidiaries.



Cheryl Lambert

## Doctors in the House

As at other Wall Street firms, many of DTCC's Quantitative Risk personnel hold doctorate degrees in applied mathematics, financial engineering, statistical physics and computer science. Yet DTCC's group is unique, because it supports a variety of responsibilities rather than focusing on a single function.

Within other Wall Street firms, the tendency is to focus on one of three types of quantitative risk management work, according to Guo: trading desk support, which is the high-pressure work; model validation, which is quantitative risk's equivalent of back-office work; and pure research.

“Our group combines all three,” Guo said. “We deal with the real problems of managing portfolio risk, but we also build models and do fundamental research.”

## A Typical Project

As an example of the type of work handled by the group, Guo cited a project undertaken at the request of DTCC Chief Operating Officer Donald F. Donahue, who asked the group to perform an analysis of how DTC's net debit cap could be affected by a crisis in the commercial paper (CP) market involving the insolvency of multiple related CP programs. Part of this analysis included assessing how the system would be impacted in the event the insolvency of one participant caused a second, related but legally distinct participant (with its own net debit cap) to fail on the same day. The results of this study were ultimately

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# Campaign to Eliminate Paper Certificates

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The goal of the drive is to reduce the expense of issuing and processing paper certificates, which according to the Securities Industry Association, costs the industry and investors some \$250 million per year, yet involves just over one-tenth of one percent of all trade transactions processed daily.

"We want to increase the momentum the industry built last year by speeding up and expanding programs we've started," said Joe Trezza, DTCC senior product manager. "While we'll be stepping up our dematerialization efforts at the depository, this is ultimately a co-operative effort, so we'll also be working closely with regulators, transfer agents, the exchanges, the issuers and other involved in the handling of paper certificates

## **Ambitious Agenda**

He said that, following up on programs launched last year, DTCC during 2005 expects to:

- Help reduce the high, ongoing paper custody costs brokerage firms and custodian banks have to pay by consolidating into its own vault thousands of certificates now scattered in safe-keeping around the country;

- Destroy thousands of old, non-transferable paper certificates;
- Convert thousands of other registered certificates to the Fast Automated Securities Transfer (FAST) program, which helps minimize certificate movement and streamline transfer processing by allowing The Depository Trust Company (DTC) to maintain jumbo balance certificates;
- Work to expand the number of issues and firms using the industry's Direct Registration Service (DRS), which does away with paper certificates;
- Add more participants to the highly successful "paperless legals" transfer program launched in 2004, which eliminates much of the legal documentation required to transfer certain share certificates; and
- Beef up the new family of services it launched last year to automate and simplify the processing of restricted securities, currently valued at an estimated \$1.2 trillion.

## **Cleaning up Custody**

Reducing the volume and costs of custody remains a major goal, Trezza said. Last year, DTC itself eliminated some

710,000 paper securities registered in its street name from its vault, reducing its overall stock of paper securities in custody by nearly 16%.

This year, DTC plans to take in more than 40,000 certificates from a number of its customers and participants around the country who have been holding the securities in their own vaults. Other firms not currently users of DTC's custody services are also sending certificates into DTC's vault. "Centralizing custody in our vault saves customers considerable expense," Trezza said.

Meanwhile, DTC's program of destroying well over a million non-transferable certificates is continuing during 2005. To date the depository has shredded 13,000 certificates for which transfer services hadn't been available for at least six years.

This year's destruction target is 75,000 certificates, mostly equity certificates of companies that have become inactive or insolvent. Participants have an incentive for seeing the certificates destroyed, because they now face a surcharge of \$5 per month for every non-transferable issue in DTC's vault for which they have not relinquished their position.

## **Registering Bearer Bonds**

Although banks haven't issued bearer bonds in many years, thousands of the instruments are still in circulation. Because many bearer bonds can be easily negotiated, they carry a higher risk in case of mishandling or theft. Consequently, converting the bonds from bearer form to registered securities is a major industry goal.

"We also reduce risk by consolidating smaller denomination bearer bonds into a single, large registered certificate," said Joe Clemente, DTCC product manager, who noted that the depository plans to convert

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# DTCC 2004 Technology Projects

## Reduced Risk, Simplified Processing

By Jim Conmy

In an update issued last month describing the implementation of its fourth quarter 2004 Technology Development Agenda, DTCC's Chief Operating Officer Donald F. Donahue detailed key technology accomplishments to date and described upcoming projects that will impact participant firms in 2005.

The development agenda report, which Donahue said was aimed at "ensuring that our customers have a clear understanding of our priorities and how we expect our investments to benefit the industry," spells out the principal technology initiatives the company anticipates tackling in the current year.

### Broad Industry Initiatives

Capping a three-year drive to strengthen and diversify its industry-wide business continuity resources, DTCC completed settlement for the first time at its new out-of-region Operations center in Tampa, Florida, early in December. The site is expected to be fully operational by mid-year for all DTCC and subsidiary company business functions except physical certificate processing.

Other initiatives DTCC undertook during the year included:

- Moving all NSCC data processing support from the Securities Industry Automation Corporation (SIAC) center into DTCC's own data centers, a step that has already reduced operational costs and increased operating flexibility.
- Extending its SMART communications network to make support available to all clearing service customers in order to improve both service availability and business continuity.
- The roll-out of the Participant Browser Services (PBS) system, which employs a graphic user interface to replace the aging "green screen" Participant Terminal System (PTS) information network slated for elimination by the end of 2005.
- Clarifying and simplifying billing and invoice practices for all Depository Trust Company (DTC) and National Securities Clearing Corporation (NSCC) customers. The companies now bill customers only in a simplified, paperless electronic format via email.

### Derivatives Services

Following up on the introduction in 2003 of its credit default swaps matching service, which received broad acceptance in the marketplace, DTCC Deriv/SERV launched an automated real-time matching and confirmation service in 2004 for OTC equity derivatives.

The service, which allows traders to manage exceptions and correct mismatches in real time, reduces both trading costs and risks. Enhancements to the service slated for implementation early in 2005 include payment matching, netting and settlement for a range of asset classes.

In response to customer priorities, Deriv/SERV is also slated to introduce a trade matching service for interest rate swaps and swap options in the first quarter of 2005. The new service is designed as the first building block in a complete service suite for the interest rates markets.

### Clearing and Settlement Initiatives

Donahue noted in the report that DTCC continued its drive to reduce risk and speed up reporting by capturing trade data in real time during 2004. With the inclusion of input from Electronic Communications Network ArcaEx scheduled for the first quarter of 2005, more than 70% of all equity transactions will now be received in real time. Later this year, Omgeo has agreed to provide DTCC real-time trade data on "prime broker" trades.

DTCC is also well along in completing enhancements for index share trades, including the ability to process actively managed exchange traded funds (ETFs). Another initiative allows for greater flexibility in distributing portfolios of ETFs, as well as for simplifying negative cash reporting.

Additional technology initiatives for clearance and settlement included:

- A pilot program using SMART/Track, DTCC's automated messaging hub, to serve as a messaging and tracking system for corporate action liability notices. Following evaluation of the pilot, the service is expected to go live in the first quarter. The service already supports stock loan recall notifications, and will be extended to support other communications among customers.
- Enhanced capabilities for managing institutional trade deliveries through DTC's new "Inventory Management System" (IMS). Additional new capabilities for IMS are slated to be rolled out in summer 2005.
- Streamlined settlement and risk reduction by eliminating processing of next-day matched reclaims of all securities, not just money-market instruments.
- Substantial improvements to, and easier use of, the Automated Customer Account Transfer Service (ACATS), including the

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# Campaign to Eliminate Paper Certificates

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thousands of such bearer instruments to registered securities this year.

Consolidation and dematerialization are also the industry's goal in converting thousands of older, paper municipal bonds into the FAST program, which removes them from circulation and consolidates custody, further reducing risk. For example, Clemente said, DTC is currently shredding some 50,000 separate muni certificates that have been converted into a single "bulk" or jumbo security account held by the transfer agent.

## Going Paperless

By the end of 2004, the industry's Direct Registration Service (DRS) had 100 participants utilizing the service while the number of DRS-eligible issues had risen from 648 at the beginning of 2004 to 963 by year-end. The number of investors now keeping their securities registered directly with the issuing company or transfer agent, so that no paper certificates are involved, is estimated to be about 37.5 million--or nearly half of the estimated shareholders of all equity issues on the markets.

Still, Clemente noted, there are hurdles the industry has to overcome to make the program more widely accepted and available. The New York and American Stock Exchanges, for example, are considering requiring every issue they list to be DRS-eligible. Nasdaq, meanwhile, recently began polling its listed firms for their views on whether DRS eligibility should be a requirement for listing.

DTC itself is also laying the groundwork to increase the surety bond for DRS from \$3 million per participant to as high as \$25 million. The surety bond encourages issuers and agents to take part in the program by not only protecting against losses that might occur but also increasing their processing efficiency. With

a larger bond, issuers and agents would have more protection to handle the higher volume of issues coming into DRS.

## Staying Paperless

Once equity securities have been made paperless through DRS, or immobilized through programs such as FAST, the industry's objective is to keep them paperless. To achieve its objective, the industry is preparing to ask the SEC to consider new procedures governing the withdrawal by transfer of DRS-eligible securities from DTC.

Last year, a majority of the 300,000 requests that DTC received for withdrawal by transfer of DRS-eligible securities were for paper certificates.

Clemente said that sending the DRS statement rather than the certificate itself would be expected to cut customer securities processing costs sharply while also reducing risk. As an inducement to encourage brokers to order the DRS statement rather than the certificate, DTC also raised the cost for withdrawing a DRS-eligible security in certificate form to \$12, and then hiked the "disincentive fee" that comes on top of that from \$5 to \$15, making the total cost \$27 per certificate.

## Dealing with Restrictions

Restricted stock, which many companies now issue instead of stock options in employee compensation packages, also present transfer problems for the industry. Unless the restrictions on the stock have been removed, the securities typically can't be traded or transferred until the restrictions expire or otherwise become invalid.

To overcome this, DTC launched a



whole family of services late last year to automate and streamline the processing of restricted securities by effectively removing the restrictions.

"We've received great feedback on our Restricted Securities Services," Trezza said. "Customers are using the services and already suggesting improvements, which we have begun to implement. We're working to have the next set of enhancements in place by the end of the first quarter."

## SEC Initiative

The SEC is also weighing in on the dematerialization issue, Trezza noted, by reducing the amount of time transfer agents have to move securities delivered to their drop sites from three days to two.

"Sometimes, however," he said, "we're still trying to bridge the gap between today's modern data processing environment and the days of paper long ago. For example, we're now awaiting a rule filing that would eliminate the NYSE's requirement for securities drop-off sites south of Chambers Street in downtown Manhattan. That's a throwback to long ago when all securities were paper," he said.

**Editor's Note:** for more information contact Joe Trezza at 212-855-4400 or [jtrezza@dtcc.com](mailto:jtrezza@dtcc.com). @

# How DTCC Quantifies Risk to Help Manage It *Continued from page 5*

included in a presentation made to the Federal Reserve Bank of New York.

## Projecting Possible Losses

Much of the Quantitative group's analysis employs a methodology known as VaR – value at risk. VaR is an estimate of the maximum loss an institution could sustain, assuming a given time horizon and a given confidence level.

To show how VaR analysis can be used, Guo cited a customer that declares bankruptcy. DTCC's clearing corporation has two days to close out the positions in its portfolio. Over those two days, the market could soar or crash, or move somewhere between those extremes. VaR analysis can estimate to a stated degree of certainty – typically a 98% confidence level – the maximum loss the portfolio could incur over the two days, using statistical analysis of historic market data.

Armed with this information, the unit can then assess the impact of such an event on the organization.

## Stress Tests and Backtests

One aspect of quantitative analysis used by this unit is stress testing. This refers to methods that assess the vulnerability of a financial institution or system to “exceptional but plausible” macroeconomic shocks, such as Argentina's economic collapse in 2001 or the massive devaluation of the Russian ruble in 1998.

Stress testing has been widely used by internationally active financial institutions since the early 1990s. Indeed, the SEC requires the use of stress tests for monitoring both market and credit risks.

At DTCC, one type of stress testing employs an historical simulation by using 10 years of reliable data to identify stress events that actually occurred, and then re-applies those market moves to members' end-of-day portfolios. “These simulations enable Risk Management to assess the losses to which DTCC's subsidiaries could be exposed,” said Guo.

In recent years, these tests have become a primary focus for the Quantitative unit, because of both market and regulatory concerns. Last year, the unit performed stress tests for the Government Securities and Mortgage Backed Securities divisions of the Fixed Income Clearing Corporation (FICC) and National Securities Clearing Corporation (NSCC). In 2005, more tests are slated.

The Quantitative unit also conducts what are known as “backtests.” Where stress tests examine expected outcomes under extreme scenarios, backtests perform a comparison between expected versus actual market outcomes. In other words, backtests compare real portfolios and trading results for subsidiaries' customers with model-generated risk analysis. This allows the DTCC organization to assess the quality and accuracy of its risk measurement systems.

## Mega-Computing Power

Stress tests, backtests or other techniques (such as Monte Carlo simulations) in quantitative risk management rely on multiple iterations of complex mathematical formulas. This work demands tremendous computing power and, thanks to a new 32-processor SGI Altix 3700 computer DTCC purchased late last year for the unit, Guo and his team will soon be able to do more work at a much faster pace

The computer will increase the group's capabilities to do stress test simulations and other mathematical modeling. Where now the group needs two days to complete a fixed income VaR analysis, with the new computer, the Quantitative unit expects to be able to accomplish the analysis within one hour. @



# DTCC Pays Tribute to Walter Wriston, Founding Member of DTC



Walter Wriston circa 1979.

**D**TCC joined with the rest of the financial services community last month in paying tribute to Walter B. Wriston, the former chairman of Citicorp, who died on January 19 at New York-Presbyterian Hospital in Manhattan from pancreatic cancer. He was 85.

Wriston played a special role in the formation and initial operation of The

Depository Trust Company (DTC), one of the main subsidiaries of DTCC. He was a member of the Banking and Securities Industry Committee (BASIS), the committee formed that first suggested the idea of a central securities depository that would move securities ownership by book entry.

Under Wriston's leadership, Citibank was one of the first banks to leave a significant amount of securities on deposit at DTC. Citi was also the first bank to accept book entry deliveries from brokers, one of the first banks to accept broker loan pledges by book entry, and the first to market use of DTC, through Citi, to other, smaller banks.

In short, Wriston played one of the biggest roles of any single individual within the financial services community in the establishment of DTC and in providing it with initial credibility within the financial community. @

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## FSSCC Issues First Annual Report

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in 2004 to assess cross-sector response, as well as responses between the private and public sector.

### **Telecommunications Resiliency:**

- Improved resiliency to the sector's telecommunications capabilities, through dissemination of "best practices" information by BITS/Financial Services Roundtable and other groups, and improvements to the sector's own networks operated by the Securities Industry Automation Corporation (SIAC), The Depository Trust & Clearing Corporation (DTCC), The Clearing House (TCH) and SWIFT.
- Extensive business continuity testing, with the Futures Industry Association (FIA) coordinating the first industry-wide test for the futures industry and the Securities Industry Association (SIA) managing ongoing tests between the

securities industry participants.

### **Sector-wide Communications**

- Completion of a sector-wide consolidated and coordinated crisis management call list.
- Implementation of emergency centers and links to government crisis management structures. Examples of that were the SIA's emergency command center in New York City and the ChicagoFIRST organization with Illinois and the city of Chicago's emergency structure.

FSSCC also made available to its members and the general public on its Web site (at [www.fsscc.org](http://www.fsscc.org)) a number of reports dealing with a wide range of topics, including how financial organizations can deal with "phishing" (the use of fraudulent emails designed to obtain account information from

consumers), improving telecommunications resiliency, and addressing and identifying vulnerabilities in financial firms' information technology infrastructures. Those reports were written by a number of different organizations, including BITS (the Financial Services Roundtable's technology arm), the Payments Risk Committee of the Federal Reserve Bank of New York, and the National Security Telecommunications Advisory Committee, to name a few.

The FSSCC annual report, "Protecting the U.S. Critical Financial Infrastructure: 2004 in Review" is available on the FSSCC Web site at [www.fsscc.org/annual.pdf](http://www.fsscc.org/annual.pdf). The appendix of the report highlights specific achievements by FSSCC member organizations in detail. @

# 2004 Technology Projects Continued from page 7

launch of a pilot of the service for re-registering annuities and, eventually, other insurance products.

## Progress on Fixed Income Clearing Initiatives

Throughout 2004, the Fixed Income Clearing Corporation (FICC) continued to work with the industry, fleshing out its proposal for the settlement of institutional fixed-income trades. It submitted a rule filing to the SEC that, if approved, would allow for possible balance sheet relief on repo agreements between banks and their institutional custody clients by allowing the banks to offer the institutions “sponsored membership” in FICC. The company expects to implement this in the second quarter.

Following up on its real-time trade matching (RTTM) efforts for government and mortgage-backed securities, which had reached 86% of all FICC trades by the end of 2004, FICC also worked to bring RTTM to trades involving corporate bonds, municipal bonds and unit investment trusts, successfully launching this capability in mid-2004 with very rapid take-up among customers. The effort is expected to allow participants to submit real-time trade data through FICC to both the Municipal Securities Rulemaking Board (MSRB) and NASD for price reporting purposes. The MSRB link began operation in late January.



## New Asset Services Businesses

Technology initiatives to improve asset servicing during 2004 ranged from the expansion of the new Global Corporate Action (GCA) Validation Service, with offices in London and Shanghai, to the gradual replacement of paper redemption notices with electronic notification. The GCA Validation Service, which streamlines the initial capture and reconciliation of data stemming from corporate action announcements, provides a comprehensive, 24-hour service to its clients.

During 2004, DTCC also moved to simplify securities handling and servicing on four different fronts. These included:

- The introduction, after testing, of a new paperless method for the low-cost handling of securities that normally require extensive legal documentation for transfer.
- Continuing to test and modify its Networking for Equities (NFE) system, which allows transfer agents, on behalf of the issuer, to maintain detailed, dematerialized security positions at the customer account level while leaving control of the customer's securities with the depositing participant. Expansion of the program is set for the second quarter.
- The testing of a new family of restricted securities processing products and collaboration with a vendor to provide easier and simpler automated ways to process and transfer restricted securities. Before mid-2005, DTCC plans to have its a fully automated product available for all restricted securities.
- A program that has already eliminated some 13,000 paper certificates for issues that haven't been transferable for at least six years, and the imposition of higher monthly fees for non-transferable securities that participants haven't yet approved for removal.

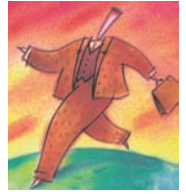
## Mutual Funds

Throughout 2004, NSCC's Mutual Fund Services rolled out a series of technical enhancements and new services to support the fund industry's need – and regulatory requirements – for more comprehensive breakpoint information.

Early in the year, NSCC introduced its Breakpoint Compliance Solution<sup>sm</sup>, an automated service that relieves fund companies from having to gather breakpoint fee information on their own. Over the course of 2004, NSCC also made additional technical changes to Mutual Fund Profile and Mutual Fund Networking Services to allow firms, registered reps and others to inquire about sales charge information on their trading activity at a mutual fund.

**Editor's Note:** To read the complete Development Agenda report, readers can go to [www.dtcc.com](http://www.dtcc.com), click “Customer Focus,” and then click “Development Agenda.” @

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**For funds.**

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