

A PLAN BY THE DEPOSITORY TRUST & CLEARING CORPORATION

TRANSFORMING Corporate Action Processing

Providing a New Level of Risk Management
And Achieving Straight-Through Processing

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*The Depository Trust &
Clearing Corporation*

Transforming Corporate Action Processing

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EXECUTIVE SUMMARY

This paper presents The Depository Trust & Clearing Corporation's (DTCC) analysis of the challenges associated with corporate action processing, and DTCC's strategy to help market participants manage risk, reduce costs and achieve greater levels of straight-through processing (STP) globally. Given today's uncertain economic climate, DTCC considers it an opportune time to reexamine processes and products with an eye towards improving efficiencies in areas of the industry that remain labor-intensive and risk-prone.

DTCC has taken a leadership position on a range of corporate action initiatives. Our goal is to position customers to handle higher volumes of corporate actions, steadily reducing their costs and risks, while providing greater processing resiliency as the global markets and economy recover.

Corporate action processing is an area of significant risk — and one of the most manual, complex and challenging parts of back-office operations globally. Today's environment is characterized by a lack of standard market practices and by labor-intensive processes, such as telexing, faxing and re-keying of information, all of which expose financial services firms to high costs, errors, customer-service issues and, potentially, financial loss.

Rights offerings, elective dividends, tender offers, bankruptcies, conversions, mergers, amalgamations, redemptions, spin-offs and periodic income payments are examples of the many different types of corporate action events. A corporate action occurs when changes are made to the capital structure or financial position of an issuer of a security that affect any of the securities it has issued. Events can be straightforward or complex, mandatory or optional, with the latter requiring that a decision (election) be made based upon certain financial terms before the event expiration date.

Each corporate action has a multiplier effect. A single event may involve hundreds of financial institutions,

which then results in thousands of communications sent and/or payments allocated to investors.

CHALLENGES OF CORPORATE ACTION PROCESSING

In today's complex global marketplace, financial institutions that process corporate actions are faced with major challenges. First and foremost is obtaining accurate, comprehensive, timely corporate action information. Issuers, offerors and agents announce events in different ways, using various means of describing the terms applicable to an event. This lack of uniformity and standards makes it difficult to identify and interpret announcement information, introducing a great deal of risk and cost into the process. Additionally, many financial intermediaries are part of the corporate action processing chain, so information often must travel, for example, from issuer to agent, through one or more layers of custodians, and ultimately to the investor. Voluntary offerings, which involve options, add to the complexity and level of risk.

It is difficult to quantify the overall corporate action losses caused by inaccurate or incomplete announcement data, missed deadlines, human error or other operational problems. However, industry sources estimate that 10% of the annual cost of processing corporate actions comes from "write-off" funds reserved for losses. Even if only partially accurate, this translates to tens of millions of dollars in annual losses due to operational problems.

According to the January 2003 Group of Thirty (G30) study,¹ "Corporate actions, across the market, are the major source of financial losses attributable to operational failure." An increased focus on managing operational risk, underscored by the Basel II Accord, has stepped up efforts to bring improvements to corporate action processing. Indeed, a recent industry report² predicts that spending on corporate action projects will reach almost \$830 million between now and 2007.

BEST PRACTICES

To help address these issues, DTCC has developed a corporate action strategy, which encompasses the following best market practices. We believe these best practices are the building blocks to transform corporate action processing on a global scale and tackle the challenges facing the industry:

1. Standardizing the data elements in corporate action announcements to ensure the availability of consistent, accurate information;
2. Automating the dissemination of corporate action announcement information to eliminate manual processing and simplify communications;
3. Promoting standards and best market practices to streamline processing;
4. Promoting the automated exchange of instructions to reduce risk and cost; and
5. Eliminating the use of certificates in the handling of corporate action transactions where these practices remain.

DTCC is committed to promoting and implementing these practices within the industry. Moreover, DTCC is uniquely positioned to facilitate and encourage their adoption, given DTCC's broad global customer base, technological infrastructure, expertise and reputation in the industry.

In the United States, DTCC is strategically and integrally involved in handling corporate actions. Through its depository subsidiary (DTC), DTCC processes corporate actions as part of its Asset Services business, which today provides custody and asset servicing for more than 2 million securities issues from the United States and 100 other countries and territories. In 2002, the depository processed a record volume of reorganization, redemption, dividend and interest payments, valued at nearly \$1.9 trillion.

EXTENDING DTCC'S ROLE IN CORPORATE ACTIONS

Although the depository is a major processor of cor-

porate actions, DTCC is involved in only certain aspects of the processing chain — at the front and back ends. Financial institutions processing corporate actions still handle a great deal of labor-intensive and time-consuming work. Securities professionals face many challenges and issues, all of which are common across the globe and are further magnified in developing markets.

DTCC is committed to extending its involvement in corporate actions to bring greater economies of scale and help industry participants better manage risk globally. It is clear to us, however, that no one organization or single approach will result in a complete industry solution. Rather, a confluence of efforts by industry participants, as well as by industry groups working within national markets and across borders, will be needed to ensure progress.

To advance best practices and STP in the industry, DTCC is pursuing the following corporate action initiatives:

- “At Source” Standardization Efforts are aimed at ensuring that corporate actions are announced in a consistent and straightforward manner to facilitate electronic dissemination and promote STP.
- Global Corporate Action (GCA) Validation Service provides a centralized source of “scrubbed” announcement information for securities in any market to bring greater levels of STP to the earlier stages of the corporate action processing life cycle.
- Global Corporate Action Hub (GCAH) is a flexible, real-time messaging solution, which will automate and centralize the point-to-point exchange of corporate action information that takes place among investment managers, banks and broker/dealers in all markets.
- Standards Efforts are under way that focus on the adoption and usage of message standards for intra-industry communications and the development of best market practices.
- Streamlined and Improved Processing for High-Volume and Complex Events are in progress

through a collection of industry initiatives, internal DTC operations enhancements and benchmarking procedures, and improved communication processes with issuers and their agents.

- **Enhanced Instruction Processing** capabilities are being developed to facilitate automated feeds of election instructions at DTC and to improve the acceptance of beneficial owner election instructions from participants.
- **Corporate Action Liability Notices** will be accommodated through an automated platform that facilitates the electronic exchange between senders and receivers of these notifications.

► **Efforts to Eliminate Certificates for Corporate Action Transactions** in the United States are under way to streamline processing by avoiding the shipment and surrender of physical certificates.

DTCC will continue to collaborate closely with customers, industry associations and others to bring improvements in the way corporate actions are handled in the global securities marketplace.

DTCC welcomes comments or questions on all aspects of this paper. These can be addressed directly to either James Femia, managing director, DTCC Asset Services, at jfemia@dtcc.com or Christopher Wyle, vice president, DTCC Asset Services, at cwyle@dtcc.com.

¹Group of Thirty, "Global Clearing and Settlement: A Plan of Action," January 2003.

²Celent, "Corporate Actions Automation: Getting Closer to Reality," April 2003.

INTRODUCTION

Corporate action processing is an area of significant risk — and one of the most manual, complex and challenging parts of back-office operations globally. Deadlines are often tight. Information may be conflicting, confusing, incomplete or even incorrect. Often, it must wind its way through many firms. As a result, financial institutions run the risk of late payments, market price fluctuations, loss of interest or even missed opportunities. A slip-up on a single corporate action event could involve a significant monetary loss.

Greater emphasis on managing operational risk and costs in today's business environment has spurred the industry to focus on the corporate action arena. However, streamlining corporate action processing is a challenging undertaking due to the diversity of event types and the amount of manual processing involved. The situation is further complicated by the many industry players that are part of the corporate action processing chain, the continued growth of sophisticated financial instruments and the increasing globalization of the securities market.

To lower operational risk and improve efficiencies, DTCC has been working on many fronts to advance automation and standardization for corporate actions. Many internal enhancements have been made at DTCC's depository, including specific efforts on high-volume and complex events.

DTCC has collaborated closely with industry members, including broker/dealers, custodians, investment managers, issuers, agents, information providers, vendors, regulators, and industry groups, such as the Americas' Central Securities Depositories Association (ACSDA), the International Securities Services Association (ISSA), the Securities Industry Association (SIA) and The Bond Market Association (TBMA), as well as standards groups like International Securities Association for Institutional Trade Communication - International Operations Association (ISITC-IOA) and Securities Market Practice Group (SMPG). DTCC is a strong advocate

of the objectives outlined in the recent G30 report, including those related to standardizing corporate action processing. In addition, DTCC is supportive of corporate action initiatives by The Canadian Capital Markets Association (CCMA) and the International Organization for Standardization (ISO).

The intent of this document is to serve as a catalyst within the industry by recommending best practices, and providing a clear description of DTCC and industry initiatives aimed at improving corporate action processing. Our objective is to inform market participants of the tremendous amount of work under way at DTCC, so that they may help us shape and build upon it to most effectively realize the industry's objectives.

This paper is divided into three sections:

- ▶ The first describes corporate action processing today, the challenges confronting the industry, and why improvements are needed;
- ▶ The second outlines recommended best practices — some of the main ingredients to bring about progress;
- ▶ The third lays out a range of DTCC initiatives aimed at improving corporate action processing.

CHALLENGES OF CORPORATE ACTION PROCESSING

CORPORATE ACTIONS DEFINED

A corporate action occurs when changes are made to the capital structure or financial position of an issuer of a security that affect any of the securities it has issued. Some events are straightforward and “passive,” resulting in the automatic disbursement of cash or some other entitlement. Others, like rights offerings or dividends with elections, are more complex and require the investor (or its designated decision maker) to make an election based on certain financial terms and communicate its choices for further processing.

Every day, financial institutions are inundated with news of various corporate actions from a range of sources. The information is used to service proprietary and customer positions, manage portfolios and make decisions related to sales, trading and arbitrage.

Each corporate action has a multiplier effect. A single event may involve hundreds of financial institutions, which then results in thousands of communications sent and/or payments allocated to investors — both retail and institutional. Voluntary offerings, which sometimes have numerous options expiring within tight time frames, compound the pressure.

The potential exposure of a single event involves huge sums of money if a financial institution has to “make good” on opportunities that were missed or erroneously processed on behalf of clients. It is a common practice in the industry for financial institutions to allocate funds to cover losses attributable to corporate action liabilities.

In today’s complex global marketplace, financial firms processing corporate actions are faced with several major challenges as outlined below:

CHALLENGE 1:

Obtaining Accurate Information

Acquiring comprehensive, accurate announcement

information about corporate action events is both complex and difficult because there are no global standards.

First, there is lack of uniformity in the way corporate action events are announced “at the source” — that is, at the point at which the information is first established by the party originating the corporate action. Issuers, offerors and agents announce events in different ways, using various means for describing the specific terms applicable to an event. The language used to describe a corporate action may contain important details obscured by legal terminology, making it difficult to interpret the information correctly. Further, the announcement may be published by press release, tombstone, exchange bulletin, prospectus and/or direct correspondence, with differing formats and levels of detail.

Second, there is no single securities identification system universally accepted and universally used to cover all instruments and all markets, which means that identifiers (e.g., ISIN, CUSIP or Sedol) must frequently be cross-referenced.

Lastly, processing details are often market or instrument specific, with differing terminology, rules, conventions, notification and response time frames, and penalties. These details may further vary based upon the tax and residency status of the owner of the security.

Today, most global financial institutions collect corporate action announcement information from a range of sources, including information providers, broker/dealers, sub-custodians, global custodians, investment managers, depositories and exchanges, as well as newspapers, news feeds, trade journals and the Web. The information can often be confusing, contradictory and sometimes just plain wrong. The net result is labor-intensive and time-consuming processing to normalize, reconcile and cleanse the data, generally referred to in the industry as “scrubbing.”

Scrubbing, which involves the validation of data for accuracy and completeness, is an inexact science due to its very subjectivity. Errors arise from missed or late announcements, and incomplete or faulty data. Misinformation, at a minimum, may cause customer service issues or, even worse, huge losses if an event is missed or mishandled.

CHALLENGE 2:

Managing the Flow of Information

Further compounding the challenge of obtaining accurate information is the large number of parties involved in the dissemination, interpretation and processing of the data. Corporate action information is generally transmitted through a long chain of financial intermediaries. There are different means and standards for communicating events as dictated by local practices, and legal or tax requirements.

Communication between custodians and investment managers is particularly complex. A custodian will have many accounts affected by a single corporate action, whereas an investment manager may have multiple custodians that it must deal with individually for a single event.

Handling voluntary offer elections is an error-prone process because, like the game of “telephone,” the information may be miscommunicated or misunderstood at any point in the chain. Communicating across different time zones and markets adds more complexity, and greater operational risk and cost.

CHALLENGE 3:

Handling Increasingly Complex Instruments and Events

The increasing sophistication of financial instruments adds yet another layer of complexity. For example, asset-backed securities (ABS), collateralized mortgage obligations (CMOs) and other structured securities are fast-growing segments of the debt market, owing in large part to the innovative features they offer market participants. From 2000 to 2002, the principal amount of new ABS and CMO issues coming to market through DTC has grown by close to 95%. The monthly distributions from these

issues are much more intricate than regular income payments, reflecting the changing balance between interest income and principal prepayments. As a result, financial institutions must expend greater effort to understand and effectively process these securities.

CHALLENGE 4:

Using Information for Multiple Purposes

Additional complications arise because financial institutions typically have multiple departments that require corporate action information. Each department may rely on different procedures, data vendor feeds and its own proprietary solutions. While they all need announcement information, each uses it in a different way. For example, a trader may make a complex arbitrage decision for the firm’s proprietary position based on the offer. An investment advisor may discuss election options with several clients holding the security in their portfolios. The operations professional needs the terms of the offer to process the event for holders of the security.

CHALLENGE 5:

Managing Resource Requirements

The volume of corporate actions is often difficult to predict, making allocation of resources a challenge. Volume may change cyclically (e.g., European dividend season, year-end notifications), but it is also subject to interest rate changes or random market events. Newly acquired positions of securities involved in a corporate action create exception processing. Volume fluctuations may cause operational problems because corporate action processing is not readily scalable. The skill and expertise required to effectively handle corporate actions requires a significant and growing investment, both in staff and systems. Often, it is difficult, especially in a down market, to justify the high costs of investments needed to accommodate future volume increases.

CHALLENGE 6:

Processing Elections

Handling corporate action election instructions is a decentralized, cumbersome process for the industry.

Financial intermediaries and their customers convey election decisions in many different ways, and may rely on paper-based modes, such as fax or telex, which means that the elections must be re-keyed into other systems. Inefficient, non-automated processing increases the potential for delays and/or errors communicating instructions, which may result in failure to meet a deadline.

For DTC-eligible securities, election instructions communicated by participants to DTC are, for the most part, key-entered into the Participant Terminal System (PTS). Typically, individual investor instructions are received, combined and submitted in bulk to DTC. Sometimes, however, it would be advantageous to process elections at the beneficial owner level — especially for those events that involve cash-in-lieu of fractions, prorations or odd-lot features.

BEST PRACTICES

How do we as an industry prepare for increasing levels of corporate actions? How do we address the challenges of information and communication? How do we prepare for more complex events that reach across borders? How can we bring about fundamental change in the industry?

Best practices are the building blocks to streamline processing in the global marketplace, and ultimately reduce costs and lower operational risk.

Outlined below are best practices that DTCC believes will address the industry's challenges and contribute to improvements in the way corporate actions are processed globally.

1. Standardize Corporate Action Announcement Information

Standardizing the information included in corporate action announcements is the first step in bringing greater STP to corporate actions.

Accurate and timely information is critical to all industry participants to help them manage the risk and cost associated with corporate actions.

Standardizing announcements eliminates the variability and risk associated with the individual interpretation of announcement documentation, and ensures access to consistent and comprehensive information.

Today, major risks exist in corporate action processing due to the lack of uniformity in the way announcements are made from the initial dissemination point — “at source.” DTCC supports the SIA initiative to provide clear and full disclosure of standardized corporate action information in prospectuses and proxies, and ultimately the electronic distribution of this information from the initial source (e.g., issuer, offeror or agent), and the similar effort by ISSA.

In the coming years, DTCC will help the industry achieve these important objectives by supporting the adoption of standardized announcement

requirements, promoting these standards with issuers and offerors, and acting on behalf of the industry to implement these new standards as the normal way of processing corporate action transactions.

2. Automate the Creation and Dissemination of Announcements

Automating the handling of announcements reduces manual, error-prone processing and minimizes the chance of delayed or miscommunicated information. This has two aspects — automating the creation of the announcement and its subsequent distribution through the chain of custodians and to the ultimate investor.

Today, the automated creation of announcements can be achieved through greater centralization and streamlining of processes used in collecting data from various sources to compose an announcement. In tomorrow's world, standardized announcements should be distributed in automated form directly “from the source.” This eliminates both a major source of potential error and significant delays in the onward distribution of information, giving the investor more time to assess and make decisions about the transaction involved.

3. Promote Usage of Standards and Best Market Practices

Standardizing intra-industry communications and market practices for handling corporate actions is crucial. Standards help back-office operations more effectively process sophisticated financial instruments with unique characteristics, manage global transactions and deal with unexpected increases in volumes. Following best market practices and business usage rules facilitates the receipt and delivery of information, cutting across national, market and legal differences, which today complicate the processing of corporate actions.

4. Promote Automated Exchange of Instructions

Bringing greater automation to the communication of corporate action election instructions significantly reduces the risk of processing voluntary corporate actions. Several DTCC initiatives are aimed at this, including the Global Corporate Action Hub, as well as efforts to enhance instruction processing.

5. Eliminate the Use of Certificates in Handling Corporate Action Transactions

Eliminating the use of physical certificates in handling corporate action transactions, where this occurs today, will facilitate streamlined processing, which lowers costs and reduces risks associated with the shipment of certificates. It also provides the basis for immediate distribution of corporate action entitlements to investors. This is an extension of the drive toward dematerializing physical certificates and using electronic ownership records.

DTCC, which has incorporated these best practices into its own operating philosophy, is committed to promoting and implementing these practices within the industry.

Moreover, DTCC is uniquely positioned to facilitate and encourage their adoption. Over the past 30 years, DTCC has established a broad global customer base and a network of connectivity among major broker/dealers, banks, mutual funds, major insurance carriers and other financial intermediaries. Relying on rigorous, ironclad risk management systems and a world-class business continuity program, DTCC subsidiary companies centralize, automate and streamline clearing, settlement and asset servicing processes for a range of financial instruments, reducing risk and lowering cost for the industry.

On the institutional side of the business, DTCC's joint venture, Omgeo, co-owned with Thomson Financial, is the leading provider of post-trade pre-settlement trade management solutions for institutional trades, linking investment managers, broker/dealers and custodians in more than 40 countries.

In addition, DTCC takes an active role in a variety of industry associations related to clearance, settlement and standards, including ACSDA, G30, ISITC-IOA, ISSA, SIA, SMPG, TBMA and many others.

EXTENDING DTCC'S ROLE IN CORPORATE ACTIONS

DTCC is committed to further extending its involvement in the area of corporate action processing to bring greater efficiencies, and help industry participants better manage risk and deal with increasingly complex instruments and markets.

Although the depository is a major processor of corporate actions, DTCC is not involved in all aspects of the processing chain. To date, efforts primarily have been focused on the front and back ends, leaving a gap between the notification of the corporate action and the disbursement of money and/or securities to participants. A great deal of labor-intensive and time-consuming work is still handled manually, much of it by fax, telex, mail, e-mail and phone. This includes scrubbing announcement information, notifying investors about corporate action events, handling elections on voluntary events and reconciling positions, election decisions, etc. This work is particularly burdensome when processing is not centralized through a depository.

DTCC is aggressively pursuing several STP projects for corporate actions aimed at improving the quality of corporate action information, simplifying processing and advancing best practices in the industry. The illustration on page 14 shows where these initiatives fit into the corporate action life cycle.

DTCC is certain that no one organization or single approach will result in a complete industry solution. Rather, a confluence of efforts by industry participants, as well as industry groups working within national markets and across borders, will be needed to ensure progress.

"AT SOURCE" STANDARDIZATION

Ensuring that information about a corporate action is announced in a standard, consistent and complete format by the entity most familiar with the specific details is the most effective way to address the risk associated with identifying and interpreting the information. At the same time, ensuring that the "at source" announcement is disseminated to the

market in an electronic form and without delay promotes STP and eliminates the potential for manual processing errors.

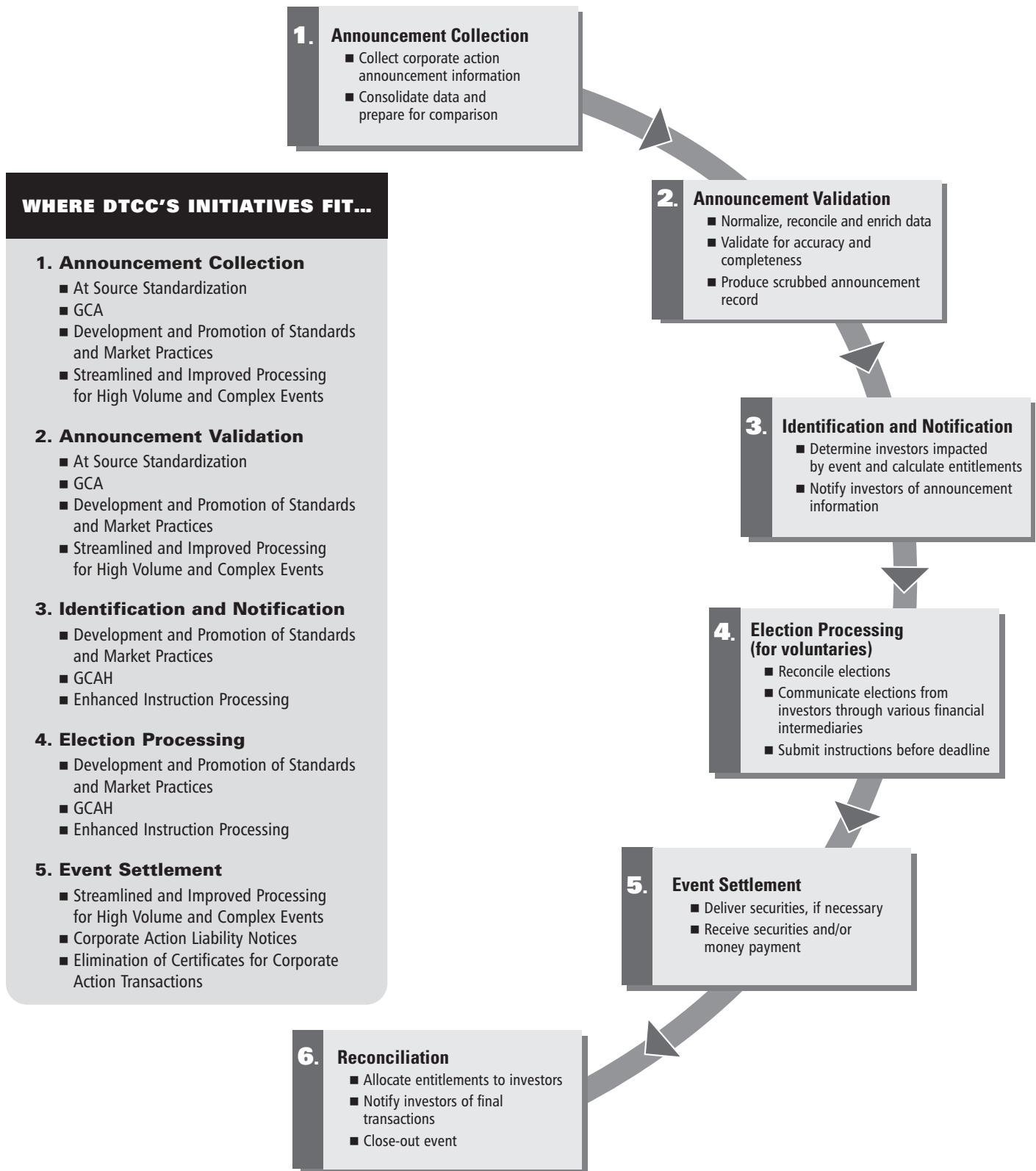
DTCC will provide strong support to several industry initiatives aimed at addressing concerns about the integrity of corporate action announcement information. This involves bringing consistency and uniformity to the process of disseminating announcements "at source" — that is, at the point when the information is first established by the issuer or offeror originating the corporate action. Full disclosure will help reduce the operational risk resulting from vague or hidden offer terms and protect the rights of the investor.

Globally, an ISSA committee is working on an effort to obtain agreement on a standard set of data elements that should be included in corporate action announcements in all securities markets. DTCC will support this ISSA initiative in conjunction with other central securities depositories around the globe.

In the United States, the SIA's Corporate Action Division has proposed that a standard template of corporate action data elements be agreed upon, and that laws and regulations governing corporate actions be amended to require issuers or offerors to include this completed template in prospectuses or other documents issued in connection with a corporate action. Efforts are well under way and DTCC will work with the SIA to complete definition of the template, support efforts to urge the Securities and Exchange Commission (SEC) to mandate these requirements, and itself promote these standards with corporate action offerors and their agents.

As part of these efforts, DTCC will centralize and simplify participants' access to corporate action offering prospectuses through the introduction, in 2004, of an electronic facility to receive them. Later stages of the project will offer on-line archiving to make the prospectuses available to participants for

Corporate Action Life Cycle



their review and electronic distribution to their customers.

Leveraging existing technology, DTCC will expand the Electronic Library Files (ELF) system, an automated filing capability that accepts, processes and stores offering statements for public offerings handled through the depository's underwriting process. This system helps issuers launch their securities by providing a single place where securities firms involved in handling the issues can easily and quickly access information.

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Why should the industry invest in “at source” standardization?

- This will ensure that clear, comprehensive information is available to everyone immediately upon announcement of a corporate action, reducing the distance between offeror and investor, and contributing to customer satisfaction.
- This eliminates risks from misinterpretation of information about a corporate action, leading to a substantial reduction in losses and related “write-offs.”
- This eliminates the need for staff resources to review corporate action announcements to identify and interpret necessary information.

What are the risk factors on this investment?

- “At source” standardization optimally requires some type of regulatory sanction, which may not be forthcoming. Without this, the take-up of these standards will require greater investment of time and effort.
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More information on these initiatives can be obtained from Christopher Wyle at cwyle@dtcc.com.

GLOBAL CORPORATE ACTION (GCA) VALIDATION SERVICE

As efforts to standardize announcement information “at source” progress, market participants will require services aimed at improving the current announcement process. To address this need, the Global Corporate Action (GCA) validation service was launched as a pilot in April 2003 as a service offering of Global Asset Solutions LLC, a wholly owned

subsidiary of DTCC. This initiative is focused on automating the receipt, compilation and validation of corporate action announcement information.

GCA provides a centralized source of scrubbed announcement information to bring greater levels of STP to the earlier stages of the corporate action processing flow. GCA helps improve operational efficiency and lower risk, effectively driving down costs for the global marketplace. The goal is to improve the quality of announcement information, so that all financial institutions can receive accurate and comprehensive data without duplicating effort. GCA applies a very broad definition to corporate actions to include both mandatory and voluntary events, and by yearend, GCA will provide worldwide coverage.

GCA validates the data through an intricate process of mapping, normalizing, consolidating and verifying information from information providers and a broad range of other sources. A composite record is derived from this process and is enriched with follow-up research by experienced DTCC professionals. Later this year, GCA will also offer a custodian verification component, which allows a GCA subscriber to have composite records confidentially compared with corporate action information from its custodian banks.

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Why should the industry invest in the GCA validation service?

- GCA reduces the need for individual firms to devote staff resources to review corporate action announcements to identify and interpret necessary information. Through centralizing this function, the industry can achieve economies of scale by having a single staff perform the function on behalf of a broad population of industry members, with individual firms converting this to a variable cost.
- GCA will provide additional flexibility and scalability for firms at reduced cost. It also permits the industry to realize the benefits of greater standardization in the announcement process earlier, before the “at source” efforts are likely to achieve significant results.

- GCA also will help efforts to standardize announcement information at the issuer/offerer level, since the consolidated “purchasing power” of the utility can be used to enforce more rapid take-up of the announcement standards.

What are the risk factors on this investment?

- Coordinating communications with vendors to create the basis for the service may involve difficulties. Participants in the service must agree on a common set of vendors.
- The lack of current standards in this area, particularly globally, will involve higher levels of intervention of service staff during the early phases of service development.
- Since the liability standard applying to the centralized GCA service must be appropriate for a “utility” service, individual firms cannot completely eliminate this function.

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Additional information on GCA can be obtained from Anthony DiMurro at adimurro@dtcc.com.

GLOBAL CORPORATE ACTION HUB (GCAH)

To achieve greater levels of STP, DTCC plans to introduce the Global Corporate Action Hub (GCAH) in late 2003. GCAH is a flexible, real-time messaging solution, which will automate and centralize the point-to-point exchange of corporate action information, such as notifications and elections. This initiative is aimed at streamlining the corporate action communications process, which today oftentimes relies on fax or telex, for investment managers, banks and broker/dealers.

GCAH will consolidate and correlate corporate action information across multiple institutions, providing both custodians and investment managers with a single view of an event and the relevant account information. GCAH will allow free-form construction of corporate action messages, conforming to the new ISO 15022 corporate action messaging standard and global market practices. For high-volume processors of corporate actions, GCAH will offer file-to-file transmission capabilities.

Through an integrated, real-time status monitoring, audit and reminder system, GCAH will reduce the financial risk of missed announcements and incorrectly submitted elections due to manual processing. For custodians, GCAH will lower the risks and costs of communicating corporate action information to their customers, and tracking and receiving elections in various formats. For investment managers (who may deal with 10 or more custodians on a single corporate action), GCAH will eliminate multiple faxes of the same announcement in varying formats from different custodians, as well as the need to link to several proprietary custodian systems.

In the future, DTCC will explore bridging GCA and GCAH for those customers using both services to allow validated corporate action information output by GCA to be used as input for the GCAH messaging hub to realize improved levels of STP.

Why should the industry invest in GCAH messaging?

- The risks and attendant losses from current methods of communicating between custodians and investment managers can be substantially controlled through centralized messaging and message tracking, leading to a substantial reduction in losses and related “write-offs.”
- A centralized, automated messaging service should reduce the staff required to handle and track communications between the counterparties.
- This automated interface also permits instructions to be forwarded on for further processing without manual intervention, eliminating staff resources for re-keying instructions detail.

What are the risk factors on this investment?

- The technology involved is complex, particularly given the need for message tracking and alert capabilities.
- As with any network-based service, a sufficient number of counterparties need to take up the service roughly at the same time to derive significant value.

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More information on GCAH can be obtained from Lorraine Morrison at lmorrison@dtcc.com.

DEVELOPMENT AND PROMOTION OF STANDARDS AND MARKET PRACTICES

DTCC has committed significant resources to industry efforts to develop standards to facilitate STP for corporate actions globally. These efforts have focused on the agreement of message standards and the development of best market practices to define business usage rules.

DTCC works with several industry groups on standards initiatives:

- ▶ As co-chair for ISITC-IOA, DTCC is helping refine the corporate action ISO 15022 message standard, initially released in November 2002, adding approximately 70 new data elements.
- ▶ As a representative on national and global securities market practice groups, DTCC has been working to develop best practice guides that set usage rules for ISO 15022 corporate action message standards, seeking to create globally harmonized market practices to enhance industry STP.

DTCC is committed to promoting the adoption and usage of standards within the industry. DTCC continues to work with industry groups, such as the SIA on its Corporate Action Division's STP Initiative and The Bond Market Association on its task force focusing on CMO payment submission standards. DTCC stands ready to work with the industry on a G30 recommendation regarding the adoption of XML as the standard language and ISO 15022 as the standard message for communication protocols for corporate actions.

DTCC is incorporating the developing standards and global market practices into its current processes, as well as services being developed. For instance, GCAH conforms to the new ISO 15022 message standard and global market practices. GCA has incorporated many best practices in the classification of events and data elements, and supports the ISO 15022 messages for custodial records. GCA will migrate to ISO 15022 on outbound messages in 2004.

Why should the industry invest in promoting standard market practices?

- The risks and attendant losses in variable practices and variable formats for communication can be reduced as practices and message formats are standardized, leading to a substantial reduction in losses and related "write-offs."

What are the risk factors on this investment?

- The take-up of standard practices may be a very prolonged process.

For more information about corporate action standards, contact DTCC's Lorraine Morrison, co-chair of the ISITC-IOA Corporate Action Working Group, at lmorrison@dtcc.com.

STREAMLINED AND IMPROVED PROCESSING FOR HIGH-VOLUME AND COMPLEX EVENTS

Today's low interest rates have produced record volumes of early full and partial redemptions of fixed income securities and also increased the issuance of structured securities, such as ABS and CMOs. As a result, the volume of related principal and income payments handled by DTCC's depository has increased, and allocations to participants are up. The lack of standards and consistent procedures, together with extremely tight processing time frames, has exacerbated problems such as late notifications and post-payable adjustments.

To improve processing and bring greater standardization, DTCC embarked on a number of projects last year, implementing internal enhancements and safeguards, while working with the industry to establish more rigorous reporting standards for agents and trustees. One example is the industry-wide task force — sponsored by The Bond Market Association and supported by the SEC — that is mapping out a strategy to address the complexities of dealing with CMOs. In January 2003, DTCC issued a discussion paper on CMO processing, outlining the initiatives undertaken to strengthen processing for these instruments.

DTCC is working with the agent community to automate the transmission of early redemption notices to the depository, improve the timeliness of

notification and reduce the duplication of notices. Standardized file layouts for announcement information sent to the depository were implemented in the second quarter of 2003. Participants will benefit from more timely and accurate notifications. Already in 2003, DTCC has reduced post-payable adjustments by capturing and reporting key information earlier in the process. These adjustments, which have long been identified as a significant issue for participants, are the result of late notifications.

All these improvements, which reduce manual intervention, adjustments and errors, allow DTCC to better control costs and improve service to customers.

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Why should the industry invest in improving processing for complex corporate actions?

- These efforts will reduce errors in the handling of these actions and subsequent adjustments to processing, thereby improving customer satisfaction.
- Errors corrected “post-payable date” also present the possibility of losses if a custodian cannot get erroneous payments returned, or if an investor has taken action on incorrect information and subsequently incurs a loss to correct that action.

What are the risk factors on this investment?

- The complex structures involved in many of today’s newer security types severely compress the time frames for corporate action processing, leaving little margin for error and therefore perhaps limiting the benefit that these efforts can produce.
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More information on these initiatives can be obtained from Virginia Holton at vholton@dtcc.com.

ENHANCED INSTRUCTION PROCESSING

To achieve a greater level of STP, DTCC will provide automated feeds for announcements (outbound) and election instructions (inbound) processing using standard ISO 15022 messaging. This will allow participants to unify announcement and election processing into one work process.

DTCC will continue to improve the acceptance of election instructions at the beneficial owner level by

introducing new capabilities that are secure and easy to adopt. This will minimize participants’ processing problems, such as the handling of cash-in-lieu of fractions, odd-lot transactions and prorations for customers. For voluntary offers, participants will be able, at their option, to include detailed beneficial owner information at the time an instruction is submitted, which can subsequently be used for the allocation. In 2004, DTCC will introduce a revised pricing strategy to support instruction processing at the beneficial owner level.

DTCC is extending its Participant Browser Services (PBS) to corporate action processing, replacing the existing “green screen” terminal interfaces. The PBS graphical user interface simplifies processing and staff training through improved navigation, drop-down menus and elimination of codes and acronyms. The Corporate Actions “function suite” will continue to be enhanced and a capability to produce customized reports of on-line archive information is forthcoming.

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Why should the industry invest in enhanced instruction processing?

- This reduces the need for staff resources to re-key instructions by permitting straight-through processing of many types of corporate action elections (but an initial investment of technology resources is required).
- This reduces the need for staff resources to handle exception processing (e.g., raising cash-in-lieu amounts) for instructions at the beneficial owner level, and customer dissatisfaction (or “write-offs”) when discrepancies occur in this process.
- Development of browser-based terminal capabilities should reduce training requirements for participant staff in this area.

What are the risk factors on this investment?

- Fully automated processing of corporate action instructions will require additional oversight at the depository to ensure automated messages are properly handled.
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For more information, contact Alan Hutton at ahutton@dtcc.com.

CORPORATE ACTION LIABILITY NOTICES

In response to STP initiatives launched by several SIA committees, DTCC is developing a messaging platform that will accommodate a variety of notifications and communications among participants.

One type of notification that will be accommodated is corporate action liability notices, transforming this manual, paper-intensive process into an on-line electronic process that is easily accessible through a Web-based application, as well as MQ messages and file transfer protocols. Through this facility, the sender and receiver will have a central location to transmit and receive notices of liability and the assurance that the counterparty is in receipt of the notice. Each notice of liability will have a unique control number, and any updates to the notice will be tracked and recorded in an audit trail. Message formats will be based on ISO 15022 standards.

The SIA's Corporate Action Liability Notice Working Group has finalized its business requirements. The corporate action liability notice application is expected to be available in 2004. DTCC will implement an initial version of this platform to provide support for Automated Stock Loan Recall Messaging Systems (ARMS) in mid-2003.

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Why should the industry invest in centralizing liability notification?

- The modest investment required will be more than offset by savings from reduced resource requirements through automation of this currently manual process, and by eliminating the occasional losses due to mishandling of liability notifications.

What are the risk factors on this investment?

- None.
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Further information can be obtained from Margaret Koontz at mkoontz@dtcc.com.

ELIMINATION OF CERTIFICATES FOR CORPORATE ACTION TRANSACTIONS

DTC continues to work with agents and others to reduce the need to surrender physical certificates, often required in the U.S., to complete corporate action transactions. The physical presentation of certificates is an obstacle to meeting time-critical deadlines, and also increases risk and cost.

An initiative is under way for the depository to act as the "destruction agent" for paying agents, thereby eliminating the need to deliver physical certificates and allowing an entire event to be book-entry.

DTC continues to work aggressively with agents that are part of its Fast Automated Securities Transfer (FAST) program to make as many securities FAST-eligible as possible. Through FAST, securities are registered in the depository's nominee name and held at agents. Efforts are in progress to automate the transmission of accompanying hard-copy documentation, such as Letters of Transmittal, Redemption Summary Forms and Inventory Manifests.

In addition, DTCC has begun a major effort to dematerialize restricted securities, the largest single group of U.S. securities still held in certificate form, with last year's launch of Networking for Equities (NFE). Eliminating certificates and using electronic ownership records for restricted securities facilitates book-entry processing of corporate actions.

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Why should the industry invest in eliminating the use of certificates on corporate actions?

- This furthers the industry's overall dematerialization efforts and will produce significant cost reductions at the depository and at corporate action agents, reducing their fees for these services.
- This will eliminate risk from the occasional errors in the certificate presentation process (e.g., losses of certificates "in transit").

What are the risk factors on this investment?

- None.
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Further information can be obtained from Joe Trezza at jtrezza@dtcc.com.

APPENDIX — CORPORATE ACTION PROCESSING AT DTC

Through its depository subsidiary (DTC), DTCC handles certain essential aspects of corporate action processing. This is part of DTCC's Asset Services business, which today provides custody and asset servicing for more than 2 million eligible securities issues from the United States and 100 other countries and territories.

Making sure corporate action proceeds are collected and allocated to participants on time constitutes a giant processing task for the depository. In 2002, a record volume of reorganization, redemption, dividend and interest payments were processed, reaching nearly \$1.9 trillion, up more than 16% from the prior year. More than 10,500 reorganization events, 250,000 redemptions and calls, and 3.2 million income payments were processed at the depository last year.

To handle these transactions, DTCC deals with as many as 4,000 agents around the world. For high-volume agents, DTCC has developed direct, automated communication lines to allow for seamless processing of instructions and money payments. In addition, DTCC has worked with the agent community to improve the quality and timeliness of announcement information for DTC-eligible securities. For eligible issues, DTC's Reorganization, Redemption and Dividend data files are often the primary source for custodian banks, broker/dealers, vendors and others in the United States.

This high-volume processing business offers tremendous economies of scale to customers and is based on secure and reliable systems and rigorous proce-

dures. Most of the securities issues held at the depository are in book-entry or paperless form, eliminating the need for the physical movement of millions of paper certificates and instructions annually.

CORPORATE ACTIONS AND BUSINESS CONTINUITY

Risk management is a key underlying objective of the drive to transform corporate action processing. Any delay in receiving corporate action announcement data or in processing elections represents significant operational and, potentially, financial risk. Ensuring business resiliency through highly reliable systems and operations is essential to mitigating this risk. This makes today's emphasis on business continuity critical to financial institutions that handle corporate actions.

While DTCC remained fully operational on 9/11 and the days that followed, we have undertaken an aggressive program to further enhance our business continuity plans. Elements of the plan include the implementation of new and redundant remote data processing capabilities, decentralization of critical staffing functions, reconfiguration of our network to ensure connectivity with multiple telecommunications suppliers, and implementation of a testing program with customers to validate their readiness to maintain connectivity with DTCC subsidiaries in the event of a crisis. These efforts are part of DTCC's ongoing commitment to ensure a world-class business continuity program for all critical business functions.



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