

## View Point



### Towards a firm-wide corporate actions consolidation initiative

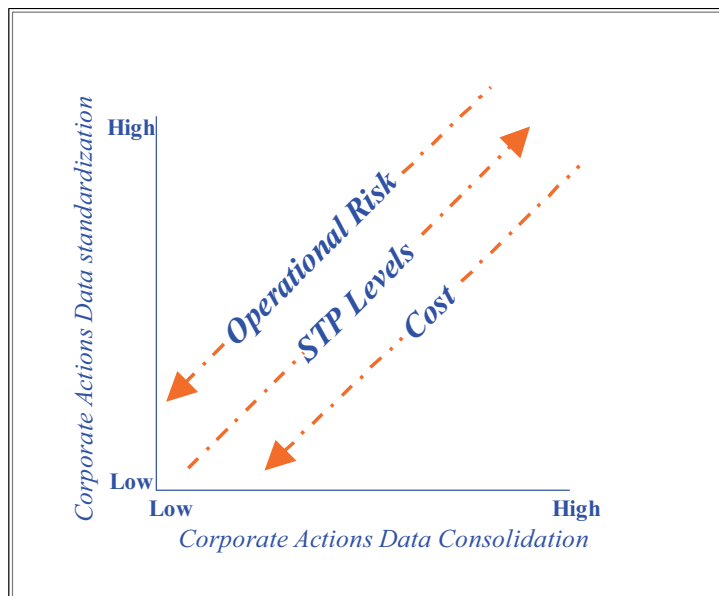
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Corporate actions processing typically lacks standards and best market practices, and involves labor-intensive processes, all of which expose financial firms to high costs, operational inefficiencies and the risk of financial loss. Much of the process of receiving corporate action data feeds and applying data scrubbing and cleansing rules is manual and decentralized. The main reasons for the lack of automation is that the bulk of corporate actions processing is based on announcement data that is not standardized and it involves multiple parties. In addition, corporate actions data processing is distributed and often duplicated across many locations within a firm. Most, large financial firms have brokerage, asset management and trust areas that handle corporate actions separately. As processing is scattered across different users within the firm, there is a high degree of redundancy and more importantly “different versions of the truth” exist across the firm which increases the risk of operational loss.

Infosys believes that the key challenge for a large firm today is achieving [centralized corporate action market data processing](#), which involves capturing and certifying corporate action event information centrally and distributing the same golden copy information to multiple corporate action data consuming applications within the firm. Automating and centralizing the handling of announcements reduces manual, error-prone processing and minimizes the chance of delayed or miscommunicated information.

Infosys also believes that higher STP levels and lower operational risk can be achieved in corporate actions processing through “greater standardization of data” and “consolidation of data processing” in the process of achieving golden copy information.



## Standardization of Corporate Action Data

Standardizing the information included in corporate action announcements is the first step in achieving greater STP in corporate actions. This has two aspects - (i) standardizing the data elements in corporate action announcements to ensure the availability of consistent, accurate information and (ii) standardizing messaging formats to disseminate corporate action information to eliminate manual processing and simplify inter-department and inter-company communication.

The current environment is characterized by a lack of uniformity in the way corporate action events are announced at source, i.e., the point at which the information is first announced by the party/vendor issuing or originating the corporate action. The data is received both manually and electronically and is not standardized across vendors. There are no universally adopted standards to identify or define corporate action events or data needed to process corporate actions. As a result, a large number of sources including registrars, custodians/sub-custodians, depositories, exchanges and data vendors provide corporate action announcement data in multiple formats with differing levels of detail. There is no single securities identification system that is universally accepted, and the processing terms and details are often specific to a particular market or financial instrument. While some organizations are developing standards for corporate action messaging types around ISO 15022, these standards are not mandated as industry practice, and current adoption levels are unsatisfactory. The result is labor-intensive and time-consuming processing to normalize, reconcile and cleanse the data, generally referred to in the industry as “scrubbing.”

Since standardization of data/formats requires an industry-mandated initiative, financial firms need to work together to achieve consensus between the firms and regulatory bodies. But from a firm's internal perspective the immediate objective is data consolidation, where they need to look at the corporate actions data requirements across lines of businesses and consolidate the data management process.

## Consolidation of Data Processing

Consolidating corporate action data from various disparate sources is important to improve STP. This involves – (i) streamlining the collection and certification of corporate action data so as to reduce the number of parties involved in the dissemination, interpretation and processing of the data and (ii) automating and centralizing the point-to-point exchange of certified information among various applications within an enterprise.

Financial firms have multiple departments that require corporate action information. These departments manage point-to-point communication with data vendors and maintain separate databases of such information. While each business line needs announcement information, they use it in different ways, as illustrated below:

### *When a company announces a tender offer:*

*The front office makes or facilitates the investment decisions and needs complete and accurate announcement data as early as possible to analyze and assess trading strategies.*

*The back office operations professional needs the terms of the offer to calculate the underlying entitlements and process the event for holders of the security.*

Each line of business may rely on different rules, procedures, data vendor feeds and its own proprietary solution, which may cause different versions of the truth to exist across different users in the same firm. Furthermore, the flow and format of data from one department or system to another, even within the firm, occurs in non-standard proprietary formats. As a result, different lines of businesses may end up calculating entitlements differently for the same corporate action based on the information retrieved and inform their clients accordingly.

The key driver for achieving higher STP levels across a firm is to consolidate the corporate actions data processing at a central hub, which then disseminates the information to all systems/departments needing the information. This can promote significant process efficiencies and cost reduction across firms by helping them adopt the shared services technology model.

## Towards a Firm-wide Corporate Actions Data Consolidation Initiative

Some large financial firms have made considerable progress towards automating corporate actions processing. However, most of the existing approaches to corporate actions solutions are limited in their ability to provide a flexible, generic solution capable of modeling complex corporate actions to suit the processes of the firm and, to integrate seamlessly with internal systems providing inputs or requesting corporate action information.

Infosys believes that a comprehensive corporate actions solution is one that (i) automates and consolidates corporate action data capture and certification, and (ii) publishes certified information to multiple applications distributed throughout an enterprise. The solution should serve as an enterprise hub that consolidates corporate action data processing centrally and shares certified information with disparate in-house systems, thus reducing the number of parties involved in the dissemination, interpretation and processing of the data in the enterprise and improving internal STP.

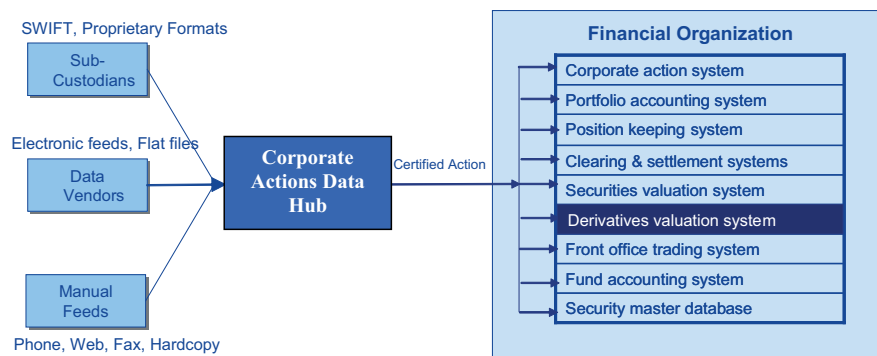


Figure: A sample Corporate Actions Data Consolidation Flow

The key services of the data hub include: -



**Data Capture** – Employ a flexible rules and workflow-based approach to automate corporate action data extraction from multiple, heterogeneous data vendors including SWIFT & other formats including XML, CSV, text files and conversion into a standardized format.

**Data Certification** – Employ a configurable rules and workflow engine to model and automate the complex processes of data certification according to the requirements of the firm. Where corporate action messages are received for the first time, the hub should be able to automatically consolidate the data into a new, certified corporate action event. The hub should automate corporate action data matching and consolidation to update existing data in the system and avoid duplication of information.

**Data Publication** – Hub architecture to provide a centralized, automated messaging service that receives & processes requests for certified corporate action information from multiple in-house applications consuming such data. Hub to also publish required information using web services in customizable delivery formats (XML & SWIFT). Through real-time message tracking and status monitoring, the hub should track requests for corporate action information and reduce the financial risk of missed or delayed announcements. The end-users receive the information in a cleansed, timely, and accurately reported manner for improved decision-making.

The hub-and-spoke framework should serve as a messaging solution to automate, rationalize and consolidate point-to-point communication of certified corporate action information with a number of applications consuming such information across different locations within an enterprise.

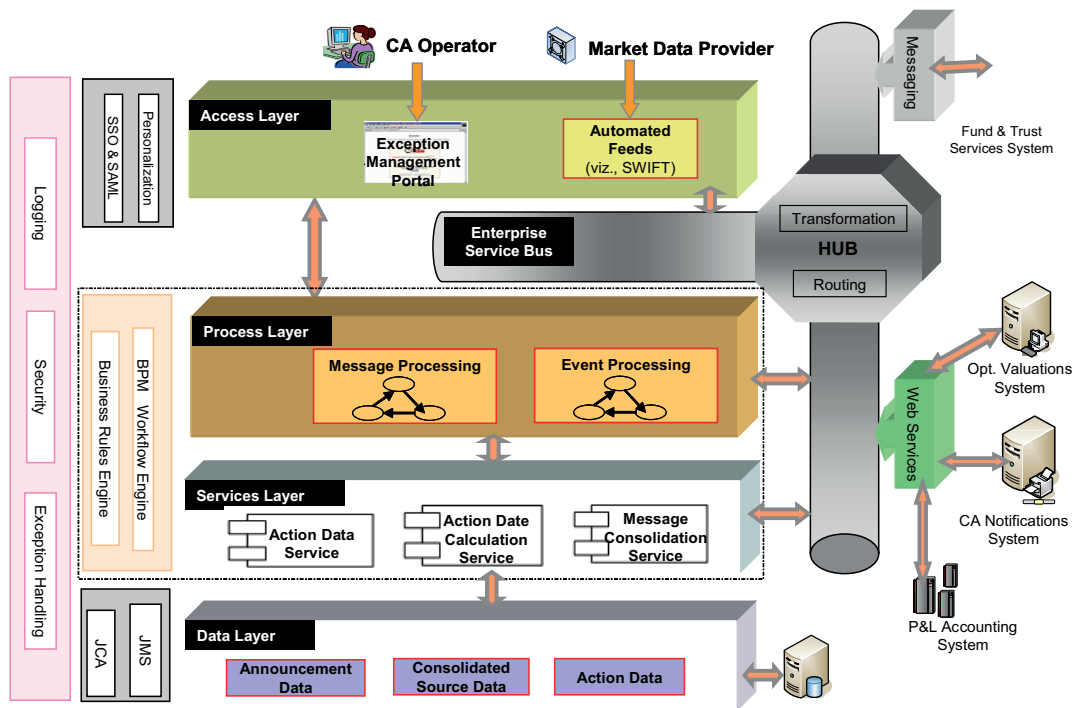


Figure: A sample Corporate Actions Data Consolidation Solution Logical Architecture

The hub should have a service-oriented architecture that facilitates sharing of services with other applications to achieve enterprise application integration and STP in a flexible, platform-and-language independent way. The architecture of the hub should be highly componentized and loosely coupled, allowing the firm flexibility to replace any components with other third party products/in-house components.

## How Web Services can be employed to achieve data consolidation

Corporate actions processing is a collaborative process spanning a number of applications within a firm and outside. To allow internal applications to seamlessly communicate among each other in real-time and to improve STP levels, requires creating an integrated infrastructure for connecting disparate systems, applications, and data sources across the firm. Web Services offer a platform neutral approach to integrating applications, so that they can be used to integrate diverse systems in a way supported by standards rather than proprietary systems.

Whereas traditional point-to-point approaches to EAI tightly integrate and connect all applications that support a firm's business; Web Services loosely integrate applications and can be developed quickly, published easily and bound dynamically.

Web-Services based integration is quite flexible, as it is built on loose coupling between the application publishing the services and the application using those services. Service-oriented architecture based Web Services can provide the required flexibility for STP in terms of data hub architecture and changes in configuration, control and standards in the business processes.

## Conclusion

The key objectives of automating corporate actions processing are a) to manage inherent risks, b) contain related costs and c) improve operating efficiencies. To achieve Straight Through Processing of corporate actions the most important step is corporate actions data consolidation within a financial firm, to provide a single authoritative 'golden copy' of a corporate event, which can substantially reduce the risks and attendant losses.

In order to adequately address the key risk areas of collecting and consolidating corporate action data which, in turn, determine the ability and efficiency of downstream systems. Corporate actions solutions need to have efficient and powerful data processing and scrubbing capabilities. The futuristic solutions also need to employ a flexible rules engine and user-configurable workflow to enable the modeling of complex corporate actions processing according to the requirements of the firm.

Such solutions will enable financial firms processing and consuming corporate action information to proactively address operational risk, significantly reduce operational cost, and improve efficiency and transparency of operations. The consolidation approach will enable financial firms to extract, clean, enrich and distribute corporate action data to meet the dynamic information needs of the enterprise. It will also eliminate the need to run multiple versions of a similar system in different lines of businesses within an enterprise, thus reducing the cost of ownership to the firm.

## About the Authors:

**Harpreet Arora**, Harpreet is a Principal with the Banking & Capital Markets Solutions Consulting Group at Infosys. Harpreet consults large financial organizations in business process re-engineering engagements and has also program managed large IT portfolio engagements. He has over 8 years of experience in various aspects of capital markets, including accounting, corporate credit, equity & derivatives trading, corporate actions and custody and has worked with world's top financial firms like Citigroup and ICICI. At Infosys, Harpreet is the solution lead for the Infosys corporate actions solution.

**Shilpa Ramamurthy**, Shilpa has over 4 years of experience in Capital Markets and Banking. She helps design and implement solutions in the areas of business process automation, risk management and compliance, data quality, and reporting for clients in the financial services industry. Shilpa has been a Domain Consultant for the Infosys Corporate Actions Processing solution aimed at automating the corporate actions lifecycle and reducing operational cost, time and risk for custodians, investment managers and broker-dealers.



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