

# FINsights

Technology Insights for the Financial Services Industry

Governance, Risk and Compliance »



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## From the Editors Desk

We are delighted to present the second issue of the Infosys Banking and Capital Markets journal FINsights. The spotlight in this issue is on Governance, Risk and Compliance and the compilation of articles reflect perspectives on risk and its measurement, governance, the compliance conundrum and our take on the priorities in risk and compliance and their technology implications in the coming years.

The increased incidence of failures in the financial services marketplace over the past decade has given visibility to the science (and art) of understanding and measuring risk in running a business, making strategic and tactical decisions and participating in markets and economies that are increasingly linked in a flattening world. A recent such event, covered in one of the articles, has been the sub-prime crisis and the unforeseen ripple effects in markets in distant parts of the world.

As always we have tried to reflect in these articles the unique value that Infosys brings to its clients through a combination of deep domain understanding, technology best practices and global sourcing expertise. The article on sub-prime crisis reflects the current challenges in credit risk measurement and brings a perspective that combines credit risk measurement approaches with a global knowledge process outsourcing (KPO) option.

Risk and compliance is a multi faceted animal and the focus in the past few years has been on giving it a holistic view through a unified Governance, Risk and Compliance (GRC) program. The articles featured on GRC explore integrated controls to implement GRC, use of SaaS in GRC and industry perspectives on GRC and the road ahead. In the area of compliance, the articles look at addressing compliance challenges, an aspect of internal compliance namely employee surveillance and the partial compliance challenge in the wealth management industry. Our articles on risk address credit risk management, the role of master data in risk measurement and risk reporting. Included in this issue is also a case study highlighting the importance of Information Risk Management (IRM).

We would like to thank all the authors from Infosys as well as external contributors - Adam D. Honoré from Aite Group, Tim Leech from Navigant Consulting and Bob Skea of Northstar Systems. As always, we look forward to your queries or comments on Governance, Risk and Compliance or any feedback and suggestions in making FINsights a more relevant and topical journal.

Happy reading and all the best for the new year 2008!

**Balaji Yellavalli and Sudhir Singh**  
*Editors*

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## Red light, green light – playing the risk game

While regulatory changes like Basel II, MiFID and global Know Your Customer (KYC) requirements are driving new risk management practices, managing risk as a technology priority provides a business case that extends beyond compliance. The regulatory challenges are simply pushing the necessity for initiatives that technology executives have sought unsuccessfully to this point: Cleaning core data, integrating disparate systems and implementing business process management tools to tie people to systems.

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On July 20, 2007, the Federal Reserve, the Office of the Comptroller of the Currency, the Office of Thrift Supervision and the Federal Deposit Insurance Corporation announced the four agencies had resolved their outstanding issues with Basel II and were going to be finalizing a rule implementing advanced approaches for capital requirements. With that announcement, regulators also agreed that the unpopular Basel 1A option was coming off the menu. This collective “group hug” came at the urging of the Senate Committee on Banking, Housing and Urban Affairs and was announced as events in the subprime debacle were unfolding. The announcement signaled that the United States was willing to play by international rules, albeit with a lengthy testing and implementation period. While there is much debate and implementation yet to occur, U.S. firms continue to make quiet progress in a number of key areas to advance risk capabilities.

## Cleaning the data house

One of the largest efforts associated with implementing risk systems is ensuring the data feeding those systems is accurate. In dealing with multiple regulatory issues in addition to Basel II, including the Markets in Financial Instruments Directive (MiFID), Regulation National Market System (RegNMS) and Anti-Money Laundering (AML), no data initiative acquires more bang for the buck than cleaning up the legal entity data hierarchy. This includes data associated with master legal entities, counterparties and clients on both the retail and institutional side of financial services.

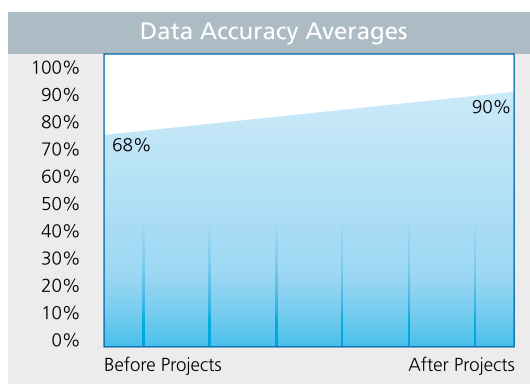


Fig 1: Data improvements through data cleansing projects  
Source: Aite Group estimates

There are many questions associated with managing client/counterparty data. For internal business purposes, when is a corporate action effective -- at announcement date or at completion date? How do firms prevent people from entering duplicate corporate entities? For contact data associated with the client, how do you know when someone who is subscribing to your research or trading

with one of your desks leaves the client? These and a myriad of other issues have created a data conundrum where data accuracy is averaging about 68% at firms that have not completed specific projects to manage this data (Fig 1).

Once firms engage in a cleansing effort, most achieve between 90% and 95% accuracy; an accomplishment that takes no small effort. Frequently, it takes key internal resources dedicated for roughly 18 months to complete the first cleansing.

Iterative cleansing is essential in the initial process, but it is just as important throughout the life of the data, as any number of events can cause data changes and each event needs to be identified and reconciled with existing information (Fig 2).

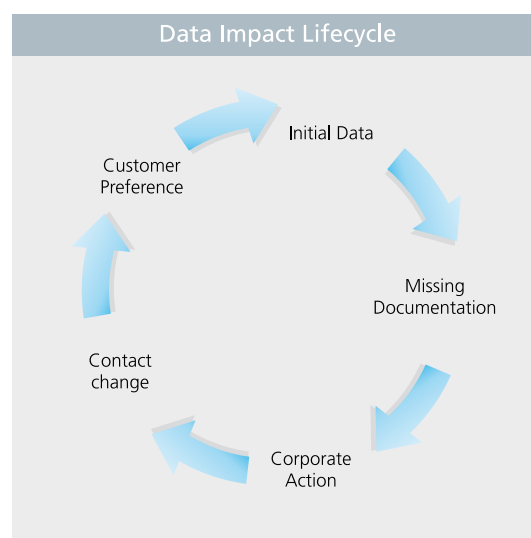


Fig 2: Data impact lifecycle  
Source: Aite Group

The common denominator in all successful projects was that the initial cleansing process was the most painful element in each effort. Firms were surprised at how low their initial data quality measured prior to cleansing. This is also the area executives and project sponsors pushed hardest on the people responsible for delivering the projects. The issues being raised by executives around project approval generally stem from the time it takes to do this process versus the cost of the effort. Data managers frequently have to push back against delivering bad data quickly, versus taking the time and effort to deliver accurate data. In some instances, that push back is made easier after the data manager lets the business experience pain from the bad data. Ultimately, the Return on Investment (ROI) is data quality and lower risk.

## Integrating the data framework

Integrating disparate data silos and eliminating duplicitious systems are currently receiving substantial focus and IT budget to address the issues. After years of throwing in new systems at the business line level, financial services firms have decided that 2007 and 2008 are good years to do some housecleaning. Specifically, firms are focused on spreading areas where they have been effective at creating data golden copies through the enterprise organization while they eliminate legacy data silos, or turn those silos from masters into slaves.

In 2008, Aite Group expects firms globally to spend more than US \$2.5 billion addressing the downstream data connectivity challenge (Fig 3).

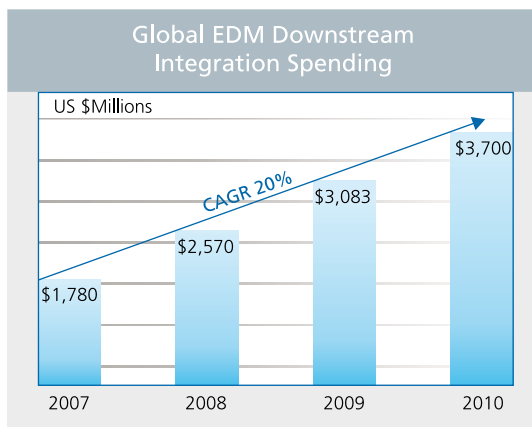


Fig 3: U.S. and European data IT integration spending  
Source: Aite Group estimates

On average, tier-one institutions are budgeting just over US \$9 million each to improve their data connectivity in 2008. Some anticipate spending more than US \$20 million. Mid-tier firms will spend roughly US \$4 million on this problem, while bottom-tier firms expect to address the issue with between US \$250,000 and US \$500,000.

Aite Group expects robust spending to continue because data conversion is a multi-year project for any firm. The reality is that the effort to build the data solution is far less complicated than the effort to migrate the legacy environment needed to use it.

Initial solutions vary widely in choice: Some firms use only internal development, while others have chosen to use one of the vendors in this space. Others have adopted outsourced solutions that encompass both business process and technology. Some firms rely on outsourced hosting and data for securities reference data, while others leverage outsourced scrubbing for client and counterparty data accuracy. Most tier-one and tier-two firms; however, tend to adopt some combination of each (Fig 4).

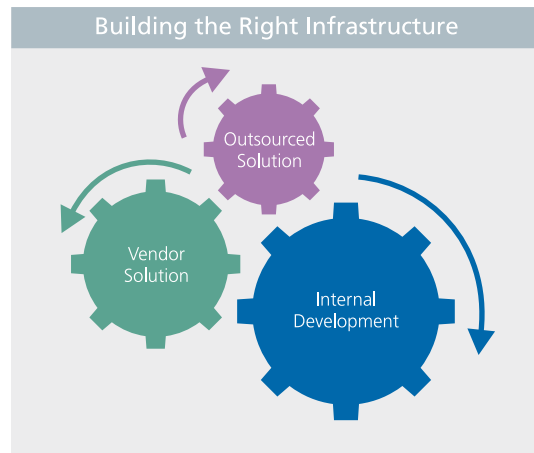


Fig 4: Building the right infrastructure  
Source: Aite Group

Across the board, firms tend to rely on outsourcing less than 20% of the time for new projects (Fig 5). However, Aite Group has found outsourcing capabilities becoming part of the conversation in a number of areas. In addition to data management, reconciliation, some corporate actions processes and document management have all been part of recent outsourcing conversations.

For example, one European bank articulated the benefit of outsourcing their data management responsibilities with a tenfold staff-reduction in cleansing data: With the ability to reach their global systems much faster, they only had to focus on creating the data model and distribution systems. Because of that, the firm could choose any distribution method they wanted for their core architectures.

The value proposition for such large budgets is really about risk management and business agility. In fact, many of these efforts include moving data to a dedicated risk-management system.

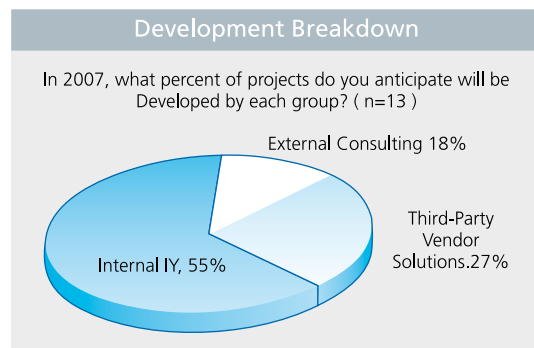


Fig 5: Development breakdown  
Source: Aite Group CIO Survey, June 2007

## Pursuing accountability

One of the most common challenges in managing data risk relates to personnel. People tend to understand

business functions more than they understand the underlying data. Having been prompted for information about the data, business users frequently expect IT to respond with answers; however, IT people are rarely the originators of the data. For that reason, organizations have a difficult time gathering accurate requirements for new initiatives. In some cases, IT organizations work around the issue by creating the most flexible distribution model possible to serve as a buffer between consuming applications.

In order to facilitate tracking business users and the way they manage data, many organizations are implementing Business Process Management (BPM) engines to act as a process consolidator. Think of these systems as replacing ferries with bridges between legacy business systems. As transaction volumes continue to grow, firms are forced to choose between adding staff and figuring out ways to do more with existing personnel. Workflow tools allow firms to add accountability and auditing capabilities to existing manual processes.

For instance, Infosys offers their Intelligent Exception Management Solution (IEMS) as a browser-based BPM tool to handle exception management scenarios, such as failed trades (Fig 6).

Additionally, by adding audit trails and moving the process off paper, the firm can now perform analysis on areas where they are having systematic issues. Further, they are able to perform some trend analysis on both street-side and customer-side breaks for the desks where the department delivers the breaks. This helps the firm add efficiencies in their trading desk alignment.

Aite Group estimates that trade clearing costs have gone up nearly 20% year-over-year since 2006 to keep up with the pace of growth in both volumes and instrument types. In order to slow the growth of those costs, finding ways to be more effective with the way systems and people interact will be essential.

## Conclusion

Regardless of how the regulatory obligations take shape, creating an effective risk-management framework adds value far beyond global capital adequacy requirements. First, risk models are only as good as the data they receive if that data is incomplete or inaccurate, so is the resulting model. Further, bad data creates a constant enterprise risk for all three key areas: credit, market and operational. Understanding how a firm acquires, manages and moves data is essential to successful risk management practices.

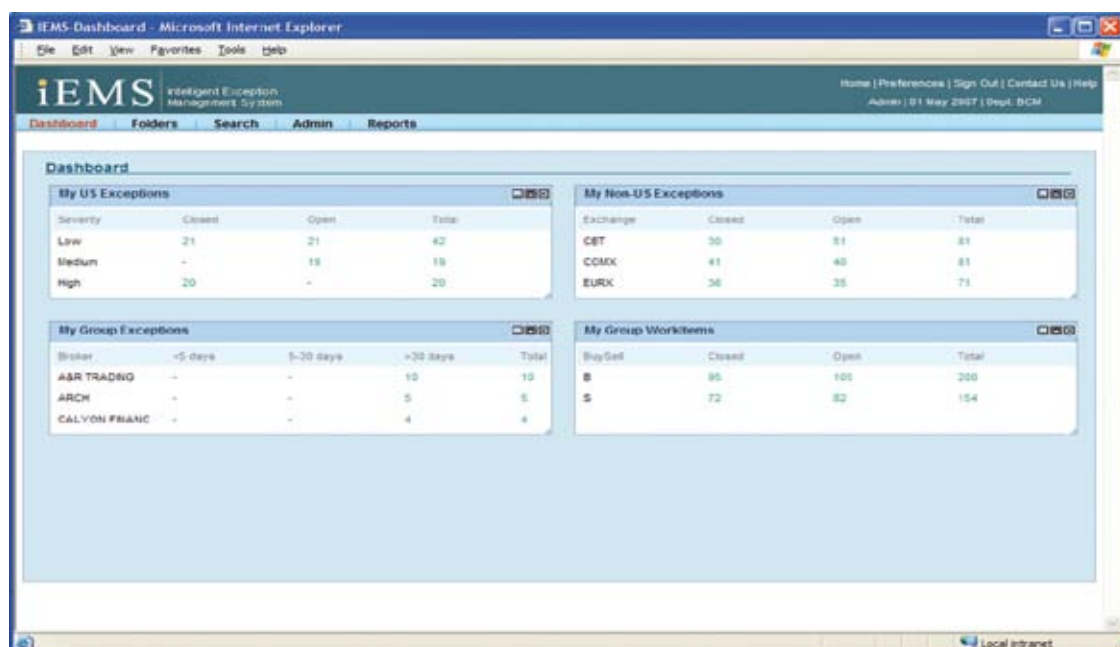


Fig 6: Infosys iEMS screenshot  
Source: Infosys

One midsize broker/dealer was having issues closing out their trade breaks and meeting Service Level Agreements (SLAs) with their trading desk, exposing them to significant risk overnight. After they implemented BPM tools, the same team was able to meet their obligations and reduce headcount by 25%.

Taking the next step, integrating that data and eliminating the duplicate silos, allows the firm to be more agile and prepared for whatever regulatory framework shakes out of the current discussions. Instead of seeking out eight disparate systems to change, changes can be made once and propagated downstream. Firms can then take a look at where their processes create risk and data quality challenges and implement better tools to improve those

processes. Unfortunately, none of these efforts results in a cool new trading system, a sophisticated portfolio tool or trading algorithm, or other piece of revenue-generating technology obvious to the executive eye. It takes vision

and effort for a result that may not be obvious at first. However, firms that have started down the path are seeing rewards and are prepared to participate on the global playing field.




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