



Dynamic IT and Integrated Financial Services:

At the Doorway to the Financial Value Chain

Maggie Scarborough, Research Manager, Corporate Banking

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FINANCIAL INSIGHTS OPINION

Financial institutions are at an inflection point — they must invest in new IT architecture in order to survive and thrive in the next decade. It is a journey that will remake both IT and business architecture around new business models that extend into the financial supply chain of customers and nontraditional partners. Financial institutions have been standing at the doorway to the financial value chain for some time. The economic conditions and available technology are now ready to help them integrate and generate new value propositions and revenue. We don't think many financial institutions can make the journey alone. IT suppliers have an opportunity to forge partnerships with these institutions through thought leadership, as both have much at stake.

IN THIS WHITE PAPER

In this white paper, Financial Insights considers how financial institutions must meet the demand for growth by extending into the financial supply chains of customers and partners. We also examine the industry, market drivers, motivators, and technology attributes needed to meet the demand. A case study of Wachovia is included for illustrative purposes.

METHODOLOGY

This Financial Insights white paper is based on financial services IT spending primary research studies conducted in 2004 and 2005 and ongoing research and executive interviews of C-level and line-of-business executives in the areas of IT spending, enterprise performance management, and corporate banking and treasury management. Research

data from IDC's 2004 and 2005 *Line-of-Business Executive Surveys* and IDC's *2005 Services and Software Leading Indicators Study* were also used in developing the content and conclusions for this white paper.

SITUATION OVERVIEW

Financial services companies must generate more revenues from existing customers or look elsewhere for growth. The modest GDP of developed nations will not sustain the aggressive financial results the markets demand through organic growth. Only a relatively small number of institutions are equipped to pursue business in the riskier emerging regions of Eastern Europe, Asia, and Latin America where traditional banking products gain extended market traction. The more difficult task for banks is to gain new sustaining growth from existing business segments by creating value beyond the transaction. Those banks that move beyond simple transaction processing— a commodity — to become value-added process enablers are more likely to succeed in the next decade.

On the B2B front, tapping revenues requires the ability of the institution or firm to penetrate and collaborate with its value chain of customers, suppliers, and partners in the financial services industry. Financial services institutions must not only think like their business customers but also execute IT strategically and logistically in order to closely couple and offer processes within the working capital management of the company (cash, inventories, short- and long-term lending and trade services including the credit extended to customers). Financial Insights refers to the technology attributes needed for this business transformation as *dynamic IT*.

Essential dynamic IT elements are as follows: organizational alignment of business and IT; adaptive and effective IT-based business execution including business process management and data transparency; and resilient, efficient, and business-responsive IT automation and management. Next-decade financial services survivors will:

- Master performance, risk, and market insight
- Be both low-cost operators and growth-generating innovators
- Build a flexible and adaptive application infrastructure that allows financial institutions to be opportunistic and strategic in M&A and market execution

The principles of dynamic IT are essential to seize market advantage for the next decade. In any economy, but especially in the mature economies of Western Europe and North America, the ideas of IT-based business execution and business-responsive and resilient IT

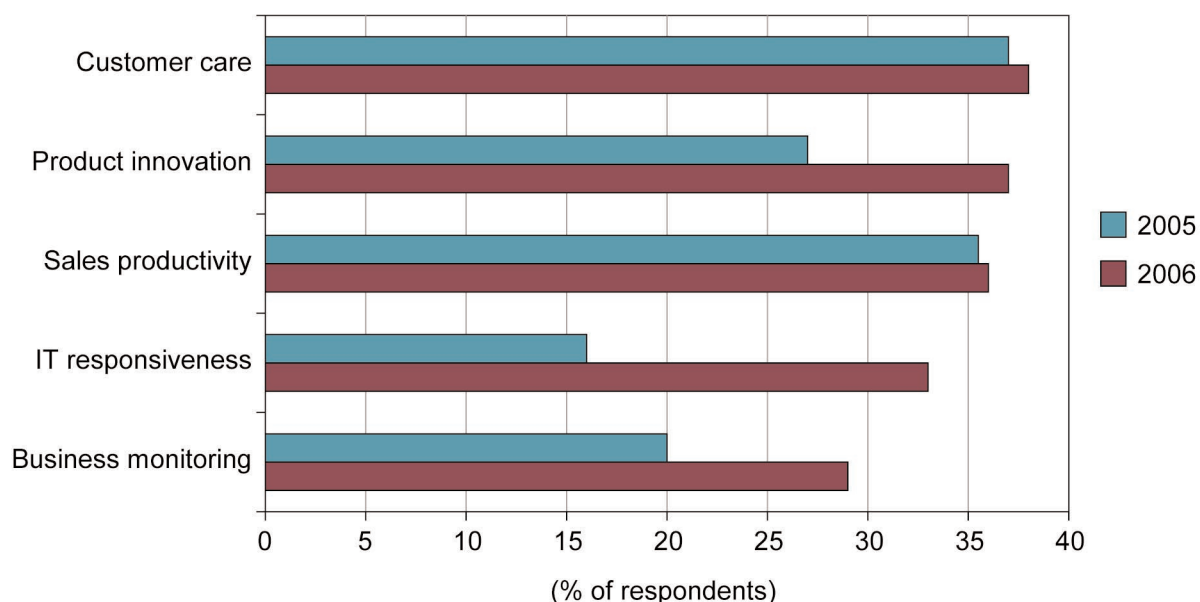
automation and management are absolutely essential to remain standing as either an acquirer or an attractive target in the consolidating banking market.

Execution Gap

CEOs and heads of lines of business agree that IT responsiveness to business needs is key to accomplishing financial agendas. Figure 1 shows a full CEO agenda for IT with IT responsiveness to the business rising significantly in importance from 2005 to 2006. Figure 2, however, shows that IT (i.e., the CIO) does not believe as much in its ability to execute as other C-level executives and line-of-business executives. This finding reflects an execution gap. Therefore, organizations must align business and IT goals to advance execution. The gap also emphasizes the need for thought leadership with regard to execution. This is an opportunity for technology partners to play a critical role in leading the way to implementation.

Figure 1: CEOs Have High IT Expectations in 2006

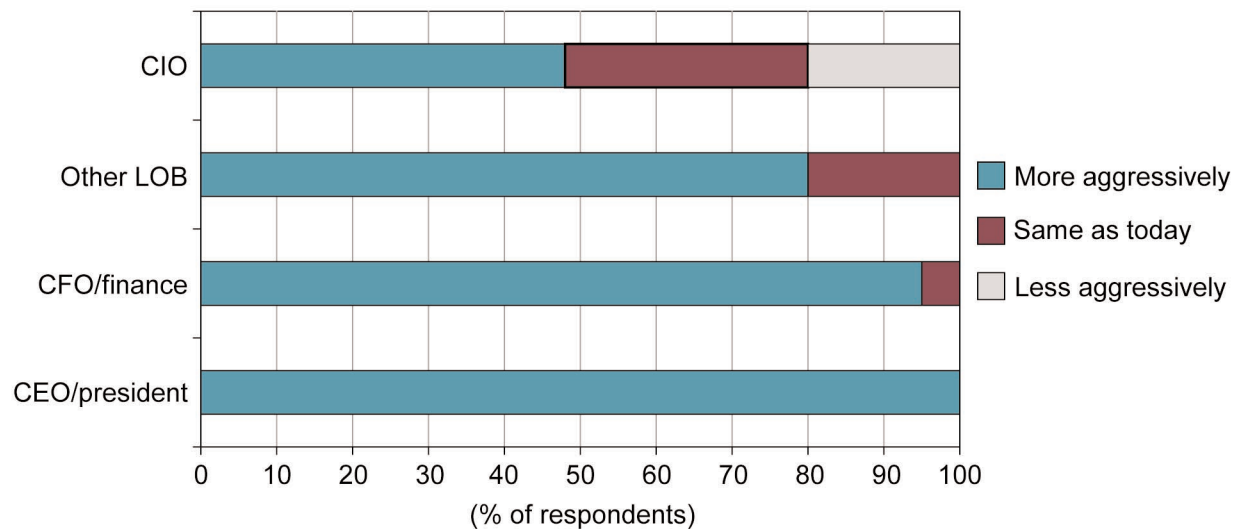
Q. Which of the following business initiatives (for the coming year) are leading the CEO's agenda in your organization?



Source: IDC's Line-of-Business Executive Surveys, 2004 and 2005

Figure 2: CIOs Are Reluctant About IT Execution

Q. How aggressively should your organization be using IT?



Source: IDC's Software and Services Leading Indicators Study, 2005; Financial Insights, 2006

Overarching Business Themes

For financial institutions, many issues and trends influence how this alignment will occur and how IT spending and leadership will play a role in forming a dynamic IT-driven and integrated enterprise. The road map to growth has a signpost that leads to integration of business processes with customer processes — or the industrialization of the financial value chain. The overarching business themes that influence all trends are discussed below.

Economic and Financial Issues

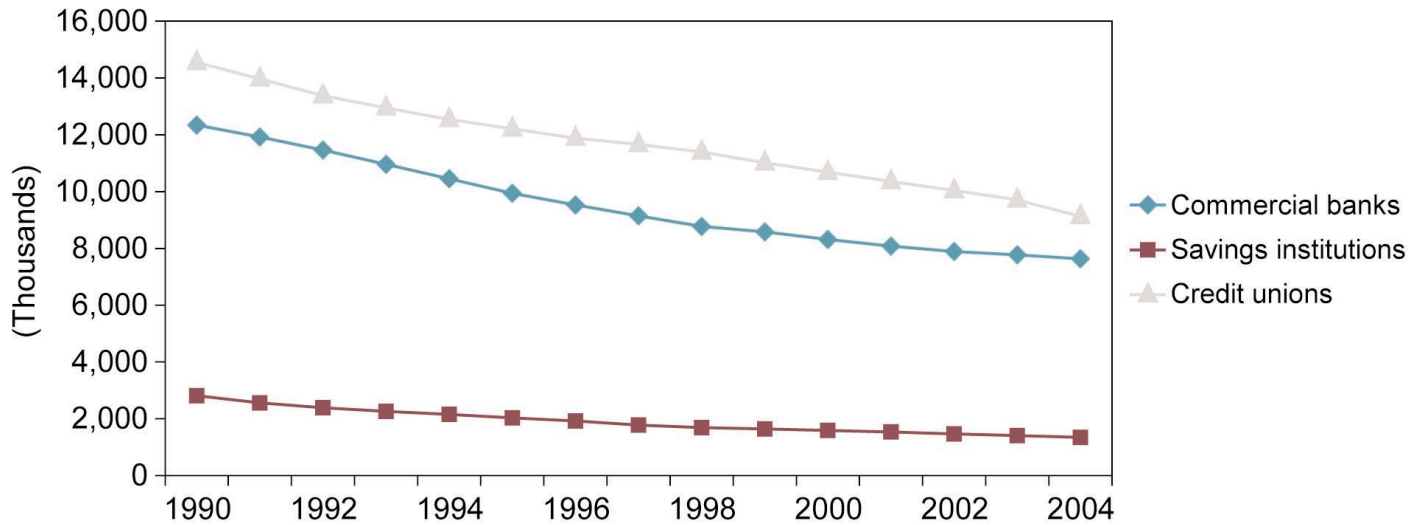
Financial services companies must generate more revenues from existing customers or look elsewhere for growth. In developed regions of the globe, such as Japan, Western Europe, and North America, GDP growth is in the 2–3.5% range — slow and steady growth, but not hypergrowth. In emerging markets, the financial services growth opportunities are huge (e.g., China at 9.1% GDP).

Banks in those markets have an opportunity to avoid past mistakes of the Western world and build sustaining business models the first time. Those financial services companies that move beyond simple transaction processing — a commodity — to become value-added process enablers are more likely to succeed in the next decade.

Consolidation and Scale

In the Western world, GDP growth, while acceptable, will not sustain the double-digit growth the markets demand. There will be 5,000 fewer institutions worldwide by 2014 and 1,000 fewer commercial banks and thrifts in the United States by 2010 (see Figure 3). Consolidation has already created three megabanks in excess of \$1 trillion in assets at the top of the U.S. banking ranks (Citigroup, JPMorgan Chase [JPMC], and Bank of America). Size creates enormous complexity offset by tremendous scale benefits that allow these banks to dominate in several ways: in transaction scale (e.g., JPMC and Bank of America dominate

Figure 3: U.S. Banking Industry Consolidation, 1990–2004



Source: *Financial Insights*, 2006

the ACH); on a segment basis (e.g., Bank of America has more than 11 million active Internet users [excluding credit card-only users]; and in brick and mortar reach (e.g., Citigroup).

Small banks are becoming larger; they are rapidly growing from community banks with a limited set of products and business interactions into regional banks with high-velocity market needs. They must quickly cope with unanticipated complexity and demand for more sophisticated consumer and business services. To cope, these institutions typically rely on core providers and other technology partners.

Regulation and Compliance

The alphabet soup of regulations and compliance issues has taken the attention and budget away from more strategic issues for both financial institutions and their business customers. These institutions have been spending, spending, and spending on compliance from Basel II capital management requirements, data security mandates such as the EU Data Directive

and the U.S. FFIEC security guidance, and antiterror measures such as the USA PATRIOT Act and anti-money laundering (AML) to various accounting standards such as IAS, FAS, IFRS. The most clever institutions have been leveraging this spending into data management, automation, and workflow to benefit the business lines, not just to measure performance and ensure compliance.

Strategic Spending Drivers and Initiatives

The financial services drivers, which influence IT spending today and tomorrow, can be categorized by six megathemes concerning long-term survival or short-term success (see Table 1). These themes are foundational, and they impact spending initiatives as well as capture attention from C-level executives. Financial services executives are challenged first to know their capabilities relative to these megadrivers and next how they will execute to maintain their independence or exit through M&A.

Table 1. Six Megadrivers of Financial Services Strategic Initiatives

Long-Term Survival		Short-Term Success	
Dynamic IT transformation	Alignment of business and IT to create market responsive and resilient IT operations	Organic growth	Banks return to fundamentals after M&A, realizing organic growth is sustenance. Investment in channel renewal picks up.
Industrialization of the financial value chain	Decoupling of processes from channels; business process orientation; and end-to-end business processes to take advantage of ecosystem	Defend revenue sources	Banks now face new threats to traditionally safe havens such as transaction processing and lending as nonbank challengers attempt to disrupt lucrative business models such as credit card interchange fees.
Cost and efficiency	Spend on new application infrastructure in order to achieve the next level of efficiency and market response	New IT-enabled revenue	Banks search for revenues through product innovation and penetration of new segments. STP processing of payments and information is pursued on the business side.

Source: *Financial Insights*, 2006

Top 10 Strategic Initiatives

As reflected in Table 2, both banking and insurance are mature financial services vertical segments, and as such, they have some similarities in the respective top 10 strategic initiatives. For example, both segments wish to turn information into revenues and profits (#4 for banking, #4 for insurance); both are concerned with security and fraud (#1 for banking, #6 for insurance); and both wish to further develop platforms to integrate customer and partners in the business processes (#10 for banking, #7 for insurance). It is at these junctions that we further explore the ideas of dynamic IT transformation and the industrialization of the financial value chain.

Business and Technology Challenges and Opportunities

Financial services companies have left little behind. The inflexibility of mainframe computing spurred rampant adoption of client/server technology in the middle and front offices of institutions throughout the 1980s and 1990s. Additionally, in the 1990s, and to little avail, format and document standards were pursued as a means to alleviate interoperability problems stemming from a patchwork of proprietary systems and standards. This situation has been exacerbated by the number of organizational silos in banking (e.g., retail, corporate, trust, investment, mortgage), the policy lines in insurance (e.g., property and casualty, life, health), and the departmental and product subsets beneath the silos.

Table 2. Top 10 Strategic Initiatives for 2006

Banking		Insurance	
1	Security and fraud management	1	Getting operationally rational
2	Risk management and compliance	2	Platform development
3	Enterprise performance management	3	Protecting the firm
4	Intelligent customer management	4	Leveraging analytics
5	Technology to support new business strategies	5	Ease of doing business
6	Business process automation/reengineering	6	Fraud management
7	Enterprise payments	7	Content management and collaboration
8	Core banking transformation	8	Data rationalization, transformation, action
9	Integrated retail channel delivery systems	9	Acquisitive spirit
10	Corporate banking integrated services strategies	10	Sourcing management

Source: *Financial Insights, 2006*

Interoperability in the Complex Legacy Environment

Today there are so many standards that the costs of interfaces and communications support have skyrocketed. Institutions have been supporting numerous and diverse types of communications between themselves, their business customers, and their partners. Institutions must now trim and streamline the internal and external movement, integration, and processing of information. A unified approach between IT and the business line is necessary to ensure that the flexibility requirements of the business are met and IT efficacy and effectiveness goals are achieved. This collaboration must be supported by C-level directives and alignment.

Mining the Silver Lining of Compliance

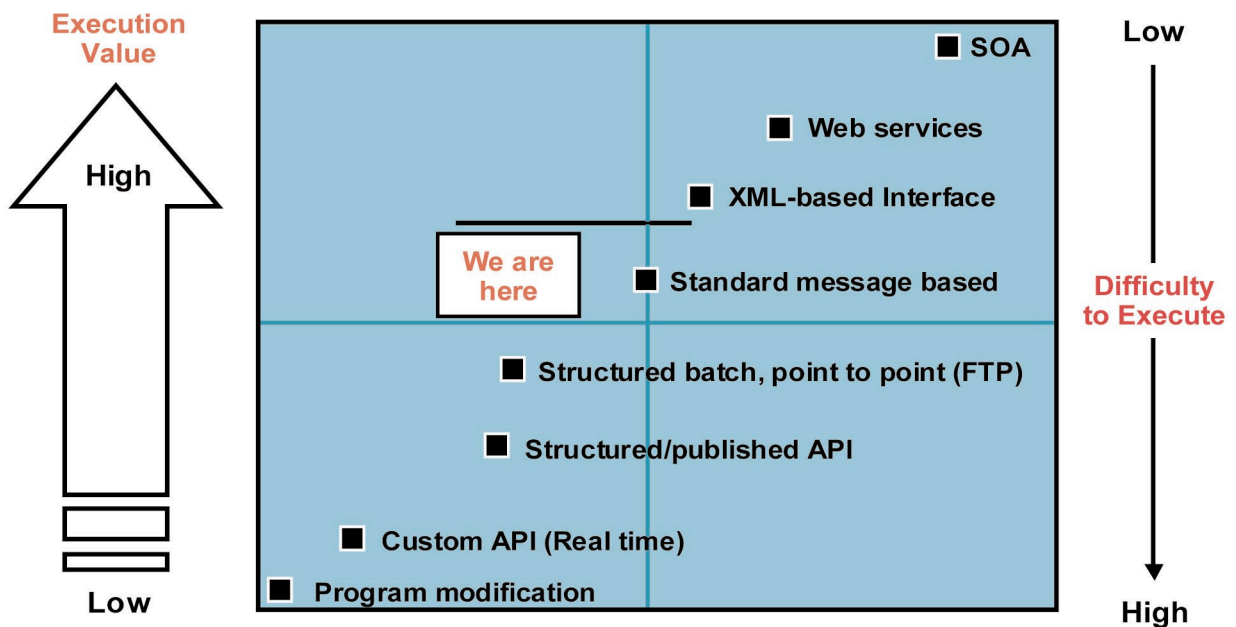
Among all of the various regulatory or financial mandates, the words "Sarbanes-Oxley" begin virtually every financial services and business speech and often lead the tag line from many a software provider. Sarbanes-Oxley and similar ethical legislation in the United States and abroad have brought attention not only to data visibility but also to process visibility. As a result, there has been significant scrutiny on the method, security, and auditability of the movement of data (and how many human hands touch it) between the internal parties of an institution and between an institution and its business customers and their partners.

Integration, Data, and Delivery Channels

Figure 4 shows that SOA (in the upper right) is the ideal integration framework from an execution value standpoint. Banks, however, on the journey to the ideal, must support any number of existing modes of integration from rigid and costly custom application program interfaces (APIs) to discrete Web services interfaces. Point-to-point batch movement of data remains the dominant means of integration. The spotlight on

the traceability and integrity of data combined with the desire to become more efficient has caused banks to rethink their data movement strategies. Consolidation, sunsetting, and replacement of fragmented data movement solutions, such as those described in the Wachovia case study, have risen to the top 20 list of IT projects for the business side of corporate banking.

Figure 4: Data: SOA Is the Goal; Point to Point Is the Reality



Source: Financial Insights, 2006

Case Study: Wachovia Bank and Enterprise File Transfer

Business Challenge

Wachovia, the fourth largest U.S. bank in 2006, with more than a half trillion in assets, provides financial services to consumers and corporations. Its global business supports an expanding volume of data exchange with a growing list of customers, organizations, and partners.

Requirements

As a financial institution, Wachovia handles more and more images and just about every type of document in a heterogeneous operations environment. The file transfer challenges associated with this data are complicated. Information moves to and from disparate platforms via multiple protocols. The bank handles approximately 350,000 external and 850,000 internal data transmissions each month, and it must ensure that the data and the network are secure while meeting service-level commitments with partners. The bank needed a single platform solution that would centralize the file transfer process, improve security and customer service, and accommodate a growing volume of digital file transfers.

The Solution

Wachovia decided to consolidate its file transfer processes onto Sterling Commerce Connect:® products, including Connect:Enterprise and Connect:Direct. Connect Control Center will be implemented in 2006.

Connect:Enterprise is Wachovia's single management system for file transfer and all protocols. It helped the bank improve customer service by automatically collecting, distributing, and managing all data, thus consistently meeting service-level agreements with partners.

Wachovia can adapt and scale its file transfer infrastructure to easily meet the increasing volume of file transmissions while incorporating evolving technologies. The bank has sustained a 24% growth rate in transmissions and has incorporated several new protocols. Wachovia now has the ability to manage a wide variety of communications protocols without changing the management infrastructure or back end, which helps it to be more efficient and responsive to business needs.

Connect:Direct provides security and manageability for internal transmissions among more than 600 servers, multiple mainframes, and midrange systems running various applications supporting Wachovia's lines of business. Connect:Direct's file compression shortens transmission times and stress on the network; the Checkpoint restart component saves time on large file transfers if an abnormal end should occur; and it facilitates file transfers with partners also running Connect:Direct.

The 2006 Connect Control Center implementation will help the bank meet service-level commitments by centralizing the monitoring and managing of all dispersed Connect:Direct nodes.

Benefits to Wachovia

Connect: products provide the centralized management needed for file transmission, which has led to lower unit costs per transmission and lower defect rates per transmission. The bank indicated improvements to productivity (measured by the number of transmissions per employee), ability to meet service-level commitments, and transmission abend rates. Plus, the products have met the scale requirements of Wachovia's growing business.

Need for Real-Time, Dynamic Information Movement

The IT side is only one facet of the data problem, however. The business side needs to open up more cost-effective delivery channels to reach less sophisticated businesses at a lower price point. Straight-through processing (STP) that is event based from bank to business, application to application, and message to message is at the heart of the next generation of bank business services. At the same time, institutions must support the lowest common denominators of integration: point-to-point batch movement.

Addiction to the Desktop

Despite healthy adoption of treasury management systems, large and medium-sized corporations remain addicted to the desktop as a centerpiece for information exchange. Although the file pass-through capabilities of Web cash management took care of many FTP or dial-up communications, most top 100 institutions have a small but stubborn segment of costly dial-up customers. Outsourcing and Web scripting alternatives are available, but banks see the next generation of the desktop appearing. This new desktop uses IP connections and supports continuous, straight-through XML communications.

Security and Identity Management Needs Increase

With threat levels rising, especially at the Web channel, comprehensive security has become a requirement of integration and data movement. Europeans have more thoroughly embraced a number of security techniques including smart cards, but the United States has been largely reactive. This situation is changing as end-to-end security is becoming a requirement of internal and external bank communications with customers and partners.

FUTURE OUTLOOK

The future of financial institutions and the vendors that serve them can be expressed by the industrialization of the financial value chain and the principles of dynamic IT transformation.

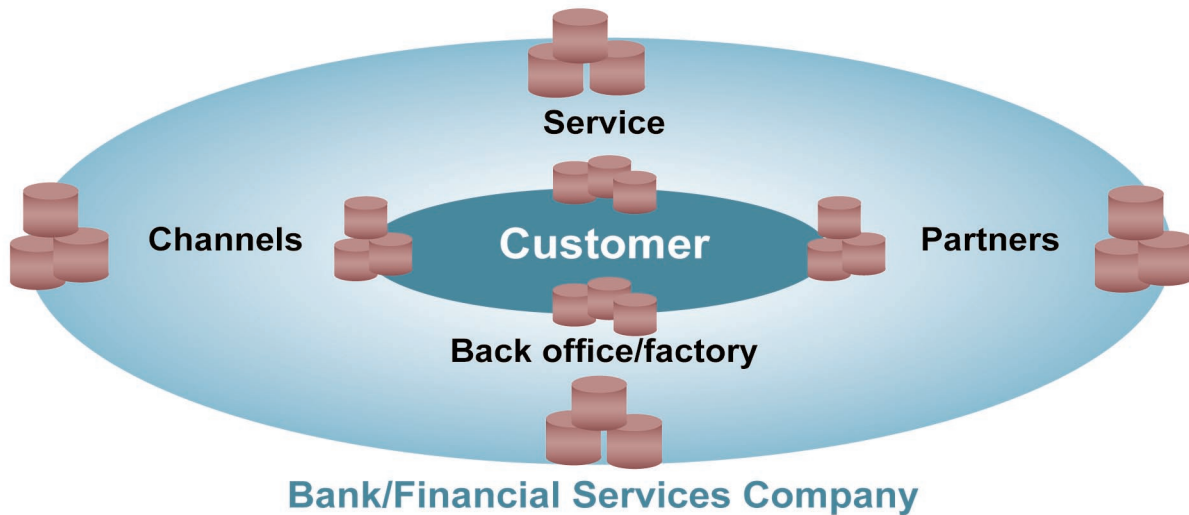
Industrialization of the Financial Value Chain

Reaping revenues from the financial supply chain presents as many challenges as opportunities. This issue is driven by the marginalization of the traditional transaction-based business model. The businesses of banking, insurance, and other financial services organizations have moved from transaction processing to process management, a value-added proposition for customers, but one that requires both IT investment and business process reengineering. In Europe, the emphasis is on industrialization (see Figure 5); in America, the emphasis is on customers; and in Asia, the spotlight is on growth and scale.

Regardless of the emphasis, institutions must have an integration environment that allows them to partner with customers and mutual providers in the industry and embed their processes with bank processes at a very low cost. Dynamic IT and its underpinning, a service-oriented architecture, are the means to get to the final state. A major challenge, however, will be to effectively manage IT during what will be a long transition. An opportunity will be how to leverage or maximize the ecosystems or communities of those partners in the channel. It is the tapping of these extensions of the customer, the customer's suppliers and partners, that will yield new markets, revenues, and margins.

Figure 5: Future Is in Industrialization of the Financial Value Chain

- Leverage of partners in the channel with customers
- Decouple products from channels (remove hardwired inflexibility)
- Business process orientation
- Flexible, integrated, end-to-end business processes



Source: *Financial Insights*, 2006

Western European institutions operate in a very mature market and have recognized the need to embed themselves more deeply in the financial supply chains of various participants. This industrialization of the financial value chain is a manufacturing metaphor that describes the decoupling of products from channels to allow broad distribution of products. An example of such a strategy is Royal Bank of Scotland (RBS) and its joint venture with United Kingdom-based European retailer Tesco. Although it is a consumer banking example, it can be applied to many bank-to-business scenarios such as global trade finance, business leasing, or small business lending. The joint venture, Tesco Personal Finance, generated £200 million in 2005 by distributing RBS financial products

through Tesco outlets. The consumer is not aware of where RBS or Tesco begins and ends in the origination, processing, and fulfillment stages of product or service consumption.

Manufacturing has also influenced the production logistics of the financial services. A handful of financial institutions have embraced manufacturing process improvement methodologies such as Six Sigma, which greatly contributed to Bank of America Corporation's 11% CAGR improvement in operating EPS (diluted) between 2000 and 2005. Six Sigma methodologies also contributed to an improved efficiency ratio (excluding merger and restructuring) during the same period, from 54% in 2000 to 49% in 2005.

The Tools of Change

Many of the strategic initiatives detailed above can be solved using the principles of dynamic IT transformation as coined by Financial Insights parent, IDC. A service oriented architecture (SOA) and an end-to-end process management are integral to success, as are business tools that allow for the transition to SOA and capitalization of the financial value chain.

Dynamic IT Transformation

Dynamic IT principles include two basic stacks of business and IT alignment:

- **Business strategy automation** and execution through IT by more quickly and cost-effectively developing/integrating the applications, data, and workflow that support business process execution and by using IT to directly monitor and adjust the performance of the business (see Table 3)
- **IT operations automation and management.** Delivering better IT performance in support of the business and lower operating costs through automation of labor-intensive tasks, developing end-to-end management capabilities, reducing hardwired inflexibility through virtualization, and developing flexible sourcing and payment options (see Table 4)

TABLE 3. Dynamic IT Principles: Business Strategy Automation and Execution

Business Strategy Automation and Execution	Dynamic IT: Market Responsiveness
Business monitoring and analytics	Trigger market-responsive change through business performance measurement
Business process and application	Quickly configure and reconfigure business rules and applications
Information and data	Access to all relevant information as needed
Integration, event management, and deployment	Dynamic integration of business-critical IT
Collaboration and communication	Human integration in the business process
Secure access and interface	Navigation and interactive experience inside and outside the organization

Source: Financial Insights, 2006

TABLE 4. Dynamic IT Principles: IT Operations Automation and Management

IT Operations Automation and Management	Dynamic IT: Infrastructure Responsiveness
Service-level management and automation	Trigger deployment and redeployment of resources in response to business need
Metering measuring and chargeback	Measure and charge for IT resources by actual business usage
Security	Protect the entire IT environment — applications, application components, data, and IT infrastructure
Infrastructure virtualization	Create virtual pools of serve, storage, and network services
Infrastructure provisioning	Enable rapid and consistent deployment of IT infrastructure
Platform management and monitoring	Enable system monitoring, inventory, alerting, group management, and capacity management

Source: *Financial Insights, 2006*

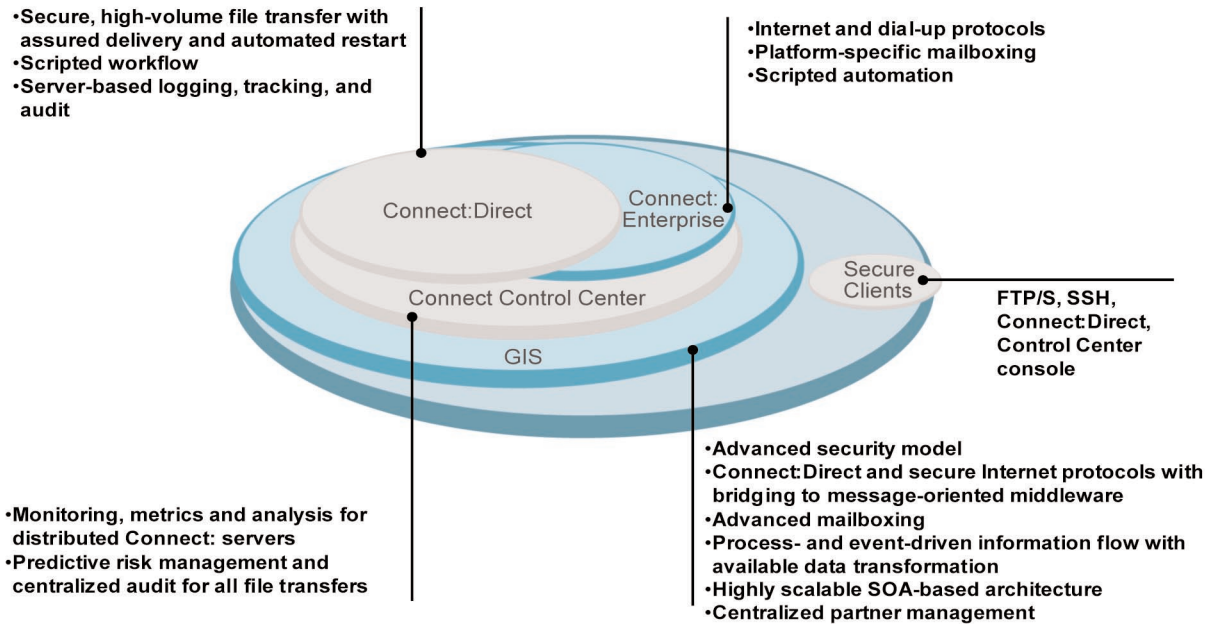
Sterling Commerce and Multi-Enterprise Collaboration

IDC and Financial Insights follow many suppliers of technology to financial institutions and services companies. We have looked at Sterling Commerce as an example of a player in the business process automation deployment competitive market, integration server software platform space, and dynamic IT arena. Sterling Commerce, a subsidiary of AT&T Inc., is a major provider of application deployment, collaboration, network, and secure file transfer products and services to customers in industries such as manufacturing, retail, and financial services. With over 800 banking customers, and thousands more business customers (that are customers of banks), Sterling Commerce is a major provider of some of the key dynamic IT components. The company is an example of a technology supplier that is in the process of tuning its products to meet growing demand for solutions based on service oriented architecture.

Sterling Commerce has combined its Gentran Integration Suite, its universally known Connect: secure file transfer line of products, and its network services for EDI and B2B information exchange into an integrated solution: Multi-Enterprise Collaboration (MEC) through its B2B Collaboration Suite (see Figure 6). The community building aspects of this service suite are well suited to the B2B environment and could be exploited, along with other parts of the MEC solutions, for use with the industrialization schemes we have discussed in this white paper.

Today, Sterling Commerce is moving deeper into vertical solutions, for example, with customized solutions powered by the B2B Collaboration Suite for financial services. We have included a case study of Wachovia as an example. File transfer capabilities are built on an SOA that is enterprise to enterprise, provides extensibility and scalability, and bridges file-based and message-based infrastructures such as message-oriented middleware, or MOM. Moreover, it is one of the few

Figure 6: Sterling Commerce B2B Collaboration Suite



Source: Sterling Commerce, 2006

solutions that take a comprehensive life-cycle approach to file movement and visibility. Sterling is advancing its offerings on a strategic trajectory that intends expansion and deeper penetration into financial services in the areas of transaction management, cash management, interbank clearing, and core collaboration. Our research indicates that these areas are important entry points for SOA.

More important, Sterling Commerce has insight into the financial value chain through its extensive experience in the B2B commerce arena and thousands of business customers and hundreds of bank customers. The company also has a road map to SOA and integrated B2B banking, which we believe to be an important value proposition to institutions. Like any other participant in this technology evolution, the company must realize that execution will be critical.

CONCLUSION

The future of financial institutions and the IT suppliers that serve them lies not only in a new IT architecture but also in a new type of business architecture. The IT architecture embodies the principles of dynamic IT transformation, which aligns business and IT together in a joint mission of business agility. Beyond essential C-level commitment and organizational and compensation alignment, IT governance and end-to-end management are a means to get to the state of the integrated banking enterprise. This ideal encompasses resilient and responsive IT driven by and aligned with the business and an ecosystem where partners and customers in the value chain can be integrated in end-to-end process.

The business architecture may be the biggest mountain to climb, however, as IT suppliers and institutions swallow hard over the fact that IT, in the case of IT suppliers, and transactions, in the case of institutions, are no longer differentiators in the marketplace. Both camps must get down to the business of delivering real business value to as many financial value chain participants as possible using an open technology approach.

Dynamic IT is a means to deliver the type of visibility, process, and

interoperability needed to accomplish the business transformation, but a starting point and a road map are just as important. An institution must first understand where it stands in order to know what it wants from financial and cultural perspectives. The road maps may come from internal or external consultants, but IT supplier partners that have devoted resources to dynamic IT transformation can provide expertise and thought leadership because they too have much at stake in making the journey.

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5 Speen Street, Framingham, MA 01701 USA • Direct +1.508.620.5533 Fax +1.508.988.6761



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