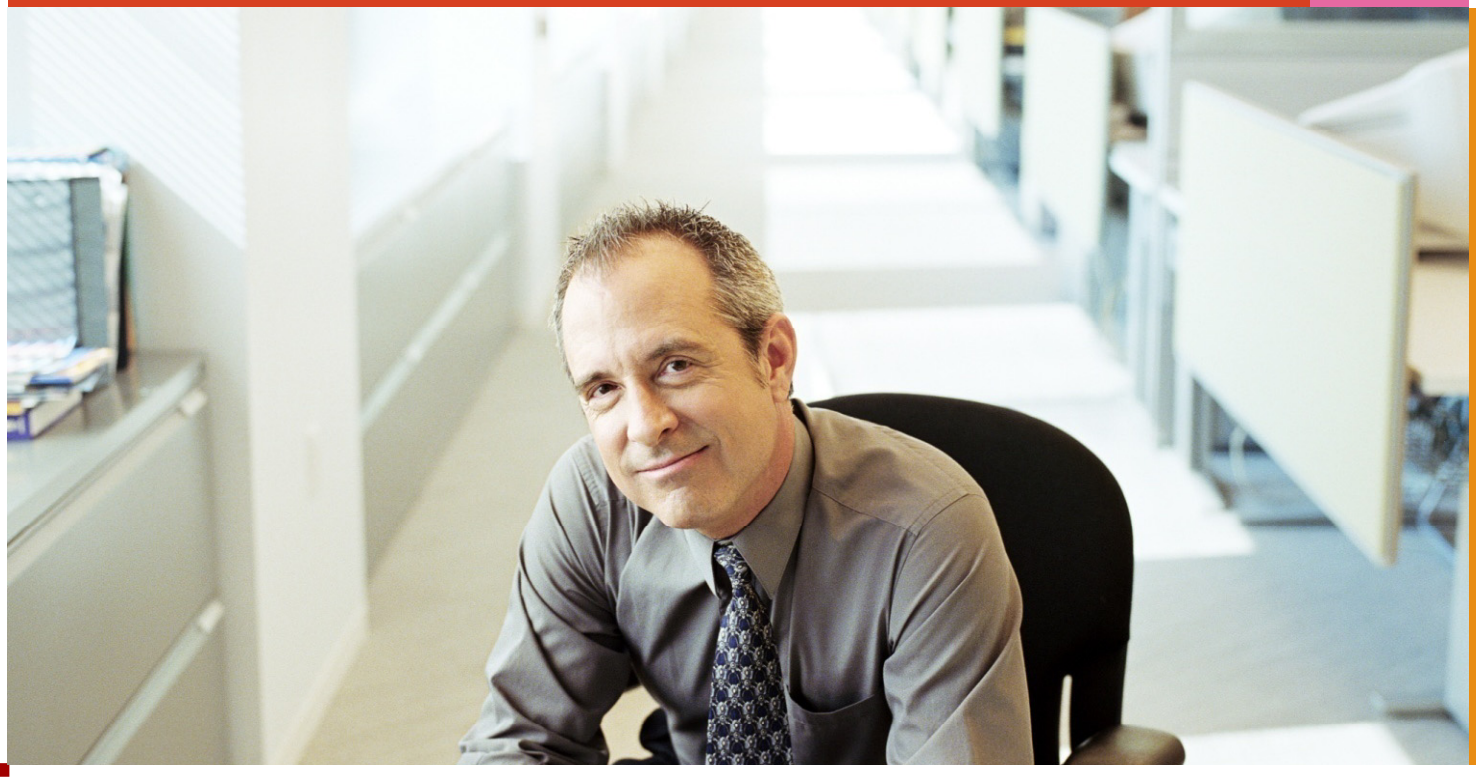
A publication of PwC's Financial Services Institute (FSI)

Rebooting Your IT Strategy: Using IT to Accelerate Your Business



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Section 1

Point of view

Point of view

Current IT operating models are broken and cannot support rapidly evolving business strategies, particularly in the current regulatory environment.

Under the pressures of today's marketplace, budgets and headcounts have been reduced or remain flat in many IT organizations. Some business units have begun to bypass the IT department regularly or have built their own functions.

In recent years, we have seen many CIOs structure their organizations as low-cost technology service providers offering a simplified selection of services to the lines of business. Focused on increasing efficiency, IT has developed and executed on tactical projects designed to reduce operational costs, standardize processes, consolidate vendors, and comply with regulations. Unfortunately, our observations suggest that the expected benefits of the IT service provider model often go unrealized. Many technology services and standardized processes are not utilized across the lines of business, thereby wasting organizational resources. Compounding this problem is that within many IT organizations, budgets and headcounts have been reduced or remain flat.

As a result of these factors, the heads of business units often tell us that working with IT takes longer than desired, or that internal technology solutions are neither readily available when needed nor easily understood. Some frustrated business unit leaders have started to bypass IT and work directly with outside technology providers for cloud-computing applications, software-as-a-service (SaaS) infrastructure, open source tools, and other such services. A recent Ponemon Institute study reported that many organizations' business units fail to involve IT in major decisions.[1]

While we recognize the frustration that leads business units to go outside the internal IT organization and adopt individual technology strategies or solutions, we have witnessed firsthand the drawbacks of this approach. Specifically, when business units adopt their own IT solutions, this can lead to:

- The emergence or reemergence of technology silos, which in turn can lead to higher costs, lower efficiency, reduced control, and data fragmentation.
- Greater confusion and less transparency about IT operations.

[1] "Flying Blind in the Cloud: The State of Information Governance." Ponemon Institute LLC. 7 April 2010. Available from: http://www.symantec.com

Point of view

At IT organizations that foster and facilitate business innovation and change, CIOs send a signal to the organization that they are strategic partners in transforming the business.

In a challenging economy, the demand for increased performance is growing. Today's IT organizations are expected to help drive growth and innovation in the business.

In recent times, financial institutions have focused on vertical business strategies, looking inward to the lines of business to improve cost effectiveness, enhance operational controls, and speed time to market. There are many examples of these types of transformational change. For instance, we have observed leading asset management firms adding more asset classes or more complex products to existing asset classes; retail banks focusing on transaction volume and either acquiring more volume or offering back-office processing to other firms; insurance providers moving toward more self-service with Web-enabled policy-decision analytics and downloadable documents; and wealth management business units of larger institutions creating operational efficiencies by using parent firms' platforms for trading and clearing and settlement instead of building their own systems and processes.

All of these business strategies have major IT implications. In our experience, in less effective enterprises, the IT organization continues to serve in a service provider role focusing on cost cutting and operational controls in each line of business, without any clear IT strategy. By contrast, in leading financial institutions, the IT organization moves into the role of an innovator, developing IT strategies aligned to the business and executing on operational needs and objectives to gain yields and grow the business. When they assume this new role, CIOs will need to shift their focus to IT strategies that support the evolving business models and remain at the forefront of innovation.

When IT aligns its visions with those of the business, we often find that CIOs are able to move into a more strategic role in which they can influence the business vision held by the CEO and become an agent of change. In these institutions, CIOs have a seat at the table with business leaders as they discuss the strategic mission for the company. Likewise, business unit managers in these leading organizations have a solid understanding of IT's services, capabilities, limitations, and value proposition.

By fostering and facilitating business innovation and change, the CIO of a leading financial institution sends a signal to the rest of the enterprise that he or she is a strategic partner in transforming the business. The CIO's influence with the organization can continue to grow, and he or she can play a central role in driving collaboration across the various business units. A one-time alignment of goals is not sufficient: We have observed that in the most successful companies, IT and the business continually synchronize their visions to optimize innovation, effectiveness, and efficiency.

Point of view

IT leaders who closely align with business groups are generating better returns for their enterprise.

Visions are **discordant**; the CIO is **reactive**	Visions are **synchronized**; the CIO moves **in step with the business**	The CIO **influences** the business vision and becomes an **agent of change**
Reduce waste and missed opportunities	**Proactively balance efficiency, effectiveness and innovation**	**Create a competitive advantage through business innovation**
▪ A number of IT projects do not support clear business objectives. ▪ IT talent and resources are unavailable to support critical business rollouts. ▪ Business builds and primarily relies on its own IT teams.	▪ Although IT is reactive and operates as an order-taker from the business, IT projects clearly map to strategic objectives of the business. ▪ Business as usual is adequately supported by IT.	▪ CIO actively contributes to shaping the strategy of the enterprise. ▪ IT supports the business as a trusted partner and advisor. ▪ IT leads a number of projects that are designed to achieve competitive advantage.

Point of view

Leading firms are reaping significant benefits when their IT organizations act as innovators.

Benefits	Results delivered by PwC
Improved quality of IT services and solutions ▪IT solutions are more readily available and easily understood. ▪Greater ability to manage costs, efficiency, control, and data fragmentation through operational transparency. ▪Better allocation of personnel, resources, and investments.	**Global asset management firm, large international bank** ▪ To help a global asset management firm remain competitive, assisted with business case development for a global CRM strategy. This resulted in US$20 million budgeted over three years in the firm's annual investment plan. ▪ Helped implement service-oriented architecture for a large international bank in Latin America, resulting in reduction of client onboarding time from 15 to 3 days and total treasury client processing time from 22 to 7 days.
Margin improvement ▪Potential increase in revenue as business area leaders work with IT to grow sales through innovation and collaboration. ▪Less duplication of effort and increased economies of scale, resulting in decreased costs. ▪More efficient and cost-effective use of IT resources across the organization.	**Top-five US bank, hedge fund** ▪ Helped a top-five US bank achieve savings of 17% to 18% in IT services over two years. ▪ Helped to redesign the operating model of the IT department of a hedge fund service desk, resulting in operational efficiency improvements of 75%.
Improved operational efficiency ▪Increased understanding of the business by IT. ▪Increased understanding of IT by the business. ▪Increased IT flexibility to develop products that align to the business vision. ▪Reduced technology silos and inefficiencies.	**Large bank, multiple financial institutions** ▪ Identified and developed US$4.5 million in efficiencies and synergies across IT and operations following the merger of two large banks. ▪ At multiple financial institutions, helped to implement programs to upgrade and change applications to meet requirements for cost-basis reporting, resulting in compliance with regulation effective January 2011.
Improved security ▪IT organization oversees all technology-related activities and reduces use of outside technologies, thereby alleviating security risks. ▪IT actively protects all proprietary, employee, and customer data.	**Reinsurer, large financial institution** ▪ Helped to implement an IT risk and control register at a leading reinsurance company, resulting in IT being assessed as having an effective risk and compliance program. ▪ Assisted in the design and execution of an information security risk assessment at large financial institution, resulting in a repeatable process that enables compliance with FFIEC requirements.

Point of view

Leading IT organizations support today's agile financial institutions. Lagging organizations face a higher likelihood of management change and reorganization.

Almost every financial institution recognizes technology's potential for enabling business success. However, only the high performers provide the leadership, organizational structures, and processes that best prepare the IT function to deliver maximum value while controlling IT-related risks.

At leading firms, we find a significant difference in how the IT function operates. In these firms, IT organizations are not relegated to a tactical role. Rather, they are strategic business advisors that generate maximum return on technology investments, harness IT to drive the business, and manage and capitalize on IT-related risks. How can other IT organizations follow the lead of the top performers?

(1) The IT organization should consider these four business levers:

Products | **Channels** | **Customers** | **Risk and regulation**

(2) Once the strategy within these business levers is understood, IT should realign the strategy based on the following IT strategy levers:

Business information	IT should provide timely and useful data and analysis to help decision makers anticipate, manage, and create change.
Technology solutions	IT should provide the hardware, software, and support that enable the company to operate efficiently and effectively. IT should also balance and manage these investments to help the company gain the greatest value and meet business goals from its technology investments, just as a financial manager helps a client balance his or her investment portfolio and meet personal objectives.
IT operating model	The IT organization should embrace a framework, an organizational structure, and processes that help to sustain and advance the company's strategies and objectives.

When these levers of IT strategy and business strategy are simultaneously analyzed, companies can begin to align their IT operations more effectively to their business objectives. In our view, this approach, which we call the Total IT Framework, provides the foundation for a strong IT organization to support today's agile financial services organizations.

Section 2

Competitive intelligence

Competitive intelligence

The following are examples of what we observe in the financial services industry.

Industry-leading practice	Industry-observed practices		
	Financial institution A	Financial institution B	Financial institution C
IT strategy aligns with and enables the firm's strategy	▪ IT and Operations are combined under one senior executive sitting on the board ▪ The IT strategy is directly sponsored by the CIO and implemented throughout the firm	▪ IT strategy is often spearheaded by a small subset of critical applications ▪ General direction is given by IT to support the business as IT understands it	▪ The IT strategy is not expressed in business terms ▪ Ad-hoc initiatives constitute the bulk of the IT strategy (e.g. cost reduction, standardization)
IT strategy supports technology across all silos, regions, and business units	▪ Business-led technology projects involve IT from the start to lay the foundation for future support from IT ▪ Whenever possible, systems and standards are shared and reused across silos, regions, and business units	▪ Some individual business units have their own IT strategy and operate independently from other business units ▪ An overarching business and IT strategy is developed to bind together multiple strategies after the fact	▪ Each business unit and region follows its own IT strategy ▪ Standards, when they exist and are enforced, are regional and may be changed by individual business units ▪ Sharing of technology across business units and regions is only ad-hoc
Priorities established as part of IT strategy are used when authorizing IT projects	▪ IT enterprise project portfolio management (EPPM) is established as a function and discipline: EPPM authorizes and tracks projects based on IT strategic objectives	▪ Projects are reported by business units and tracked after the fact ▪ The enterprise project portfolio is assembled and reconciled to the IT strategy only once or twice a year for budgeting exercise	▪ Projects are tracked by business unit and regions and are not fully reconciled with IT strategic directions ▪ There is no mapping of projects to strategic objectives ▪ Reconciliation is ad-hoc and cost-reduction driven

Competitive intelligence

The following are examples of what we observe in the financial services industry.

Industry-leading practice	Industry-observed practices		
	Financial institution A	Financial institution B	Financial institution C
Metrics and indicators are developed that relate to IT strategy	▪ IT departments utilize measurements and indicators that are aggregated in business-relevant metrics ▪ A consistent structure and categories are used throughout the firm for reporting	▪ IT metrics are reported on a regular basis but do not relate to business indicators ▪ Decisions are not metric-enabled at the business level ▪ Ad-hoc reports are prepared by IT by request from business units	▪ No governance exists for IT metrics ▪ Reporting capabilities exist but are scattered across IT departments ▪ Business IT typically creates its own IT metrics tracking
The enterprise architecture is consistent with the IT strategy	▪ An enterprise architecture exists and is maintained by a central architecture team, with support from local teams ▪ Standards are regularly reviewed, and efforts are made to maintain consistency and simplicity	▪ Architecture standards are siloed in business units and regions ▪ Standardization exercises are done every year to reduce the number of “rogue” standards ▪ Business units manage their own application of standards	▪ Standards exist but are not enforced and not tracked ▪ Standardization exercises are implemented on an irregular basis every three to five years
Budgetary decisions align with IT strategy	▪ The IT strategy is revised every year in time to be reflected in budgetary decisions ▪ Change management includes managing impacts from possible budget reductions	▪ The IT strategy is revised every year in time to be reflected in budgetary decisions ▪ Change management is not mature enough to evaluate dynamically the impact on the budget outside of budget cycles	▪ Strategic choices are unclear and do not reflect in budgetary decisions, except in the shape of cost-reduction exercises ▪ Budget decisions are siloed and managed by senior leadership only at overall cost

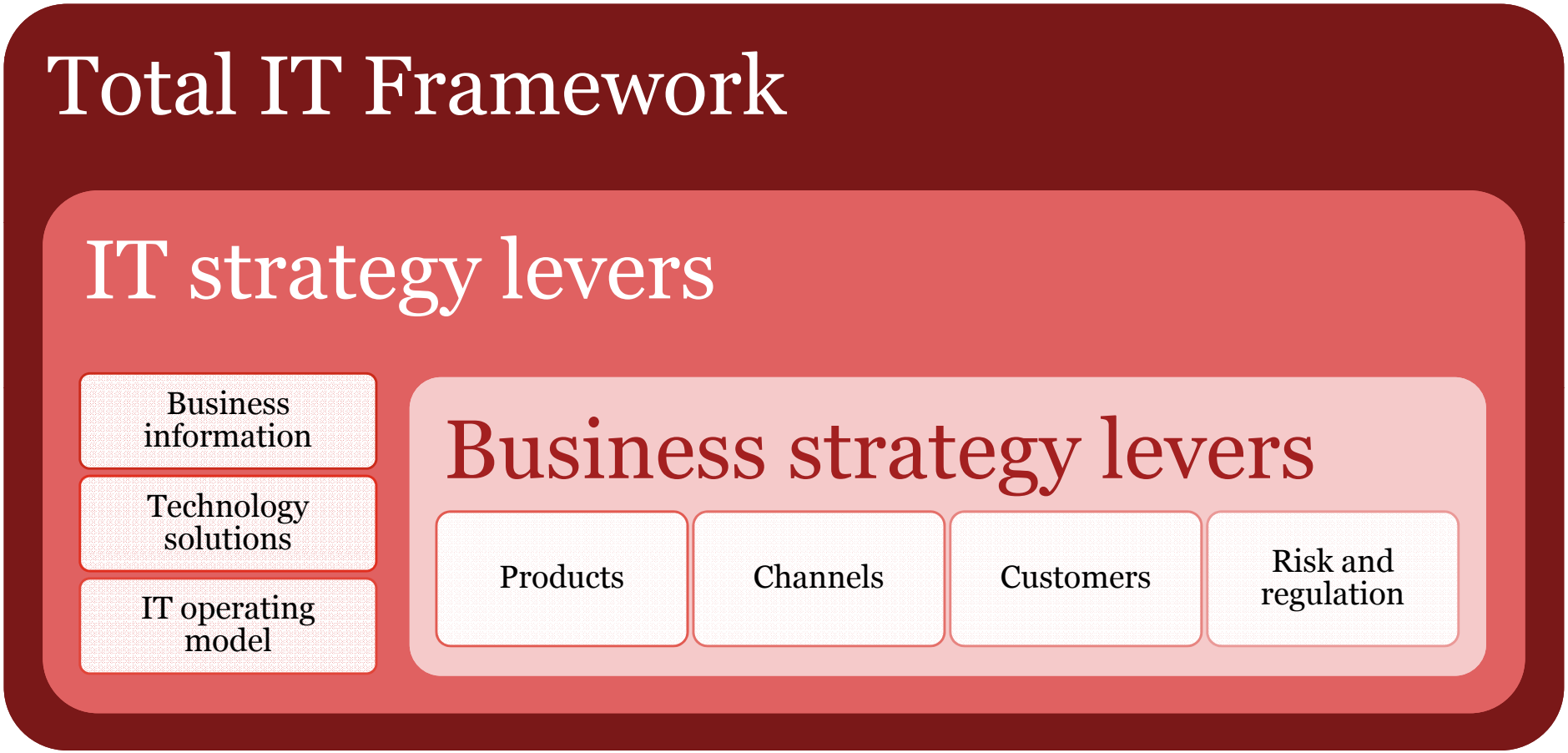
Section 3

A framework for response

A framework for response

Mobilizing and framing the vision of the Total IT Framework

The IT and business strategy levers form the foundation for mobilizing and framing the vision as part of the Total IT Framework. This approach can help a company to better understand the relationship between IT and the entire business. As a result, IT can deliver innovative services and plan improvements that best meet the business's needs and goals.



A framework for response

Collaborative IT strategy approach

Vision

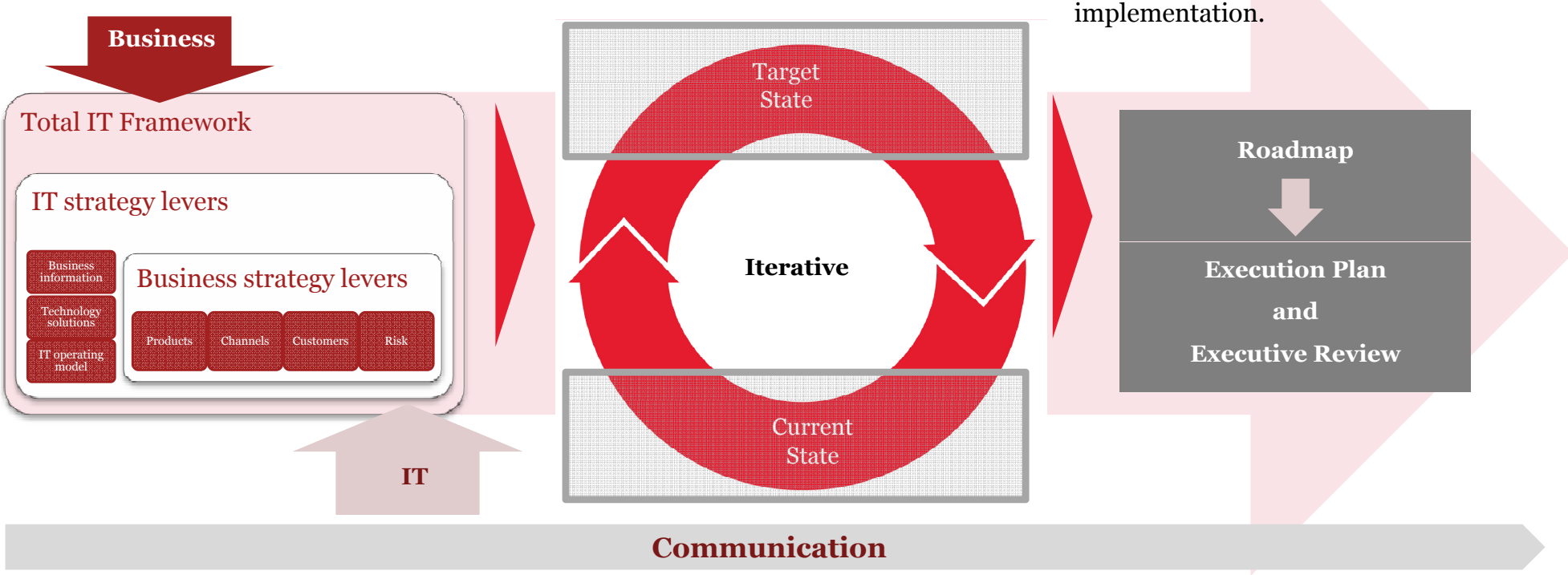
Business and IT mobilize to frame their synchronized visions.

Target state

Business and IT collaborate and come to consensus.

Roadmap

IT develops an actionable plan with clear business value for each phase of implementation.

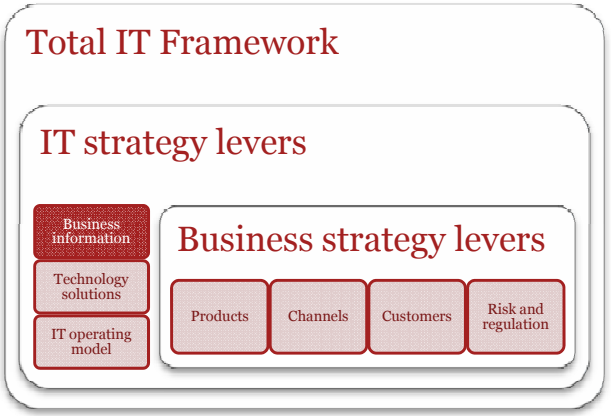


Key success criteria: mobilizing change through executive leadership

- Engage key business and IT stakeholders throughout the process to build alignment and focus.
- Collaborate, in an iterative discovery process, to identify business drivers and critical capabilities that are necessary to address problem areas and develop target plan consensus.
- Identify and elaborate on current critical capability gaps; develop target-state requirements.
- Prioritize and rationalize the business drivers to IT capabilities throughout the process.

A framework for response

By providing necessary information and tools to the enterprise, IT can help decision makers facilitate the company's growth, competitiveness, innovation, and differentiation.

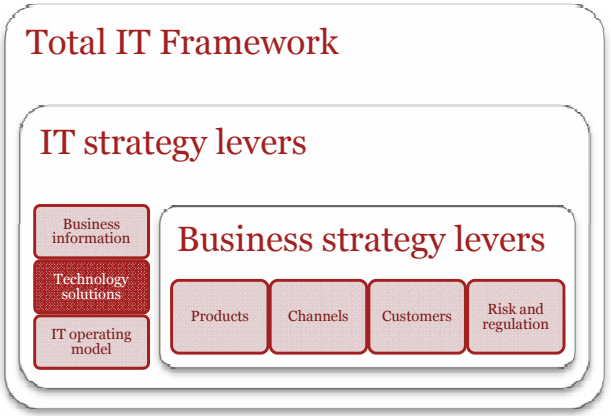


All financial services companies need to store, retrieve, analyze, and protect business information about transactions, market information, and client accounts. How does an IT organization align its operations to the company's objectives?

Business information	
Reference data	Many financial services companies are finding it effective and efficient to consolidate client data into a single, centralized source that acts as an internal shared service provider to the firm's applications.
Information-as-a-service (SaaS infrastructure)	Research teams and traders have greater needs for information than ever, which requires financial services organizations to be more flexible—and less tied to a single platform—in delivering that data. As a result, financial services firms are striving to provide a complete array of data to those who need it, regardless of the data's source, thereby enabling users to select and de-select data in real time when their needs change.
Real-time analytics and reporting	Leaders and decision makers require timely and useful information, including on-demand and customized reporting. These capabilities should be built into a company's technology architecture and use customizable, agile, online reporting tools on top of the firm's back-end data.
Enterprise business information models	Financial services firms have multiple data repositories and many information sources. These firms should adopt enterprisewide information models to manage this data, create standards, and provide guidance.
Data security	Financial services firms should protect clients and reduce their own risk profiles by integrating security into all business information systems and activities.

A framework for response

Technology solutions must meet the IT organization's needs and should represent a good investment for both IT and the enterprise.

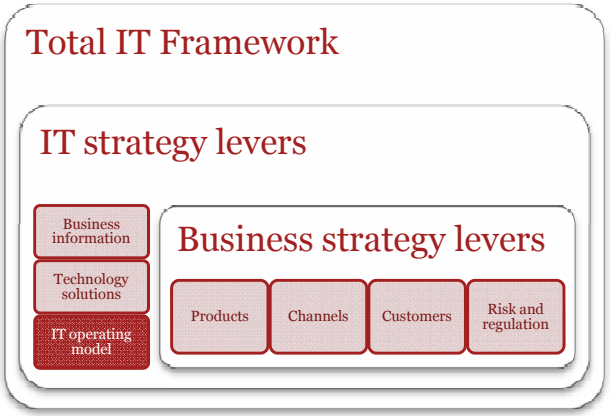


The Total IT Framework is designed to help companies analyze potential technology solutions and facilitate discussion around how projects and services may benefit both IT operations and business objectives. There are more choices than ever because IT infrastructure is becoming increasingly commoditized and efficient, and many technologies that once required hardware and software investments can now be purchased as services. In addition, many open-source and consumer applications and tools are now suitable in the enterprise environment. All of these choices add to the complexity of managing an IT organization for a financial services firm.

Technology solutions	
Application portfolio optimization	The portfolio of applications supporting financial services firms must be continuously evaluated to reduce complexity, ensure scalability, and help create competitive advantages.
Business process modeling	Financial services IT organizations often try to improve performance, decrease costs, and reduce processing errors by separating complex processes into smaller ones that can be automated and are generally easier to manage and standardize across the enterprise.
Application architecture and system integration	Applications in a company's portfolio can proliferate quickly without proper management. Leading companies look for applications that provide service orientation and agility and can be widely used throughout the enterprise.
IT infrastructure	The computing environment and data centers typically represent the largest investment in IT infrastructure. Virtualization, utility computing, green initiatives, and cloud technologies can help IT provide more flexible and cost-efficient support to the enterprise.
End-user devices, communication, and collaboration	Anywhere-to-anywhere collaboration is becoming commonplace as financial services firms take steps to make their business applications available to their users on any desktop computer, notebook computer, or mobile device.

A framework for response

The IT operating model should capitalize on opportunities to help the enterprise reach its goals.



As a company grows, the IT organization should look for ways to capitalize on an increasing talent pool, as well as opportunities to gain efficiency. A financial services firm consists of many business units that can reach across the country, if not around the world, creating a complex environment for the IT organization to support. Because the organization's global footprint and multiple locations can create complexity, the IT organization should consider the following issues as they try to align their goals to business objectives.

IT operating model	
IT organization design and governance	IT organizations must balance the business's needs with technology and budgetary limitations. Firms with a global scale derive advantages from combining local and global activities efficiently, and they establish global centers of excellence to enhance the efficiency of their IT organization.
Workforce sourcing	Successful and sustainable offshoring of IT remains a challenging proposition that requires planning and commitment. Similarly, nearshoring is offering additional alternatives that may increase effectiveness with potentially limited cost impact.
Investment planning	Financial services is a global industry. Accordingly, financial services firms make investments on a global scale. An international IT infrastructure reduces duplication of effort and can help provide greater efficiency. Companies can still promote local innovation and regional initiatives by adopting leading practices at the global level when appropriate.
Metrics and reporting	The financial services IT department should provide useful information from focused data sets to high-level reports to help people in the company make informed, timely decisions. To achieve this goal, the IT department must measure activity and progress in terms of business benefits—and not IT metrics.
IT execution and operational processes	Many IT organizations structure their functional models around mature operational process frameworks with an emphasis on controls. To ensure repeatability and consistency in service delivery, these organizations should now attempt to attain the same level of sophistication for execution processes.

A framework for response—PwC case study

A leading bank enlists help in preparing its IT organization for the Dodd-Frank Act.

Issue

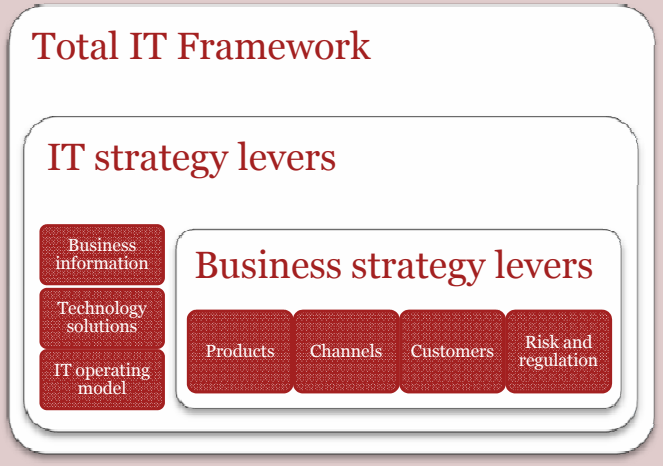
The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank), which was signed into law on July 21, 2010, significantly reshapes financial regulation in the United States. As a result of the law, a leading US bank reached out to PwC to (1) discuss the impact of the regulation on its IT organization and (2) request assistance in complying with Dodd-Frank as follows:

- Increase transparency to respond to ad-hoc requests from regulators and to collect and report data on a periodic basis to support trading activity.
- Establish business intelligence and decision support to determine required business-model changes.
- Automate business processes including:
  - Tracking of investments in hedge funds and private equity funds (such as tracking just below the 3% limit for investments).
  - Maintenance of daily trading records for swap transactions.
  - Public reporting of swap transaction by swap dealers.
  - Central monitoring of counterparty credit risk.
  - Development of governance and systems to monitor regulatory capital and margin requirements.
  - Automated enforcement of fiduciary standard, however it is defined, for retail broker-dealers.

Results and benefits

The client developed a multiphase program to comply with Dodd-Frank and launched Phase 1.

Dodd-Frank and the Total IT Framework



Business information

- Established or refined a master data schema to house client and counterparty data and transaction data.
- Established data ownership and accountability to contain costs and enhance reporting ability.

Technology solutions

- Enhanced business applications to automate processes critical for compliance.

IT operating model

- Implemented business processes around data collection to facilitate availability of information for adequate reporting.
- Changed organizational models to support new business processes in support of Dodd-Frank.

A framework for response—PwC case study

Digitization at a top-five insurance company reduces loan processing time.

Issue

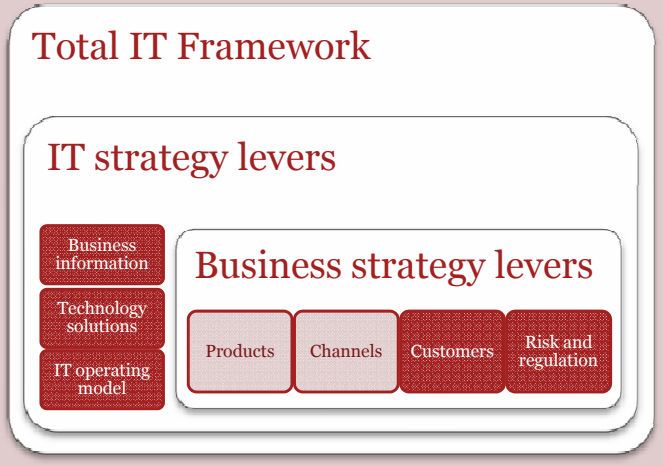
The client, a top-five insurance company, recognized that digitization could help reduce the burden associated with loan processing. However, this digitization was not purely an IT challenge: To succeed it required many parts of the company to work together toward the same goal, adopting standards and replacing inefficient business processes with more effective ones. To help address this issue, IT implemented imaging and content management, allowing the lender to control the document lifecycle within lending and leasing business operations.

Results and benefits

PwC recommended and helped implement a digitization solution that enabled the client to reduce loan processing time by 30% as well as:

- Reduce loan cycle time.
- Lower operational costs.
- Improve productivity related to document reviews, stipulation clearing, and data entry.
- Reduce time for validation and booking.
- Address the problem of lost documents.

Digitization and the Total IT Framework



Business information

- Streamlined product and customer data extraction to feed automated loan processing.
- Increased automation for information extraction.
- Automated the lending process.

Technology solutions

- Integrated loan origination channels.
- Used scalable technology infrastructure.
- Enhanced controls over operating loan process and improved measurements.

IT operating model

- Integrated business process modeling tools.
- Measured end-to-end accelerated loan processing time.

A framework for response—PwC case study

An investment bank consolidates platforms to reduce complexity and inefficiency.

Issue

This leading investment bank used multiple platforms to support its front-office, middle-office, and back-office functions. Not only did multiple platforms exist across asset classes and regions, but legacy platforms from merger and acquisition activities also were part of the IT infrastructure. As a result, business activity had become costly, and evolving toward more efficient platforms became a difficult proposition. This client engaged PwC to help consolidate platforms across asset classes and lines of business to improve efficiency and even provide new functionality, such as a consolidated front-end trading service.

Results and benefits

By consolidating platforms, the client reduced operating costs by 10% (excluding personnel) and:

- Reduced time to market for new products.
- Grew assets.
- Improved efficiency.
- Achieved better risk management through data aggregation and system integration.
- Gained scalability for flexible analytics and reporting.

Consolidation and the Total IT Framework

Business information

- Created a master repository of reference data across sources of customer information.
- Harmonized product-related data architecture.

Technology solutions

- Leveraged multiple channels to improve client reach.
- Consolidated risk management platforms.
- Established a service-oriented architecture to improve agility and streamline the application portfolio.

IT operating model

- Consolidated IT teams to support operations and back-office functions.

A framework for response—PwC case study

A global financial institution gains assistance in improving time to market by sharing data and applications.

Issue

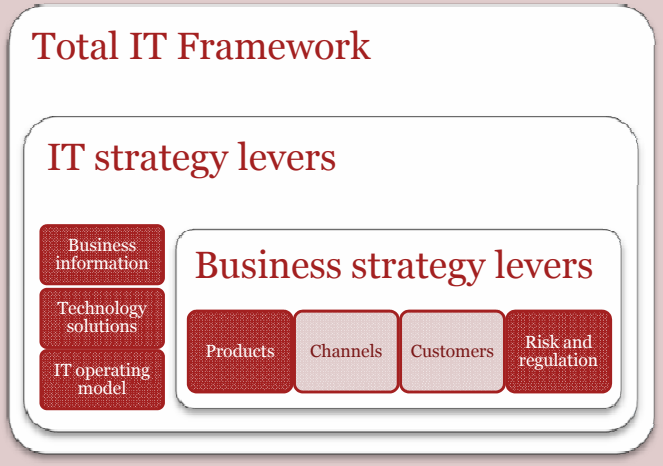
Each business unit within this financial institution used its own data and applications to maintain operations, monitor productivity, and generate reports. However, because this information was divided among so many different pools, it could not easily be used as the starting point for firmwide projects and initiatives. It also did not always help company leaders and decision makers understand events and trends in real time.

Results and benefits

With PwC's assistance in implementing a service-oriented architecture (SOA) model for its application factory, the client was able to reduce time to market by 30% to 50% as well as:

- Share data in a common repository.
- Create tools to analyze information more efficiently and effectively.
- Roll out new financial products and services more quickly.
- Develop applications more effectively because of standardization and the use of reference data.

Data sharing and the Total IT Framework



Business information

- Implemented a firmwide data classification model.
- Developed a consolidated data architecture, centralizing key data in a data warehouse.
- Established access policies/rights based on data type.

Technology solutions

- Implemented tier-based distribution platform, including high-performance databases for trading applications.

IT operating model

- Created a functional group to oversee the shared data repository and related functions.
- Implemented governance for data access and change.

A framework for response—PwC case study

Top 10 US bank improves revenue and customer loyalty by establishing 360-degree data views.

Issue

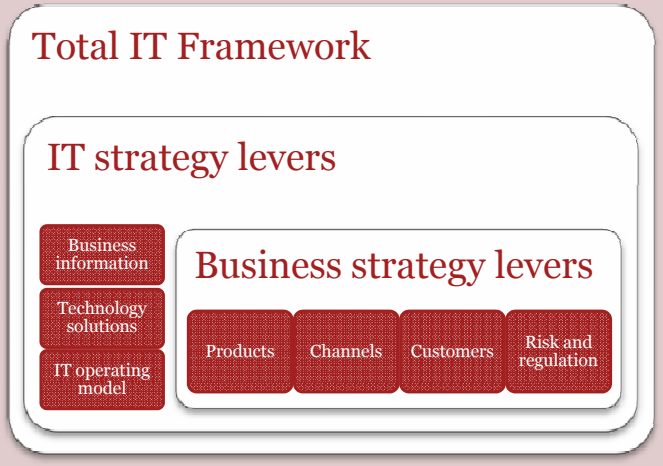
At this top 10 US bank, data was scattered in too many locations across disparate databases and was accessed via many applications. It was difficult for each business unit to obtain a complete view of activities, information, and opportunities across the enterprise. For example, the retail banking division was not aware that a client was also a customer of the bank's finance division. To gain a better understanding of customer needs and trends, the bank sought to create a 360-degree view of data, actions, and customer information. The bank also wanted to make sure its customers enjoyed a seamless experience with the financial institution to garner greater loyalty and revenue growth.

Results and benefits

Following the implementation of PwC's recommendations, the client reduced customer churn by 40% and:

- Increased client revenue because of increased opportunities to present and promote products and services.
- Improved retention through a better user experience.
- Gained opportunities to identify untapped client segments by analyzing client trends.

360-degree data views and the Total IT Framework



Business information

- Consolidated client data into a single repository.
- Developed a single point of access for all services.

Technology portfolio

- Adapted applications and tools to new repository.
- Developed a portal for access to business information.
- Established Web 2.0 standards for internal and external communication and transactions.

IT operating model

- Developed a reporting and analytics function to help the company use the consolidated client data efficiently and effectively.

A framework for response—PwC case study

A top global financial institution implements trading desk virtualization to reduce costs and increase resiliency.

Issue

A top global financial institution sought to reduce hardware costs, power consumption, and space requirements by leveraging virtualization to consolidate several virtual machines onto one physical server.

Virtualization represented a major change in perspective for the client's IT organization, as it forced IT to reconsider the concept of servers, separating the physical hardware from the functionality provided by virtual machines.

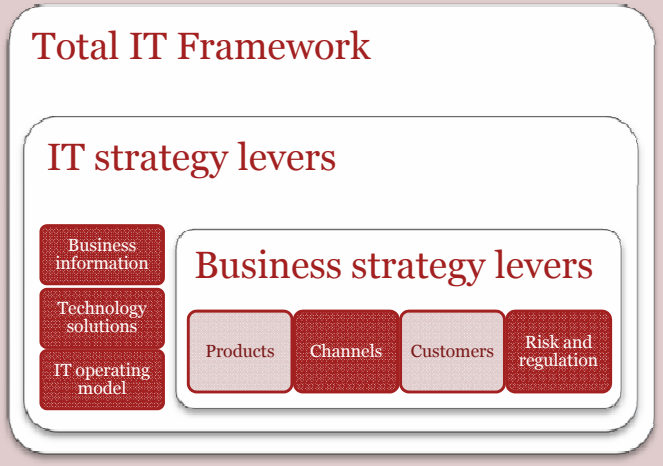
Results and benefits

The client's trading department benefited by looking at virtualization as a catalyst for transformational change, not just a one-time exercise to reduce IT costs. The adoption of virtualization technology provided a unique opportunity to analyze, evaluate, and improve IT policies, procedures, and governance. In addition, virtualization eliminated outdated programs and procedures that were crafted to accommodate now-defunct technological limitations.

Virtualization helped cut the client's costs associated with supporting trading desktops, and it increased the overall resiliency and availability of services.

The client reduced trading floor infrastructure costs by 30% and enabled recovery capabilities at a failover site at a negligible incremental cost.

Virtualization and the Total IT Framework



Business information

- Determined traders' data needs.
- Tested impact of migration from conventional to virtualized environment.

Technology portfolio

- Developed and confirmed virtual image for trading desks.
- Rolled out and tested network architecture.
- Established and tested failsafe mechanisms.

IT operating model

- Trained support team.
- Established failsafe procedures.

A framework for response—PwC case study

A top US bank implements Web 2.0 standards and governance to reduce complexity.

Issue

A top US bank sought to streamline its technology portfolio by adopting Web 2.0 standards. The definition of Web 2.0 usually hinges on what the vendor is trying to sell, so it was necessary for the client to establish its own clear standards and guidance for the adoption of Web 2.0 technologies.

Loosely defined, these are the technologies that help website users build community-driven content and share information. Wikipedia and Twitter are some of the best-known examples of Web 2.0 technologies in the public realm. The client's objectives were to leverage enterprise Web 2.0 services and applications to foster knowledge-sharing and improve work output.

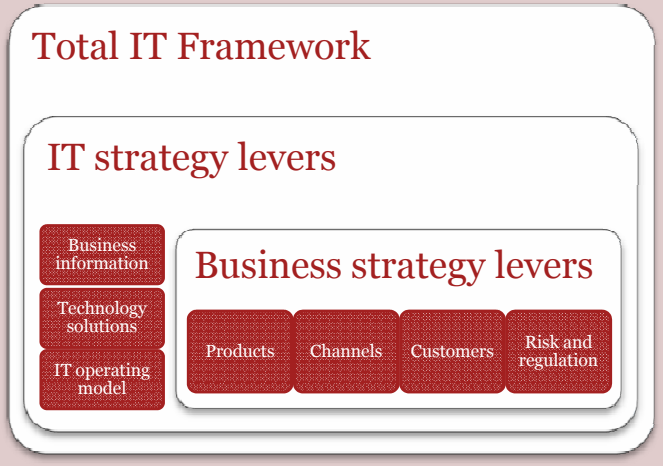
Because Web 2.0 was still relatively new, many companies were jockeying to establish themselves as market leaders; in some cases, there were no standardized file formats. Certain applications and services were not suitable for the client's sensitive information.

Results and benefits

The client was eventually able to consolidate its Web 2.0 apps and reduce the number of apps by 30%. By establishing clear standards and governance for the adoption of Web 2.0 tools and instruments, the client:

- Simplified its system architecture, both current and for the future.
- Reduced risks related to unchecked proliferation of Web 2.0 tools and services.
- Enhanced the user experience by aligning Web 2.0 standards to business needs.

Web 2.0 and the Total IT Framework



Business information

- Identified opportunities to use Web 2.0 tools.
- Established clear access rules for enterprise data.

Technology portfolio

- Analyzed existing tools across all business units.
- Developed roadmap to migrate tools to Web 2.0 standards.

IT operating model

- Established standards and governance for Web 2.0.
- Defined request process, policies, and audit procedures to monitor and control Web 2.0 tools.

A framework for response—PwC case study

A leading financial institution develops a scalable architecture to support growth.

Issue

A leading financial services firm was anticipating inorganic growth but was concerned with the IT organization's ability to absorb the other business' information technology assets—primarily, the information about its clients, products, and people.

The client required an IT organization designed to integrate information from other companies' systems, with an ability to add storage and computing capacity to its IT system without disrupting operations.

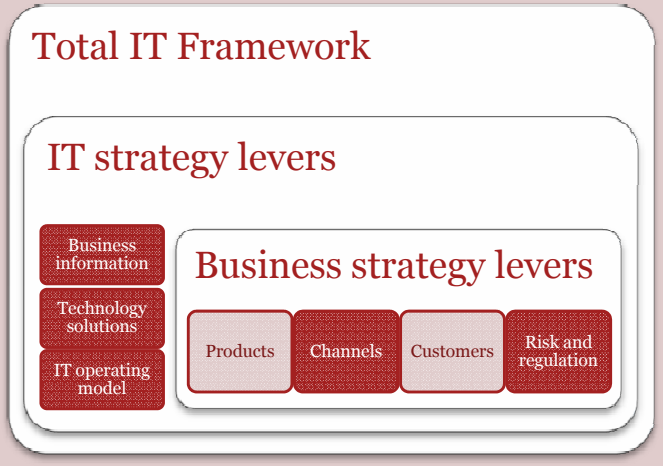
The client faced the risk of IT not having the scalability—that is, the flexibility and expandability—to achieve these initiatives. Financial services firms often look at mergers and acquisitions as one-off deals, and IT is one of the last business units informed. As a result, what could be a smooth integration of systems sometimes ends up being a long, disruptive, and distracting process.

Results and benefits

By adopting a scalable architecture, the client was able to:

- Achieve connectivity with an acquired IT system on the first day.
- Increase IT's operational capacity rapidly to accommodate new services.
- Leverage merger playbooks and policies developed by IT to help guide acquisitions.

Scalable architecture and the Total IT Framework



Business information

- Developed a structured enterprise data model.
- Established standards for reference and market data.

Technology portfolio

- Created an architecture function.
- Automated service delivery for computing and storage.
- Developed playbooks for merger activities.

IT operating model

- Established a virtual team to maintain merger playbooks.
- Established governance for standards and policies for mergers as well as the integration of new businesses.

A framework for response—PwC case study

A leading US bank selects cloud computing to reduce PCI accreditation costs.

Issue

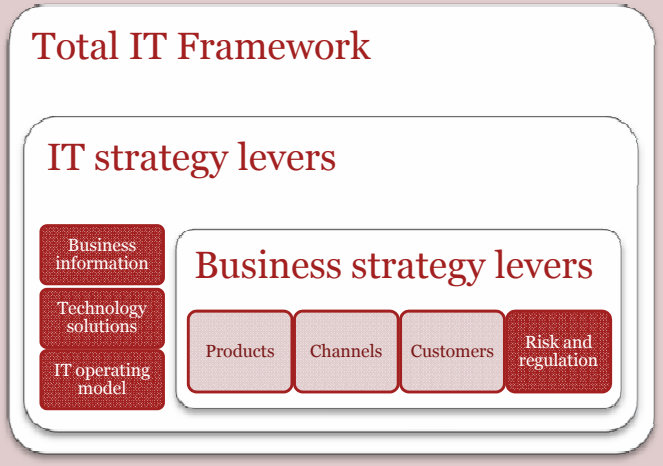
A leading US bank accepted credit cards and was thus required to meet the Payment Card Industry (PCI) accreditation requirements. Costs are often high to reach initial PCI compliance, and many customers struggle to pass the annual audit. The client's business objective was to achieve PCI compliance in less time and at lower recurring cost.

PwC was retained to help the client identify the best cloud-computing option (public, private, hybrid, or none) for PCI infrastructure to either allow the client to transfer the audit responsibility to a provider or to reduce audit scope and cost at the client's site. With the latest specifications of PCI 2.0 taking into consideration virtualization technologies, the industry was moving toward more clarity establishing how to ensure compliance in a cloud environment.

Results and benefits

With PwC's input, the bank selected a provider of cloud computing in the context of the company's risk, financial, and technology drivers. The client realized the benefits of cloud computing, including transferring the annual audit responsibility to a provider (external cloud).

PCI accreditation and the Total IT Framework



Business information

- Developed the data architecture for credit card payments to be processed in the cloud environment.
- Confirmed security and access management solution for vendor and bank.

Technology portfolio

- Documented system reference architecture for cloud solution, including disaster-recovery component.

IT operating model

- Established interfaces between administration support and vendor resources that co-manage the cloud.

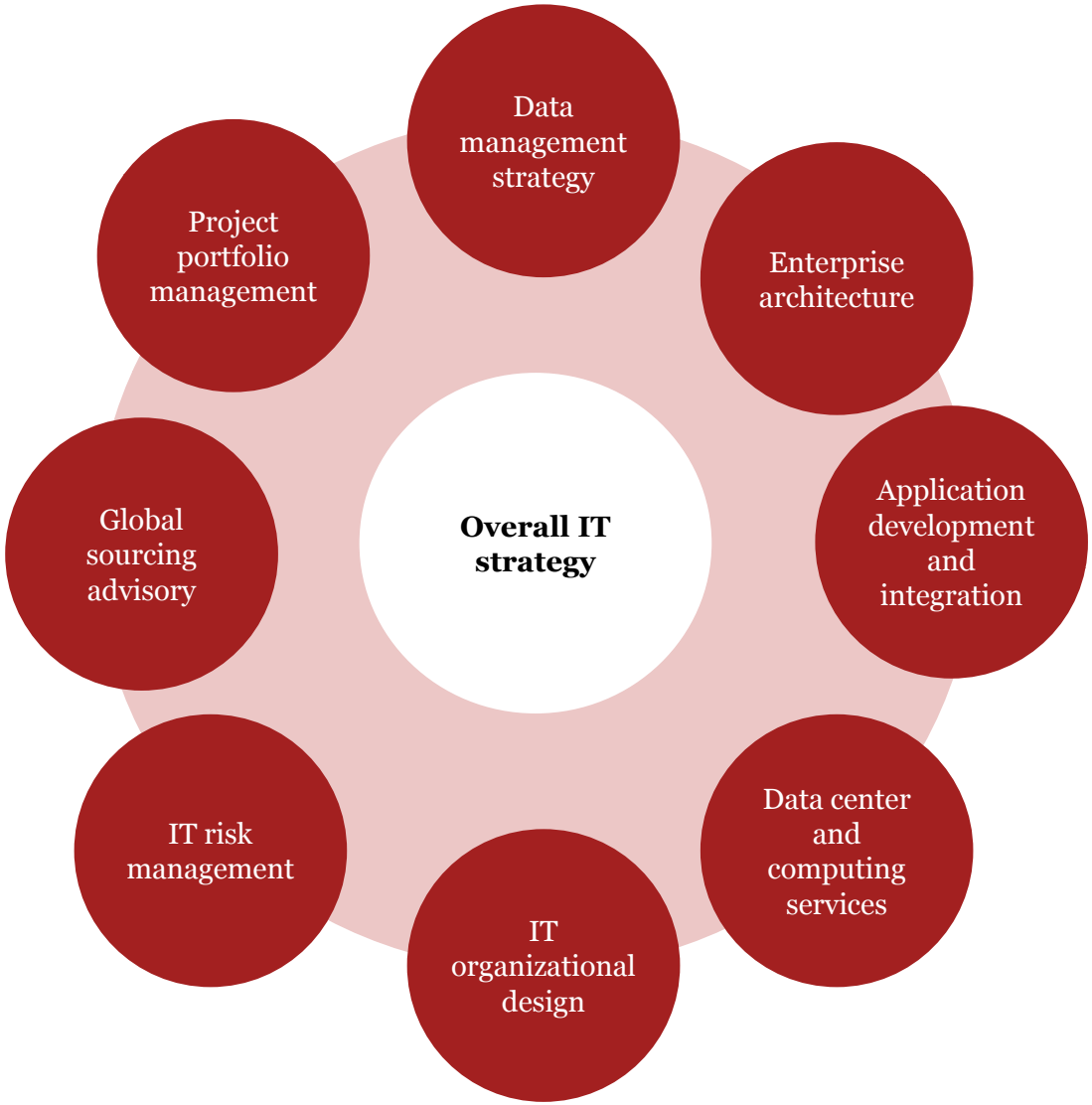
Section 4

How PwC can help

How PwC can help

Integration of IT strategy with evolving business strategies

PwC has a specialized cross-functional group of technology professionals to assist our clients with IT strategy, organizational design, application development, and integration issues.



How PwC can help

Integration of IT strategy with evolving business strategies

PwC's practice has a specialized cross-functional group of technology professionals to assist our clients with IT strategy, organizational design, application development, and integration issues.

Overall IT Strategy	**Data management strategy**	Develop an information management strategy that aligns with business priorities, strategies, and goals, which gives clear ownership of the data management strategy throughout the business. Simplify and standardize contrasting data models to provide consistent information across the organization that allows key information to be readily accessible to the proper parties.
	Enterprise architecture	Align IT integration initiatives with business goals. Assess current integration architecture that provides a clear application of standards and policies across business units. Provide flexible, scalable enterprise architecture that supports and improves business processes and strategy. Provide guidance for implementation, rationalization, and optimization of software that creates simplification and effectiveness in the enterprise architecture.
	Application development and integration	Provide visibility into the processes, business rules, and functions supported across the enterprise. Transform systems into a platform that is not only quick and cost effective but that also reduces requirements for systems development, applications, and resources. React and modify processes and systems due to market and regulatory pressures to help reduce risk in applications.
	Data center and computing services	Align IT/business strategy with the data center facility strategy and help set standards, principles, and methodology for infrastructure products. Develop an implementation plan and provide an objective view which is independent of hardware and software selection. Develop a scalable, on-demand computer architecture that incorporates service levels which support the business, includes automated provisioning, and improves time-to-market.
	IT organizational design	Provide an increased level of coordination by leveraging resources between the departments within the organization to create business innovation. Focus on the core business/high-value activities. Develop measurements and incentives that better focus and motivate a desired behavior. Increase levels of customer satisfaction.
	IT risk management	Develop a framework for the management of IT risk, compliance, and security which combines leading industry standards and is aligned with the firm's risk management framework. Establish controls, indicators, governance, and an audit mechanism to continuously measure and improve the level of risk to the business.
	Global sourcing advisory	Provide a detailed and consistent decision framework to assess global sourcing opportunities across the organization. Develop a global delivery model based on leading practices and the organization's culture and capabilities. Provide a detailed framework, leading practices, and key controls to help manage and improve the current sourcing model. Establish and manage firm-wide, strategic vendor partnerships by identifying synergies among business units.
	Project portfolio management (PPM)	Assist in PPM through strategic resource management across the enterprise by adopting process change. Help ensure that change issues address governance and organizational design, as well as culture change. Measure process quality to facilitate effective management of processes through collaboration in workflow.

How PwC can help

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Appendix

Select qualifications

Select qualifications

Transformation of IT and Operations—Global investment bank

Issues	Shortly after a global investment bank with more than 10,000 employees and annual spending of more than $3 billion acquired a competitor, it embarked on the following: the IT and Operations department initiated a program covering cost reduction, organizational realignment, and service and solution quality improvement. The client requested an assessment of the current state of the Technology and Operations organizations to identify key transformational and cost-reduction opportunities.
Approach	PwC provided assistance in the following areas: ▪ Assessed the current environment across client verticals, products, and distribution channels. Conducted more than 400 interviews, collecting HR, financial, and benchmark data covering systems and personnel. ▪ By analyzing the current environment, interview feedback, competitive intelligence, and industry leading practices, identified key transformational and cost-reduction opportunities designed to achieve targeted savings. ▪ Developed recommendations for the target operating model, with an organizational structure and a common global location strategy for the entire organization, including: - Consolidation of select functions across back office, middle office, and IT. - Establishment of a plan, build, and operate model (PBO) that is common across development teams. - Development of center of excellence and shared services for functions across development teams. - Implementation of an offshoring/nearshoring model supporting the Operations and Technology transformation. ▪ Scoped initiatives for potential further evaluation in subsequent phases of the program.
Benefits	Identified a series of actionable initiatives bringing more than $450 million in cost savings over 2 years as well as other benefits such as organizational and service delivery efficiencies. Assisted with communication of recommendations for each technology group's CIO. Assisted with launch of workstreams covering the detailed planning of key initiatives.

Select qualifications

Alignment of IT strategy to business vision—Middle Eastern bank

Issues	The client needed to move from the current practice of isolated IT initiatives driven by specific business needs to a more structured program better aligned with the overall business strategy. The objectives of the assessment were to assist the client in determining: ▪ The level of effort required to sustain the desired high-availability environment. ▪ The IT staff and associated skill sets required to (a) maintain the existing environment while remaining prepared to meet new challenges and (b) enable the right amount of innovation to be competitive. ▪ The capacity and/or flexibility of current platforms and systems to support the business vision.
Approach	PwC provided assistance in the following areas: ▪ Performed high-level assessment of the bank's IT environment and organization by leveraging PwC's framework and tools. Assessment was conducted across seven areas: infrastructure, application, storage, security, IT financial management, governance, and strategy. ▪ Compared the client's processes and technologies against industry leading practices. ▪ Evaluated current IT capabilities against PwC's capability maturity model.
Benefits	▪ The client received recommendations for transforming the IT organization, including the following key initiatives: - Establishment of an enterprise governance model to foster the alignment of key IT initiatives with business strategic objectives. - Transformation of IT infrastructure to support growth, including capacity increase and deployment of scalable IT products. - Implementation of a scalable IT operating model, with detailed recommendations to mitigate skills and personnel gaps. The recommendations highlighted gaps compared to leading practices and identified quick wins that were implemented by the bank.

Select qualifications

Platform consolidation—Major financial information company

Issues	To achieve efficiencies, the client needed to simultaneously consolidate and integrate customer systems and applications-data systems within business functions. This required changes to the organization's system architecture and the IT operating model.
Approach	PwC provided assistance in the following areas: ▪ Documented the current-state architecture, including infrastructure and applications, and identified potential areas for consolidation and integration, while evaluating the impact on operational support teams. ▪ Helped to design a target-state enterprise architecture, including conceptual diagrams and process maps, establishing: - Consolidation of data into shared repositories across business functions. - Consolidation of systems within and across business functions. - Automation targets for areas in which manual operations resulted in inefficient staffing and error-prone procedures. ▪ Helped to define a governance process to support ongoing changes and maintenance to enterprise architecture standards, including product selection and standardization. ▪ Helped to develop the technology roadmap to reach the target state including: - Data architecture consolidation plateaus. - Corresponding system consolidation targets, focusing first on eliminating overlap in terms of functionality. - Operating model requirements to support business activity at each plateau.
Benefits	The client received a roadmap designed to remove duplicate application functionality, automate functions where appropriate, and identify reusable components and frameworks. The roadmap enabled the client to prepare for implementation.

Select qualifications

Post-merger IT organizational redesign—Major retail bank

Issues	The client's IT group, which had been restructured to better align vertically with business partners, was faced with the challenge of integrating application management teams following a merger with another large bank. As part of this effort, the client wanted to obtain an external perspective on its new post-merger organization as well as recommendations for potential changes.
Approach	PwC provided assistance in the following areas: ▪ Assessed the organizations strengths and weaknesses through primary interviews with line-of-business leaders and business partners. ▪ Evaluated data architecture, technology, and operating models across products, channels, customers, and risk dimensions. ▪ Conducted a financial comparative analysis on investment allocations for the business areas and identified potential areas for increased investment. ▪ Identified emerging technologies, envisioned as enablers of strategic business objectives, that could be followed for the next five years, resulting in recommendations for staff to acquire specific skills. ▪ Reviewed the project management process (PMP) and evaluated that process against industry-standard PMPs. ▪ Helped to develop the operating and governance model for the new PMP, consolidating project management teams into a single organization and developing a roadmap to merge systems and data repositories.
Benefits	PwC made recommendations upon which the client is currently executing. These recommendations resulted in quick wins that delivered immediate value to the client such as the development of the Project Management and Business Analyst Center of Excellence.

Select qualifications

Development of enterprise strategy and roadmap—Insurance company

Issues	A Fortune 500 insurance company with international operations was facing the following issues: ▪ A non-integrated business-unit operating model (technology platforms, claims processing, field management, and shared services) operating model and redundant corporate functions across the enterprise and business units (technology, marketing, HR, and finance). ▪ Poor financial performance, which caused the company to be viewed by analysts as a value opportunity.
Approach	PwC provided assistance in the following areas: ▪ Worked with operating and functional leads to develop a strategy articulation map, operating model, organizational structure, and governance model that was aligned with the enterprise strategy. ▪ Performed a detailed diagnostic across key functional areas within the company to identify opportunities to improve operating efficiency and effectiveness in key areas such as distribution, product manufacturing, customer service and operations, claims, consumer strategy and marketing, finance, HR, procurement, technology, law and regulation, investments, and real estate.
Benefits	Working with PwC, the client: ▪ Received enterprise and sub-unit strategy maps, operating models, organization structures, governance models, and journey maps that were aligned to its organizational strategy, designed to help drive the company's strategy. ▪ Identified potential revenue enhancement opportunities and potential annual savings that could be realized over a three- to four-year period.

Select qualifications

Strategic roadmap to support growth—Major US bank

Issues	A large US bank's IT organization wanted to enhance its ability to facilitate organic growth by delivering higher value (in terms of speed, cost, quality, risk, etc.) to its customers, shareholders, and associates. The client retained PwC to help develop its vision, target state, and a roadmap for IT to support this business objective.
Approach	PwC provided assistance in the following areas: ▪ Conducted workshops with key stakeholders to develop overall three-year goals for IT to better support the business in terms of performance, cost, and risk control for products and clients. ▪ Guided the client strategy team in formulating a vision of its target state across the dimensions of data, systems, infrastructure, and organization (people). Assisted in the development of a conceptual framework for each dimension. ▪ Facilitated the development of a gap analysis between target and current states for data architecture, systems, infrastructure, and risk. ▪ Helped to develop a framework for IT operating and control processes that aligned with the objectives of the bank, was consistent with its organizational structure, and took into account its culture; detailed the framework down to the changes required at the procedure level. ▪ Helped to define a high-level roadmap for the development of key IT capabilities, including an outline of the business benefits. ▪ Assisted in communicating the strategy throughout the organization.
Benefits	The framework for IT operating and control processes became the foundation for a firmwide cultural and structural change led by the project's sponsor. The client received one-, three-, and five-year roadmaps to help its IT organization reach its desired future state while remaining aligned with business initiatives.

Select qualifications

Global sourcing initiative—Investment bank

Issues	The client, a global wealth management, investment banking, and asset management firm, required assistance with the following: ▪ Developing a global application sourcing strategy and roadmap for capacity enhancement and functional evolution roadmap. ▪ Developing and implementing a global sourcing decision framework for IT applications, projects, and services. ▪ Improving the quality, economics, and fit of its applications and services so they are in line with current and future demand.
Approach	PwC provided assistance in the following areas: ▪ Leveraged PwC's functional decomposition model across business, operations, and IT to define functions and processes for assessment. ▪ Calibrated the global sourcing decision framework and confirmed opportunity prioritization criteria (including clients, channels, product priority, and implementation risk level). ▪ Assessed organizational impact, risk analysis, and mitigation plan for each identified opportunity, covering description, financial and non-financial benefits, risks, challenges, and priorities. ▪ Classified opportunities in terms of impact on quality, cost efficiency, and operational support required. ▪ Utilized mapping of select functional areas to identify potential sourcing solutions and an offshoring program, including a mix of offshore outsourcing and service providers. ▪ Helped to develop an implementation plan for outsourcing/offshoring of functions and processes; charted implementation waves of outsourcing and offshoring candidates based on feasibility of execution.
Benefits	The client received recommendations that have the potential for $100 million in financial benefits over a 30-month project timeline.

Select qualifications

IT operating model assessment—Regional property casualty insurer

Issues	The client had been in the process of conducting a companywide technology-transformation initiative spanning several years, moving from a mainframe to a distributed server environment. The IT organization had faced challenges in meeting the business units' expectations including: ▪ Communicating with the business units and executives. ▪ Gathering clear business requirements. ▪ Delivering projects in a timely manner. The client engaged PwC to help overcome these challenges as well as to assess its IT organization and provide key recommendations.
Approach	PwC provided assistance in the following areas: ▪ Evaluated the IT organization and its operations to assess whether it had the people, processes, and technologies necessary to successfully execute the client's technology-transformational initiatives. ▪ Helped to develop a roadmap to help IT overcome gaps identified in the evaluation.
Benefits	The client was able to align its business and IT strategies. It also experienced reduced tension between the IT department and its internal customers and was better able to meet agreed-upon timelines and the expectations of internal customers.

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“Rebooting Your IT Strategy: Using IT to Accelerate Your Business,” PwC FS Viewpoint, April 2011. www.pwc.com/fsi

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