

Division of Information Technology

Strategic Plan

2007–2010

July 3, 2007

Mission of the Division of Information Technology

The mission of the Division of Information Technology (IT) is to add value to the work of our customers through delivery of cost-effective information services with the following emphasis:

- Strive to maximize the productivity of our customers.
- Provide quality service.
- Minimize costs and complexity.
- Attract and retain a highly skilled and effective staff.

IT's core values enable us to grow and change continually to meet our customers' unique requirements for products and services. Our core values include teamwork, integrity, service and ownership, knowledge of the customers' business, customer orientation, diversity, professional development, and risk management.

In the 2007-2010 strategic planning process, three major **strategic goals** were identified to achieve IT's mission:

- Identify the forces affecting the business of our customers and some that are significant primarily for IT.
- Identify technical challenges and develop specific solutions.
- Identify management challenges and develop solutions.

Because IT provides services to meet the automation needs of its customers, its strategic plan is a framework that describes both the forces that will shape their businesses as well as technological changes anticipated over the next three years. The plan outlines the areas where IT will focus its responses to those forces.

Identify Forces Affecting IT's Services Goal:

Several forces affect IT's delivery of automation and statistical services.

Financial Industry Reform and Risk-Focused Supervision

The U.S. banking system will continue to evolve, with a small number of large, complex banking organizations operating across wide geographic regions and numerous smaller institutions focused on local communities or larger regional areas. The number of financial institutions will continue to decline. The new risk-based capital framework of Basel II will require changes in accounting practices and revised regulatory and supervisory processes. Cross-functional integration within the industry across banking, securities, and insurance, however, will increase complexity and present new challenges to the Federal Reserve System (System) in accomplishing its mission. To effectively supervise the large, complex banking organizations, a risk-focused supervision model has been adopted that puts the most resources on reviewing those business areas that represent the largest risk to the organization's condition. The Board must continue to facilitate data sharing between agencies. These issues and the drive for effectiveness may require changes to the banking supervision model, and automation tools will play an important role in the achievement of these objectives. Thus, the System's supervision function has prepared a strategic automation plan outlining critical and strategic needs, infrastructure issues, and other opportunities where technology changes will help.

Legislative Actions

Legislation affecting how government conducts business, the Federal Information Security Management Act (FISMA) and the rest of the Electronic Government Act (E-Gov), require the Board to conform to federal government standards and require additional reports to the Office of Management and Budget (OMB) and to the Congress. FISMA regulations, in particular, require that the Board adopt a risk-assessment process and an information security manual conforming to standards issued by the National Institute for Standards and Technology (NIST). The Presidential Directive

on smartcards affecting the operation of cards used for perimeter access and other control functions.

In addition, the Workforce Investment Act of 1998, which includes the Rehabilitation Act Amendments of 1998 (section 508), requires that electronic and information technology developed, procured, maintained, or used by federal agencies be accessible to individuals with disabilities. Legislative actions affecting electronic versions of checks (Check 21), interest on business checking accounts, interest on reserves, financial privacy, and modifications to the Gramm-Leach-Bliley Act, the Sarbanes-Oxley Act, the Home Mortgage Disclosure (HMDA), or Community Reinvestment Acts (CRA), may require significant changes in financial reporting systems and processes and thereby significantly affect automation systems.

Ongoing Internet Evolution

The Board's reliance on the Internet and the public's expectations of web sites will continue to grow and evolve during the planning period. Demands to publish more information on the Board's public web site (PubWeb) and the site maintained on behalf of the Federal Financial Institutions Examination Council (FFIEC) are increasing as are expectations for more interactive sites. IT will continue to expand and improved these web sites to meet the Board's, the FFIEC's and E-Gov requirements for usability and timely and reliable delivery of information. In cooperation with the research divisions, IT expects to enable the public to download more time-series macrodata that are produced at the Board.

The Research Division expects to need more widespread access outside the Board's firewall structure for business requirements that need the fastest possible access. Banking supervision's increasingly mobile work force will also require a higher level of Internet service.

Statistics Business Direction

The statistics function at the Board currently consists of six core functions (data collection, data processing, data editing, data analysis, data storage and access, and report generation). Major changes are underway for these functions and their supporting systems. Business requirements have been formulated for changing the way in which deposit, reserves, and other regulatory data are delivered to the Board in response to the System's

planned elimination of the Bulkdata transmission utility in 2007. In addition, the mechanisms used to meet the requirements of the business functions are being modernized to eliminate outdated aspects of the processing systems (which are built on twenty-year-old technology), reduce time, and more effectively devote resources to quality assurance activities and analysis.

Information Security and Operational Continuity

Threats to both physical and information security are likely to increase. Many Board functions are critical to our country's financial strength and they rely on the availability of information technology and very confidential information. The System must constantly identify and monitor risks that threaten its employees, operations, and assets and regularly assess the measures in place to mitigate those risks. The Board must ensure that security measures remain sufficient over time to protect its staff as well as its physical and information assets. The System requires highly effective business continuity plans and regular testing of those plans, including their IT components. Security commensurate with business risk must be in place when new technologies are adopted, recognizing that both security and ease-of-use are important. Coordination with the financial industry and other federal agencies will be increasingly important.

Widely spread malicious software will continue to pose the greatest threat to Board operations. IT will continue to implement safeguards that simultaneously reduce this threat and minimize its impact on operations.

Influenza Pandemic Planning

In addition to the ongoing work in preparation for a possible disaster and subsequent relocation, plans are underway for the possibility of a pandemic flu. Influenza pandemics have the potential to seriously impact Board operations. Since 2003, the highly pathogenic H5N1 avian influenza ("bird flu") virus has spread through Asia to Europe and Africa and has demonstrated an ability to infect humans who come into close contact with diseased poultry or with the secretions/excretions of diseased poultry. It is unknown how the current outbreak of the lethal disease among birds will evolve or whether it will result in human-to-human transmission. Pandemic influenza is a threat that the Board cannot accurately address within the scope of existing business continuity planning because of the duration, scale,

and unknown incident rate of the disease. The activities that are underway follow the assumptions set forth in the Homeland Security Council's *Implementation Plan for the National Strategy for Pandemic Influenza*. Services that are being evaluated include enhanced remote access, route diversity, expanded audio conferencing and telephony, videoconferencing, and secure components for home phones.

Voice Communications Infrastructure

The Board's voice infrastructure is new, enabling improvements in the range of features available to the Board's workforce, especially those working remotely. IT expects to improve productivity and meet contingency requirements by adding new videoconferencing and voice features.

Encrypted (Secure) Communications

The trend of increased communications between the Board and other regulatory agencies is expected to continue. Many of these communications, whether voice or email, involve sensitive information and thus need to be secure from unauthorized persons, usually with encryption. Moreover, as Board employees increasingly work from home and while on official travel, making information available securely to a "mobile workforce" becomes ever more important.

While the Board holds little personally identifiable information about employees or the public, it is responsible for protecting it from unauthorized access. These data are stored in encrypted form and as threats change, protection methods will change, too.

IT recently acquired advanced encrypting tape drives. These drives allow IT to securely encrypt data on all backup tapes prior to their leaving Board premises. IT is in the process of moving all new and existing backups to the secure format.

Staffing

Changing skill requirements and difficulties in hiring and retaining staff will again challenge our customer divisions and IT as the private-sector demand for IT specialists increases. The number of senior IT analysts eligible to retire during the planning period remains significant. IT needs to continue to offer interesting assignments and other learning opportunities to deliver services efficiently and retain key staff.

IT's Technology Challenges and Solutions Goal:

IT Infrastructure

Customer demand will continue for more powerful tools, data storage capacity, and computing power, with access to a greater universe of information regardless of location. Satisfying these requirements while reducing the complexity and improving the security of the Board's computers and networks will require research and strong management efforts. IT will continue to monitor industry use of Linux and its application in the Board's environment. IT expects to continue and expand its service offerings while checking the growth of hardware and power costs. IT will continue to leverage advanced tools for data storage, management, and sharing.

Streaming Media (Internet Videos)

The Board currently offers limited access to streaming media for desktop-based video training and real-time viewing of testimony, press announcements, market analyses, and other business information. IT will continue to research alternatives and, as cost-effective technologies emerge, IT will implement them.

Remote Access

More of the Board's staff will rely on remote access as they perform their job duties from home, while on travel, or for contingency. IT will continue to conduct research into emerging remote-access technologies, especially wireless. IT will also continue to look for ways to improve remote access from hotels for staff on official travel. IT will also watch for improvements in end-to-end encryption with wireless products so staff can exchange sensitive information.

Supporting the Mobile Workforce

Now that Board staff has fully integrated the use of BlackBerries and cell phones into its daily operations, these devices are no longer considered convenient, but are critical to the success of the Board. BlackBerry applications are being developed and the development of mobile

applications on other devices is being researched. A joint group of application and infrastructure staff is researching and developing a mobile application infrastructure with mobile applications soon to follow. Demand from the mobile workforce will continue to grow significantly over the next few years.

Applications Development Directions

To deliver high quality software more quickly, IT will concentrate during the planning period on developing new software that uses a browser for the user interface. IT strives to deliver software that is independent of the brand of browser used. IT will also continue to use structured project management methodology that has proven to result in applications that more closely match customer requirements and require less work to maintain.

Continuous Operations

Providing uninterrupted service will remain an essential objective during the next planning period. Regular testing will continue using a distributed contingency facility and a mainframe recovery site.

Web Data Standards

As worldwide progress is made on standards for the extensible markup language (XML) for exchanging information, IT will develop more software to leverage both System and Board standards. Planning and training will help develop staff expertise. IT is working with customer divisions and staff at other FFIEC agencies on standards relevant to the collection and publication of statistical data. An example of this can be found today with the Call Report Modernization Project which is using XBRL to collect and distribute reported financial institution data for FFIEC agencies. The Call Report taxonomies currently fit within the XBRL North American Framework that follows the Generally Accepted Accounting Principles (GAAP) taxonomy. FFIEC agencies will maintain and manage the Call Report taxonomies and provide links to the common concepts contained in parent taxonomies; for example, Bank and Saving Institution taxonomies under GAAP. Also, the Call Report taxonomies will be presented to the XBRL Standards Group for recognition and validation.

Group Collaborative Tools

Collaborative systems continue to play an important role at the Board. With these tools, work groups can communicate, develop projects, and edit documents interactively. Collaborative computing is inherently complex, and therefore IT will continue to improve and adapt applications development to simplify this model.

Digital Identity Management

In response to the need to ensure that only authorized people are admitted to Board premises and the need to transfer signed official documents electronically, IT will explore alternatives for either establishing a public key infrastructure or using an existing one.

IT's Management Challenges and Solutions Goal:

Project and Risk Management

Project management is a central component of IT's services. As senior analysts retire, IT must continue to develop these skills in less-experienced analysts. Required skills include the ability to manage a variety of risks, including those associated with large projects, new technologies, and the diverse requirements of various stakeholders.

IT will explore alternative cost-management tools that can be used to identify, track, and analyze IT costs and business performance measures.

Education

Knowledge, both of information technology and our customers' business, is another key component of IT's services. To enhance IT's knowledge we will focus on the following strategies:

- Continue to hire staff members educated in both information technology and economics, banking, statistics, or other disciplines of our customers.
- Train our staff through a blended approach that provides different methods of learning that include academic courses and short courses in the classroom and online.
- Provide staff members with assignments that reinforce and extend their training.
- Encourage rotational assignments within IT for staff.
- Conform to a system development methodology.
- Perform peer reviews in connection with IT staff's review of the design or processes of various projects throughout the division.
- Provide group opportunities for research into new technologies that are likely to have cost-effective applications for the Board.

Staff Retention

The market for information technology specialists is expected to remain competitive, as demand continues to outpace the number of professionals graduating from the nation's colleges and universities. At the same time, some senior professionals are eligible to retire during the planning period.

Retaining our experienced staff members and hiring and retaining new professionals who are able to learn quickly and interact well with others is vital to IT's future. IT will continue to compete by offering opportunities to work on new systems with state-of-the-art tools and by promoting teamwork.