IBM

Create a flexible bank to help you minimize costs and meet your customers' changing needs.

Middleware is Everywhere | Can you see it?

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Executive summary

In banking, customer relationships are everything. While you strive to maintain and grow customer relationships, you must also keep a close eye on the bottom line of operational expenditures. To address these objectives while simultaneously maximizing your responsiveness and operational resiliency, you can leverage IBM solutions to implement a flexible, integrated operating environment — an IT infrastructure that is designed to specifically support your business goals.

Address challenges of modern banking

In the past, many banks focused on three primary strategies to remain competitive and maximize shareholder value. First, banks sought to reduce risk by selling or securitizing more of the loans they originated, as well as other assets. Second, banks worked to diversify revenue streams beyond traditional interest income. Finally, banks embarked on a strategy to continually achieve economies of scale through mergers and acquisitions.

Although these tactics bore fruit in the 1990s, they also posed challenges to banks. Efforts to reduce risk through the sale or securitization of assets, for example, weakened the all-important relationships between banks and their customers. The growth of noninterest revenue streams — largely in the form of service charges — negatively affected customer loyalty. And, merger and acquisition activity can result in processes and systems that are poorly integrated and tremendously expensive to maintain.

The new business drivers for many banks include growing while reducing costs, effectively managing regulatory compliance and dealing with an increasingly competitive marketplace. Many banks that attempt to meet these challenges need to integrate their IT systems and better align them with business priorities. Silo-based IT systems create operational complexity and redundancy that can increase costs and diminish the ability to respond to change. Although exciting new technologies can deal with these issues, cost of implementation remains a major concern. According to Financial Insights (an IDC company), bank business managers face pressure to produce returns on investment in six months and, with few exceptions, in less than a year.

IBM has developed middleware solutions to help banks deal with today's specific issues, such as branch transformation, customer insight, core systems transformation, wholesale payments, and risk and compliance. These solutions help banks meet the
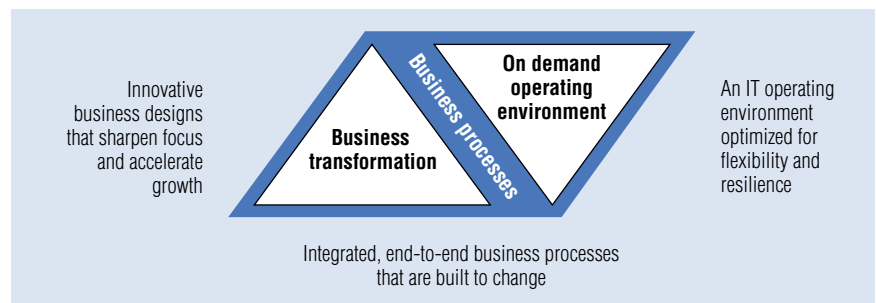
specific challenges they face today and provide a flexible foundation for future growth. This long-term flexibility is a key benefit of the IBM vision for banks — helping them become on demand enterprises.

Defining on demand

By definition, an on demand bank has business processes — integrated end to end across the company, with key partners, suppliers and customers — that can respond with flexibility and speed to any customer demand, market opportunity or threat. Built to be highly resilient and flexible, on demand banks have the ability to:

- Respond quickly to change – *Componetized architectures built on open standards make it possible to solve pressing business needs today, while providing a foundation for future initiatives. Having an integrated view of processes and activities allows you to rapidly react to your changing environment.*
- Minimize operating costs – *Automated processes and simplified IT management minimize operating costs and free employees to focus on revenue-generating tasks.*
- Enhance resiliency – *Integrated security measures and advanced regulatory compliance tools help banks protect themselves from outside attacks and fines related to noncompliance with government regulations.*

Being an on demand bank requires having an on demand operating environment — one that specifically supports your business goals. An on demand operating environment is an integrated platform, based on open standards, that enables banks to rapidly deploy and integrate business applications and processes.

Innovative business designs that sharpen focus and accelerate growth

Business transformation

Business processes

On demand operating environment

An IT operating environment optimized for flexibility and resilience

Integrated, end-to-end business processes that are built to change

What is an on demand bank?

The IBM on demand operating environment provides two key capabilities:

- Integration – *Connect people, processes and information in a way that allows companies to flexibly react to the dynamics of the markets, customers and competitors around them.*
- Infrastructure management – *Create an infrastructure that's easy to provision and manage by automating and creating a consolidated visibility of and access to available network resources.*

"After we narrowed the field to three top-tier providers, we gave each one three weeks to solve a specific, real-world problem that involved both process integration and integration of employee workflows with one of our existing systems. The vendors had to grapple with both application-to-application as well as application-to-people interactions. The results demonstrated that the IBM solution would provide us with the highest probability of success. For Scotiabank, our biggest integration challenges continue to be in the areas of scalability and reliability. We were confident that IBM Software was appropriate to connect our 1,000-plus Canadian branches and processing centers."

— Sue Harrison, Senior Vice President of Retail Systems Development, Scotiabank

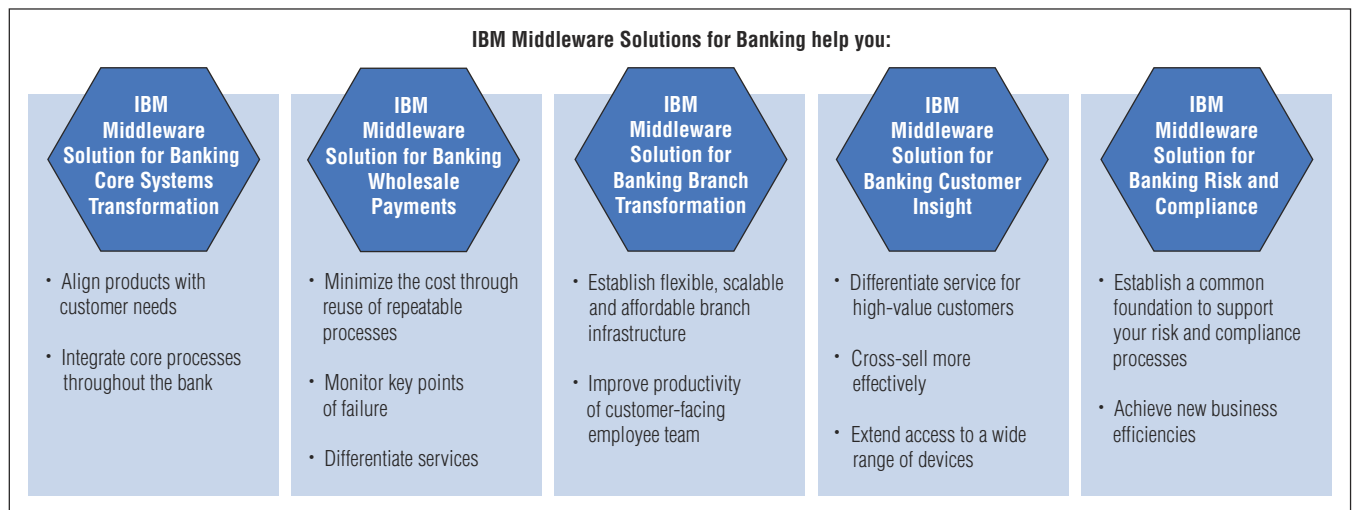### The IBM on demand operating environment helps banks succeed

Deploying an on demand operating environment allows you to align your business and IT strategies and maximize flexibility. By unifying your processes, applications and infrastructure, you can provide consistent service to your customers — regardless of the channel they choose to use. By allowing you to consolidate and often avoid operational redundancies, an on demand operating environment can help minimize the cost of IT management. In addition, the open and modular nature of the environment allows you to respond rapidly to your immediate needs and builds a foundation for future growth.

IBM Middleware Solutions for Banking help you address banking IT projects and implement an on demand operating environment

IBM Middleware Solutions are customized combinations of IBM core middleware and industry-specific middleware that, when combined with application software from IBM's network of independent software vendor partners and industry-specific services, enable customers to build an on demand operating environment.

At the heart of the solutions, IBM middleware helps banks curtail costly and labor-intensive integration efforts, scale to meet transaction speed and volume requirements and adapt to change using a flexible, layered architecture. Application software from IBM Business Partners and services complement your efforts to speed deployment while minimizing the risk of implementation. IBM's commitment to supporting open standards and a choice of platforms also helps banks enjoy unmatched flexibility.

The following IBM Middleware Solutions for Banking all leverage common on demand operating environment integration and infrastructure management capabilities. The net result is a single, modular and flexible IT infrastructure that banks can deploy to meet a number of business challenges and to align with their strategy.

IBM Middleware Solutions for Banking help you:

IBM Middleware Solution for Banking Core Systems Transformation

- Align products with customer needs
- Integrate core processes throughout the bank

IBM Middleware Solution for Banking Wholesale Payments

- Minimize the cost through reuse of repeatable processes
- Monitor key points of failure
- Differentiate services

IBM Middleware Solution for Banking Branch Transformation

- Establish flexible, scalable and affordable branch infrastructure
- Improve productivity of customer-facing employee team

IBM Middleware Solution for Banking Customer Insight

- Differentiate service for high-value customers
- Cross-sell more effectively
- Extend access to a wide range of devices

IBM Middleware Solution for Banking Risk and Compliance

- Establish a common foundation to support your risk and compliance processes
- Achieve new business efficiencies

IBM Middleware Solution for Banking Branch Transformation

In an effort to minimize operating costs, many banks experimented with driving customers to low-cost service channels such as ATMs and the Internet. However, banks quickly realized they were forfeiting valuable opportunities to service customers in the branch and drive deeper, more profitable relationships in person. Now, banks must undertake initiatives to reinvigorate outdated branch IT systems and customer service capabilities — within the context of a wider, multichannel strategy.

The IBM Middleware Solution for Banking Branch Transformation can help you transform your branches into full financial centers by deploying a flexible and scalable — yet affordable — branch software infrastructure as the basis for your multichannel environment. This foundation for your multichannel transformation initiatives helps you maximize the value of your existing infrastructure by adapting that infrastructure for new customer channels and by avoiding development, deployment and management redundancies. This solution enables you to:

- *Integrate your delivery channels with best-of-breed core processing systems.*
- *Maximize productivity of, and collaboration among, your customer-facing employees.*
- *Leverage a single view of the customer in sales and marketing activities.*
- *Quickly and cost-effectively model new transactions and processes with an integrated development environment.*

"After ten years, our teller system was outdated. While considering multiple vendors, Fubon evaluated the competition based on forward-thinking criteria – industry expertise, open-standards adherence, speed-to-market and technology leadership. Fubon determined that IBM offered the best way to maintain the value of its legacy systems while adding new delivery channels quickly and cheaply, due to its extensive experience in the retail banking industry. We went with IBM since they had the right experience and extensive integration capabilities. They provided a blueprint for high-quality, industry-standards–based e-business architecture."

— Esther Huang, IT Director, Fubon Bank, Taiwan

IBM Middleware Solution for Banking Customer Insight

One of the most crucial tenets of successful banking can be expressed in just three words: *know your customer.* Banks must understand that increasing the lifetime value of customers requires proactive strategies for managing customer satisfaction and retention. Competitive banks today focus on collecting comprehensive customer data, analyzing that data rapidly to determine the appropriate course of action and acting on the results while the window of opportunity remains open. Without a clear picture of your customers' habits — within and across your delivery channels — it is difficult or impossible to strengthen customer relationships, increase sales and deploy targeted marketing strategies to meet customers' specific needs.

The IBM Middleware Solution for Banking Customer Insight can help banks create a competitive advantage — with customer-focused business strategies and solutions — and identify and implement the people, processes and technology needed to win. This highly automated solution delivers targeted, actionable information to customer-facing employees in real time. From an access and collaboration perspective, it allows the bank to create a security-rich environment for employees to access key data related to customer service and sales. The bank can also:

"Our employees cringed when they had to tell a customer they couldn't answer a question immediately. We were literally placing our business in jeopardy by not giving our staff the tools they needed to work productively. By transforming our business processes to give employees real-time, electronic access to a common repository of comprehensive information, the bank is now meeting our very high standards for customer responsiveness. We provide instant answers to customer or employee questions."

— Jana Bulkin, Senior Consultant for Archive and Workflow Solutions, HypoVereinsbank AG (HVB)

- *Maximize customer satisfaction and retention by delivering consistent quality and service.*
- *Create personalized customer interactions and campaigns.*
- *Differentiate services based on profitability.*
- *Efficiently direct the bank's sales and marketing resources toward target segments.*

IBM Middleware Solution for Banking Core Systems Transformation

The ongoing convergence of the financial services industry has given banks an opportunity to deepen customer relationships and increase share of wallet. Today's sophisticated banking customers increasingly look for banking relationships that provide access to a wide variety of services — from checking and savings to brokerage and insurance — and reward them with preferred pricing and enhanced convenience.
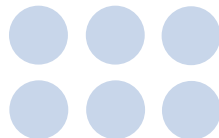
However, for banking organizations that rely on silo-oriented processes and systems, this integrated approach can be difficult or impossible to achieve. In response, the IBM Middleware Solution for Banking Core Systems Transformation can help banks:

- *Revitalize core systems to optimize market responsiveness.*
- *Align new products and services with customer needs.*
- *Differentiate services according to key competencies.*
- *Seamlessly link core processing components and channels.*
- *Verify the reliability, availability and serviceability of core processing systems.*
- *Consolidate customer, account and product data to optimize efficiency and customer service.*
- *Leverage an integrated development environment to rapidly and cost-effectively model new transactions and processes.*

IBM Middleware Solution for Banking Wholesale Payments

For today's banks, managing multiple payment systems can be a financial and logistical nightmare. Globally, various payment standards are being developed by a variety of parties and are driven by numerous factors ranging from rules to markets to products. Multiple payment systems substantially increase the cost of system management and maintenance and necessitate duplicate processes, business logic and monitoring. Finally, multiple payment systems can drive up payment processing costs by preventing banks from realizing economies of scale. U.S. banks, meanwhile, strive to convert or displace paper-based payment processes with electronic payment mechanisms.

According to TowerGroup*, when banks focus on payment standards development, system resilience, promotion of electronic payment options and an enhanced payment clearing and settlement infrastructure, the ultimate goal is to achieve fast, reliable, seamless integration of payment processes with both consumer and corporate commerce. Banks leverage this integration to minimize high maintenance costs and total cost of ownership, and also to quickly respond to customer demands and regulatory and market changes.

IBM Middleware Solution for Banking Wholesale Payments helps banks:

- *Optimize processing costs by consolidating wholesale payment processing and connectivity to external financial networks on a single integrated middleware platform.*
- *Minimize risk by monitoring key points of failure.*
- *Use a comprehensive view of payment activity within the bank to differentiate service based on customer value.*
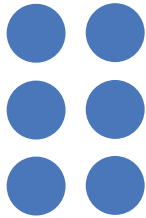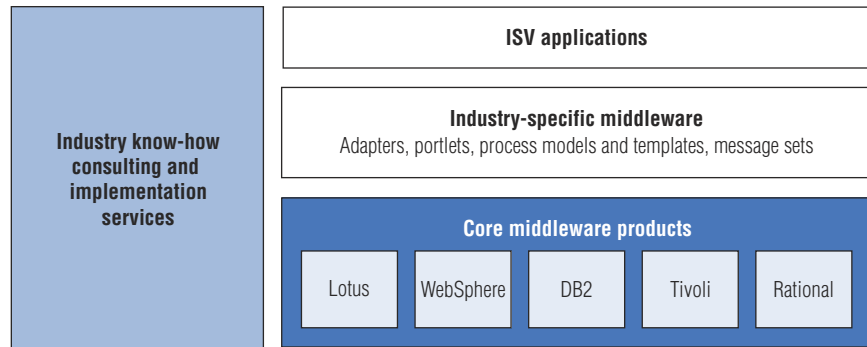
IBM Middleware Solution for Banking Risk and Compliance

In banks today, effective risk analysis is more important than ever. Identifying and targeting profitable buyers requires strategic investments in the right technologies — solutions that can provide the information banks need in a dynamic, real-time environment.

On the compliance side, new regulations seem to appear more often than ever before. (And the more global a bank becomes, the more regulations it must manage.) Without an integrated view of the positions, risks, internal processes and customer data, it is difficult or impossible to effectively mitigate risk and manage regulatory compliance. Ad hoc processes for dealing with risk and compliance are often very expensive and can lead to inefficient — and redundant — use of time and resources. Worse yet, noncompliance can result in steep fines and can damage the bank's reputation among partners and customers.

The IBM Middleware Solution for Banking Risk and Compliance provides an enterprise software foundation capable of collecting credit, market and operational risk data from across the organization. This solution provides a unified software infrastructure and services to view consolidated risk and compliance data, apply formal records-management policies, identify abnormalities and quickly take corrective action. The solution helps banks:

- *Effectively manage risk and compliance activities across the enterprise.*
- *Leverage common data and services in support of efforts to comply with regulations such as Basel II, Sarbanes-Oxley, USA Patriot Act and myriad other regulations.*
- *Achieve new business efficiencies.*

Create a flexible bank to help you minimize costs and meet your customers' changing needs.

	ISV applications
Industry know-how consulting and implementation services	**Industry-specific middleware** Adapters, portlets, process models and templates, message sets
	Core middleware products Lotus · WebSphere · DB2 · Tivoli · Rational

Overview of a middleware solution

Components of IBM Middleware Solutions for Banking

IBM Middleware Solutions for Banking include:

Software

IBM DB2® — Database and data management solutions that help you access, store and analyze data more effectively

IBM Lotus® — Capture and apply essential knowledge, and collaborate in real time

IBM Tivoli® — Intelligent management software to help you store, protect and provision your resources

IBM WebSphere® — Transaction management and integration solutions

IBM Rational® — Advanced software and system development tools

IBM Software Development Platform — Comprehensive, proven, open and modular set of development tools

IBM Business Partner applications extend the solution

IBM Middleware Solutions for Banking leverage best-of-breed applications from industry-leading ISVs to provide comprehensive solutions. IBM Business Partners provide industry-specific business applications enabled for IBM middleware and platforms. Examples include core banking, branch teller, payments processing, credit risk, campaign and offer management applications.

Services

IBM offers an unsurpassed breadth of service capabilities — ranging from business strategy to implementation of IT infrastructure — that helps bank branches transform into full-service financial centers. Resources include:

- *IBM Business Consulting Services, with thousands of financial services practitioners*
  - *Strategy*
  - *Integration services*
  - *Business process re-engineering*
  - *Component business modeling*
- *IBM Financial Services Solution Centre*
  - *Information FrameWork (IFW) Critical Business Processes*
  - *Information FrameWork (IFW) Foundation Models*
  - *Banking DataWarehouse (BDW)*
  - *Client Information Integration Solution (CIIS)*
- *IBM Software Services*
- *IBM Global Services Business Transformation Outsourcing*

IBM is a trusted partner

Banks need to enhance customer relationships, minimize operating costs and respond to regulatory challenges. Trust IBM to help meet these needs with integrated, end-to-end middleware solutions designed specifically to address these challenges.

For more information

To learn more about IBM Middleware Solutions for Banking, including case studies and more detailed information about solution components, call your sales representative or visit **ibm.com**/software/industries/banking

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