

Transform systems to become more resilient and adaptable in an evolving world.



IBM Rational software solutions for financial services

Financial services institutions (FSIs) are facing intense economic pressures that are forcing them to reduce business risk, improve profitability and revenue sources, and enhance customer satisfaction and loyalty. Unfortunately, FSIs are encumbered by rigid IT infrastructures, disparate core systems aligned by lines of business, significant investments in legacy applications and resource skills, increasing costs associated with regulatory compliance and ineffective software delivery processes, all of which hamper business performance. Transforming any of the aforementioned components can be a risky proposition for any FSI, and if not approached in the proper fashion, can disrupt operations resulting in client dissatisfaction and ultimately a devastating impact on the bottom line. Many FSIs are caught in the trap of needing to change infrastructure in order to effectively compete in today's marketplace yet shy away in light of costs and risks. In order to proceed without undue risk, FSIs must address their internal IT infrastructure and invest in modernizing existing technologies and optimizing IT processes in a stepwise, and methodical Manner so as to minimize the cost, risk and potential project or operational failure.

The IBM® Rational® Software Delivery Platform (SDP) provides FSIs with automation tools and best practices transforming and modernizing existing core systems and concurrently minimizing business and project risks. Encapsulating or re-using existing services is a path often trodden by for FSI's and IBM Rational's proven industry best practices and products effectively determine the scope of change, define and architect solutions based on existing IT assets. Business risk is also reduced thru IBM Rational's capabilities to minimize application security vulnerabilities as FSI's expose more of their IT systems thru delivery of new differentiated services to customers. Finally, the IBM Rational SDP provides the essential capabilities that enable FSI's to breakdown application and data silos that are prohibiting them from providing relationship-based products and services to their customers that maximize profitability.

Highlights

- ***Helps enable organizations to reduce IT costs***
- ***Helps reduce business/operational risk and ensure application security***
- ***Helps enable financial service institutions to deliver new differentiated, relationship-based products and services faster***

Reduce IT costs

IT costs manifest themselves in hard and soft forms. Every dollar in cost reduction leads to a dollar in profit. As an example of soft costs, FSI have many redundant core systems in both, distributed and mainframe environments that have been acquired through years of mergers and acquisitions. It is common to find that these systems are maintained with a variety of software development and delivery applications, many of which were developed internally and maintained in conjunction with the target application that it supports. The cost - from an application maintenance perspective- is attributed to a "double-tax" - in that the FSI has to spend resource, time and money maintaining internal development environments which are in turn used to maintain existing core business systems. Furthermore, it is common to find FSI IT organizations execute with many manual steps in the software delivery process because of a lack of, or inadequate, integrations across key applications. The primary way an IT organization can increase productivity in such an environment is to increase the speed of the actual person doing the work, which increases the risk for errors and rework.

Regulation exemplifies a hard cost. FSI IT organizations are incurring increasing costs because of regulatory requirements, such as Sarbanes-Oxley and Basel II. Since technology is at the heart of all FSIs today, IT investments related to ensuring regulatory compliance have dramatically risen in recent years and are expected to continue to grow at a significant rate. Many experts believe that regulatory related costs are the fastest growing of all costs for FSIs. Unfortunately, integration of non-automated tools and processes for regulatory compliance can often have a negative side-effect on productivity since the additional and manually steps are introduced into the application delivery environment, which in turn results in further increased operational costs for an IT organization. Furthermore, the firms that are audited and lack automated tools must manually prove compliance which is very time consuming and expensive. Automated and integrated tooling greatly impacts productivity by reducing time, effort, and cost. Ideally, FSIs should look to implement tools and processes that are self-governing. In other words, the infrastructure that is implemented to address regulatory compliance should not add additional overhead to the software delivery process and thereby reducing productivity.

Finally, because of the many redundant core systems in an FSI, there is a tremendous amount of redundancy in application services and assets. IT organizations cannot reuse these existing assets or consolidate them for various reasons, such as incompatible technologies, rigid architectures that prevent easy extraction and exposure of key services or lack of knowledge

across the various systems and architectures in the enterprise. Reuse not only has cost reduction implications, it also has quality implications as well - by reusing development assets IT organizations can increase their quality of their deliverables.

IBM Rational provides IT organizations the ability to consolidate and standardize development and delivery environments across an FSI enterprise, which includes both distributed and mainframe environments. This eliminates the "double-taxing" effect that IT organizations experience with internally developed solutions and enables them to focus on their core mission.

The IBM Rational SDP is complete with transparent and traceable best practices that are fully supported by integrated tools which maximize productivity and throughput. It is this combination of process and tools that create a fully compliant and governed software delivery environment which actually increases productivity and efficiency, unlike other governance approaches. Furthermore, this inherently reduces business risk.

IBM Rational software was one of the pioneers in professing the benefits of reusable assets as a way to increase productivity, increase quality, and reduce costs associated with software delivery. That tradition continues today as IT organizations start to implement service-oriented architectures and manage reusable services and related development assets. The IBM Rational SDP contains all of the essential tools to address SOA Governance and Service Lifecycle Management to ensure that FSIs fully realize the benefits of an SOA.

Reduce business/operational risk and ensure application security

Regulatory compliance clearly poses business risk for any FSI.

Failing a regulatory compliance audit can have devastating consequences both directly (e.g., penalties or fines) and indirectly (e.g., loss of market share). As we stated earlier, regulatory compliance audits in essence are IT audits due to the simple fact that all FSIs utilize technology and applications to run their business.

There are also other significant business risks that FSIs face as they try to meet the growing demand of customers and remain competitive. Managing change, particularly across distributed IT environments, is a very big challenge for FSIs, as they continue to expand globally and enlist outsourced services. Managing distributed software delivery environments and outsourced teams can pose many challenges to an IT organization. Some

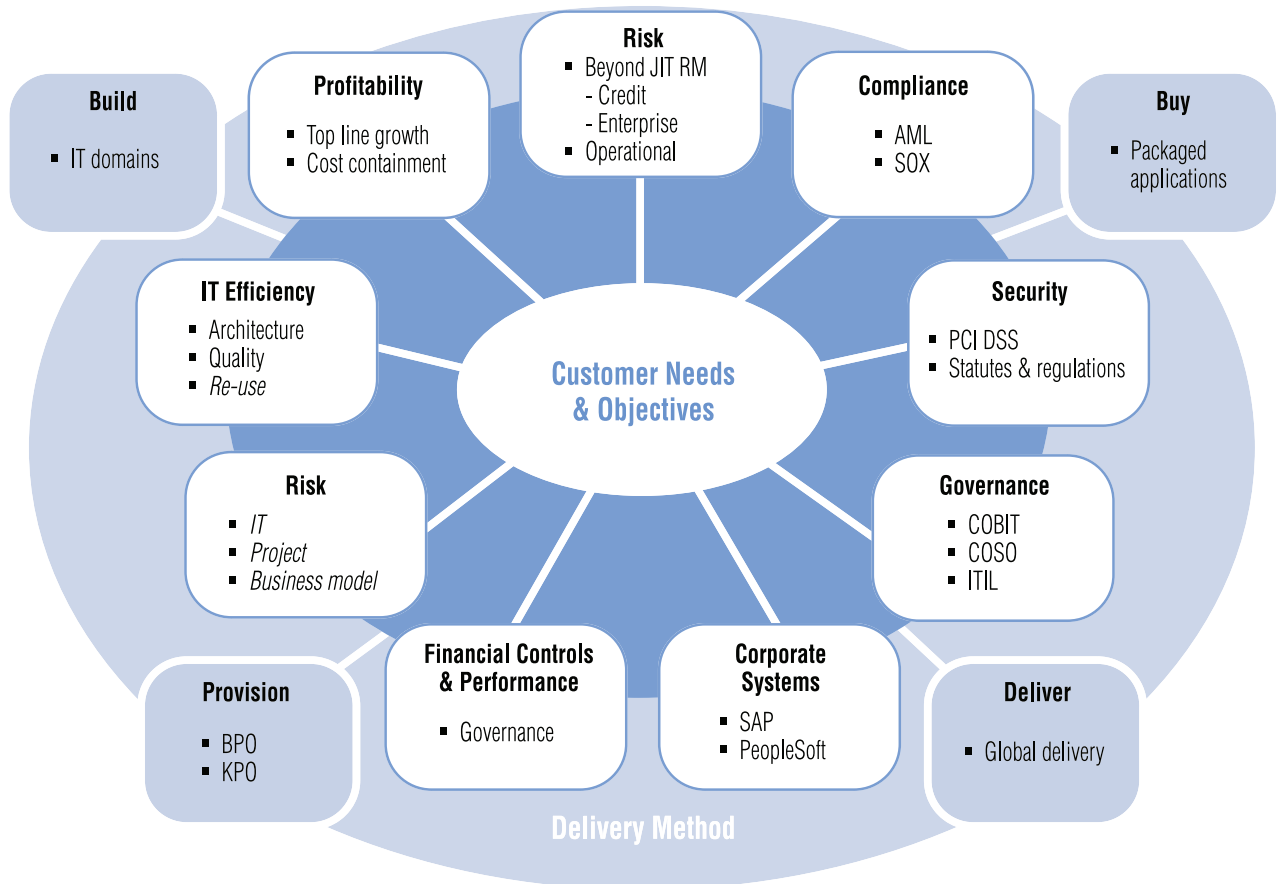


Figure 1. IBM Rational software aligns with customer needs and objectives: Profit, Cost, Risk Mitigation.

of the challenges include adjusting business processes to account for time zone differences so that round-the-clock productivity is truly achieved, establishing roles and rights across the teams, implementing workflows with complete traceability and accountability for all assets that are changed, and executing a quality management process that ensure that all business requirements are met. These challenges are compounded as organizations start to transform to a service-oriented architecture where reusable services and their associated lifecycles are added into the mix of assets that need to be managed or governed. The mismanagement of change can lead an FSI to increased IT costs, resulting in delayed delivery of key systems, which in turn can result in competitive vulnerability for the business.

As FSIs assess which business processes and associated systems to transform or modernize, having a full understanding of the implications across the other systems in the enterprise is critical. Without having a solid view of the enterprise architecture, FSIs run the risk of affecting systems that may have costly business consequences due to inaccurate data or stalled operations due to the removal of a system. Core systems across the

enterprise often represent a treasure chest full of valuable data for various, cross-department organizations and over time, the enterprise architect grows into a complex, interconnected web of systems that support a multitude of business processes. Understanding how systems are architected and interconnected is critical when modernization projects are undertaken.

Another aspect of modernization that poses a business risk for FSIs is the fact that the core systems that often need to be transformed are legacy applications that are being maintained by resources with unique skills and knowledge that doesn't necessarily easily transfer to new approaches, like service-oriented architectures. The business decision that FSIs have to make is how much investment they are willing to make in training existing resources so that they develop the skills necessary to modernize key core legacy systems. Furthermore, how it will impact the overall delivery schedule, versus hiring new resources with the modern technology skills but that lack the legacy application business logic skills required to effectively transform the system. Figuring out the right balance in resources is essential when minimizing risk on a modernization project.

Finally, as FSIs deliver more services to meet the demands of their customers, they often are exposing more of their core systems than they have previously and thereby leaving themselves vulnerable to security breaches. To combat vulnerabilities for FSIs, compliance standards are being established (e.g., PCI DSS). However, standards do not ensure that security breaches will not happen, rather, they simply reduce the risk. IT organizations have to employ multiple levels of security for maximum protection. An area that is often not fully tested is in the area of application security. Applications that act as channels for customers to interact with businesses often present nice entryways into an organization's IT infrastructure. Thorough security testing at the application level is an essential component to an FSI's overall security practice.

IBM Rational software provides the process and automation tools to ensure success for FSIs as they modernize the core systems across the enterprise. In today's world, managing change, especially across distributed and outsourced IT teams is essential. Furthermore, the enterprise architecture that IT organizations have to manage is extremely complex, consisting of mainframe and distributed systems and assets. The IBM Rational SDP provides the essential tools enabling IT organizations to gain a solid understanding across mainframe and distributed systems so that modernization projects do not jeopardize any key business processes within the FSI. Also, IBM Rational software possesses key technologies that enable FSIs to effectively balance the skills of their current IT organization so that the transition to more modern approaches, such as a service-oriented architecture, is less costly, faster and simpler. Finally, IBM Rational software provides the complete testing environment to ensure application security and overall security compliance against standards like PCI DSS.

Enable financial service institutions to deliver new differentiated, relationship-based products and services faster

FSIs continue to strive to deliver new differentiated products and services to their customers in order to retain existing customers, especially their most valuable ones, as well as pull market share from their competitors. In order to create such services that will improve their relationships with each customer, analyzing customer information is critical – from the accounts or products owned by a customer, to the total products owned by that household, to the

common ways that customer likes to transact with the FSI, to understanding common cross-selling opportunities and delivering that offer thru the right channel at the right time. FSIs have to invest in technologies that will enable them to unlock this information from their numerous databases and systems. However, as previously mentioned, FSIs are commonly sitting on islands of data spread across disparate systems, which poses a tremendous challenge in their quest to deliver new relationship-based products.

In order to be able to create these new products and deliver them to customers, data needs to be compiled across the enterprise and new applications need to be applied or developed to analyze the data. Furthermore, applications need to be developed to actually deliver them to customers at the right time and thru the right channel. Essential for success thru all of this is the need to thoroughly understand existing databases and their associated systems, and the ability to architect new databases and systems. Keeping the database architectures synchronized with the application architectures is absolutely critical.

The IBM Rational SDP provides the essential tools for modeling or architecting databases and applications. Surrounding these essential capabilities are the necessary best practices and integrated lifecycle tools that enable FSIs to tap into the rich data sources spread across the enterprise and create systems that will deliver differentiated products to their customers in a fast, high-quality and cost-saving manner.

Relying on proven knowledge and experience

Software development and delivery competency is essential in reducing costs, reducing business risk, ensuring application security, and enabling FSIs to deliver differentiated, relationship-based products faster. IBM Rational software fundamentally improves the way organizations build and deliver software. The result: a more proficient IT organization and infrastructure, and a more responsive, resilient, and focused business.

For more information

For more information about how IBM Rational software and our financial services capabilities can help you on your journey, contact your IBM representative, or visit:

ibm.com/software/info/developer/solutions/financial