

## Overcoming the Challenges of Financial Regulatory Compliance with an Integrated Approach

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### Highlights

Regulatory compliance, an ongoing concern for many financial institutions, has intensified significantly due to the recent financial crisis. New and changing regulations, such as the US Foreign Account Tax Compliance Act (FATCA), continue to challenge global financial institutions. Organizations can stay ahead of regulations using an *integrated IT approach* that provides the following key benefits:

- ▶ Shared use of information with master data management (MDM) helps avoid duplicate information that is not consistent.
- ▶ A common enterprise-wide tool and repository for maintaining business rules can ensure multiple business units work with the same and latest versions of business rules.
- ▶ Applying analytics to information helps to correlate information and events.
- ▶ Avoiding point solutions and taking advantage of a single integrated IT infrastructure can help to reduce costs.

The 2008 global financial crisis heightened the need for an effective and comprehensive strategy for the governance of risk and compliance at financial institutions. Financial services firms operate in perhaps the most highly regulated of all global markets and face significant challenges in meeting regulatory obligations in a timely and cost-effective manner. Typically, these regulatory requirements can be divided into two types of challenges—external and internal.

Externally, more than 10,000 global regulations currently exist that can affect a financial services firm. In addition, over 4,000 new regulations are in the pipeline—a strong sign that regulators intend to keep up the pressure. As margins become smaller in the mature markets of the US and Europe, banks are increasingly looking for growth opportunities in new geographies, which inevitably exposes them to new sets of regulatory compliance issues. The fallout from the recent financial crisis and related government intervention around the globe has sharpened the appetite of regulators for greater scrutiny of financial services firms. Many countries also are under considerable political pressure to introduce tougher sanctions for infringement. These factors all add up to an urgent need for financial services to check for adequate policies and systems to ensure that they are keeping the right data in the right ways.

Internally, the key challenges are understanding how these external factors can affect the business and then designing and maintaining the correct approaches and systems to address them. At a time of budget cuts and reduced staffing levels in compliance and IT, these tasks are not trivial. Managing compliance is a complex matter. Many organizations lack a general clarity of the type of information that needs to be kept and for how long. In addition to regulatory risks, financial institutions must deal with risks, such as interest rate or market, liquidity, and credit risks, on a regular and constant basis.

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*Failure to meet regulations can result in major damage that can vary from fines and loss of revenue to bankruptcy.*

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In a recent IBM CEO study, CEOs in the financial services industry attribute greater importance to transparency and corporate accountability than other parts of the economy, as shown in Figure 1.

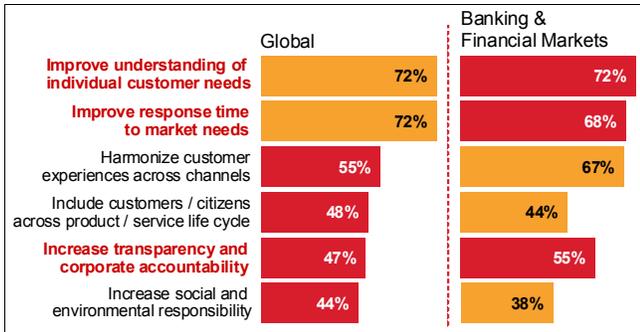


Figure 1 Importance of risk management to CEOs in banking<sup>1</sup>

To meet these regulatory compliance challenges, organizations need an IT environment that can provide support with a secure infrastructure on an ongoing basis without the need to constantly change the existing base systems.

## Using an integrated IT approach to stay ahead of regulation

Ongoing compliance to regulations provides a real challenge for a financial institution, most importantly because of the unintended consequences compliance has on both business processes and the IT organization. First and foremost, regulations need to be clearly understood before considering any solution.

When considering the complete solution, keep in mind:

- ▶ Capturing and maintaining business knowledge, such as the tax code, and policies that are issued by regulatory authorities.
- ▶ Ensuring that the required operational information to meet regulations is available when and where it is needed. The goal should be to maintain information that is 100% accurate.
- ▶ Executing business processes that include important events for meeting regulations, such as automated and manual tasks as well as straight-through processing.
- ▶ Keeping an audit trail for information that is captured, altered, and used for regulatory purposes,

and including any information that might potentially fall under an audit.

- ▶ Being able to create reports at specific intervals and on an ad hoc basis. In certain cases, reports might need to be generated on request immediately.
- ▶ Applying analytics to analyze events that occur and using predictive analytics to anticipate potential risks with respect to meeting regulations.

A common and integrated strategic IT approach and architecture for regulatory compliance throughout the enterprise can provide the following key benefits:

- ▶ Shared use of information with master data management (MDM) for all lines of business avoids the risk of keeping and using duplicate information that is not consistent.
- ▶ A common enterprise-wide tool and repository for maintaining business rules can ensure multiple business units work with the same and latest versions of business rules.
- ▶ Applying analytics to information that pertains to multiple business lines and geographies helps to correlate information and events.
- ▶ Avoiding point solutions and taking advantage of a single integrated IT infrastructure can help to reduce costs.

As shown in Figure 2, an integrated IT solution for regulatory compliance must have a minimum of the following capabilities:

- ▶ Master data management
- ▶ Business rules management
- ▶ Business Process Management
- ▶ Enterprise Content Management
- ▶ Analytics
- ▶ Auditing

<sup>1</sup> Question 9 from the IBM 2012 CEO Study: "To what extent will your organization change to meet customer expectations compared to your industry peers over the next 3 to 5 years?"

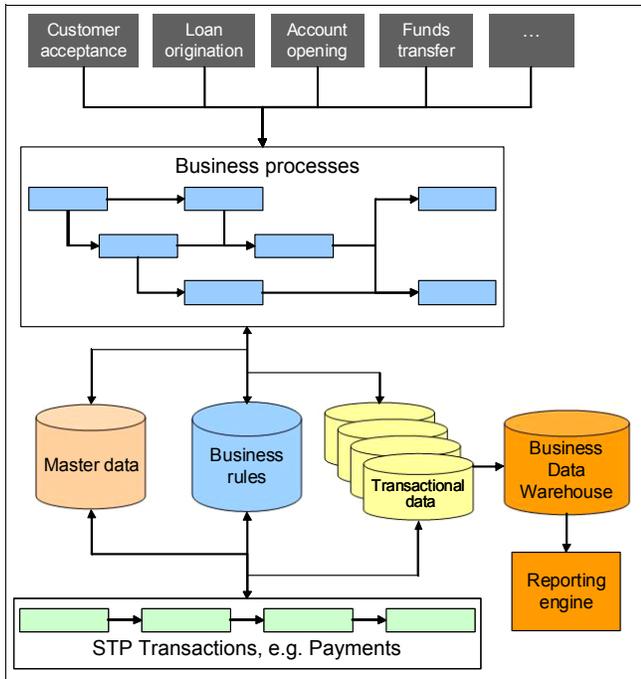


Figure 2 Context diagram of a regulatory compliance solution

## Master data management

Much of the data involved in meeting regulations is classified as *master data*. Master data is common data about customers, suppliers, partners, products, materials, accounts, and other critical entities. For IT systems, master data is the high-value, core information that is used to support critical business processes for the enterprise. It is at the heart of every business transaction, application, report, and decision.

With regard to regulatory compliance, information that is kept in master data entities—for example “client,” “account,” and “claim”—can quickly fall under the scrutiny of regulatory frameworks. Therefore, master data management (MDM) should be a key component of an integrated solution for managing risk with respect to regulatory compliance.

The primary goals of MDM are as follows:

- ▶ Establishing a common view on enterprise data, for all lines of business and departments, and using a single data model for all master data.
- ▶ Providing universal access to master data by using a standardized and open access mechanism. It is assumed that a modern MDM solution provides access through at least web services.

- ▶ Offering a built-in framework for traceability of changes to master data. At all times, evidence must be collected about any piece of information that is subject to regulatory requirements.

## Business rules management

Regulatory frameworks typically impose complex decision structures on financial institutions. These structures sometimes need to be executed in real time at the time of a transaction and sometimes at the moment that certain reports are due. Thus, agility is required with respect to business rules because:

- ▶ Existing regulations can change frequently and new sets of regulations might be imposed on an ongoing basis.
- ▶ The business rules as a result of regulations should be reusable throughout the enterprise, in multiple applications, in multiple business units, and for multiple geographies.

A Business Rules Management System (BRMS), such as IBM® Operational Decision Manager, provides the advantage that business rules are specified by business analysts using a specific tool. These business rules are converted by the tool to application code that can then be implemented as reusable services that are accessible by applications throughout the entire enterprise. A business vocabulary is used to specify these rules.

## Business Process Management

Tasks falling under any of the applicable regulations are always part of some business process. These tasks can be strictly *automated tasks*, such as signaling an international funds transfer that is over a certain threshold, or *manual tasks*, such as making a copy or scanning in proof of ID of a new customer. Many times, a business process is a combination of both automated and manual tasks.

Business Process Management (BPM) software helps to model these business processes and map them to IT services. These IT services are application components that perform all the typical things you would expect from an application, such as reading and writing data, sending and receiving data to and from other applications, sending emails, producing reports, and executing the business rules.

## Enterprise Content Management

Many times, copies of documents need to be kept on file for auditing purposes. A safe and efficient way to keep such information is by means of digitally stored copies. Enterprise Content Management (ECM) tools and strategies can be used to keep a history of digital copies of relevant documents. Then, these copies can be indexed and searched based on customized criteria. Tasks to process documents, such as scanning, receiving a fax, or sending an email with an attachment, can be incorporated into the business processes, together with the necessary and appropriate business rules.

## Analytics

The information used to make certain decisions as part of a business process might not be readily derived from the data at hand. In addition, analytics might be required to analyze larger sets of data.

A good example is the BASEL III regulations with respect to the liquidity management of a bank. In certain cases, these analytics might be needed in real time or near real time.

## Auditing

Failure to meet regulations can result in major damage. In case of doubt or when an investigation occurs, an auditing trail can provide recorded evidence of every single transaction or task in the business process that falls under the regulation. An audit trail can help you trace back to determine the cause of the possible issue. Ideally, logging and keeping an audit trail are done automatically by the system.

## An example: The US Foreign Account Tax Compliance Act

The US Foreign Account Tax Compliance Act (FATCA) requires individuals to report their financial accounts held overseas. It also requires foreign financial institutions, such as banks, to enter into an agreement with the Internal Revenue Service (IRS) to identify their US account holders and to disclose account information. FATCA affects banks, insurance companies, investment and mutual funds organizations, and asset management firms. In addition, participating foreign financial institutions must

withhold on recalcitrant account holders and report to the IRS. In the case of client non-compliance, a financial institution will be required to apply a 30% tax on all US payments, withheld at the source of payment.

FATCA can affect every foreign financial institution worldwide that has US account holders or potential US account holders. Even in a case where a foreign financial institution thinks it does not have any US account holders, it might still need to address FATCA requirements, for example to make sure a new account holder is not subject to US taxes.

FATCA became effective in 2013, and requirements to comply to the entire FATCA code will be gradually phased in over the next few years.

Figure 3 illustrates the key FATCA impacts for financial services providers.

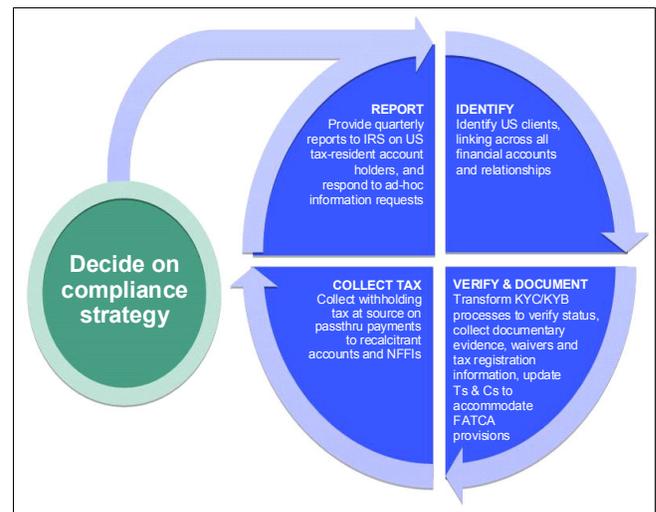


Figure 3 Key FATCA impacts for financial services providers

## Approaches to implementing FATCA requirements

Complying to FATCA regulations requires major changes to business processes and the supporting IT. There are four main approaches to implementing FATCA requirements. Choosing the correct approach for your organization is more critical than in any other type of IT project, because deadlines to meet regulations are firm.

- Make changes to existing application code.

This approach might work in smaller companies that have a fairly modern, modular, and well documented application architecture. In larger

companies, this approach might prove to be expensive and too slow to respond to the FATCA-related business needs.

- ▶ Implement an “all-in-one” packaged solution.

The decision to choose a packaged solution typically depends on the expected functional coverage and the expectations with regard to the package keeping up with ongoing changes to FATCA requirements. Technology factors might also come into play, such as the supported platforms and skills needed to implement and maintain the solution. A package implementation will always require work to be done to integrate with existing applications.

- ▶ Deploy a service-oriented architecture (SOA)-based foundation.

In this approach, a framework of specialized software is used for the primary functions of the integrated solution, such as MDM, business rules management, and BPM. These software components work together by using open standards that have access to existing IT components throughout the entire enterprise. Many companies use such specialized software for a variety of business processes but not necessarily for risk management processes. From a strategic perspective, this approach is preferred in most cases.

- ▶ Use a cloud service.

Some financial institutions might not be able to justify the cost and risk to implement FATCA requirements in their own IT environment and might consider using an external service. Such a service might be available from specialized consulting firms. Note that certain information used in FATCA processes is strictly confidential, and it might not be easy, or might even be impossible, to provide such information to external service providers.

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*Choosing the best approach to implementing FATCA requirements depends on the complexity of the existing IT landscape, vision about architecture, cost, timelines, and the magnitude of the impact of the FATCA regulations.*

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## Using a secure and centralized IT infrastructure for continuous risk analysis

A risk management system never sleeps. Many business processes that are subject to regulation within a financial institution run 24 hours a day, seven days a week. Also, it is wrong to assume that risk management is typically a “batch process,” for example by just producing the required reports at the end of the day or week, or even month. Risk should generally be signaled and contained as soon as possible. As illustrated with FATCA, compliance affects payments and other real-time transactions.

A secure and centralized IT infrastructure needs to provide the following capabilities:

- ▶ Integrated

Regulations can touch many pieces of information throughout the enterprise. The business processes and business rules that are executed need to have access to accurate data at all times. Just using one stale copy of certain data can cause non-compliance and even create suspicion of fraud.

- ▶ Secure

The following aspects of security are important when it comes to regulatory compliance:

- Auditing

Maintaining evidence of all tasks within business processes that are subject to regulations is critical. A traceable audit trail is a necessity.

- Protection of information

Protecting information is actually more a general concern within financial institutions and not specifically a regulatory compliance concern. However, when implementing a solution for regulatory compliance, it is also a good time to enforce security measures in order to protect information, such as client information and information regarding the performance of the company. Some regulations require sensitive information to be collected, such as tax documents from clients with respect to FATCA.

- ▶ Centralized

Existing regulations undergo changes and new regulations are constantly implemented. A proper architectural foundation makes an enterprise more resilient in terms of applying changes to regulations and embedding new regulations. Ideally, such a

foundation is implemented on a centralized and secure infrastructure, making it easier to manage.

► Highly or continuously available

As regulatory requirements become increasingly part of the core processes of a financial institution, many times in real time, the IT infrastructure that is needed to meet these requirements must meet, or exceed, the same service levels as those core processes. For example, if the business rule determining a possible tax withholding on a payment is not available, basically the payments transaction cannot complete successfully, or at least a post-transaction action is needed to execute the rule when it becomes available again.

## IBM System z offers the infrastructure needed for risk management and FATCA

The IBM System z® platform provides the following key benefits when implementing an integrated IT solution for risk management and FATCA:

► Integration

The FATCA rules and business processes tie into core banking applications and data, which many times reside on System z mainframes already. For example:

- Onboarding a customer ties into existing master data stores and applications and customer relationship management (CRM).
- When it comes to tracking financial transactions and withholding taxes, the FATCA solution heavily integrates with existing payments and core banking applications and data.

In general, the FATCA solution benefits from collocation with data.

► Security

The financial data that is used has a high level of confidentiality (for example, information related to legal resident status and identity). The System z mainframe is 100% safe to store and process such information.

In addition, it is critical for a foreign financial institution to keep an impeccable audit trail. The System z mainframe provides a natural environment for the level of auditing required by the IRS (from the system level up through reporting tools, such as IBM Tivoli® zSecure™).

► Batch processing

Reporting and generating documents can require additional batch processing. The System z mainframe is considered the best system in the industry when it comes to processing massive amounts of data, using a minimal amount of operational staff.

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*Many companies choose System z mainframes for applications that require security, scalability, and availability. Many regulatory requirements also need this high level of reliability, because they are part of the core processes.*

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► Availability and scalability

The FATCA middleware and rules need to have the same level of availability and scalability as existing core banking applications. The System z mainframe, in combination with solutions, such as Parallel Sysplex® and Geographically Dispersed Parallel Sysplex™ (GDPS®), provide up to continuous availability.

► Flexibility

As FATCA regulations continue to change, the System z mainframe provides easy scalability to handle the increasing complexity of regulations.

► Cost

The core FATCA solution components rely heavily on Java and benefit from specially priced System z processors, which provide a strong cost advantage.

## What's next: How IBM can help

IBM is uniquely positioned to help financial institutions tackle regulatory challenges with capabilities that span the full spectrum of needs, from hardware and software through business and technology consulting, to outsourcing and managed services. Our focus on research and development and the availability of highly skilled resources provide us with the ability to bring solutions that can help you redefine the marketplace. IBM also brings deep domain knowledge, business transformation skills, technical expertise, and a wealth of real-world experience to help you make your solution deployment a success.

IBM has a broad range of offerings and services to help you throughout the entire process of decision making, design, and implementation for your risk management

needs. For example, IBM can organize and perform the following activities for you:

- ▶ Assess the effectiveness of your current infrastructure for risk management processes, now and in the future.
- ▶ Conduct a “Fit for Purpose” study to determine the best computing platform for the various components of an integrated risk management solution.
- ▶ Work with you on an approach for transformation to new technology or a new architecture.
- ▶ Conduct solution design workshops, benchmarks, Proof of Technology, and Proof of Concept with respect to risk management solutions on System z.
- ▶ Provide a headstart on FATCA through the IBM Global Business Services® division by providing business rules that represent the latest FATCA tax code.
- ▶ Offer you the advantage of the IBM banking center of excellence and global center of competency to bring you experienced and seasoned banking industry expertise. We can discuss in detail how IBM banking regulatory solutions can help your financial institution tackle the FATCA regulations and help strengthen your competitive position.

## Resources for more information

For the most up-to-date information related to FATCA, see the IRS Foreign Account Tax Compliance Act—Legal Documents and Notice Information website:

[http://www.irs.gov/Businesses/Corporations/ForeignAccountTaxComplianceAct\\_LegalDocumentsandNoticeInformation](http://www.irs.gov/Businesses/Corporations/ForeignAccountTaxComplianceAct_LegalDocumentsandNoticeInformation)

For additional FATCA-specific information, refer to:

- ▶ IBM Global Business Services white paper “*Foreign Accounts Tax Compliance Act - Effectively meeting the compliance challenge*”  
<http://public.dhe.ibm.com/common/ssi/ecm/en/gbw03198usen/GBW03198USEN.PDF>
- ▶ HIRE Act—Hiring Incentives to Restore Employment Act  
<http://www.gpo.gov/fdsys/pkg/PLAW-111publ147/pdf/PLAW-111publ147.pdf>
- ▶ Technical Explanation of HIRE Act  
[http://www.jct.gov/publications.html?func=download&id=3648&chk=3648&no\\_html=1](http://www.jct.gov/publications.html?func=download&id=3648&chk=3648&no_html=1)

- ▶ Technical Explanation of FATCA

[http://www.jct.gov/publications.html?func=download&id=3596&chk=3596&no\\_html=1](http://www.jct.gov/publications.html?func=download&id=3596&chk=3596&no_html=1)

- ▶ Notice 2011-34—Supplemental Notice to Notice 2010-60 Providing Further Guidance and Requesting Comments on Certain Priority Issues Under Chapter 4 of Subtitle A of the Code

<http://www.irs.gov/pub/irs-drop/n-11-34.pdf>

- ▶ Notice 2010-60—Notice and Request for Comments Regarding Implementation of Information Reporting and Withholding Under Chapter 4 of the Code

<http://www.irs.gov/pub/irs-drop/n-10-60.pdf>

For more information about the concepts highlighted in the paper, see the following resources:

- ▶ *Making Better Decisions Using IBM WebSphere Operational Decision Management*, REDP-4836

<http://www.redbooks.ibm.com/abstracts/redp4836.html?open>

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