



Information FrameWork (IFW) Banking Accelerators for WebSphere® Business Integration

Whitepaper

Contents

3 Chapter 1

Introduction

5 Chapter 2

The WebSphere Business Integration

Products

11 Chapter 3

The IFW Banking Accelerators

17 Chapter 4

Applying the IFW Banking Accelerators to

WebSphere Business Integration

25 Chapter 5

Summary

About this Paper

The purpose of this paper is to provide an outline of a) the IBM® WebSphere® Business Integration Solution Architecture and b) the Information FrameWork (IFW) Banking Accelerators (a selection of models from the Information FrameWork model set), and how these offerings may be applied to meet the challenges of business integration.

Business integration involves the use of a range of technologies each with their own particular role to play in an overall integration solution; process design and management tools, message design and routing and so on. This paper highlights the roles of each product within the WebSphere Business Solution Architecture and the concerns that apply when modeling any given aspect of the business.

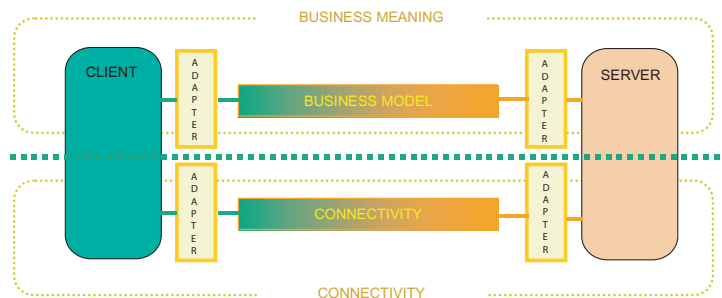
Chapter 1. Introduction

Business Modeling

The WebSphere® Business Integration offerings provide comprehensive support for enterprise integration. The ability to manage the logic of complex business processes combined with support for routing of requests and data transformation provides a solid platform upon which an integration initiative can be built. This platform provides us with the infrastructure through which we can enable communication between a Financial Institution's diverse systems.

Messages, components, services and workflows must be specified to transform WebSphere Business Integration into a potent business tool.

Simply installing infrastructure, however, does not provide a Financial Institution with an integrated environment supporting improved processes. It is necessary to specify the messages, components, services and workflows that transform WebSphere Business Integration into a potent business tool.



Infrastructure and Business Content

Business modeling provides these specifications. Detailed analysis of the business concepts, and the business processes across the entire scope of the Financial Institution provides reusable, requirements focused constructs that can be used to define the business content of an integration architecture. Business modeling provides the definitions of the actual business processes and messages that are made available across the enterprise. These business processes and messages then execute within the runtime infrastructures that are supporting both process integration and connectivity across the Financial Institution. In this way necessary improvements in business operations can be reflected in the integration architecture.

The IFW Banking Accelerators provide these definitions of business processes, services and messages.

The IFW models represent over 200 cumulative years of development, incorporating input from leading Financial Institutions.

The Information FrameWork (IFW) Banking Accelerators provide these definitions of business processes, services and messages.

The IFW Banking Accelerators comprise a set of models selected from the Information FrameWork (IFW). The IFW is a family of Data, Process and Object Models, which enable Financial Institutions to create detailed specifications and cross-enterprise architectures for modern information systems. These models represent over 200 cumulative years of development, incorporating input from leading Financial Institutions.

The remainder of this paper is divided into the following chapters:

Chapter 2, “**The WebSphere Business Integration Products**” describes and positions the products available to enable business to create manage and execute business processes across the enterprise.

Chapter 3, “**The IFW Banking Accelerators**” describes the Information FrameWork (IFW) offerings that are relevant to the challenge of business integration, specifically: the IFW Object Models and the IFW Critical Business Process Models.

Chapter 4, “**Applying the IFW Banking Accelerators to Business Integration**” investigates the role played by the WebSphere Business Integration Products and the IFW Banking Accelerators in an overall integration solution.

Chapter 5, “**Summary**” provides a brief review of the main points of this paper.

WebSphere Business Integration allows processes, and the underlying operational infrastructure, to be managed as a complete system.

Chapter 2. WebSphere Business Integration

IBM WebSphere® Business Integration is an integration middleware suite that enables businesses to create, execute and manage business processes spanning diverse systems and organization units. WebSphere Business Integration allows these processes, and the underlying operational infrastructure, to be managed as a complete system. IBM also offers a number of related products to this suite including WebSphere Business Integration Modeler and Monitor, WebSphere Business Connect and WebSphere Application Server.

WebSphere Modeler and Monitor

IBM WebSphere Modeler and Monitor supports the modeling, simulation and analysis of complex business processes. IBM WebSphere Modeler and Monitor consists of a process modeling focused Business Integration Workbench, a Business Integration Monitor which provides real-time and historical data harvested from WebSphere Business Integration, and Business Integration Workbench Server which provides repository functions.

WebSphere Modeler and Monitor focuses on modeling the complex business processes within the Financial Institution, before deployment of these processes in the runtime environment provided by WebSphere Business Integration.

WebSphere Business Integration Server

IBM WebSphere Business Integration Server provides the following functions:

- Workflow Management
- Collaboration Management
- Messaging

Workflow Management

WebSphere Business Integration provides support for long running business processes that require interaction with staff within the Financial Institution. WebSphere Business Integration Server provides an execution environment for the complex business processes that have been identified through business modeling, and simulated and refined within WebSphere Modeler and Monitor.

Collaboration Management

WebSphere Business Integration provides process level synchronization services at runtime, handling complex and non-interruptible process elements across multiple systems, such as “Create Customer” or “Create Account”. These ‘micro-flows’ are implemented within WebSphere Business Integration as “collaborations”. WebSphere Business Integration collaboration management supports the runtime data integrity and execution context of sub elements within complex business processes.

Messaging

WebSphere Business Integration allows real-time message transformation and intelligent message routing, including dynamic manipulation of messages. WebSphere Business Integration Server provides high-speed transformation, routing and publish/subscribe for an integration hub.

WebSphere Business Connect

IBM WebSphere Business Connect (WBC) supports business-to-business (B2B) links to parties that are external to the Financial Institution, such as Credit Bureaus and Checkbook Providers. WBC implements a web services gateway for communication with third parties, and also supports the EDI, AS1 and AS2 protocols.

WebSphere Application Server

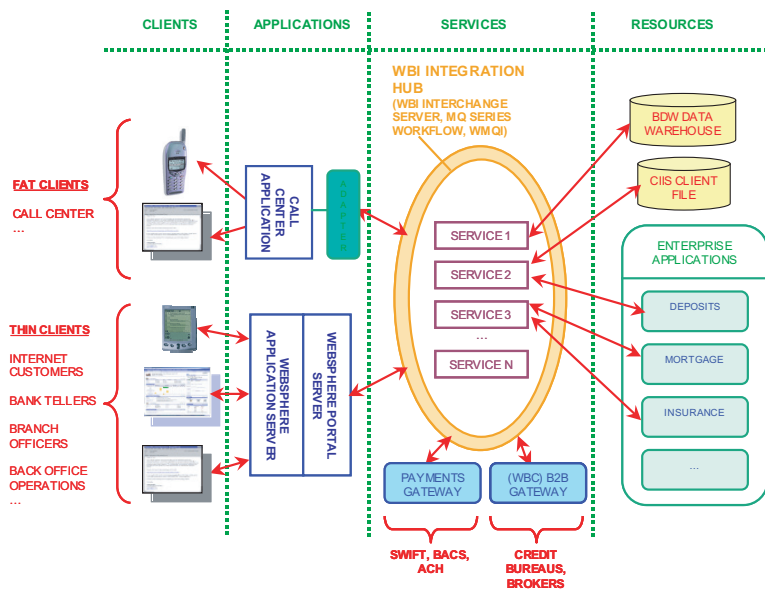
IBM WebSphere Application Server (WAS) supports transaction and session management within a Java™ hosting environment. WAS is often used to manage the channel facing application logic to support the branch teller, account servicing or internet banking functions.

An example topology

This section describes how these WebSphere Business Integration components may be used together to support the complex, enterprise-wide, business process management and connectivity requirements of a customer centric integration hub for a retail bank.

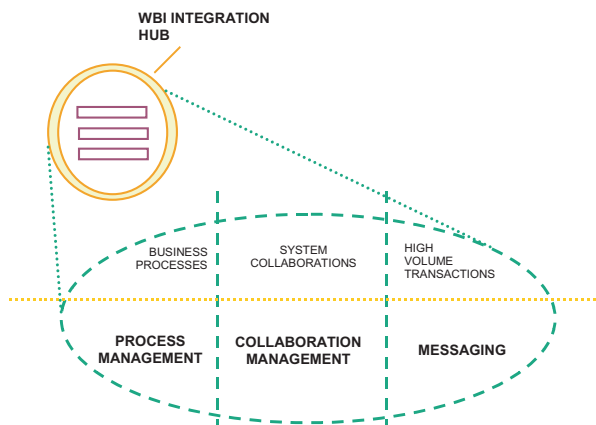
The diagram below illustrates a typical deployment of a WebSphere Business Integration based integration hub within a Financial Institution.

Core to this topology is the WebSphere Business Integration based integration hub. This provides an enterprise-wide catalog of the services available across the organization as a whole.



An Integration Topology

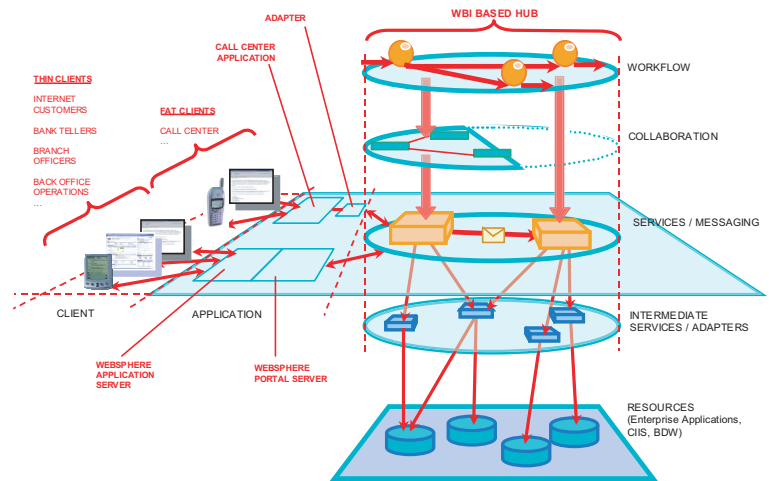
Core to this topology is the WebSphere Business Integration based integration hub. This provides an enterprise-wide catalog of the services available across the organization as a whole. These services may be implemented in a variety of ways, as requirements dictate. Process and human interaction intensive services are supported by the process management function of the WebSphere Business Integration offering. Complex transaction based interactions between disparate systems are managed by the collaboration manager, while routing and transformation of simple high volume transactions is provided by the messaging functions of WebSphere Business Integration Server.



Structure of the WebSphere Business Integration Integration Hub

It is the role of business modeling to identify and leverage this reuse, and the role of an integration architecture to enable and support this reuse across platforms devices and systems.

Adding this layered view to our example topology above provides a more complete view of our enterprise-wide integration solution.



Layers of Integration within a Hub

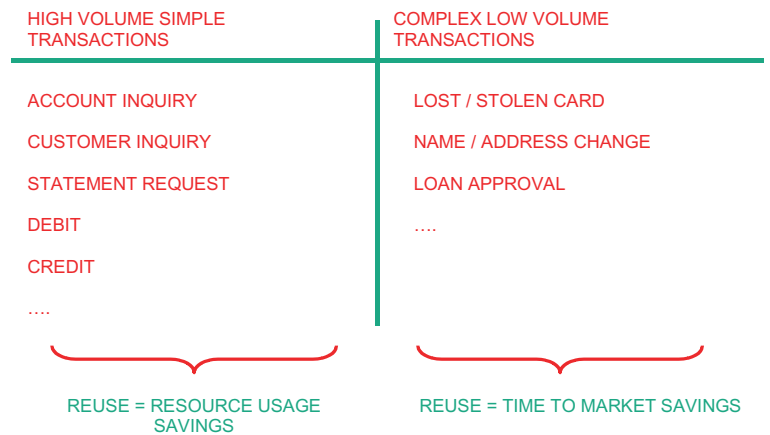
It is important to note that this topology, and indeed the problems that it addresses, are somewhat unique to the financial services industry. A large number of constituent parts must be supported, each of which requires access to a wide range of back-end applications. Additionally, the nature of this access is extremely high volume, with millions of customers and thousands of employees and third parties requiring simultaneous support. This support is required through a wide range of delivery devices such as browsers, ATMs and desktop applications over a range of channels such as internet banking, call center and branch teller.

All this involves considerable redundancy, with significant duplication of function across both delivery method and channel. Some decomposition exercises indicate that this can be as high as 80%. The only pattern that will allow this level of duplication and redundancy while ensuring maintainability and scalability is reuse. It is the role of business modeling to identify and leverage this reuse, and the role of an integration architecture to enable and support this reuse across platforms devices and systems.

Identifying and supporting reuse of both high volume simple, and low volume complex transaction categories is essential to a successful integration infrastructure.

The Role of Re-use

Analysis of the highly reusable transactions across the enterprise reveals two types of operational behavior; simple high volume transactions, and complex lower volume transactions. Although many exceptions exist to these patterns, in general simple high volume transactions benefit from synchronous handling, whilst more complex transactions involving interactions with people, and paper within the organization, require asynchronous handling.



Reuse and Transaction Types

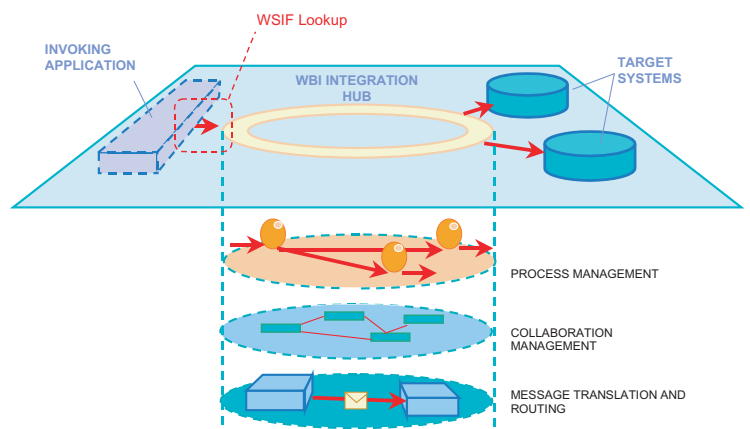
Managing reuse for these two groups of transactions yields two distinct benefits. Managing reuse of simple high volume transactions yields considerable savings in resource usage. Managing reuse of complex interactive transactions gives savings in time to market.

Identifying and supporting reuse of both transaction categories is essential to a successful integration infrastructure.

Transaction Invocations

The integration hub is built upon the middleware functions of WebSphere Business Integration. This implies that there is some degree of logic within the channel facing applications that determines which of the underlying integration methods is used to satisfy a particular request. Building this logic into the channel facing applications (or any other application) is undesirable. Some degree of separation must be maintained between application logic and the details of integration. One way to achieve this separation is through the use of the Web Services

Invocation Framework (WSIF). This allows an application to invoke a transaction without needing to know if that transaction is implemented as a workflow, a collaboration, or a set of messages. From the invoking applications perspective, the integration “just happens”.



Invoking Transactions on a Hub

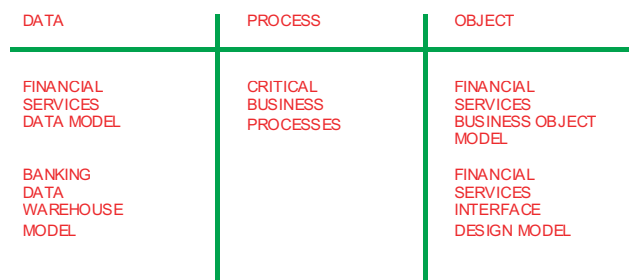
Chapter 3. The IFW Banking Accelerators

Business modeling plays an essential role in a successful integration initiative. While the underlying integration infrastructure provides complete support for the implementation of reusable business processes, it is only through business modeling that reuse can be identified, and consumable scalable processes and services identified and designed.

To simplify this modeling process, and enable high quality best practice models to be deployed rapidly into a Financial Institution, IBM has developed a set of models for the financial services industry. These models, the IFW Banking Accelerators are ready for immediate use in business integration projects.

The IFW Banking Accelerators comprise a set of models selected from the Information FrameWork (IFW). The IFW is a family of Data, Process and Object Models, which enable Financial Institutions to create detailed specifications and cross-enterprise architectures for modern information systems. These models represent over 200 cumulative years of development, incorporating input from leading Financial Institutions.

The IFW Banking Accelerators comprise the Critical Business Process Models and the Business Object and Interface Design Models (FS-BOM and FS-IDM).



A Summary of the IFW Offerings

The IFW Banking Accelerators comprise the Critical Business Process Models (CBPs) and the Financial Services Business Object and Interface Design Models (FS-BOM and FS-IDM).

Business Coverage

The IFW Banking Accelerators cover the majority of the process and service aspects required for the business operations of a universal bank operating in an international environment. Both Retail and Wholesale

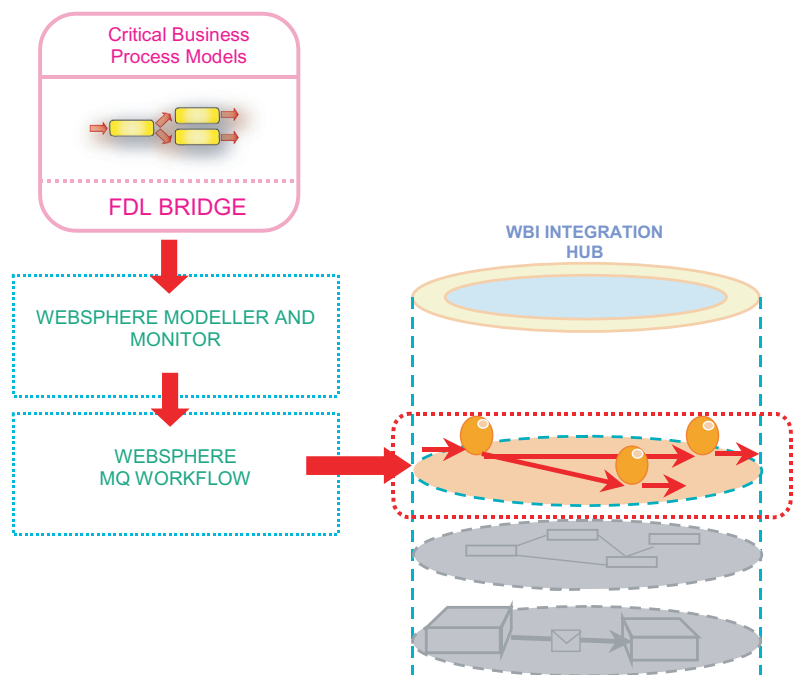
sides of the bank are covered including the development of new products, marketing, customer relationship management, negotiation and sales, and servicing of sold products throughout their lifecycle.

The IFW Critical Business Process Models

The IFW Critical Business Process Model (CBPs) provides detailed process descriptions of the core processes required by a Financial Institution. These process descriptions are highly structured and formalized, focusing on maximizing reuse across both channel and line of business.

Using the CBPs, a Financial Institution may rapidly perform analysis and design of core processes, customizing the model to its own needs. These customized process descriptions can then be exported to the WebSphere Modeler and Monitor toolset for final customizations and simulation, before being deployed within WebSphere Business Integration as the basis for a WebSphere Business Integration hub.

These process descriptions are highly structured and formalized, focusing on maximizing reuse across both channel and line of business.



Applying the IFW Critical Business Processes to a WebSphere Business Integration hub

The use of the CBPs as a starter set for process analysis yields the following benefits to the Financial Institution:

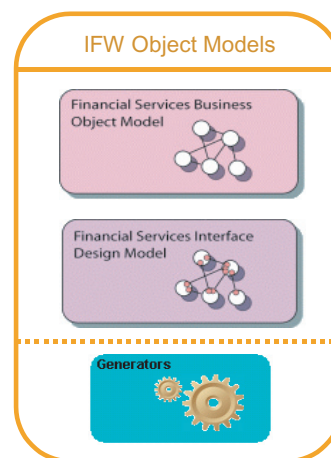
- Process analysis is performed from an enterprise-wide perspective. The resulting processes are not biased by the concerns of a particular product, delivery channel or development effort.
- Analysis time for a given process dramatically reduced
- Greater levels of identification of reuse
- An estimated 80% of coverage “out-of-the-box”
- Increased consistency in structure, naming and approach

The IFW Object Models

The IFW Object Models provide the Financial Institution with a means to perform detailed analysis and design of the business concepts within the financial services industry. The models support a complete path from requirements gathering, through detailed object analysis, to the design of a services architecture. Technology specific outputs, such as messages, business objects and collaboration descriptions for use with WebSphere Business Integration, or XML message definitions and collaborations can be generated.

The models support a complete path from requirements gathering, through detailed object analysis, to the design of a services architecture.

The IFW Object Models offering consists of two models expressed in the Unified Modeling Language (UML), the Financial Services Business Object Model, and the Financial Services Interface Design Model.



The IFW Object Models for Financial Services

The Financial Services Business Object Model

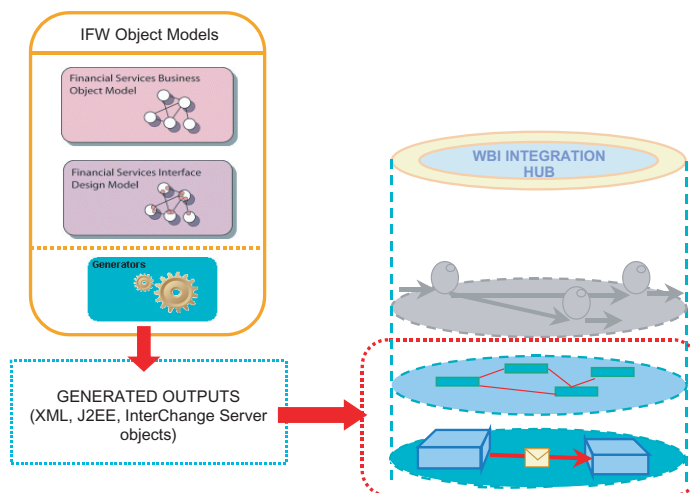
The Financial Services Business Object Model (FS-BOM) is an object model supporting the identification and analysis of the key types within a Financial Institution. FS-BOM acts as a communication mechanism between business and IT staff, formalizing and accelerating the requirements gathering process. Analysis of the Critical Business Processes (CBPs) highlights the potential for reuse of process elements within the Financial Institution. FS-BOM leverages this reuse, expressing process elements as UML use cases, which are used to drive out the details of the business concepts (as objects) that must exist within the Financial Institution.

The UML-based structure and representation of FS-BOM is deliberately simplified, placing the emphasis directly on the business content that is being expressed, and not on technical jargon used to express those concepts. This makes the content highly accessible to business users, and ensures that requirements gathering, and concept identification is faster and more accurate.

The Financial Services Interface Design Model

While the role of FS-BOM is to gather and formally express the requirements of the Financial Institution, it is the role of the Financial Services Interface Design Model (FS-IDM) to take this business analysis and support the design of a highly structured and reusable service architecture, to support integration initiatives. Core to FS-IDM is the concept of components, and the business services exposed by these components. FS-IDM takes the use cases described in FS-BOM, and extracts reused elements as business services, for example: performTransfer, identifyCustomer or selectProductConditions.

It is the role of the Financial Services Interface Design Model (FS-IDM) to carry through the result of business analysis into the design of a highly structured and reusable service architecture, to support integration initiatives.



Applying the IFW Object Models to a WebSphere Business Integration hub

Generating Output

Although the service architecture of FS-IDM is expressed in a formalized way, it is not expressed in terms of any target technology. Translation to a particular technology specific output is performed by the IFW Object Model Generator Architecture (an element of the IFW Banking Accelerators). This is a set of plug-in modules each of which is specific to a target technology.

For example:

- XML Schema
- XML DTD
- Web Services
- J2EE Beans
- WebSphere Business Integration Business Objects
- WebSphere Business Integration Collaborations
- WebSphere Business Integration Messages
- WebSphere Business Integration Message Flows

Chapter 4. Applying the IFW Banking Accelerators to Business Integration

The preceding chapters have highlighted that a successful integration initiative will draw extensively on middleware capabilities and their associated tooling, and on the analysis and design capabilities of a comprehensive set of business models. This chapter will focus on how the IFW Banking Accelerators complement the WebSphere Business Integration suite, and how the two offerings can be used together to rapidly produce highly scalable integration solutions.

Any integration initiative will need to be capable of executing complex business processes, and resource intensive high volume transactions. The following sections look at these separate challenges in turn.

Process and modeling execution

The process management functions of WebSphere Business Integration deal with the execution of process intensive complex transactions that require support from both employees and systems across the enterprise. These processes typically represent asynchronous interruptible operations, and will result in a number of work-list items being generated for staff, as well as system interactions.

The models within the IFW Banking Accelerators work together to address the needs of these process intensive invocations, through detailed business process descriptions supported by a highly reusable service architecture.

The processes described in the Critical Business Processes may be exported to WebSphere Modeler and Monitor and WebSphere Business Integration Server to provide the business rules for process execution. Each business process is decomposed into a detailed set of activities, each of which is either supported by staff or system interactions within the institution. Note that a given activity will not necessarily map to a single staff or system interaction, several invocations are likely to be required at each step of a process.

Where staff interactions are required, WebSphere Business Integration provides full support for this. Where interactions with the existing systems of the Financial Institution are involved, the activity

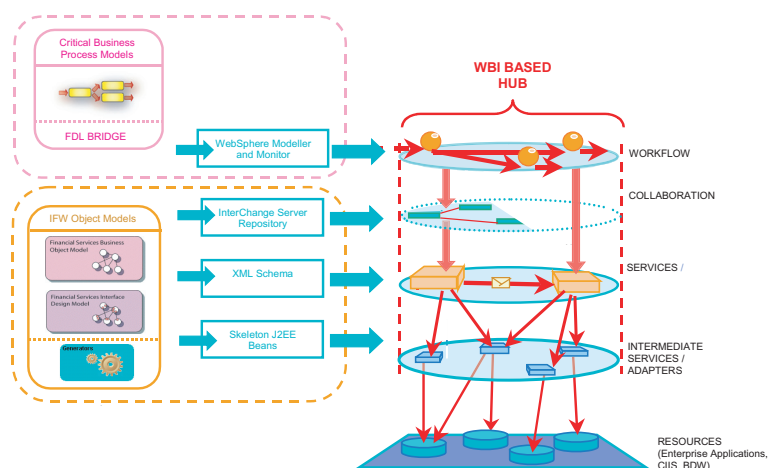
Any integration initiative will need to be capable of executing complex business processes, and resource intensive high volume transactions. The following sections look at these separate challenges in turn.

implementations themselves could directly access the underlying systems, however this would result in a less than efficient architecture as many opportunities for reuse across processes and across middleware media would be missed. Where interactions with systems is required in the execution of a business process it is recommended that these interactions take place through a reusable service architecture.

The object models within the IFW Banking Accelerators provide this service architecture. Through use case analysis driven by the Critical Business Processes and subsequent service design in FS-IDM, a service architecture can be directly exported from the models, for use with WebSphere Business Integration. These service descriptions and message flows which are most likely expressed as an XML message set are then available, not just across every process executing within WebSphere Business Integration process management, but also across the rest of the WebSphere Business Integration hub.

The diagram below shows how the process descriptions of the CBPs can be modeled and deployed within the WebSphere Business Integration environment, and supported by a service architecture deployed through WebSphere Business Integration messaging based on the IFW Object Models.

Through use case analysis driven by the Critical Business Processes and subsequent service design in FS-IDM, a service architecture can be directly exported from the models, for use with a WebSphere Business Integration based hub.



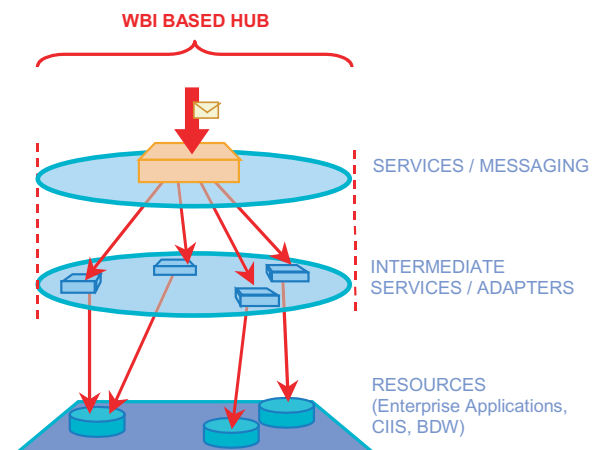
Business Process Modeling and Deployment

Note that the service architecture of the IFW Object Models has a tiered structure, which further maximizes reuse within the implementation of business services. Intermediate services act as an insulation layer between business processes and services, and the underlying systems

support, effectively encapsulating the existing systems of the Financial Institution. This reduces the dependencies between the integration solution and the underlying systems support. These intermediate services may be implemented as messages within WebSphere Business Integration, or as shown above, as J2EE beans which are invoked by the receiver of a WebSphere Business Integration business service message and act as an adapter layer between the Accelerator-based service architecture and the legacy support within the organization.

Message Based Integration

An integration initiative must also be capable of handling the Financial Institution's high volume synchronous transactions. These transactions are supported through a WebSphere Business Integration based service architecture. This service architecture provides published services across the enterprise, and may be invoked as part of the execution of a business process, as described above, directly from channel facing applications or through any of the Financial Institution's other portals or gateways.



The business services of FS-IDM are coarse grained in nature and are deployed through WebSphere Business Integration messaging as a set of defined XML request and response pairs.

Supporting High Volume Transactions with WebSphere Business Integration

As discussed above, FS-IDM defines two levels of service, business services and intermediate services. Business services are made available across the enterprise to invoking applications or business processes. These business services are then supported by a number of intermediate services at runtime. The business services of FS-IDM are coarse grained in nature and are deployed through WebSphere Business Integration messaging as a set of defined XML request and response pairs. The intermediate services that provide support for

these business services may be deployed in a number of ways, however, since it is these services that encapsulate the functionality of existing systems, it is likely that some programmatic logic will be required in their implementation. For this reason it is likely that they will be deployed as J2EE beans, or equivalent, that expose services that may be invoked by the receiver of FS-IDM business service requests.

WebSphere Business Integration Collaborations

There are of course many scenarios in which an invoked transaction lies somewhere in between these two extremes of complex process intensive business logic and high volume transactions. In many of these scenarios, the integration method of choice may be the use of WebSphere Business Integration collaborations.

The use case collaborations of the IFW Object Models, and the detailed type descriptions are both key business inputs to defining integration logic within WebSphere Business Integration.

The use case collaborations of the IFW Object Models, and the detailed type descriptions are both key business inputs to defining integration logic within WebSphere Business Integration Server. While WebSphere Business Integration Server ships with some type descriptions and sample collaborations of its own, these do not have the benefits of the richer model-based approach of the IFW Object Models.

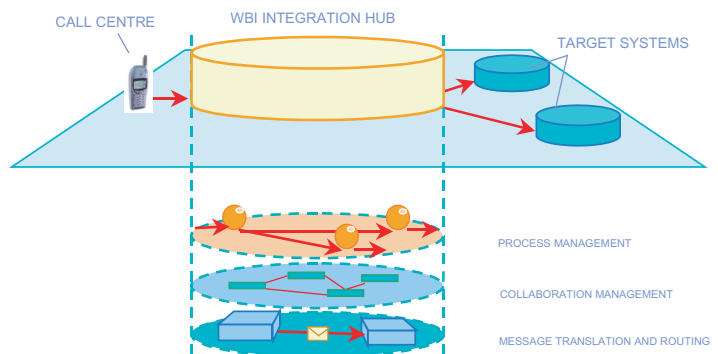
The IFW Object Model generators are capable of directly exporting a WebSphere Business Integration Collaboration repository, the type descriptions of which directly relate to the type descriptions used within the underlying WebSphere Business Integration service architecture, derived from the same model set.

Example Scenario

As an aid to illustrating some of the topics presented in this paper, this section presents an example scenario based around the content of the IFW Banking Accelerators, showing the technologies and tools used at each level in the overall integration architecture.

Consider the following integration architecture, which is a simplification of the topology presented earlier in this paper.

Our scenario will focus on the Critical Business Process “Activate Loan Arrangement”.



Example Integration Architecture

Our scenario will focus on the Critical Business Process “Activate Loan Arrangement”. This is an asynchronous, interruptible business rules intensive process typical of those discussed earlier. In the course of executing this business process, several examples of high volume synchronous transactions will be encountered, such as ‘test funds availability’. A fragment of this business process is illustrated below. For the purposes of this document we shall focus on just this fragment.

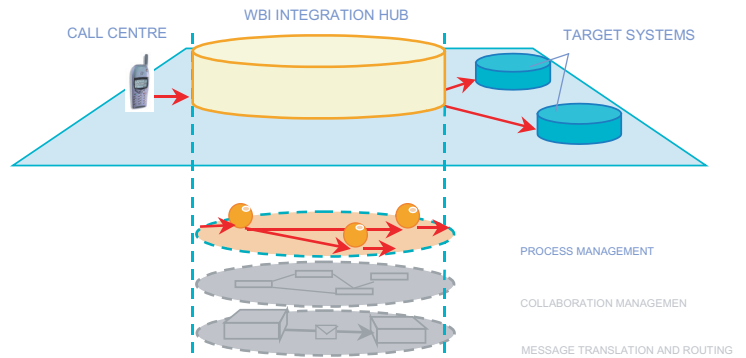


Fragment of “Activate Loan Arrangement”

Assume that a customer initiates the process through a call center by dialing in to accept and activate a loan arrangement that has already been defined and agreed upon. Note that the Critical Business Process model also details these phases of the lifecycle of an arrangement. They are simply being excluded here for clarity.

Responding to the call from the customer, the call center employee initiates the business process ‘Activate Loan Arrangement’. The process description, as described by Business Services Accelerators will have been customized by the Financial Institution with additional requirements as needed. This customized process can then be exported to the WebSphere Modeler and Monitor where simulations may be run to optimize the process. The process is then deployed within WebSphere Business Integration, where it is now being executed.

Responding to the call from the customer, the call center employee initiates the business process 'Activate Loan Arrangement'.



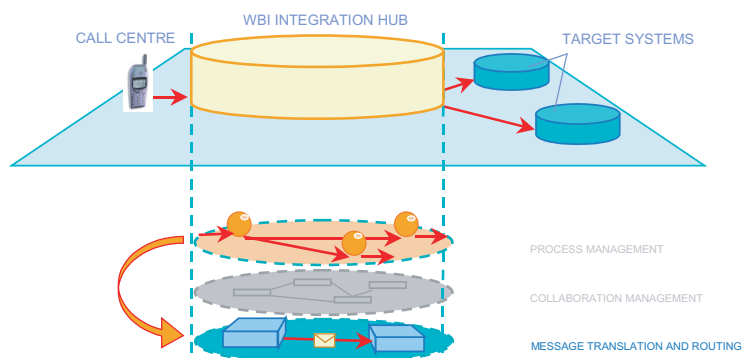
Invoking the Business Process in WebSphere Business Integration

Record Arrangement Acceptance Details

The first step in this business process is “Record Arrangement Acceptance Details”. Analysis of this requirement through the IFW Object Models as use cases, and down into service design results in the business service “recordCommunicationDetails” on the business interface “ICommunicationAcceptance”. This business service exposes the capability to store the details of any inbound communication to the Financial Institution, including the details of the communication, and the content of the communication itself.

The activity “Record Arrangement Acceptance Details” of our business process executing in WebSphere Business Integration can build an instance of this message and post it through WebSphere Business Integration messaging to store any detail of the arrangement acceptance, such as the date, time and communication medium of the acceptance. This is an example of the posting of a synchronous message through WebSphere Business Integration messaging by a Business Process executing in WebSphere Business Integration.

This is an example of the posting of a synchronous message through WebSphere Business Integration messaging by a Business Process executing in WebSphere Business Integration.



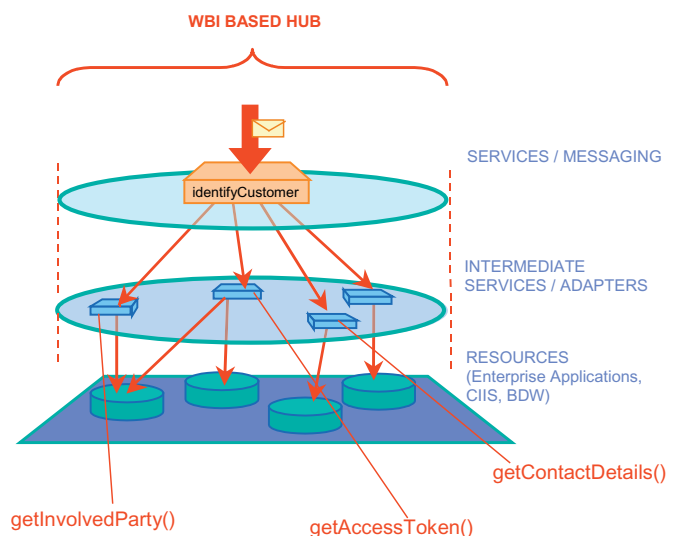
Supporting a Business Process with WebSphere Business Integration

Identify Customer

The next step in our business process deals with authenticating the caller and verifying that they are who they claim to be, and to retrieve any existing details about that customer. Again this is a case of a business process needing to make a synchronous call into a service architecture. This is achieved through the posting of an XML message based on the object models through WebSphere Business Integration. In this instance, we shall focus on how the receiver of this message deals with the request. Assuming that there is an existing system within the organization capable of performing authentication, the receiver of the WebSphere Business Integration request (i.e. the implementation of the business service) must transform this enterprise-wide request into something that the legacy code will understand. Additionally, the legacy system may not provide a one to one match for the specified service. In this case, a number of intermediate services will be invoked to support the business service.

In this case, we will assume that the object model's business service "identifyCustomer" requires the execution of a number of intermediate services to retrieve any existing customer information having performed this authentication.

These intermediate services may be implemented in a variety of ways.



The Implementation of "identifyCustomer"

As mentioned earlier, these intermediate services may be implemented in a variety of ways, but here are considered to be J2EE beans based on the generated output of the IFW Object Models. The receiver of

the message “identifyCustomer” then manages the required calls into the J2EE beans to perform the required sub-steps of the service (getInvolvedParty, getAccessToken, GetContactDetails...). These J2EE beans will then handle the invocations of the legacy code in whatever way is appropriate, perhaps invoking COBOL code to retrieve the details of the caller.

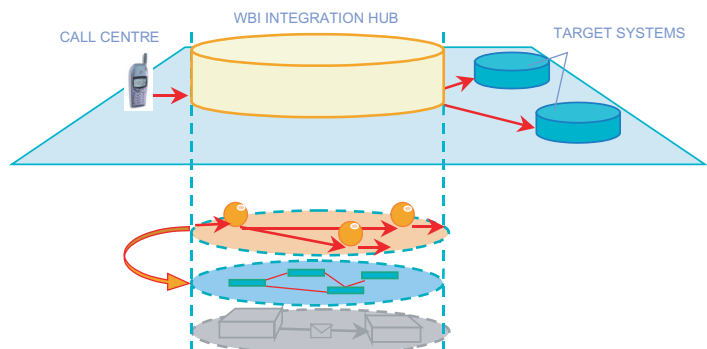
Compare Arrangement Acceptance Details with Arrangement Acceptance Document

The next step in the business process is potentially a manual one. The call center employee, or perhaps another employee within the Financial Institution, is responsible for checking that an arrangement acceptance document has been received by the Financial Institution, and that this document is valid and matches correctly with the details now being provided by the caller. Manual process steps like this are handled by WebSphere Business Integration’s process management function, and are potentially posted to an employee work list for later execution. While these activities are not directly resolved by the execution of a business service, it is likely that a number of calls will be made to the service architecture to perform the required task.

Test Funds Availability

The final step in our process fragment (but not the final step in the process as defined by the Critical Business Processes) is to test for the availability of funds required under the loan arrangement. Again, this is potentially a direct posting of an WebSphere Business Integration message based on the object models to one or more back end systems. For the purposes of this example, however, we shall assume that this step is being performed through WebSphere Business Integration collaboration management, which will perform a number of predefined steps as defined by a ‘collaboration’.

The final step in our process fragment is to test for the availability of funds required under the loan arrangement.



Invoking a WebSphere Business Integration Collaboration

Chapter 5. Summary

This paper has looked in some detail at the products within the WebSphere Business Integration suite and their related toolsets. Key to these discussions has been the realization that the capability to handle process executions and application connectivity is not the complete picture of an enterprise wide integration initiative.

Business modeling plays an essential role in defining the actual processes, business services and types that are required to support the business of a Financial Institution. The IFW Banking Accelerators, are key to business modeling, providing not just 80% of the content required in a typical institution, but a formalized analysis and design methodology to customize this content to the needs of the organization.

The IFW Banking Accelerators provide an enterprise-wide view from which a strategic approach to services development can be achieved.

The IFW Banking Accelerators provide an enterprise-wide view from which a strategic approach to services development can be achieved. The WebSphere Business Integration product suite provides the means to construct and deploy that enterprise-wide view, ultimately delivering the benefits of increased responsiveness, reduction in total cost of ownership, and increased value and reach of products and services.

More Information

For more information relating to the IFW Banking Accelerators contact the FSSC helpdesk : fssc@ie.ibm.com

WebSphere Business Integration:

www.ibm.com/software/integration/integrate

Information FrameWork (IFW):

www.ibm.com/industries/financialservices/ifw

IFW Critical Business Process Models:

www.ibm.com/industries/financialservices/cbp

IFW Object Models:

www.ibm.com/industries/financialservices/ifwobject



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