



Technical White Paper

*Deliver composite applications
by orchestrating services
derived non-intrusively
from any application.*

Table of Contents

BUSINESS IS IMPROVING, SO WHAT’S THE PROBLEM?	1
SIMPLIFIED BUSINESS PROCESSES AND EXISTING APPLICATIONS	1
WHO OWNS AND CONTROLS YOUR APPLICATIONS?.....	2
JACADA FUSION – RAPID PROCESS SIMPLIFICATION	4
SERVICE ORIENTED ARCHITECTURES (SOA) AND COMPOSITE APPLICATION DEVELOPMENT.....	5
THE JACADA FUSION PLATFORM	6
<i>Non-intrusive Service-Enablement</i>	7
Development Process.....	8
Recording a Transaction	9
Modifying and Extending a Transaction.....	10
Generating and Deploying a Web Service.....	10
Service-enabling Windows Applications.....	11
Service-enabling Web Applications	12
Service-enabling Host Applications	12
<i>Orchestration and Composite Application Development</i>	13
Import the Web Services.....	15
Create the Process Flows	15
Add Business Rules	15
Perform Data Transformations	15
<i>User Interfaces</i>	16
<i>Analytical Metrics and the Digital Dashboard</i>	17
<i>Management and Administration</i>	18
SUMMARY	19

Table of Figures

Figure 1 - Proliferation of Platforms and Applications	2
Figure 2 - Loosening the dependency between applications and processes	4
Figure 3 - The Jacada Fusion Platform.....	6
Figure 4 - Selective functionality of an application turned into services	8
Figure 5 - Cycle of Service Enabling.....	9
Figure 6 - Deployment.....	10
Figure 7 - Graphical orchestration of services.....	14
Figure 8 - Graphical data transformation.....	16
Figure 9 - Digital Dashboard.....	17

©Copyright, Jacada Ltd. 2004

Jacada is a registered trademark of Jacada Inc. Other company, product, and service names are trademarks or service marks of their respective companies.

Business is Improving, So What's the Problem?

Today's organizations are undergoing massive evolution. Gone are the days of rampant cost cutting. No longer do we look to eliminate purchases unless they're absolutely 'life sustaining' to the business. Instead, today's environment is one where new opportunities are the focal point of investment discussions.

It sounds a little like the 1990s, and in some ways it is, but there's a catch. We have the experience of the 1990s to ensure we don't get caught up in hype, overspending, multi-year package implementations, restrictively proprietary products, and ROI that must be measured in years.

It is up to IT to help the business realize its full potential without incurring massive costs, unrealistic returns, and failed projects that can demoralize an entire organization.

This whitepaper discusses how Jacada® Fusion can be a significant asset in helping IT achieve these goals by enabling the business to automate, improve and simplify discrete business processes. By providing paybacks measured in single-digit months, and utilizing industry standards, Jacada Fusion can be IT's best friend and the greatest ally of business.

So let's start at the beginning; that is, let's start with the business process.

Simplified Business Processes and Existing Applications

It is often said that business people view the world from the top down, and IT from the bottom-up. Each area focuses on the domain expertise inherent in its position. So when business looks to optimize, improve or simplify processes, it doesn't think in terms of platforms, applications and architecture. Business only thinks in terms of how to simplify the process to achieve business objectives.

Unfortunately, any real conversation around process improvement quickly turns into a lesson in the inventory and history of your organization's IT portfolio and why application-level changes are required to support new initiatives. This is where perceived rigidity at the process level starts.

It is, in fact, the *technology* supporting the business processes that is inherently rigid, resulting in inflexible processes which are not easily or rapidly changed to meet the demands of business.

While applications are tied to a single platform and typically serve a distinct business function, *processes* span multiple applications, platforms and functions. Processes within an organization are usually created, and supported, by the acquisition or development of new applications resulting in continued technology expenditures. That is, the *processes* become inextricably tied to the *applications*, and vice-versa.

When processes are resistant to change the business suffers and the opportunity cost is high. This is not even referring to enterprise-wide processes, but simple processes one would expect to be able to easily control: Processes that require no more than a single person performing a task that requires interaction across multiple desktop applications.

A contact center is a prime example of an agent using multiple applications on a desktop to perform tasks such as placing an order, verifying an address or coding a health care claim. To

optimize any of these processes typically requires modification or replacement of the underlying applications that reside on the agent’s desktop.

Given today’s rapid ROI requirements and the constant change in processes, replacing applications with packages or undertaking custom development is not a viable option. This means rapid, flexible integration across applications is a must.

The problem is that most departments, and organizations, do not own and control the applications that people use to perform their jobs, and ultimately, keep the company running.

Who Owns and Controls Your Applications?

Over the past 40 years, thousands of custom and/or packaged applications have been deployed by organizations in hopes of automating functions, cutting costs and increasing revenues. As this proliferation of software in the organization continued, applications were only added, not replaced. The result is a myriad of applications that support specific functions that run on Windows, Web and host platforms (see Figure 1).

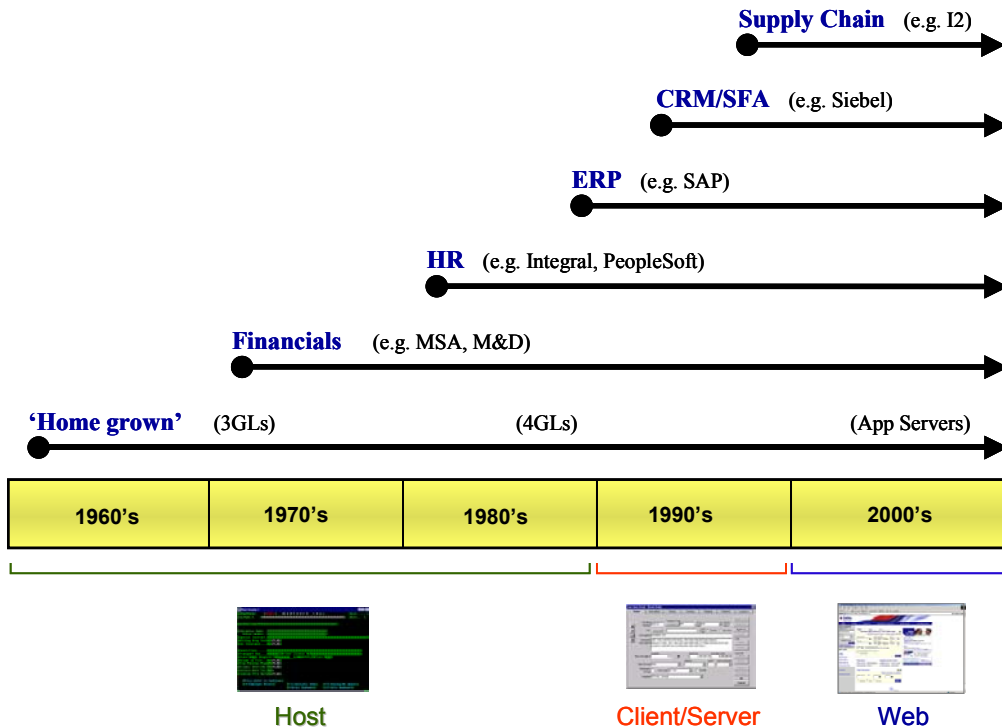


Figure 1 - Proliferation of Platforms and Applications

These applications are an organization's natural resource to harvest key business functions, and orchestrate them to work together in new composite applications that can rapidly meet business' goals and objectives.

Problems exist, however, because organizations typically do not have the ability to quickly change, replace, or rebuild systems, because they:

- Don't own the underlying source code,
- Built the application so long ago it is completely incomprehensible,
- Can't use or don't want to license generic APIs,
- Don't own and control the usage of public applications (i.e. Web sites),
- Have too many corporate users being served by the same systems, making specific changes impossible, or
- Don't want to modify a packaged system.

Or very simply, IT doesn't have the time or energy for multi-year intrusive solutions that are going to require change as the business continues to adjust to market conditions, regulatory compliance requirements, and growth objectives.

What is needed is an approach that separates processes from applications, without requiring engineering effort, to allow new processes to be rapidly constructed or changed.

Jacada® Fusion – Rapid Process Simplification

The premise of Jacada Fusion is to enable process changes and improvements quickly -- by surfacing key business functions as Web services without requiring access, knowledge or even ownership of the underlying code or database, and then by orchestrating these services in the assembly of new composite applications.

Jacada Fusion removes the hard coded dependency between the process and the underlying applications (Figure 2), allowing new processes to be created, and optimized, on-demand, by repurposing existing functionality.

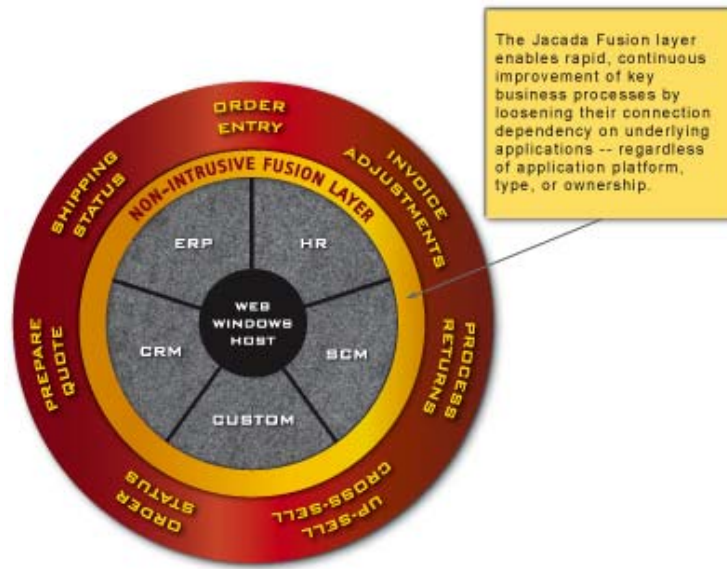


Figure 2 - Loosening the dependency between applications and processes

Jacada Fusion enables organizations to implement significant process improvements *without requiring any modification to existing business systems or infrastructure*. This means a rapid, risk-free, non-intrusive approach to improving productivity with easily measured ROI. That is the beauty of the Jacada Fusion approach. It enables you to deliver a new, streamlined, easy-to-understand, perfectly designed interaction for your users, customers or partners, regardless of the source applications they use today.

Jacada Fusion is unique in that it enables you to build composite applications from any packaged or custom application, whether based on a Windows, Web or host platform. Leveraging 13 years of experience in reusing mission-critical application functionality, and adhering to the principles of service-oriented architectures (SOA), Jacada products can quickly and easily service-enable Windows, Web, mainframe, iSeries (AS/400), and VT-based applications.

Before explaining further specifics of the Jacada Fusion platform, it is worthwhile to explore how Jacada Fusion leverages the concepts of service oriented architectures and composite application development.

A clear understanding of this will assist in understanding how Jacada Fusion not only maximizes process flexibility, but also how it aids an organization in rapidly realizing significant ROI.

Service Oriented Architectures (SOA) and Composite Application Development

“Growing interest in ‘composite’ applications (applications built by composing existing applications or services; a.k.a. systems-of-systems, federated applications, etc.) reflects a long-held desire to build applications without coding, to react quicker to the need for new functionality and to achieve process improvement. Although these drivers have existed for many years, a confluence of technologies (thin-client interfaces, process automation, Web services, the emergence of service-oriented architecture [SOA], and orchestration tools) is bringing this concept to the forefront.”

META Group; “Three Paradigms for Composite Applications;” David Yockelson, Craig Roth, July 23, 2004.

The industry trend today is to deploy Service Oriented Architectures as an enterprise-wide initiative to allow companies to build composite applications -- that is, applications that are rapidly assembled from pieces and parts of existing applications. As the inventory of available services within a company grows, the requirement for writing code or applications from scratch will diminish. Indeed, the full benefit of an SOA is only reached when existing services can be used, assembled and orchestrated into new composite applications. Composite application development provides for much faster delivery of applications and increased business value.

The biggest challenge in moving to an SOA is not the implementation of the architecture, but the ability to rapidly provide services to be used within this framework. Applications in use today are not “SOA ready” and do not transform easily, if at all, into a set of reusable services.

Because of the large inventory of existing applications within an organization, a rip-and-replace strategy is unfeasible. Even if funding and time constraints were not an issue, the rip-and-replace approach would be highly disruptive to the business, would be error prone and could ultimately have dire consequences. ***The key to a successful SOA implementation is the realization that companies have, and need to reuse, functionality present in their applications today.***

Until now, moving to SOA most often resulted in the drawback of having less functionality than before, albeit in a better framework.

By using Jacada Fusion, the organization is able to capture and reuse all the existing application functionality within the new SOA framework, without requiring changes to a single line of code or access or ownership to the existing applications. This allows the business to not only continue, but to increase the ROI on application development and software purchases. Complex business logic inherent in these applications and or processes can remain untouched, yet be reused by new composite applications and processes.

The Jacada Fusion Platform

The Jacada Fusion platform (see Figure 3) harnesses the benefits of SOA and the resultant speed and flexibility of composite application development with a low-risk approach and rapid, cost-effective development.

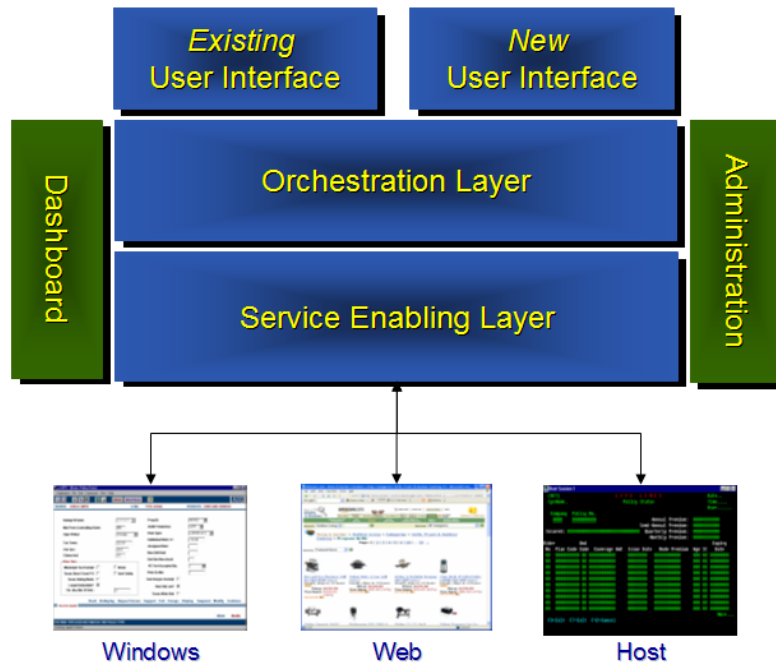


Figure 3 - The Jacada Fusion Platform

The steps involved in implementing a Jacada Fusion solution are:

1. Rapidly, and non-intrusively, **create Web services** from existing Web, Windows and Host applications, to surface key business functions.
2. **Orchestrate** these services together to form simplified and automated processes.
3. Use **new or existing user interfaces** to initiate and interact with these new processes.
4. Centrally **manage** the runtime, and provide **real-time data** feeds previously unavailable.

The following sections will expand on each step.

Non-intrusive Service-Enablement

"In practice, enterprises can achieve fusion when they successfully enable current and new applications to support business processes. Service-oriented business applications (SOBAs), a new style of business applications built with Web services standards, play a key role in enabling fusion."

Gartner; "SOBAs and the Defining Traits of Business Process Fusion;" S. Hayward, C. Abrams, W. Andrews; January 28, 2004.

Jacada Fusion uses a new and innovative approach in the creation of services, which is that of non-intrusive service-enablement. Instead of having to develop new services programmatically, Jacada Fusion allows you to service-enable any existing applications and systems without requiring access to or understanding of the underlying source code. These applications do not need to be changed, do not require programmatic access such as APIs and can continue to function in their normal manner.

The benefits of being able to non-intrusively service-enable applications include:

- **Speed** – By not requiring programmatic access, applications are service-enabled via a graphical studio environment, reducing the development cycle to weeks or months.
- **Flexibility** – Selective functionality within an application can be service-enabled as required by the business, and new services can be created as needed.
- **Reduced Risk** – By not modifying the application, risk is minimized by not introducing possible defects, and by using existing functionality within the application, no risk is incurred trying to duplicate intricate business logic.

Jacada Fusion also reduces the development skills required to accomplish this task. Jacada Fusion provides a comprehensive toolset with graphical studios that allow you to simply record the parts of the application that are to be converted into Web services. Top development talent is thus made available to take on more challenging development requirements.

When service-enabling an application, the services themselves can be very thin slices of the original application, such as simply adding a customer record, or they can be more elaborate, where one service encompasses the functionality of multiple screens in the original application (see Figure 4).

Analysis of your business process will determine not only what services are needed, but also what level of granularity is required. The benefit of using Jacada Fusion is that the flexibility allows you to create services repeatedly and at different levels of granularity until the right mix is found. This will be determined by the process and can be changed as often as required. As the business moves towards SOA, services can be created, used and tested in an iterative development approach.

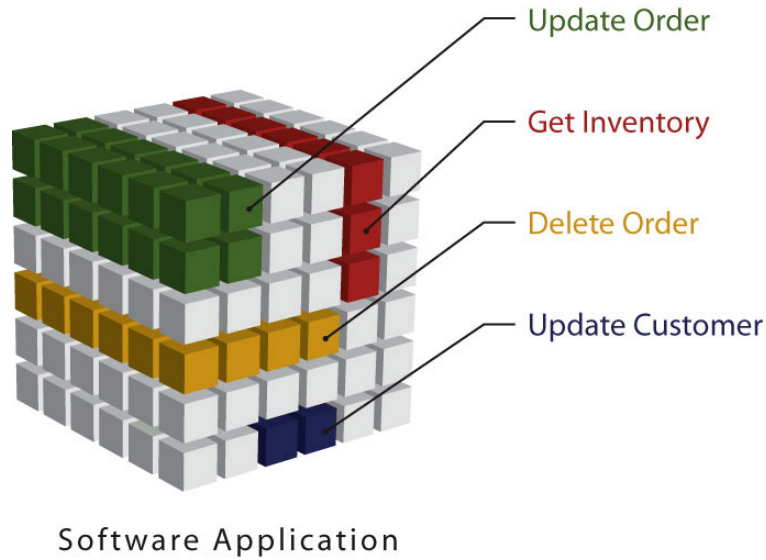


Figure 4 - Selective functionality of an application turned into services

An important distinction should be drawn here. Services developed through Jacada Fusion are generic, open standard Web services that can be used in any environment that supports web services, whereas the traditional API approach is proprietary and requires significant effort to allow for the interoperability of APIs and applications.

Typically, APIs have been designed to expose a set of features with a “take it or leave it” approach. By using Jacada Fusion, the desired functionality can be selectively service-enabled, and new services can be continually created to solve different problems.

Development Process

The process of service-enabling applications is consistent across Windows, Web and host platforms:

1. Define the transaction by ‘recording’ the interaction with the applications.
2. Optionally modify and extend the transaction.
3. Generate the Web service interface.

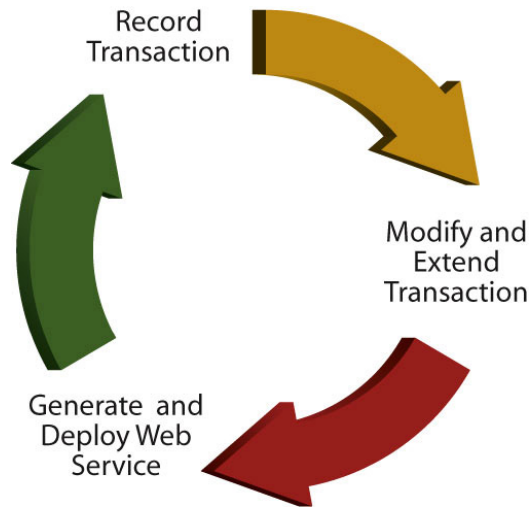


Figure 5 - Cycle of Service Enabling

This process is not static and is repeated as necessary to support new or changing business requirements (see Figure 5). The Jacada Fusion platform makes the process extremely easy and fast.

Recording a Transaction

Services are created from existing applications by simply recording the interaction of a user with an application.

Recording a transaction is accomplished interactively by using the application that is being service-enabled while in a ‘record’ mode enabled by the Jacada Fusion studio.

Jacada Fusion automatically captures any series of user interactions including:

- Launching the application,
- Navigating screens,
- Entering or retrieving data,
- Performing selections, and
- Pressing push buttons or selecting function keys.

To generate a Web service, simply navigate through the application, define the input and output fields, optionally add any additional logic and finally, generate the Web service.

The developer simply starts the recorder and mimics the steps and actions that a user would typically take when performing the specific function to be exposed as a Web service.

Optimization should be performed at this time as it relates to a reduced sequence of steps to perform the same task. This will result in a faster, more efficient, run-time deployment. No hand-coding is involved in this recording step, as the tools provide a visual point-and-click process to complete the task.

Modifying and Extending a Transaction

Once the recording process is complete, the transaction can be *optionally* modified with the provided tools to enhance or extend functionality. Because open standard code is generated, the developer has the option to drop directly to the code to add more sophisticated logic.

Again, this step is entirely optional and is typically used to implement processing that is outside of the scope of the original application.

Generating and Deploying a Web Service

Once any code additions are completed, the transaction is generated into a code-based script for execution at runtime. The script is generated as standard language classes (C#, Java) along with generic, open standard, reusable Web services interfaces. The script is played back by one of the platform-specific (Windows, Web, host) Jacada Fusion engines.

Jacada Fusion also generates a Web service proxy and associated WSDL that is used to initiate the script within the engine. Once the appropriate engine receives the request, it invokes the necessary classes, ‘driving’ the original application to ‘replay’ the recording (see Figure 6). To drive Windows applications, the engine resides on a Windows server platform. Host and Web applications can be driven with a Java-based engine residing on a standard J2EE application server.

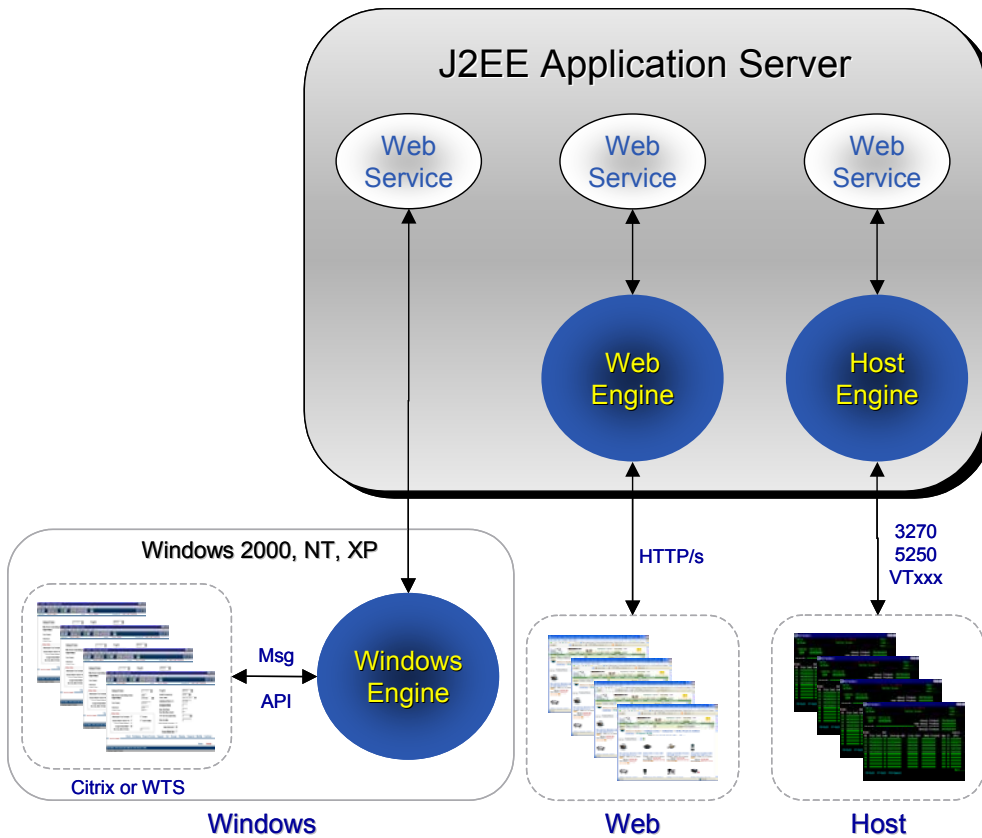


Figure 6 - Deployment

All of this is entirely transparent to the Web service consumer.

Additionally, the original source applications no longer need to reside or execute on a user's desktop. Instead, all applications (Windows, Web and host) can execute on a server, where they will satisfy incoming Web service requests.

What is described above is the general approach to creating Web services from Windows, Web and host applications. Each platform requires specific features and capabilities to leverage its strengths, and address technical nuances. The next sections review these specifics.

Service-enabling Windows Applications

There are many Windows client/server applications in use today -- many rich with business logic that has become entrenched within the application. These line-of-business applications can quickly and easily be used to surface Web services, regardless of the organization's ability to access, understand or modify the source code.

The Jacada Fusion Windows Engine communicates with the Windows application by *integrating with the Windows Messaging Layer* – it is not based on positional attributes or pixel-level counting. This ensures a highly reliable connection that is not dependent on the window's appearance, but instead speaks directly to the application's individual controls and components.

The benefit of this direct access over 'screen scraping' techniques is that the underlying application can change appearance, within reason, and the service-enabled transactions will continue to function. It is a far more robust method of accomplishing interaction with the application.

Jacada Fusion has the ability to work across many types of packaged applications, including the Windows client/server versions of:

- Siebel
- Clarify
- Remedy
- Onyx
- SAP
- PeopleSoft
- Oracle.

Additionally, Jacada Fusion can service-enable any custom Windows client/server application that was developed with:

- Visual Basic/ActiveX
- MFC
- PowerBuilder
- Delphi
- C/C++
- Smalltalk
- Java.

Once a Windows application is service-enabled, an important architectural transition can occur. The applications that were previously running on each individual desktop can be centralized on a server, with this configuration satisfying all incoming Web service requests.

Specifically, Jacada Fusion leverages the capabilities of Citrix or Windows Terminal Services to both host the Windows application on a Windows server, and support the management of multiple, concurrent sessions.

Service-enabling Web Applications

Web-based Internet applications are today's ubiquitous application style. It's hard to imagine building a new application that isn't Web-based. In addition, we are more and more dependent on public or partner Web applications to perform our jobs.

Who doesn't look up codes, addresses, names and numbers, or book flights or hotels, with an application on a publicly available site? Now imagine trying to automate that interaction or integrate it with other business processes. This is the ultimate example of not having ownership or control.

Jacada Fusion provides for rapid and non-intrusive integration with any Web-based application, without requiring any modifications or access to the source. Jacada Fusion offers a unique approach to integrating with Web applications by using the application's user interface to encapsulate the processes and data into Web services, which can then be integrated with newly developed and existing applications.

By recording user interaction with one or more Web pages, the HTTP communication is analyzed and XML scripts are generated containing detailed information that enables the runtime engine to repeat this transaction.

Recording, and subsequent replays, are performed at the protocol level, providing for a very robust and reliable communications mechanism. There is no pixel level 'screen scraping', and no positional-based requirements.

The runtime engine is Java-based and will run on any J2EE certified application server. A Web proxy is provided to handle incoming SOAP Web service requests and to communicate with the runtime engine, which in turn will use a socket-based mechanism to communicate with the Web site/Web application.

Additionally, Jacada Fusion supports access to Web pages over HTTP and HTTPS, as well as pages that include embedded JavaScript.

Service-enabling Host Applications

The host-based systems that have evolved over the past twenty to thirty years are the bread-and-butter of many organizations' application portfolios. Known for their computing horsepower and reliability, the host applications we use today are the cornerstones of our businesses.

There are many low-end approaches to reusing character-based host applications (such as HLLAPI programming against an emulator), and none come close to the power and simplicity of Jacada Fusion. Using a proven point-and-click metaphor, Jacada Fusion's host integration capability has been utilized in thousands of application scenarios that require enterprise class access to host applications.

Recognized as a leading technology by Gartner, and a certified host connector for SeeBeyond, CA, BEA, Siebel, Oracle, and others, Jacada Fusion's development process and Host Engine represent one of the most productive, scalable and reliable technology solutions on the market.

Jacada Fusion can be used to integrate mainframe, iSeries and Unix-based host applications which support the following protocols:

- TN3270, 3270E model 2-5.
- TN5250, 80 and 132 column displays.
- VT100, VT220, VT320, VT420
- TPF
- DG400.

Unlike traditional row/column screen-scraping approaches, Jacada Fusion leverages a proven algorithm to make screen-based access perform at an extremely high level of reliability.

The Web services generated to access these host applications can be deployed in a stand-alone Java-based engine, or as a JCA resource adapter in any J2EE-compliant application server.

Orchestration and Composite Application Development

The goal of composite application development is to maximize the speed and flexibility of delivering new systems to support the business. Now that we have developed Web services that map to logical steps in our process, the next step in development is to orchestrate the execution of the services, to string together the steps in a logical fashion.

Jacada Fusion's value derives from its overall approach – that is, the speed and flexibility it offers to simplify and automate business processes. In addition to first-time automation, Jacada Fusion is equally adept at handling the cycle of continuous change – allowing the Jacada Fusion-built application to adapt to changing business needs at a near real-time rate.

The primary enabler for this speed is the ability to surface Web services non-intrusively, as described in the previous section. Nothing is faster!

What we look for in orchestration is the ability to visually coordinate the execution of the services, without writing code (see Figure 7). That is, defining the execution of the services using visual drag-and-drop technology, versus hand coding Java or C#. Not only is a hand-coded approach slower and more expensive, it is highly resistant to change, with a lot of embedded logic that is hard to modify when processes change.

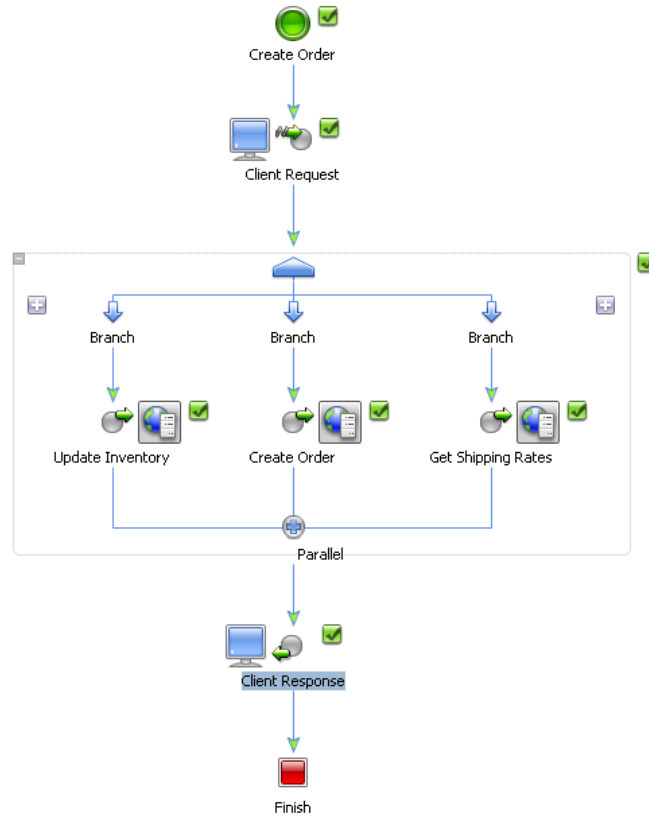


Figure 7 - Graphical orchestration of services

It is important to note that Jacada Fusion can leverage third-party orchestration tools as well as those provided with the toolset. This means that you can use tools from BEA, IBM, Microsoft or any major platform in conjunction with the services created by Jacada Fusion. Whatever you use, the most critical point is eliminating hand coding by using a visual environment to perform the orchestration.

Assembling services to create a new composite application is accomplished by using visual workflows. Services can be chained together in various combinations to form a new service or process. At each step in the chain, dynamic rules can be applied (“If credit limit > \$500, call Approval Service, else call Manager Service”), data transformations can be executed (“Remove symbols from telephone number before calling the update service”), and metrics can be accumulated.

The result is an extremely rapid deployment cycle that is able to adapt and change with the business.

After the applications have been suitably service-enabled, the orchestration can begin. This is typically done using the following steps:

1. Import the Web services.
2. Create the process flows.
3. Add optional business rules.
4. Define data transformations.

Import the Web Services

Orchestration involves the visual assembly of applications by chaining together functionality. More often than not, this functionality is exposed as Web services; however, the orchestration layer is quite capable of including native language (e.g. Java or .NET) or native application (e.g. SAP) calls in the interest of efficiency.

The first step is to import and catalog the services. In the case of Web services, this is accomplished either by directly importing the WSDL, or by locating an instance of a UDDI registry. Based on the underlying WSDL, the Jacada Fusion orchestration layer will parse out the method calls and catalog these as Business Operations which can be used for process assembly and composite application development.

Create the Process Flows

Once all the business operations have been cataloged, the processes can be designed using the visual workflow component. This allows for the graphical creation of processes, or scripts, using standard drag-and-drop technology.

Orchestration provides many additional sophisticated features such as fan-out and fan-in (see Figure 8 above) which allow tasks to be executed in parallel. Standard IF/THEN/ELSE logic can also be applied, along with all supported BPEL constructs.

Processes can themselves be used as a node, or sub-process, of another process. This process composition is a powerful enabler to rapid application development, resulting in high degrees of reuse and abstraction.

Add Business Rules

Business rules can be created at any time to drive conditional based logic. An important point of distinction here is that business rules operate outside of the business process. Thus, rules can be changed to either override the business process (that is, change the flow), or simply to change the nature of the business transaction being performed.

An example of a rule might be as follows:

ID	Rule condition	Rule Expression	Action
1	IF	Order.Quantity > 100	shippingRate=0
	ELSE		shippingRate=50

Rules can be created using a simple point-and-click interface. Complex rule implementations can be written in a scripting language and can involve the use of additional business processes or Web services.

Perform Data Transformations

The very nature of orchestrating services and functionality from various disparate applications implies that the data flowing between the various services will not adhere to any standard in terms of formats and protocols. To solve this problem, visual data transformation allows the mapping and conversion of data from one format to another (see Figure 8).

In addition, processes may be initiated based on an event occurrence, which includes data appearing on a TCP/IP socket, files in a directory, email, MQ Queue, FTP, SQL or some other custom inbound adapter.

Analytical Metrics and the Digital Dashboard

Once new service-enabled applications are assembled, an extremely important capability can be introduced – Business Activity Monitoring (BAM).

BAM provides unique insight into the business process that was automated (see Figure 9). By using the Jacada Fusion framework for composite application assembly, metrics and key performance indicators are easily derived in real-time. This will allow the business to gain valuable new insight into the operations of the organization.

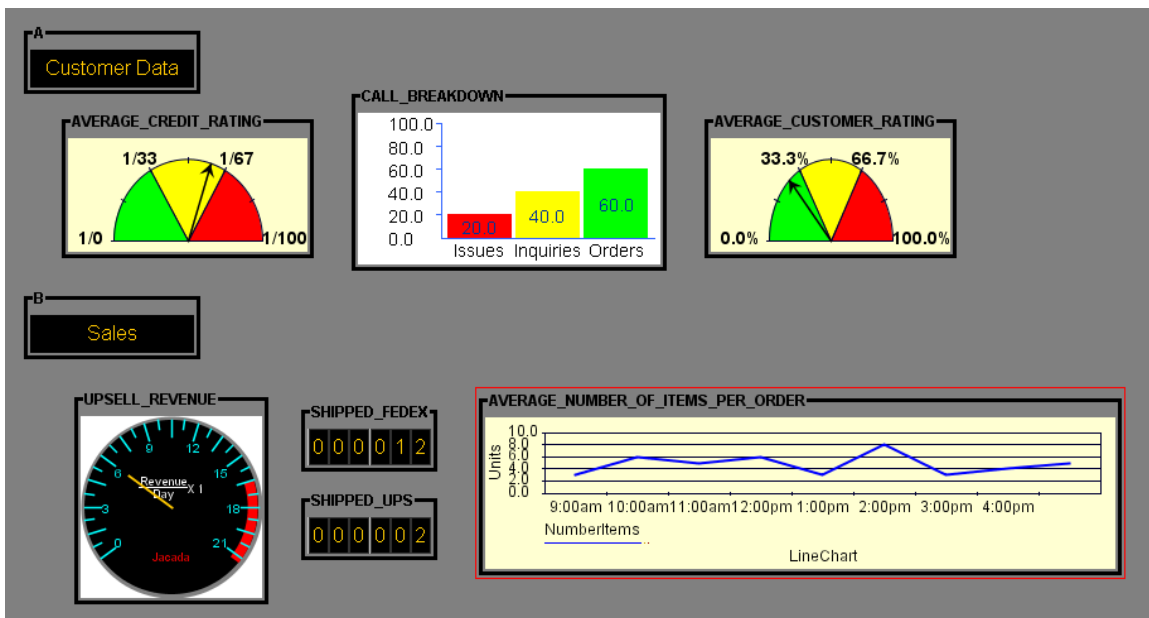


Figure 9 – Digital Dashboard

BAM gains particular significance when viewed in the context of a specific domain. In contact centers, for example, the business typically has the ability to measure “outside” metrics like average call time, hold time, or number of calls on hold.

Jacada Fusion provides the ability to measure “inside” metrics like real-time details about customers, trends, orders, etc. Any data that’s part of the process model can now be consolidated and monitored.

This information can be used to drive behavior within the system by feeding it directly back into the process model. In this way, decisions about pricing, or when and what to up-sell, can be determined in real-time based on thresholds or trends around things like sales or inventory levels.

These metrics can be added, deleted or modified after the application has been assembled. This is no longer a core development task, and the addition of a new metric does not involve going back

to the development phase or modifying code. A point-and-click interface provides unique, real-time intelligence about a process, where prior to Jacada Fusion, data did not exist.

Management and Administration

Jacada Fusion provides end-to-end management and administration capabilities for the entire platform. In addition to providing the standard management capabilities, such as managing server clusters (starting, stopping etc), the solution also provides for complete service management, auditing and tracing capabilities.

These features provide a comprehensive management framework for the entire Jacada Fusion platform, allowing for efficient, centralized administration.

Summary

Jacada Fusion is the first platform that allows organizations to non-intrusively service-enable all applications on Web, Windows and host platforms, and orchestrate those services into new composite applications. This process is accomplished without requiring access to or ownership of the source code, and without requiring any modification to the original application.

Jacada Fusion enables fast and flexible process simplification and automation. The strength of Jacada Fusion is in its approach; that is, the ability to rapidly automate, and even more importantly, the flexibility to change and adapt along with business requirements.

By enabling IT to truly empower the business to seize new opportunities, Jacada Fusion is a strategic solution that delivers benefits within weeks of adoption.

For more information about Jacada Fusion call Jacada or visit the Jacada Web site at www.jacada.com.

Jacada Contact Information:

1-800-773-9574 (U.S.)
+44 20 3178 4803 (U.K.)
info@jacada.com
www.jacada.com