

***Ultimus***<sup>®</sup>

Profit from the Process™

***Ultimus BPM and EAI***  
***Using Web Services for Standards based Integration and***  
***Comprehensive Business Process Management***

15200 Weston Parkway  
Suite 106

Cary, NC 27513

Phone: (919) 678-0900

Fax: (919) 678-0901

E-Mail: [info@ultimus.com](mailto:info@ultimus.com)

<http://www.ultimus.com>

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## Introduction

As the adoption of BPM systems into the enterprise accelerates, the demand for integration between human-centric workflow systems and business applications has increased. Successful BPM implementations require seamless integration between mission critical business processes and mission critical business applications, both internal and external to the enterprise. In many organizations, an enterprise application integration product, such as Microsoft's BizTalk Server, or Oracle BPEL is present to provide application to application integration services. Ultimus BPM provides seamless integration to these platforms using any of several methods including Web Services. This paper discusses Web Service integration between Ultimus and EAI platforms as well as some of the other tools Ultimus BPM provides to facilitate integration.

## BPM and the Enterprise

Enterprise application integration and business process automation have consistently ranked as two of the top 5 strategic technology goals for enterprises during the past 5 years. In a recent 2004 CIO survey, "Integrate/enhance systems and processes" was the number one technology priority listed. Enterprise integration has traditionally been comprised of complex, proprietary, point-to-point solutions. These solutions were typically time consuming and expensive to implement. Worse, they were difficult and expensive to maintain or change. In today's environment, wherever increasing competition and globalization requires rapid changes to business processes and the systems that support them, maintaining these complex point-to-point solutions is nearly impossible.

In the last few years, modern Enterprise Application Integration (EAI) platforms have become increasingly prevalent in many large enterprises. EAI platforms are particularly well suited to environments where high volumes, complex message transformation, or fixed application-to-application messaging are found. Furthermore, nearly all EAI products today provide some level of Web Service support. And, while EAI products have their limitations, they do provide some relief to IT departments charged with maintaining these integrations.

More recently, BPM systems such as Ultimus BPM Studio have brought greater flexibility and agility in developing solutions that automate mission critical business processes. Ultimus increases the agility of the business by empowering business owners to update their own business process in response to changing business needs.

Empowering the business process owners reduces the demands on IT resources and enables those resources to be deployed more effectively.

Enterprises today have many business processes that span departments, geographical locations, and may include external partners or even customers. (See Figure 1). Such processes require the integration between two or more applications between humans and desktop applications or between humans and back office systems. In these cases, businesses often deploy both a BPM solution and an EAI application.

For example, an Order Management application may need to initiate a procurement process in the BPM system. The request may be routed through an inquiry and approval process before the procurement process is initiated. Once the procurement completes, the BPM system is notified, and with the manager's approval, proceeds to initiate the shipping application and notify the customer of an impending shipment.

## **BPM and EAI system Integration**

Ultimus BPM provides several ways to integrate with EAI systems including Web Services, XML, text file, email, or custom .Net code. The unique environment and set of system capabilities in a given deployment will often dictate which technology or set of technologies is optimal with regards to speed and cost. However, in most cases, the first choice for system to system integration is Web Services.

Web Services provide a common interface language that enables disparate systems to communicate regardless of their underlying technology. And, because Web Services are based on standards such as SOAP and WSDL, they promise to lower the cost of integration. Ultimus BPM provides a Web Service automation agent that enables the business analyst to easily connect to a Web Service using simple drag and drop. Furthermore, Ultimus business processes can be exposed as Web Services simply by setting a Check Box. Since most modern EAI platforms also provide for some form of Web Service integration, Ultimus BPM can readily be integrated into the enterprise IT environment.

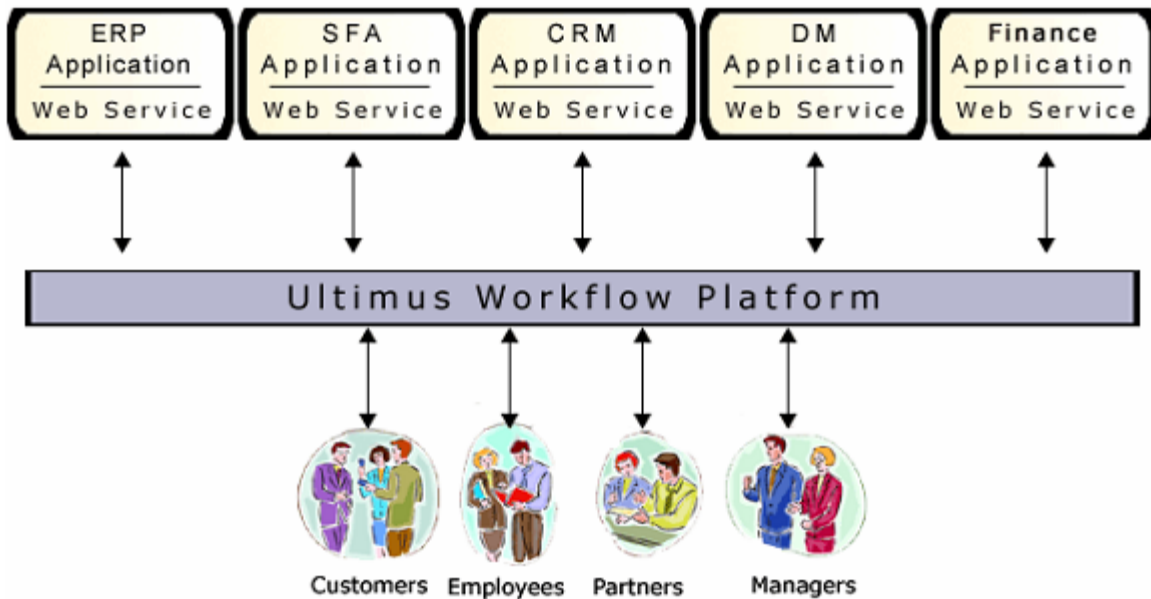


Figure 1

### Enterprise Applications with Standalone BPM

## Ultimus Web Services™

Ultimus Web Services support the two primary ways that customers and partners can use Web Services for their business process management efforts. Ultimus can consume 3rd party Web Services and Ultimus can expose its own Web Services for others to consume or invoke:

### *Ultimus as a Web Services Consumer*

#### **Ultimus Web Services Flobot™**

Use an Ultimus automation agent to invoke a 3rd party Web Service to automate the exchange of information between Ultimus processes and Web Services-enabled EAI products.

#### **Ultimus Events Web Service**

Invoke 3rd party Web Services based on Step events that occur during the execution of an Ultimus managed process. Step events are initiated on the completion of a Step, clicking a button in a form, the rejection of a task, or any of the other event conditions supported by Ultimus.

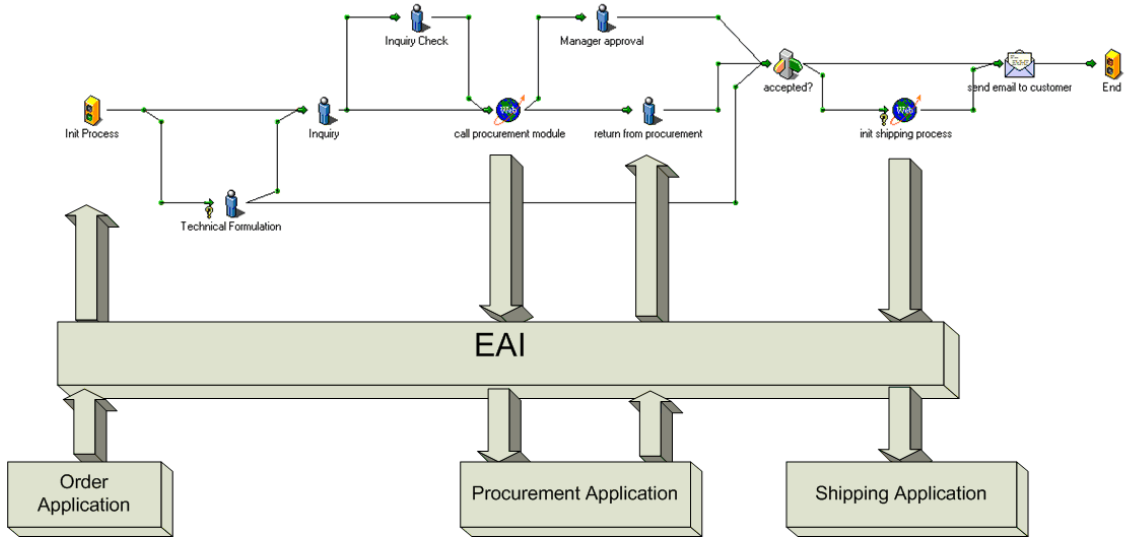
*As a Web Services Producer*

**Ultimus Process Web Service**

Expose an Ultimus business process as a Web Service that allows a Web Service-enabled EAI applications to invoke the Web Service to initiate a business process, complete a step, or perform other Ultimus operations.

**Example of EAI and BPM Integration: Accept Purchase Order**

A simple scenario might involve receipt of a Purchase Order, routing the purchase order for approval, checking for material availability and approval, and finally submitting the Purchase Order to the order fulfillment system.



**Figure 2**  
**Ultimus BPM Procurement Process Example**

As shown in Figure 2, an Order Management application receives an order and submits to the EAI server, in this case a BizTalk Server (BTS). BizTalk interprets the message and then initiates an Ultimus Procurement process via Web Services. Ultimus invokes a Web Service from the procurement system to receive information regarding the products availability for shipment. At the same time, Ultimus routes the Purchase Order to a manager based on business rules. Once the manager approves the purchase, and the procurement process completes its Step in the process, Ultimus BPM invokes the shipping Web Service on the BizTalk Server. Ultimus BPM completes the process by notifying the customer that the product is ready for shipping.

## Conclusion

Surveys have shown that more and more enterprises are adopting BPM as a way to increase agility and competitiveness in today's demanding business environment. A modern BPM system must provide tools to help rapidly integrate BPM into the enterprise's IT ecosystem. The Ultimus BPM Suite provides many tools to accelerate integration with modern EAI products including XML, email, as well as Web Services.

Ultimus Web Services provide a standard based method to integrate with enterprise application products, such as Microsoft's BizTalk Server, Oracle BPEL, and more. Ultimus BPM provides seamless integration to these platforms. With Ultimus BPM, enterprises can achieve the agility and responsiveness that is needed to compete in today's highly competitive global market place.