

ZAPTHINK ZAPNOTE™

EPICENTRIC *WEB SERVICES PORTAL PLATFORM AND USER INTERFACE SPECIFICATIONS*

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Abstract

Portals are being used to provide access to content sources or applications such as Siebel and SAP, and enable a common composite application that is accessible via a web browser-based interface. There is a strong intersection with this application-centric use of portals and what is going on with Web Services. Portals provide a compelling means for application delivery of Web Services in a familiar development and management environment. Epicentric has produced a number of advanced products and services to address this capability, and has championed the development of XML-based formats for specification of presentation-layer interfaces for Web Services.

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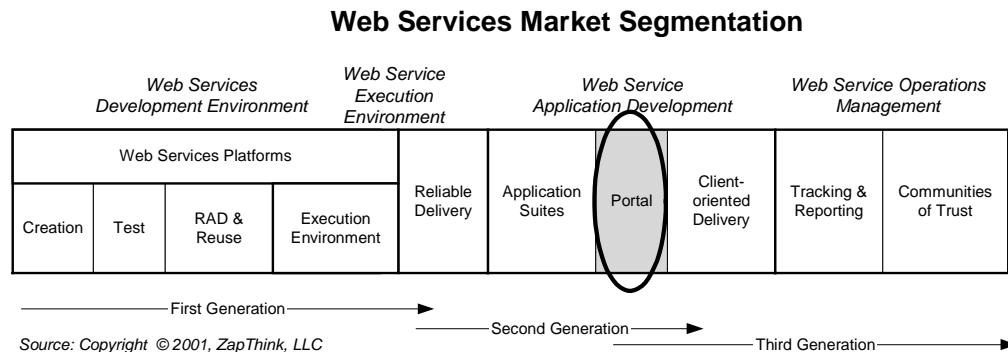


Portals as Pieces of the Web Services Puzzle

Portal products and services offered by companies such as Epicentric bring a wide variety of content and application services together at a common access point. These services provide wide ranging functionality, supply a common administrative functionality for these services, personalize and customize the types of services that are available to users, and embed these within portals using a personalized web interface, with customization of presentation and appearance. Epicentric delivers a portal platform that helps to manage and control these "business webs". The company has been in the business portal space for many years, and has produced portals for organizations such as Motorola, JP Morgan, Morgan Stanley, and dozens of other companies mainly from the Fortune 500.

Portals are being used to provide access to content sources or applications such as Siebel or SAP, and enable a common composite application that is accessible via a web browser-based interface. Increasingly, there is a strong intersection with this application-centric use of portals and what is going on with XML and web services. Web Services makes use of open standards, Internet protocols, and XML as a main mechanism for exchange and packaging of application functionality for use by disparate systems. The portal and Web Services spaces share the same main issue: modular integration of application functionality. The portal world has been focused on empowering business users to take control of functionality, particularly aggregation of that functionality, and distribute it to others on a personalized basis. In essence, portal vendors provide solutions that allow companies to rapidly develop a web site out of components.

Figure 1: Portal positioning within Web Services Market Segmentation



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The recent attention on Web Services has resulted in specifications such as SOAP, UDDI, and WSDL. These standards are aimed at developers of web services and specify how web services can be created and exchanged. However, the goal of vendors who are looking to provide components for portals is to provide high-level components that can be interacted with by a business user rather than developer. Most of the existing technologies and specifications are being provided at developer level, rather than the higher business level. For example, every time an organization wants to embed FedEx tracking into their application, they need to pull out a development tool to do it. What is needed is a simpler method for business users to create and use web services.

The Epicentric Portal Solution

Epicentric provides a portal solution that marries Web Services with user interface. Their main platform for Web Service deployment in a portal environment is the **Epicentric Foundation Server**.

- **Epicentric Foundation Server** – Assembles personalized portals on the fly based on user roles and permissions, and encapsulates enterprise content, business applications, and Web services through Epicentric Integration Module connectors. The system also orchestrates the management and delivery of aggregations of enterprise content, applications and Web Services and dynamically generates multiple portals with individualized views. The Portal Command Center enables portals to be managed centrally while securely delegating key administrative functions to trusted business users.
- **Epicentric Web Services** – Epicentric also delivers a number of pre-packaged Web Services that can be integrated in the portal environment. These services include integration with enterprise applications such as ERP, CRM, content management, community and collaboration services, collaboration modules for discussions, polling, and surveys, syndicated content including vertical industry news, weather, stock quotes and entertainment services, and Building Block Modules and Tools for integration.
- **Epicentric Web Services Marketplace** – An online community of Epicentric employees, customers, and partners that offers tools, solutions, and information for creation of powerful portals by means of providing resources to collaborate, develop and procure Web Services-based Modules for Epicentric initiatives.

Epicentric, as well as many other Web Services Application Delivery suites make a distinction between “low-level” and “high-level” Web Services. The difference is that low-level Web Services expose base application functionality while high-level Web Services are an aggregation of lower-level Web Services and application functionality. Basically, this distinction isn’t that relevant since the concept of high-level Web Services are simply Web Service applications. The relevance is that Portals are in effect “high-level” Web Services according to this definition. According to ZapThink, however, portals are Web Service Application Delivery suites that are married to web interfaces.

Enterprise Portal Management: The Next Step for Portal Vendors

In Epicentric’s just released 4.0 version of Epicentric Foundation Server, the company is stressing a new concept in portals –Enterprise Portal Management (EPM). By and large, most IT administrators and developers have been focused on single portal deployment. But many complicated web environments are composed of a number of portal implementations. Some organizations run dozens of portals for different users and have shared components across those web sites. EPM centers on the concept of the management of multiple, federated,

distinct portal websites. The management of multiple portal sites as a single entity is sure to become an increasing requirement among portal vendors.

Portal and Content Management Vendors: Working Together?

In many ways, Portal and Content Management vendors overlap. They both are focused on the aggregation and collection of disparate pieces of information into a cohesive application for customers. However, the focus of these vendors are quite different. Portal vendors are focused on an interactive, web experience while Content Management vendors are focused on aggregation of content for long-term management as well as delivery. As a result, many Content Management (CMS) vendors see themselves as a source for content that may end up on a portal site. They are in effect betting that the Portal will be the User Interface and that Content Management will be the source of content creation.

In this regard, Epicentric and Documentum are working together both from a product integration standpoint as well as on their XML standards initiatives. We can expect a greater amount of overlap, cooperation, and sometimes competition between portal and CMS vendors.

Presentation-Layer Web Services Specifications

Since Portal vendors are concerned with the intersection of Web Services functionality and their presentation to users, Epicentric and other portal vendors have proposed a number of specifications for standardizing presentation interfaces for Web Services. Originally proposing their own user interface specification for Web Services known as WSUI (Web Services User Interface), Epicentric now supporting the OASIS Web Services Component Model (WSCM) effort which has combined the best features of WSUI with IBM's Web Services Experience Language (WSXL).

Web Services User Interface (WSUI)

Coming from the portal point-of-view, Epicentric has developed an XML vocabulary called the Web Services User Interface (WSUI) that specifies how web services can be presented to the end user.

A WSUI component provides an HTML presentation layer that instantiates Web Services components as necessary. These components enable users to interact with Web services in a vendor and web platform-neutral manner. Using WSUI, business users can access and share Web services without having to create multiple application and vendor-specific connectors in different languages such as Java, .NET, VBScript, and Perl. WSUI contains a lightweight choreographic capability to sequence and call WSDL or SOAP described Web Services from various sources. The specification allows these web services components to be located and invoked from a UDDI directory, and WSUI components themselves can be UDDI registered. Web Service providers have the option to use the WSUI specification as a default presentation or starting point for import into users' development tools. Providers may also choose to compile a number of services into a composite WSUI as well.

A typical usage of WSUI is by a portal developer or user who wants to use a particular web service, such as a travel application. In this example, a UDDI directory is where Travelocity made their travel reservation application available using WSUI. Since the WSUI specification is a presentational layer for Web Services, all the other standards concurrently exist for the transport of this web service, but since a default interface has been already specified, no additional work is needed by the developer to integrate the application into the portal site.

The complete WSUI specification has been made available to the public, and Epicentric provides open-source Java code for sample implementation of the standard. Many other organizations have joined the working group for further development and maintenance of the

standards. Current participants include WebMethods, Bowstreet, Documentum, Intraspect, Jamcracker, NewsEdge, Securant, and Yellowbrix. However, development on WSUI has halted in favor of a new, emerging presentation-layer Web Services specification, the Web Services Component Model (WSCM).

Web Services Component Model (WSCM)

Announced in October by OASIS, the Web Services Component Model (WSCM) is the new focus of Epicentric as well as HP, Sun, IBM, and Macromedia. The charter of the WSCM working group is to create a component model for displaying web services in a portal or other environment. It is very similar to WSUI in intent, but a finished product has yet to be produced. Epicentric is donating their WSUI specification, and IBM is donating Web Services Experience Language (WSXL). In addition to these formats, WSCM will borrow from and integrate with WSDL, XLink, and other XML standards. In many ways, WSCM is more complicated than the original WSUI specification, but it means to encapsulate not only presentation requirements but also best practices for developers.

Competition

There are a number of major competitors in the portal market. These include the “pure-plays” such as Plumtree and DataChannel (now part of Netegrity). Other players include the Application Server vendors that see portals as an extension of their market (Sun, IBM, Oracle, Microsoft, SAP, and BEA). In addition, added pressure from Content Management vendors (Interwoven, Vignette, Broadvision, Documentum) and Web Services Application Delivery suites (Bowstreet, Avinon) will continue to mold the portal market.

Key Conclusions & Recommendations

- Portal vendors have a compelling value proposition for delivery of Web Services.
- However, Portal vendors are getting “squeezed” by vendors from a number of different angles. Companies considering implementation of Portal solutions should consider their support for Web Services and long term integration with CMS and Application Server environments.
- It is unclear how WSCM, XHTML, and XForms will converge, if at all.
- It is important for WSCM to gain acceptance among the web services “heavy” players such as IBM, Microsoft, Sun, BEA, Oracle, and HP. Without their support, it is possible that this specification may face some challenges in adoption and usage.

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Profile: Epicentric	(August, 2001)
Date Founded: January 1998	
Funding: Venture-backed private company: Alliance Capital Management LP, Amerindo Investment Advisors Inc., Autodesk Ventures, Bowman Capital Management, Capital Research and Management Company, Dain Rauscher Wessels, Essex Investment Management Company LLC, Hambrecht & Quist, Innovacom Venture Capital, Interactive Minds, J. & W. Seligman & Co., J.P. Morgan, New Vista Capital, Putnam Investments, Reuters Group PLC, Sandler Capital Management, U.S. Bancorp Piper Jaffray	
CEO / President: Michael Crosno	
Employees: 335	
Products:	
<ul style="list-style-type: none">• Epicentric Foundation Server• Epicentric Web Services• Epicentric Web Services Marketplace	
Specifications:	
<ul style="list-style-type: none">• Web Services User Interface (WSUI)• Web Services Component Model (WSCM)	
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Related Research

- *XML in the Content Lifecycle Report (ZTR-CL100)*
- *Corel ZapNote (ZTZN-0118)*
- *HyperVision ZapNote (ZTZN-0249)*

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About ZapThink, LLC

ZapThink is an IT market intelligence firm that provides trusted advice and critical insight into XML, Web Services, and Service Orientation. We provide our target audience of IT vendors, service providers and end-users a clear roadmap for standards-based, loosely coupled distributed computing – a vision of IT meeting the needs of the agile business.

ZapThink's role is to help companies understand these IT products and services in the context of SOAs and the vision of Service Orientation. ZapThink provides market intelligence to IT vendors who offer XML and Web Services-based products to help them understand their competitive landscape and how to communicate their value proposition to their customers within the context of Service Orientation, and lay out their product roadmaps for the coming wave of Service Orientation. ZapThink also provides implementation intelligence to IT users who are seeking guidance and clarity into how to assemble the available products and services into a coherent roadmap to Service Orientation. Finally, ZapThink provides demand intelligence to IT vendors and service providers who must understand the needs of IT users as they follow the roadmap to Service Orientation.

ZapThink's senior analysts are widely regarded as the "go to analysts" for XML, Web Services, and SOAs by vendors, end-users, and the press. They are in great demand as speakers, and have presented at conferences and industry events around the world. They are among the most quoted industry analysts in the IT industry.

ZapThink was founded in October 2000 and is headquartered in Waltham, Massachusetts. Its customers include Global 1000 firms, public sector organizations around the world, and many emerging businesses. ZapThink Analysts have years of experience in IT as well as research and analysis. Its analysts have previously been with such firms as IDC and ChannelWave, and have sat on the working group committees for standards bodies such as RosettaNet, UDDI, CPExchange, ebXML, EIDX, and CompTIA.

Call, email, or visit the ZapThink Web site to learn more about how ZapThink can help you to better understand how XML and Web Services impact your business or organization.

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