

Functional Assessment of Sybase Enterprise Portal 5.0

Sybase Enterprise Portal 5.0 provides a modular platform for creating focused solutions for real world business problems. Instead of taking the all-too-common approach of delivering merely ever-expanding feature sets, Sybase leverages its experience in addressing practical business issues such as USA Patriot Act compliance to deliver high-value solutions.

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What's Inside...

Sybase at a Glance

This section provides a snapshot of background information on Sybase.

A Solution Delivery Platform

While portal vendors have traditionally delivered one-size-fits-all products, customers today are demanding more domain expertise and solutions tailored to their business needs.

Sybase's Solution Delivery Platform

Sybase provides an extensible toolkit that supplies a good basis for building custom portal solutions, with ancillary products to help plug the holes. The company has also begun creating specialized solution sets to address specific customer needs in areas such as USA Patriot Act and HIPAA compliance. Independent software vendors and systems integrators can also customize Sybase's standards-based, open compliance solutions.

Review of Sybase Enterprise Portal 5.0

The product is reviewed in terms of functionality, architecture, administration, and security.

Business Benefits of Sybase

The Sybase portal solution provides a number of benefits, including ease of use and enterprise class security. The product suite also offers a robust toolkit that enables channel partners such as systems integrators and independent software vendors to create customized solutions.

The Final Word

Overall, the Enterprise Portal suite, while lacking some of the higher-level feature sets found in competing products, provides a solid platform on which to build more specialized functionality. EP's ability to provide a smooth transition from legacy client-server technology is a compelling advantage.

Sybase at a Glance

Sybase, Inc. Dublin, California (925) 236-5000 www.sybase.com	
Founded	1984
Stock Symbol	NYSE: SY
Employees	4,639
2002 Revenues	\$829.9M
Office Locations	One Sybase Drive Dublin, CA 94568
Overview	<p>Sybase Corporation (NYSE: SY) develops and implements enterprise software solutions. The Sybase product set is divided into three main areas: e-Business Infrastructure, Mobile and Wireless Solutions, and Vertical Solutions.</p> <p>Sybase's simplified approach to portal development, maintenance, and support is designed to reduce the time and cost of portal projects. Enterprise Portal 5.0 focuses on ease of use for end-users, developers and administrators. The product is based on J2EE standards, and features a stateless architecture for enhanced scalability and availability.</p>

A Solution Delivery Platform

Continued emphasis on both vertical and horizontal solutions is a key trend impacting portal products today. Portal vendors have historically delivered generic functionality that at best catered to differences between business-to-employee, business-to-business, and business to customer needs.

However, customers are now demanding specific solution sets to meet their individual needs. Vendors are seizing this opportunity to differentiate themselves, and more focused solutions are emerging. While great news for portal customers, this change in focus is eroding the additional value that systems integrators have until now brought to the table.

Sybase's Solution

With solid core features and an extensible platform, Sybase Enterprise Portal 5.0 will appeal to integrators and independent software vendors who create custom portal solutions for specific business needs. Sybase's solution is comprised of three main components:

- **Complementary products** - In addition to the Enterprise Portal suite's core set of functionality, Sybase offers complementary products that extend and enhance this feature set. Thus, organizations need purchase only the components necessary for their individual circumstances.
 - **Specialized Solutions** - Sybase also provides specialized solutions for common business processes. For example, Sybase offers tailored solutions to meet the challenges of USA Patriot Act or HIPAA compliance. Sybase's approach leaves room for systems integrators to provide more value-added functionality for highly customized solutions, but with considerably less effort.
- **Core capabilities** – The shipping Enterprise Portal 5.0 product suite includes a portal server, an underlying application server (EA Server), a security subsystem, and Sybase's Adaptive Server Enterprise Edition (ASE) relational database server.

Review of Sybase Enterprise Portal 5.0

Sybase Enterprise Portal 5.0's main components include Portal Studio, Portal Framework, Sybase EA Server, PowerDesigner and Sybase ASE database. EP combines good creation, management, and deployment capabilities with a strong security framework and robust architecture based on Sybase EA server.

Sybase Portal Studio offers a web-based interface for developers and administrators to create, manage, and distribute personalized web content. PowerDesigner contributes strong modeling and design capabilities to the suite.

EP 5.0's Portal Framework controls portal presentation, personalization, and security. The framework also supports parallel portlet loading to improve page loading times and portlet messaging for communication between portlets. In addition, it includes the underlying EA Server, metadata repository, page server, and navigation server.

EP 5.0 also delivers strong web-based administration capabilities for the management of users, business roles, content categories, application data, and access privileges.

Functionality

Portal Studio's graphical, wizard-based development environment simplifies portal development, deployment, and maintenance. Portal Studio focuses on reducing the complexity and makes it easy for administrators and developers to build the portal.

For example, Portal Studio can construct portlets from:

- Web-accessible sources (web sites and web applications such as JSP or ASP)
- XML sources
- JSP or ASP applications or code fragments
- HTML sources
- Databases

This capability enables both developers and business users to develop portlets rapidly by capturing content from Java Server Pages, web sites, databases, and other data sources without programming. Similarly, EP 5.0's Portal Framework allows end users to rapidly aggregate existing web content into their own custom portal views. To accomplish this, Sybase has incorporated technology through its acquisition of OnePage that provides intuitive presentation tier integration over the HTTP protocol. While this type of integration is fairly lightweight, and not suitable for many transaction-oriented processes, it is sufficient to meet the web content integration needs of many organizations.

For HTML elements, the One-Click Capture feature automatically parses a web page into selectable components and allows users to grab as much of the page surrounding the selection as desired. The technology also identifies parameters from the selected area and lets users specify labels and default values.

EP 5.0 includes Sybase PowerDesigner, which provides advanced design and modeling capabilities. With strong UML design capabilities, as well as data and object modeling features, this tool increases developer productivity, while decreasing time to market.

While PowerDesigner provides some business process modeling capabilities, EP 5.0 currently does not offer runtime support for business process management, or the ability to host business processes by connecting to back-end application components, data, or existing web services.

Sybase OEMs Autonomy, which provides portal search capabilities, including auto indexing of content and simple and advanced natural language search features. The enterprise edition includes full Autonomy search engine functionality. Autonomy Agent support is also included, enabling users to personalize the portal environment based on saved search parameters.

While EP 5.0 provides basic content management functionality, including document sharing and file submission, it does not provide check-in/check-out, document workflow, or version control capabilities. Explicit and profile driven personalization is available, based on information maintained in the back-end metadata repository.

Architecture

Sybase's Enterprise Portal 5.0 is built on a standards-based J2EE architecture, providing openness and flexibility. EP 5.0 runs on Windows NT, Windows 2000, and Sun Solaris operating system platforms. Content can be stored either on the file system or in the back-end database. The product supports Sybase Adaptive Server Enterprise (ASE) 12.5.x, Sybase Adaptive Server Anywhere (ASA) 6.x, and Oracle databases as metadata repositories, and uses JDBC for database connectivity.

J2EE application servers give the portal an open, standards-based, and extensible foundation that offers reliability and failover, scalability, and performance. EP 5.0 is certified to run on EA Server and Tomcat with support for BEA WebLogic and IBM WebSphere planned for the next release.

To support high performance and scalability, EP ships with its own application server, Sybase Enterprise Application Server (EA Server). The J2EE 1.3 compatible EA Server provides load balancing, connection pooling, data caching, and other services.

Administration

EP's Portal Studio includes a graphical user interface with tools for maintenance, management, and deployment of individual portlets to the portal. Each portlet is deployed as an XML file, and a portal application can be deployed as an EAR file.

Portal Studio also supports deployment to multiple portals or deploying multiple portals in a single instance of EA server. The tool provides built-in workflow control on portlets and life cycle management for portals.

Full access control is provided for the file system, database, objects, and methods via the security framework. In addition, the product supports role-based and configurable access control, enabling administrators to customize access to application features and services based on user roles.

While EP 5.0 does not directly support SNMP, the underlying Sybase application server does provide this capability. However, the monitoring interface provided by the application server will be limited to application server functionality, not higher-level

portal features. The product does not integrate with third-party management consoles like IBM Tivoli or CA Unicenter.

While it provides extensive logging capabilities, including error, system event, debug, and activity logging, EP 5.0 does not include pre-packaged reports on application usage, system usage, real-time statistics, click stream analysis, or historical statistics.

Security

Security is a major strength and a differentiator for EP 5.0. The product's advanced security module also offers additional functionality such as an enterprise-wide security management system, a single sign-on engine, and context-based access controls that can accomplish tasks such as changing access permissions based on the time of day.

The product has fine-grained access control at various levels, including support for both roles and groups. EP 5.0 allows user authentication and authorization to be performed against a relational database or LDAP directory, providing a flexible and easy way to administer users and manage access to the web site.

EP 5.0 does not directly support encryption methods for data stored in the system, but SSL for data stream encryption is provided through the web server. As of this review, the portal does not support callout-based access controls or integrations with third-party solutions like Siteminder, Oblix, RSA, or others. Support for Netegrity is planned for the summer of 2003.

In addition, the underlying EAServer application platform is required for the advanced security functionality, which is not supported running atop BEA WebLogic or IBM WebSphere.

Advanced security functionality is expected to be available to run on BEA WebLogic and IBM WebSphere in a future release.

Integration

EP 5.0 offers very limited options for integration with other enterprise applications. It supports any JDBC compliant database as a data source, but includes productized adapters only to Siebel, PeopleSoft, and groupware products such as Lotus Notes and Microsoft Exchange. EP also has productized integrations with content management systems from Stellent and Interwoven.

EP provides easy access to underlying JMS interfaces, which can in turn allow access to a variety of messaging queues and integration servers.

In addition to the capabilities included with EP, Sybase's Business Process Integration suite provides additional integration capabilities. The suite also enables application-to-application integration. Unfortunately, Sybase does not currently offer productized integration between EP 5.0 and Sybase's integration suite. Programming is still required to integrate the portal with the integration server. However, by leveraging the underlying application server, organizations can provide integration with other J2EE-based applications like portal servers, commerce platforms, and personalization engines.

As of this review, EP 5.0 does not include tools for easily consuming web services or exposing portlets or predefined sets of portal functionality as web services. However, Sybase plans to include complete web services support in the next release of the portal solution.

Business Benefits of the Sybase Solution

Organizations that use Sybase realize a number of immediate business benefits. For example, Enterprise Portal provides:

- **Ease of Use** – Sybase has ensured that EP 5.0 is easy to use for both business and IT personnel. For example, Portal Studio provides wizard-based tools for quickly creating portlets, templates, and web pages; support for group development; point and click deployment, and a component library that facilitates reuse of code. Technology gained through the acquisition of OnePage provides intuitive presentation tier integration over the HTTP protocol.
- **Strong Security** – Security is a major differentiator for Sybase Enterprise Portal. The product suite makes good use of an included security module to provide enterprise-wide security management, a single sign-on engine, and context-based access controls. While some minor enhancements are still needed, the product demonstrates strong capabilities, making it a natural consideration for use in situations where security is of paramount importance.

- **A Platform for Solutions Providers** - The Enterprise Portal product suite offers a compelling way for ISV and SI partners to create vertically and horizontally specialized applications. EP provides a good toolkit of functional components out of the box, including lightweight integration, security, an application platform, developer tools, and a robust underlying relational database. The combination of these components, and others available from Sybase (including its integration suite), provide an ISV or an SI channel partner with a comprehensive menu of capabilities from which to assemble a complete solution for end users.

In addition, Sybase's continued move toward focused solution sets such as USA Patriot Act and HIPAA compliance packages will provide channel partners with more targeted packages that they can further extend to address end user pain points, while speeding development time and reducing costs.

The Final Word

Overall, Sybase Enterprise Portal 5.0 provides core portal functionality that can be leveraged across the rest of the Sybase solution stack.

A standout capability of EP5 is the robust development tooling, including Portal Studio for wizard-based development and PowerDesigner for advanced design and modeling work. These tools greatly simplify and accelerate the application design and development process.

While the solution may lack some of the more advanced features found in competing products, such as pre-built integration with certain third party software, strong personalization, web services support, reporting, business process management (BPM), and workflow, Sybase offers complementary products that provide these features as options.

However, end user organizations – as well as systems integrators and independent software vendors – looking for solid security architecture, ease of use, strong development tools and good presentation tier integration without too many whistles and bells will find Sybase EP 5.0 worth considering.

For organizations with specific USA Patriot Act or HIPAA compliance requirements, Sybase presents a unified solution that is worth evaluating. Sybase Enterprise Portal also provides a good migration path to ease transition pains for shops moving from client-server technology to web-based systems.

Finally, the product may appeal to organizations that desire a well-integrated RDBMS, application platform, and portal solution, as well as systems integrators and independent software vendors searching for a solid platform that can be used to create and deliver specialized horizontal and vertical solution sets.

Key Strengths and Challenges of Sybase Enterprise Portal 5.0

Strengths	Challenges
<ul style="list-style-type: none">• Portal Studio provides an intuitive wizard driven approach to portlet and portal development• Ease of installation• Versioning of portlets• Advanced presentation tier integration• Portlet messaging• Autonomy OEM provides good search capabilities• Sybase, via the PowerBuilder franchise, is well entrenched in the client-server market and is uniquely positioned to be a vendor of choice as these organizations look to upgrade their architectures• Sybase has assembled a broad and comprehensive product line that stacks up well against many of its competitors• EP5 bundles PowerDesigner – a state of the art design and modeling tool	<ul style="list-style-type: none">• Needs expanded operating system and application server support• Needs an increased number of pre-built integrations with third party systems such as security, SSO, management consoles, BPM, BI, content management, personalization, and EAI products• Lacks built-in capabilities for personalization, content management, collaboration, reporting, workflow, BPM, syndicated content, and content categorization• Needs better interoperability with Sybase EAI product• Should better integrate broad Sybase solution set into a unified stack• Shipping version lacks web services support

About Doculabs

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Based in Chicago and founded in 1993, Doculabs provides consulting services that are grounded in research that combines hands-on evaluation of technology with real-time business knowledge gained from engagements with Fortune 1000 clients. Doculabs helps its clients deliver on their business strategies through solutions in areas such as enterprise content management, relationship management, and infrastructure.

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