



Intranet Professional

Managing Knowledge Ecosystems

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Intranets: Key Current Platform Considerations

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In This Issue

Steve Arnold explains new intranet platform choices.

The enterprise portal project by John Quirk takes you step by step through the critical thinking required for a successful outcome.

Tom Reamy clarifies three types of content auto-categorization and introduces the need for a fourth option.

Intranets consist of a number of different parts, including these key features and functions:

- Portals-to provide access to the Internet and internal documents via a Web interface.
- Content Management-to organize information and provide easy-to-use tools so a person can add or change information on a network.
- Knowledge Management-to capture, present, and integrate a range of information about the company, its people, suppliers, and other constituents, along with any information on a network.
- Customer or electronic customer relationship management-to make customer interaction easy, providing access to purchase orders and shipping information, as well as a database of various types of product- or service-related information.
- Enterprise software, enterprise information systems, and enterprise resource planning-to inte-

grate the different systems, software, and data in an organization in a work-flow context.

The first step is to know what type of intranet a particular group is thinking about or wants to deploy. Many vendors describe their software and services in terms of intranets, content management, and portals. Often other buzz words are added to the mix in order to increase the magnetic appeal. Learning to ask good questions is essential. Some vendors offer comprehensive platforms; for example, SAP. Other vendors offer specific applications such as Percussion's content management system that runs on a wide range of platforms. Electronic customer relationship management, or e-CRM, blends sales management and customer support with intranet and portal functions. Even such Enterprise Resource Planning software companies as SAP, Invensys (for-

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merly Baan Software), J.D. Edwards, PeopleSoft, Oracle, IBM, and Microsoft have entered the fray.

The number of choices for intranet products, systems, software, and services is large. With the implosion of the Web and dot-corn companies, hungry marketers have sniffed out the next potentially huge market for Internet-centric software. For organizations wanting to bring the point-and-click interface associated with Web browsers to legacy data, options are abundant. The sheer number of options and approaches poses three problems:

- *The individual or group charged with selecting a vendor has a difficult time determining if the promises and payoffs made by vendors are accurate.
- *The companies positioning themselves as intranet-portal-content management resources are often so new that hard facts about their reliability and capability are tough to come by.
- . Costs for portal initiatives are a bit like blobs of mercury. Customers see costs, but it is difficult to put them together and get a solid picture of how much a portal will cost.

Despite the economic downturn, two new options for addressing multi-user information systems for portals and intranets are now available. Most of the established providers (see www.amoldit.com/Portal_vendors/portal-vendor.htm for a useful research starting point) have not embraced the newest technologies. Those shopping for intranets most, as a matter of prudence, become familiar with a fundamental change in system architecture., programming tools, and user interaction. It is now possible to access one database backend such as Oracle with applications from different vendors. For organizations that find this approach too restrictive, it is now possible to mix different databases in one Web-enabled system.

Both Sun Microsystems and Microsoft Corporation have developed software to facilitate peer-to-peer services within a distributed network architecture. A "peer-to-peer" network is one that allows each machine to play the role of a client and a server. The machines are able to work cooperatively without necessarily having a centralized control point. Peer to peer is important because it allows users to share data without the costs associated with a centralized indexing, search, and retrieval system. The downside is that security tools are immature, so peer-to-peer technologies are only at the beginning of what looks to be a long product cycle.

The Sun initiative is called Sun ONE. Its underpinnings are JXTA (pronounced "jux-tab" according to one Sun engineer). Based upon the Java programming language, JXTA allows developers to create digital "spaces" that are actively communicating with one another about user needs, new data, and system resources. The Sun ONE initiative., like IBM's solid Linux and Java commitment, provides organizations with a suite of technologies to use in constructing an intranet, a portal, and associated subsystems.

Although full-blown JXTA applications are in the production pipeline, anyone can get a look at the potential of Sun's approach at David Gelernter's Mirror World Technologies [www.scopeware.com]. In a nutshell, this software spiders documents, creates a searchable index, provides search results in a graphical file card format, and performs other portal functions. The unique feature of Scopeware 2.x, the current build of the software, is that machines which are part of the Scopeware environment automatically communicate to the indexing engine. When a new document enters the Scopeware data space, it becomes instantly available to authorized users. Scopeware brings the always on, always-available Web experience to organizations' intranets. Dr. Gelernter uses Java and implements features and services that will be available under the Sun ONE and JXTA initiative. In the next 12 months, more applications will provide the type of "live data space" functionality available in Scopeware and a handful of other products. (Sun Microsystems is likely to integrate the peer-to-peer search-and-retrieval system that was doing business as Infrasearch prior to Sun's acquisition of the company.)

Should an organization implement Scopeware as a portal solution? Based on Dr. Gelernter's reputation, Scopeware appears to be a solid bet for many small and mid-sized organizations. Single server builds of the software are available for \$2,000, although the price may have changed by the time this appears in print.

If Sun ONE represents the UNIX world, Microsoft's Dot Net carries the banner for the Windows 2000 and Windows XP team. Those who feel Microsoft's narrow escape from its antitrust litigation leaves Microsoft's business practices unchanged have viewed Microsoft's Dot Net initiative with considerable skepticism. The Dot Net initiative at Microsoft is quite significant. Within the next 12 months, the success or failure of the Dot Net "play" will become more evident. At these early stages of the software's rollout, Microsoft is making an effort to build bridges to developers and enterprise customers. For example, Microsoft's C# programming language is an "open system." With this action, Microsoft is taking a stance different from Sun's continued proprietary grip on Java. Using Microsoft's tools, a portal, search-and-retrieval, legacy data access, and dozens of other intranet services can be assembled quickly and comparatively easily. More importantly, C# combines the power of C++ with some of the automation and network-centric functions of Visual Basic. The result will be available in the new release of Visual Studio .NET. With this software, programmers will be able to create network-centric applications with the same awareness of new data and peer-to-peer functions already available in the Scopeware application.

Microsoft wants to maintain its claim that there are more Visual Basic programmers than any other type. The large pool of Visual Basic programmers is one reason why the cost of Windows' applications is generally lower than an equivalent UNIX application. Although this generalization is true for many penny-conscious organizations, there are some large UNIX environments that can match Windows on a dollar-for-dollar basis. With a large base of programmers, Windows .NET is likely to become a more widespread next-generation development environment than Java-based systems. The programming world is likely to split into two segments: UNIX for high-end and certain research computing environments, and Windows for small and mid-sized or-

ganizations and departmental applications. With Windows migrating to handhelds, Microsoft's C# language becomes instrumental in providing wireless and wireline applications.

In order to rid itself of the "PC only" jibe that Sun and IBM hurl, Microsoft has SOAP. Like C#, SOAP has been turned over to a standards body and is, for all practical purposes, available for anyone-even Sun Microsystems-without a fee. SOAP stands for Simple Object Access Protocol. Think of SOAP as a series of statements about how legacy and new systems can exchange information. With SOAP, applications can pluck data from an AS/400, move it via Internet protocol to a Web application, and deliver new data back to the legacy system.

Microsoft has embraced XML tightly. The company uses the extensible Markup Language (XML) as its lingua franca in its Commerce Server, its BizTalk Server, and its other server products. Users of Microsoft server systems will be taking steps toward peer-to-peer and more dynamic network environments when these systems are installed. Some find the development exciting. Other organizations may feel that Microsoft is moving customers in a direction customers may not want to go.

These three technologies-C#, SOAP, and XML-comprise Microsoft's Dot Net initiative. If Microsoft wins its Dot Net bet, expect an onslaught of network-centric, peer-to-peer, distributed applications to enter the market at an ever-increasing pace in the next 6-9 months.

What does this mean to a small or mid-size organization embarking on a portal or Intranet initiative?

- The organization that needs a portal now has little choice but to select one of the vendors now providing software and services and moving forward. The cost of positioning a portal initiative may well be greater than the economic benefit of waiting 6 or 12 months for JXTA or Dot Net to arrive.
- For the organization just beginning the planning process, a hard look at both Dot Net and Sun One appears to be a prudent step,
- For an organization abandoning one portal build for one that incorporates more features and services, Microsoft's Dot Net technology might be an option to test. A number of Dot Net components are available and Microsoft Consulting Services are building Dot Net services.

What's the bottom line for these developments?

- Organizations have more options than ever before for addressing fundamental needs in information sharing and access.
- New technologies are evolving from the bottom up, Peer-to-peer networking emerged from the Napster and Gnutella environments. As new, youthful employees enter an organization, the new architectures and technologies will be brought to bear on a long-standing problem-information access, control, publishing, and sharing.

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