The First Wave of Smart Enterprise Suites

Smart enterprise suites, offered by a diverse set of vendors, have the potential to substantially reduce integration costs for support of extended enterprise processes for knowledge management, content management and collaboration.

Smart enterprise suites constitute a new wave of offerings from a diverse set of vendors. By 2004, smart enterprise suites will emerge as an aggregation of the functionality offered today by portals, team collaboration support and content management (0.8 probability). They will replace portals and team collaboration support products as the focus of investment within a majority of enterprises by 2005 (0.7 probability). Best-of-breed solutions will continue to offer enhanced capabilities through at least 2006, and the market for suites will not replace point solutions within that time frame. The initial focus of smart enterprise suites is convergence of portal, collaboration and basic content management functionality. E-learning capabilities will continue to be purchased independently, but there will be increasing integration of the content repository and skills management functionality with the smart enterprise suite.

Target Functionality for Smart Enterprise Suites

Content Management: Content and repository management in the form of a content database, content metadata management and core library services — check-in, check-out, version control and security — are a part of the smart enterprise suite. The emphasis here is on unstructured data, such as word-processing documents, e-mail messages, rich media, and Web-formatted content. Many smart enterprise suites have their roots in the traditional document management market, where this functionality is a given. Some Web content management functionality may also be offered in these suites.

Collaboration: The ability to collaborate beyond physical and geographic boundaries is a business imperative. There are many modes and types of collaboration. Functionality that a smart enterprise suite might include would be methods of
asynchronous collaboration — threaded discussions, calendaring and scheduling, e-mail — and synchronous collaboration support, including chat and instant messaging, whiteboarding, application sharing, and Web presentation technology.

**Information Organization and Retrieval**: Smart enterprise suite products all need some form of information organization and retrieval technology. Techniques and technologies that vendors supply include automated or manual taxonomy creation, automated or manual document categorization, document indexing, and search of various levels of complexity and sophistication. For a more complete view of enterprise search, see "Technology for Enterprise Search Comes in Many Flavors," T-15-3607.

**Expertise Location and Management**: Information retrieval extends to people and their tacit knowledge. Expertise location and management captures content that experts produce, dynamically profiles users’ skills and connects them to each other. It becomes a major element in supporting online communities in the enterprise and the extended enterprise (see "Expertise Location: Implementing a KM Fundamental," QA-12-5321, and "Expertise Location and Management Technologies," T-14-3382).

**Community Technology**: Full-function technology for online communities includes five functional segments:

- Community structuring to build and implement the community environment
- Participation interaction and access, which allow the interaction to happen and ease the process for doing so
- Community content management, allowing the capture of community output
- Community leveraging to archive and extract content from community interactions
- Support for future and emerging styles of interactions, such as wireless technology and wearable computers

For a full discussion of community functionality, see "Community Technologies: Something Old, Something New," SPA-13-8989.

**Ad Hoc Process Support**: Business processes encapsulate embedded employee knowledge, and, in many cases, these are not written down, let alone encoded in software. Document management products have long enabled the encoding of document-centric workflow, and smart enterprise suites need to include this capability. Process support is also important for
project-based collaboration, another user need that the smart enterprise suite should address. The hallmark of ad hoc process support is flexibility. It should be easy to administer and change, ideally at the workgroup or project level. In "Examining Process Management's Future: Land Mine or Gold Mine?" R-12-6739, we provide full treatment of the many flavors of business process management technology.

**Portal Framework:** User interface tools, such as portlets and Web parts, with associated application programming interfaces, allow construction of a single view of information sources and applications. Cross-repository search is a key enabler of consistent information access.

### Suites Are Coming — Ready or Not

Coming from diverse backgrounds, several vendors have emerged as early examples of the convergence occurring between document management, team collaboration, search, portals, and community creation and administration. The functionality emphasizes collaboration, and there is a knowledge management "flavor" throughout the offerings. Other elements may include calendaring and scheduling, synchronous and asynchronous collaboration, threaded discussions, workflow, information indexing and retrieval, document categorization, and classification.

At the center of this convergence is the need of knowledge workers to collaborate on, control and manage business content. The vast explosion of unstructured data types is overwhelming the management infrastructure of many enterprises. It is negatively affecting the productivity of individuals and the overall competitiveness of enterprises. It is the need for better organization, access and processes around digitally based collaborative work products and processes that the would-be smart enterprise suite vendors are trying to address.

The more content types move online, the more old paper-based business processes become irrelevant. E-mail is the classic example. In many organizations, most or all business is transacted via e-mail, from internal communications to client contracts. Yet, most enterprises still do not have policies to effectively manage their e-mail archives as they did their old paper-based archives, where all "customer correspondence" went into a file folder. Most unstructured data still resides on the individual hard drives of individual knowledge workers, where it is inaccessible to others.

Vendors that represent this first wave include divine, Hummingbird, Hyperwave, IBM/Lotus, Microsoft and Open Text.
These vendors bring different strengths to bear, largely based on their historical market roots. As enterprises look at the emerging smart enterprise suite market, they need to consider the strengths and challenges of each vendor. We expect that other vendors that today retain a narrower focus will extend their scope to smart enterprise suites. Likely candidates include: eRoom Technology, SiteScape and Intraspect Software (from a collaboration background); iManage, Documentum and Stellent (from document and content management); and BroadVision, Computer Associates International and SAP (from portals).

Leading Vendors for Smart Enterprise Suites

divine: Only about two years old, divine was assembled explicitly to create what it calls an "extended enterprise" suite of products and services. Still under construction via acquisitions, the framework encompasses collaboration (including MindAlign for instant messaging), knowledge management, Web content management (both Eprise and Open Market) and content syndication (SageMaker), combined with a wide variety of managed services and professional services for integration and development. Today, the extended enterprise framework is largely theoretical, since nearly all of these products are still in their pre-acquisition form. Nevertheless, some of them (e.g., Open Market) are highly regarded in their own right, so even in the absence of ambitious code-level integration plans, the company can provide best-of-breed support for a number of e-workplace functions.

Hummingbird: Hummingbird has a range of assets acquired from PC Docs, Fulcrum and PeopleDocs, plus portal and business intelligence technology. It has only recently moved to create a coherent brand and product structure encompassing content and document management, collaboration and information access. The vision for an e-workplace suite is there, but the ability to deliver has yet to be demonstrated. Hummingbird's strength is in document and content management, complemented by its portal. The collaboration features need further integration and do not include real-time capabilities yet.

Hyperwave: Founded in Germany in 1997, Hyperwave entered the North American market in 1998, but it remains relatively small and unknown on a global basis. Hyperwave's product suite includes document and Web content management, e-learning, information retrieval, workflow, collaboration and portal functions. Hyperwave's strength lies in its market vision and early functionality category leadership. As the first content management vendor to add e-learning functionality to its offering, Hyperwave has demonstrated an innovative understanding of
what enterprises need to support their knowledge workers and share intellectual capital for competitive advantage and efficiency. Hyperwave understands enterprises’ core requirements for smart enterprise suites and is moving to translate that understanding into product vision and functionality, although today a significant amount of custom development is required for an enterprise deployment.

**IBM/Lotus:** IBM has products that cover all of the functionality of a smart enterprise suite. Much of it originated from Lotus but is increasingly integrated with IBM's WebSphere infrastructure: Domino.Doc for repository management, Sametime and QuickPlace for synchronous and asynchronous collaboration, Discovery Server for information retrieval, taxonomy creation and expertise management, LearningSpace for e-learning, and Lotus Workflow. IBM is now gathering much of this functionality together with its portal framework under the umbrella of WebSphere Portal (see "IBM's WebSphere Portal Offers Wide-Ranging Functionality," P-16-2214). This fulfills much of the scope of smart enterprise suites with a strong foundation for further integration. The full technical integration requires the conversion of the Domino platform to run on WebSphere Application Server and the delivery of Web services interfaces. Nevertheless, WebSphere Portal today comes closest to a smart enterprise suite.

**Microsoft:** Microsoft's focus in this emerging market is on knowledge worker productivity. Harking back to its own vision and success in packaging individual productivity tools into the Office Productivity Suite, Microsoft made its real entry into the next generation of productivity tools in 2001 with the introduction of SharePoint Portal Server. Like IBM, Microsoft has all the components of a smart enterprise suite available within its product line: Exchange, SharePoint, Content Management Server, Outlook and NetMeeting. It also has a clear integration framework established with .NET. Its major weakness is in the area of process support, although it has the opportunity to apply the BizTalk framework to the workplace domain. It has yet to address expertise location and management. It has demonstrated tactical Web services use (for example, with Exchange) and pointwise integration (such as that between SharePoint Portal Server and Content Management Server), but it has yet to articulate a large-scale vision of a suite product on the scale of WebSphere Portal.

**Open Text:** Open Text was founded in 1991 and became a leader in the early document management market. As this market commoditized, Open Text moved its focus to collaboration, although it has yet to create a strong position in this market. The Livelink product includes support for team
collaboration, business process automation, document management, information retrieval and group scheduling/calendaring. With the Livelink MeetingZone module, Open Text added Web-based real-time collaboration support. Livelink virtualteams is a team environment built on Livelink’s project workspaces, encapsulating a comprehensive methodology for virtual teaming. Despite its document management strength, Open Text does not offer Web content management capabilities. It does provide products for e-learning and skills management, but not automated expertise profiling integrated with other information retrieval functions.

**Bottom Line:** As smart enterprise suites emerge in the market, enterprises will again be faced with the trade-off between best-of-breed functionality and reduced cost of integration. As support for team collaboration, enterprise content management and knowledge management moves from early adopters to the broader market, many will be attracted by the “good enough” functionality of this new generation of software suites.