

THE GILBANE REPORT

Vol. 7, No. 3
March, 1999



Published by:
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PROCUREMENT, NETS AND BUTTERFLIES: CONTENT APPLICATIONS FOR NEW WEB BUSINESS MODELS

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The last couple of months have seen a deluge of announcements about XML and e-commerce. Most of these announcements have been from vendors promising support for one or another of the XML-based standards being proposed. What is the difference between CBL and cXML? How does Microsoft's BizTalk fit in? What do all these have to do with creating, managing, or publishing content? What is the effect on other enterprise systems? As we said in our January issue, e-commerce system implementations are starting to take-off. These systems will need to be integrated with a wide variety of both front and back office applications too many for an API-based strategy to handle on its own. Content that is rich and "self-descriptive" enough to be processed by many different applications in different locations is needed to support electronic catalogs and emerging web commerce business models. Successful XML e-commerce standards will influence back-end content systems that many of you are building or managing. We'll be helping you think about these issues as things heat-up. Mary Laplante joins us this month with some thoughts on the Ariba.com Network and cXML.

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PROCUREMENT, NETS AND BUTTERFLIES: CONTENT APPLICATIONS FOR NEW WEB BUSINESS MODELS

In another of our publications (*DSS Weekly Analysis, Vol 4 Nbr 4*), we reported on and analyzed Commerce One's acquisition of Veo Systems, Inc., developer of XML-based solutions for open commerce networks. We suggested that the real value of the deal might play out over the longer term, as we begin to see the proliferation of business-to-business trading communities. With self-describing XML documents and technology like Veo's, companies can automate cross-organizational integration using content rather than APIs, thereby reducing the time and money involved in establishing commerce relationships.

Rival procurement systems supplier Ariba responded recently with two announcements that seem to be aimed squarely at Commerce One's plans for leveraging Veo's technology: the development of Commerce XML (cXML), and the launch of Ariba.com Network, an online trading environment for users of Ariba's ORMS (Operating Resource Management System) procurement system. While we spend a little time in this article looking at cXML, our primary focus here is on Ariba.com Network, which just might have the greater significance for suppliers of content technologies. We explain why, and give you a heads-up on emerging content requirements for new business models that could only exist on the Web.

cXML: REAL VALUE, OR MORE CONFUSION?

The cXML announcement is noteworthy because it underscores the importance that commerce vendors continue to place on XML as an enabler of cross-organizational commerce activities. It further validates the approach of using document and data interchange as a way to integrate commerce systems. And assuming that implementation is well-designed, Ariba customers will have the benefits of enhanced performance (through greater internal efficiency of Ariba software applications) and reduced cost of commerce activities like catalog aggregation.

The value of cXML outside the Ariba customer base isn't yet clear; in fact, cXML will probably only add to the general market confusion over the growing pile of XML-based commerce "standards." Dave Rome, Ariba's VP of marketing, acknowledged that the primary audience for cXML at the moment is his company's customer base and its suppliers. Why another language, we asked? Why not contribute to another commerce language effort that's already underway, like Commerce Net's eCo Working Group, or OBI? Rome indicated that Ariba is a member of CommerceNet and that his company will join the eCo initiative. They recognize that "nobody creates

value with proprietary solutions." He also noted that such consensus efforts tend to take a long time. Ariba needed to have a solution sooner rather than later (*cf.* the Ariba.com Network announcement) and so went off and developed cXML. The press release contains the obligatory nod to the standards process "The cXML specification, including reference production implementations and associated implementation knowledge, will be submitted to the appropriate standards organizations."

No matter how good its intentions, Ariba's challenges are pretty formidable first, to demonstrate and prove that cXML has broader market utility outside of its own circle, and second, to secure support for cXML among competitors and non-Ariba users. The company's ability to overcome these challenges and make cXML more than just a skirmish in the commerce standards war remains to be seen.

PROCUREMENT VENDORS MOVE INTO MARKETPLACES

cXML will be used to support commerce activities on Ariba.com Network, announced in early March.

Ariba.com Network is an online marketplace for customers of Ariba's ORMS (Operating Resource Management System), its electronic procurement solution. Ariba claims that its customers have "an aggregate spend" of more than \$67 billion annually on operating resources (although only a portion of this spending actually goes through Ariba systems). With this kind of money muscle and compatible buying technology throughout the installed base, Ariba saw an opportunity to create an environment that connects the buyers in its customer organizations with their suppliers. Buyers can use Ariba.com Network and Ariba ORMS to execute pre-arranged business transactions with specific suppliers, or to engage in less formal business activities, such as checking the catalogs of new potential suppliers. Participation is free to Ariba's customers and to all suppliers, regardless of whether or not they currently sell to an Ariba customer. Rome said that the company will generate revenues from value-added services such as surplus auctioning and posting of RFPs.

Initially, making money might not be a primary objective for Ariba.com Network. The company could be feeling competitive pressure from other procurement suppliers who offer some service or platform for connecting its buyers with sellers. Ariba now has an offer that's comparable to Commerce One's MarketSite, an extranet application that creates a real-time environment for trading partner communication. Intelisys has an "e-procurement portal offering" called Intelisys.com that lets buyers create their own business-to-business communities for supplier interaction.

The online marketplace capabilities from all three of these vendors point to the next phase in the evolution of online purchasing—the building of trading hubs. Even if such hubs are closed in the sense that buyers are users

"The company's ability to overcome these challenges and make cXML more than just a skirmish in the commerce standards war remains to be seen."

of a particular proprietary buying technology, they still give companies the benefits of savings on non-production goods, reduced transaction costs, and improved operational efficiencies. This is especially true for the largest global companies, whose buyers are scattered all over the world. Over time, for example, Ford Motor Company expects that its automated procurement system will help the company shave 30% or \$5 billion off its total MRO (maintenance, repair, and operations) expenditures on an annual basis.

For readers of this report, the real significance of this trend towards procurement services lies in the new requirements for content interchange applications.

TRADING NETWORKS AND CONTENT INTERCHANGE

Marketplace service offers like Ariba.com Network are versions of emerging business models in which a third party takes a key position at an intermediate point between the buyers and sellers in a given market, usually for the purpose of removing some inefficiency in buyer-seller interaction. In their purest form, these are "market maker" businesses—they bring together fragmented groups of buyers and sellers and facilitate commerce by providing services that make the market function smoothly and successfully (such as aggregating and publishing information, generating leads, and handling transactions). They are referred to in the trade press as vortex or butterfly businesses, infomediaries, or exchanges—and they were number one on the list of Fortune magazine's "Ten Sure Thing" technology trends for 1999.

" business documents like order forms and purchase approvals still drive commerce processes."

According to Kevin Jones, founding editor of the Net Market Makers newsletter, there are currently about 300 market makers operating on the Web. Charles Finnie, analyst with investment banker Volpe Brown Whalen, predicts that these businesses will grow from \$290 million in 1998 to almost \$20 billion from both transactions and advertising by 2002. In the February 15 issue of his Weekly Market News, Jones writes: "One good place to start looking is any large industry that's consolidating, and is perhaps being hit by falling prices for its core products. They've already optimized and automated production, but the links between buyers and sellers, sales and distribution, have often been left untouched and unimproved. These areas distribution, pricing information, and product description are the places where a market maker can use the Web's ability to eliminate geography and normalize multivendor information to create a viable place in the middle." Examples of market makers are, PropertyandCasualty.com (one of the sites in the VerticalNet portfolio—you can read a case study on the Fastwater site at www.fastwater.com), MetalSite, and Chemdex. They are businesses that could only exist on the Web, because a broadly-deployed, open network is the foundation of their value proposition.

Trading hubs such as Ariba.com Network are a looser form of market maker. The buyers are a group of companies with little in common other than the

fact that they purchased a particular vendor's procurement software—a somewhat artificial idea of community. And these sites aren't really about dynamic trading; they are mostly ways for buyers to interact with suppliers with whom they already have established relationships. Still, they meet the basic criteria for a market maker business: they "make the network work to provide more value to buyers and sellers," to quote Jones.

CONTENT TECHNOLOGIES FOR MARKET MAKER BUSINESSES

At the Seybold conference in Boston earlier this month, we included a session on these new Web business models in the corporate Web publishing track that we chaired. The panel comprised speakers from VC firm Internet Capital and market makers RoweCom, Technical Communities, and E-Steel. The goal of the session was to look specifically at the role of content in developing and driving these new businesses. We think that the content applications discussed by the panel (and that we've discovered elsewhere in our research) point to market opportunities that you will want to explore.

In Web marketplace businesses, content technologies are required for:

- ▲ Cross-organizational integration. This is the motivation behind CBL and cXML. Conducting commerce across organizational boundaries requires integration of business systems and processes. One way to handle that integration is with smart content that can be programmatically manipulated.
- ▲ Exchange of data and transactions. Even if integration is at the API level, and the connection point-to-point (as in traditional EDI), business documents like order forms and purchase approvals still drive commerce processes.
- ▲ Catalog aggregation. Buyers want a single interface into the potential supplier base. Technologies for tapping all potential sources of supply, normalizing their catalog content, and presenting a single, unified view of purchasing options are key requirements for hub businesses.
- ▲ Content integration. Most companies don't have the resources to develop the fresh, relevant content that's critical to attracting and retaining market participants. So they're turning to syndication as an answer. It's relatively easy to find content to license, even for very narrow markets like specialty metals. What's hard is to integrate it with internally-generated content and publish a Web site that has consistent look-and-feel, including navigation. ICE (Information Content and Exchange) addresses a different aspect of the syndication process; as a transport protocol, it moves packages according to pre-defined business rules. Web site producers still have to figure out how to publish the contents of the packages. The technical complexity of this process is identified by many syndication subscribers as

"Buyers want a single interface into the potential supplier base."

their major challenge. Here's a market requirement that's not currently being addressed by suppliers of Web publishing systems — there are few commercially available solutions for these kinds of content integration applications. (See last month's *Gilbane Report* for an ICE update, *ed.*).

- ▲ Peer-to-peer publishing. One of the keys to success with vertical-industry sites is community — the opportunity to interact with other professionals who share common interests. When the audience is very homogenous (as on Technical Communities, a site focused on test and measurement equipment), peer-to-peer content is a great value-add. It's honest stuff, and it's inexpensive to produce. As the butterfly businesses begin to explode this year, look for publishing requirements for this kind of content to move beyond chat rooms and e-mail list servers.

The applications at the top of this list are undoubtedly on your radar screens already. Pay attention to the others — especially content integration and peer-to-peer publishing — if you're interested in really taking advantage of emerging Web-only business models.

Mary Laplante

INDUSTRY NEWS

Additional news is available at www.capv.com/dss/newsand.htm

INTERWOVEN EXPANDS EXECUTIVE TEAM

3/30/99

Interwoven, Inc., announced the addition of three new members of the management team: David M. Allen as of chief financial officer, Joe Ruck as vice president of marketing and Jeffrey Engelmann as vice president of business development. Prior to joining Interwoven, Allen was the CFO of Objective Systems Integrators, Inc. Previously, Allen was CFO of Telecommunications Techniques Corporation. Joe Ruck comes to Interwoven from Genesys Corporation, where he served as vice president for customer marketing. Prior to Genesys, Ruck served in various senior sales and marketing capacities at Network Appliance and Sun Microsystems. Prior to joining Interwoven, Engelmann spent nearly ten years at IBM. His most recent position at IBM was executive operations officer of the Internet Division; earlier positions included business unit sales executive, and internet solution architect manager in IBM's E-Business Solutions group. www.interwoven.com.

ALLEGIS CORPORATION ANNOUNCES NET-IT CENTRAL 3.5

3/30/99

Allegis Corporation announced that Net-It Central 3.5, has been designed to leverage the new Web publishing features in Microsoft Office 2000. Net-It Central 3.5 takes full advantage of the new HTML publishing capabilities of Office 2000. The product automatically publishes HTML, jDoc or both formats and provides user control over the format published on the company intranet or extranet. This capability is especially critical because the HTML renditions created by Office 2000 require Internet Explorer 4.0 or higher for proper viewing. Additionally, Net-It Central 3.5 builds "smart sites" that automatically deliver the optimum format based on the Web site visitor's browser client. Net-It Central categorizes and enables searching of documents using descriptive information or "metadata"

that the product captures in XML-compatible format. A 30-day free evaluation of Net-It Central 3.5 is now available. Net-It Central 3.5 is now shipping. www.allegis.com

XML SUPPORT FOR SMITH-GARDNER'S WEBORDER

3/29/99

Smith-Gardner & Associates, Inc., provider of enterprise-wide software solutions to the global direct marketing industry, announces that it is adopting XML for its WebOrder system. WebOrder is an Internet commerce system designed to automate the operations of retailers, direct marketers and manufacturers that are selling through non-store channels. XML provides WebOrder with a powerful facility to share back-end enterprise data with other applications in real-time. In addition, WebOrder's XML DTDs will facilitate ease of integration into heterogeneous web environments. Intelligent information is formatted in multi-dimensional documents that will simplify the exchange and make it available in a user-friendly format. XML will interpret and standardize data from WebOrder, such as real-time inventory status, customer records, customer order history, customer preferences, demographics and further enterprise information. The addition of XML broadens WebOrder's open technologies: common objects, an open API, an SDK and traditional CGI executables. This will allow WebOrder users to exchange data easily with in-house developed applications and other complementary front-end packages by BroadVision, Interworld, IBM, and others. www.smith-gardner.com

UWI.COM AND COMMERCE ONE PARTNER WITH XML-BASED E-COMMERCE

3/29/99

UWI.Com, and Commerce One, announced a partnership that will integrate Commerce One's MarketSite and UWI.Com's InternetForms System, to streamline the supply chain and

bring, XML-based e-commerce to all sizes of trading organizations. The integration allows a trading community's suppliers to interact with MarketSite using InternetForms, which provides simplified supplier integration into the MarketSite marketplace. Typically, suppliers are small and medium-sized organizations (SMEs) who still use costly channels such as paper, email, and fax to perform transactions with a MarketSite trading community. For example, historically a supplier has used email or fax to exchange catalog content updates, status updates, invoices, and purchase orders with its trading community, which were then manually entered into MarketSite. Soon, suppliers will be able to connect to a MarketSite trading community with a web browser, open an InternetForm (for example, a catalog content update), fill it out, sign it and submit it, facilitating e-commerce trading with the community and removing manual entry from the process. www.uwi.com, www.commerceone.com

HYNET RELEASES VERSION 2.1

3/30/99

Hynet Technologies announced the release of Hynet Directive 2.1. Hynet Directive is an XML-based electronic publishing product currently being used by financial institutions and high-tech manufacturers to convert documents and easily publish up-to-date information to the Internet and CD-ROM. Directive 2.1 improves ease of use with: the ability to access to the Directive conversion engine via C++, Visual Basic and Java; the ability to easily edit Directive document types; and the ability to edit and reuse existing and/or automatically generated document mapping rules. The Directive conversion engine, which can be purchased separately from the Directive publishing product, provides conversion of Microsoft Word and Adobe FrameMaker documents to HTML or XML. This tool is now enhanced for batch processing environments with command line access and APIs for C++, Visual Basic, and Java. www.hynet.com

DATAWARE ANNOUNCES KNOWLEDGE QUERY SERVER 2.0

3/29/99

Dataware Technologies, Inc. today announced the Dataware II Knowledge Query Server 2.0, a comprehensive information retrieval solution

that seamlessly integrates with corporate intranets -- allowing users to simultaneously query multiple information repositories, including internal and external web-based resources such as Lotus Domino databases, document management systems and intranets. Each query returns results in a single, merged and formatted list that is easy for users to understand and act upon. Users need not perform numerous individual searches of knowledge sources inside and outside their organizations -- a single search provides a portal to all available information. Knowledge Query Server 2.0 takes advantage of the combined power of leading web search engines -- including AltaVista, Northern Light, HotBot, Excite, Fulcrum, Infoseek, Verity, Lycos, Magellan, WebCrawler, DejaNews and other internet or intranet HTTP-compatible search services -- and then processes the returns to provide users with unified, intelligently sorted information. Searches can be created to comb multiple intranet-based corporate resources exclusive of the Internet or examine internal and external web-based sources at the same time. <http://queryserver.dataware.com>

NETMARQUEE EXPANDS CAPABILITIES OF INSTANTEdit

3/29/99

NetMarquee Inc. announced that it has added new features to improve the capabilities and user-friendliness of its InstantEdit content management system. NetMarquee specializes in integrating Internet content, technology and marketing to improve clients' online direct marketing results. The company's InstantEdit application is used by clients to review, edit, approve and update Internet content of all types for Web and/or e-mail distribution. The content can include product descriptive information, resource center articles, feature material and corporate overview information. InstantEdit is available for licensing as either a stand-alone product or as part of a package of online direct marketing products and services. www.netmarquee.com

ALTRO JOINS HP INTERNET SOLUTIONS PROGRAM

3/29/99

Altro Solutions, Inc. announced it has joined Hewlett-Packard Company's Covision Internet solution program. This program is designed to allow HP partners to leverage HP products and services to deliver differentiated Internet electronic service solutions to their mutual customers. Altro will focus on delivering end-to-end document- and knowledge-management, cross-enterprise, and electronic service solutions for industry, education and government customers of HP systems using the Windows NT and HP-UX operating systems. In addition to its business consulting, process reengineering, software development and systems-integration services, Altro now offers dc solution -- an easy-to-configure and use document control toolkit based on HP systems and the DOCUMENTUM EDMS 98 software platform and its SmartSpace Intranet client. The dc solution toolkit is intended to shorten the time required to develop and lower the cost of implementing document control systems. www.altro.com

EASTMAN SOFTWARE APPOINTS GENTIL NOENS VP AND GM

3/29/99

Eastman Software, Inc. has appointed Gentil Noens as vice president and general manager of Eastman Software's operations in European, African, and Middle Eastern region. Eastman Software's document management, imaging, workflow and Enterprise Report Management/COLD solutions have experienced solid growth in the EAMER markets and Noens will continue to focus on the continued success of the company and its solutions in these promising markets. Noens, an 11-year veteran of Eastman Software's European sales team, brings a solid knowledge of the EAMER markets and the work management industry. Noens' expertise comes from his experience as regional director of Belgium, The Netherlands, Luxembourg, and Switzerland for Eastman Software and as Software Business Unit Manager at Wang Belgium. Prior to his joining Wang and Eastman Software, Noens worked at ETAP, EDAN, and Trust International. Noens' appointment fills a previously vacant position. www.eastmansoftware.com

MULTICOSM ANNOUNCES KNOWLEDGESUITE SOFTWARE

3/24/99

Multicosm Ltd., a provider of dynamic hypermedia and enterprise knowledge management solutions, announced the availability of its KnowledgeSuite, a flexible framework for managing information and expertise throughout an organization. KnowledgeSuite dynamically records metadata about documents and individuals. The software applies theme extraction and linking technology to find and organize new and archived information, visualize relationships between documents, and enhance a user's understanding about the areas of expertise of other knowledge workers across an organization. Applications for the product include "super-charged" information retrieval and management, collaborative computing, and expertise identification. The KnowledgeSuite utilizes autonomous agents to monitor selected documents, Web sites, and new information in specified areas of interest. As new documents are presented, they are automatically populated with links to thematically related information on local drives, corporate intranets, and the Web. This allows workers to see their documents in the most up-to-date context and see relevant relationships to similar projects underway in other parts of the company, as well as discover colleagues with similar interests and expertise. www.multicosm.com

OPEN MARKET ANNOUNCES ALLIANCE WITH DELOITTE

3/24/99

Open Market, Inc. and Deloitte Consulting, announced that they have entered into a strategic alliance to offer Internet commerce solutions. Deloitte Consulting will work with Open Market as an e-commerce technology vendor for the Customer Relationship Management practice. As firms finish implementing ERP systems, they face the challenge of how to integrate and streamline their customer-facing business processes. Deloitte Consulting and Open Market will work together by delivering Internet commerce solutions to the industrial business-to-business marketplace, helping users of major ERP applications deploy Internet commerce catalogs rich in merchandising and customer service features. www.openmarket.com, www.dc.com

HP LICENSES NATURAL LANGUAGE TECHNOLOGIES FROM INXIGHT

3/23/99

Inxight Software, and Hewlett-Packard have concluded a licensing agreement for Inxight's Summarizer and LinguistX Platform software components for use in HP Simple Trax. HP SimpleTrax enables users to save, manage and find files easily on CDs. The two natural language technologies from Inxight enable customers to search for and view summaries of text files on CDs - without necessarily having to replace the CD in the drive first. LinguistX Platform is component technology that uses a natural language approach for automatic meta content and knowledge extraction. With LinguistX Platform, developers and online publishers can differentiate their applications, services, and content by identifying concepts automatically. Inxight Summarizer is a software component technology that summarizes a typical document by extracting key sentences from the document in real time. It can be used for any collection of documents including digital libraries, file system management, and information retrieval. www.inxight.com

REPORT2WEB CORPORATION ANNOUNCES REPORT PORTAL

3/22/99

Report2Web Corporation, a provider of Web-based enterprise reporting solutions, announced plans to introduce Report2Web 2.0, an enterprise report portal. The software, which will be available in April, is designed to give users easy access to business information via a standard Web browser. Report2Web uses Internet server technology to securely distribute any report, anywhere, at any time through a single user-friendly interface. Similar to the ease of use of popular external Web portals, the software uses a company's Intranet or Extranet to distribute documents through an enterprise to an end-user's desktop. Report2Web handles all kinds of documents, including massive greenbar reports that, in paper format, could be thousands of pages long, and puts them online. Report2Web allows for instant retrieval of reports up to a million pages long. Along those same lines, a burster feature splits large reports (up to 2 gigabytes) and distributes them to the appropriate people in an enterprise. Users can also archive reports, and e-mail features let people send reports to colleagues, or subscribe to reports and be notified via their own in-boxes when a new information relevant to them is posted. Report2Web also offers search capabilities for easy location of reports and key words within reports. Pricing for the Report2Web 2.0 software, which runs on a Windows NT server, starts at \$19,950. www.report2web.com

INTERLEAF ACQUIRES TEXCEL

3/22/99

Interleaf, Inc. announced it has agreed to acquire substantially all of the assets of Texcel International AB, provider of XML-enabled content management solutions. Texcel, founded in 1991, provides software and services to corporations and government agencies that depend on information access and efficient reuse for competitive advantage, through its product, Information Manager. The integration of Information Manager's end-user desktop environment with advanced search capabilities and flexible, easy-to-use workflow features, along with a Web interface for most desktop features, will complement and extend BladeRunner's authoring, composing and publishing strengths. Under the agreement,

Interleaf is purchasing the assets associated with Texcel's software solution, Information Manager, and hiring the majority of Texcel's development, sales and consulting employees. Additionally, Texcel and Interleaf intend to form a joint venture which will have distribution rights to Interleaf software within Scandinavia. The transaction will be accounted for as a purchase of assets using a combination of cash and common stock. The results of the acquisition are currently projected to be accretive to the financial results of Interleaf within the first year of combined operations. The transaction is scheduled to occur on April 1, 1999, subject to customary conditions to closing. www.interleaf.com.

There is a lot of synergy between the new Interleaf and Texcel in terms of products as well as the customer base. We think this combination is a good move for both vendors and should be beneficial to the combined customer base.

INFORMATION ACCESS TO INCORPORATE NCOMPASS RESOLUTION

3/22/99

NCompass Labs, a provider of Web publishing and content management solutions, and Information Access, Inc. (IAI), a value-added distributor of document management solutions, today announced that IAI has joined the NCompass Labs Partner Program. This partnership will allow IAI to resell NCompass Resolution, the leading Web content architecture application, as part of its Web document management solution offerings. www.ncompasslabs.com, <http://infoacc.com>.

BACKWEB AND I7 BUSINESS SOLUTIONS SIGN OEM LICENSE

3/22/99

BackWeb Technologies, announced an OEM license agreement with i7 Business Solutions that enables i7 to integrate its component-based Internet application INTELLInformation with BackWeb's Internet communications platform. This integration enables the delivery of time-sensitive, business-critical information from internal or external sources to targeted end-users within a single application interface. The INTELLInformation Solution package, with BackWeb's Internet communications platform,

provides a document management and delivery process for consulting companies and systems integrators. BackWeb's Flash technology will be used to deliver time-sensitive, project-critical information to the desktop of the user. The Flashes can contain any type of file or media, and are automatically delivered to a consultant or systems integrator's desktop, regardless of the application in use. The notifications can be set for minimum, medium or maximum priority depending on the urgency of the message. In addition to the INTELLInformation Solution package, i7 Business Solutions and BackWeb Technologies are currently working with several insurance companies in Europe to create an application designed specifically for the insurance industry. www.i7-business.com, www.backweb.com.

MIVA ANNOUNCES MIVA EMPRESA v3.6

3/22/99

Miva Corporation, a provider of Web commerce software, today introduced Miva Empresa v3.6, an application engine designed for Web hosting companies, ISPs and enterprises to enable users on their servers with Miva Script, the XML-based scripting language used by more than 25,000 developers. Individual users on a Miva-enabled Web server can utilize Miva Script to create and deploy e-commerce and data-driven Web sites. The new Miva Empresa v3.6 edition includes full CyberCash, CyberSource, and PaymentNet support using the MvCOMMERCE tag which can be embedded in a Web page to automate robust payment processing. Miva Script is accessed through an application engine, included with Miva Empresa, which plugs into virtually any Unix or Windows Web server. Once the engine has been plugged into a Web server, files with certain extensions are automatically parsed and deployed by the engine. Web hosting companies and ISPs can use the execution environment to configure their systems on a global, per domain and per user basis for virtual domain setup, multiple user configuration, sandboxed execution and performance tuning. Enterprises can utilize Miva Empresa v3.6 to create and deploy commerce applications, data-driven Web sites and corporate Intranet applications such as a company store for requesting supplies. www.miva.com

IPF INVESTS IN ILUMIN

3/22/99

iLumin Corporation announced that an equity investment has been made in the company by IPF Fund, LLC. iLumin's software combines intelligent documents based on XML, proprietary automated processing, and secure digital signatures to facilitate the execution and filing of documents of business, government and commerce over the Internet. Currently iLumin software is in use in the electronic filing of court documents in the State of Utah. iLumin has recently entered into strategic alliances with Microsoft Corporation and Intel Corporation, including incorporating the Pentium III processor serial number feature into its Online Signing Room. www.ilumin.com

DATASTREAM TO INCORPORATE DNA

3/22/99

Datastream Systems, Inc. announced its support of Microsoft's Windows Distributed interNet Applications for Manufacturing (Windows DNA-M) architecture. Windows DNA is a framework based on Microsoft technologies that enables multi-vendor software applications to work together in a single, distributed, enterprise-wide system. These technologies include Windows NT, Windows CE, SQL Server 7.0, XML, and COM/DCOM. Datastream has a full suite of remote access products based on DNA-M technologies, including Pocket MP (handheld computer interface using Windows CE) and MP2 WebLink (Internet work request and approval system). Future versions of MP2 Enterprise(TM) are also being developed based on DNA for Manufacturing architecture. Datastream's e-commerce initiative, utilizes XML technology under a DNA for Manufacturing approach focused on Microsoft Transaction Server, Microsoft SQL Server, Microsoft Site Server and Active Server Page technologies. e-MRO allows Datastream customers to complete the MRO (maintenance, repair and operations) purchasing cycle through on-line procurement.

www.dstm.com

CAERE ANNOUNCES OMNIFORM 4.0

3/22/99

Caere Corporation announced the availability of OmniForm 4.0 for Windows 95, 98 and NT, a major upgrade of the forms application. Version

4.0 adds many new features, which improve its form conversion, form design and editing and form filling capabilities. In addition, OmniForm 4.0 provides the ability to save forms to a variety of Web-ready formats, including DHTML, HTML and PDF. These enhancements provide users with the tools they need to create intelligent forms for the desktop, the local area network, the intranet and the World Wide Web. OmniForm 4.0 is priced at \$149 and is immediately available from Caere's Web site and available as early as March 30th from software resellers. www.caere.com

CENTRA ANNOUNCES CENTRA 99

3/22/99

Centra Software announced Centra 99, a solution for delivering a full range of live business collaboration across intranets and the Internet. The Centra 99 product suite offers a set of capabilities, options, event templates, and toolkits in a scaleable, extensible, and easily deployed "Enterprise" system. The combination of the new, no-install Centra CONFERENCE Web client and the collaborative, firewall-friendly Centra SYMPOSIUM client enables Centra 99 to span all internal and external user communities, as well as all geographic and network boundaries. Critical business processes such as 1:1 selling, product launches, and enterprise application training that may have required travel or the use of teleconferencing and component Web technologies are now supported in a single, software system that includes centralized log-in, administration, reporting, security, and content management.

www.centra.com

LIVEPAGE UNVEILS LIVEPAGE ENTERPRISE FOR LINUX BETA

3/18/99

LivePage Corporation announced the opening of the beta test program for the Linux version of LivePage Enterprise, its content-base management system. This new version will enable deployment of LivePage ContentServer on the rapidly expanding installed-base of Linux web servers. LivePage Enterprise now allows users to leverage the functionality, performance and value of the Linux platform. LivePage Enterprise 2.0 delivers multi-user, collaborative management for content including XML, SGML

and HTML, as well as digital media such as graphics. LivePage separates management of content and presentation style, enabling personalization (presentation style based on user attributes) and supporting the use of standard tools and storage formats (XML, SGML) for content. The server applies presentation style and end-user features such as navigation, advanced searching, dynamic site map, "what's new" capability, and table of contents. www.livepage.com

VERITY NAMES CHAIRMAN

3/18/99

Verity, Inc. announced that it has named Gary J. Sbona to the position of Chairman of its Board of Directors. Sbona has been Verity's President and Chief Executive Officer since July 1997 and has been a Board member since May 1998. Verity also announced that it has extended its agreement with Regent Pacific Management Corporation to run through August 31, 2000. Under the amended agreement, Regent Pacific continues to provide the services of Gary J. Sbona as President and Chief Executive Officer, and continues the services of other principals of Regent Pacific who have been part of Verity's executive management team since July 1997. The new agreement provides Verity with an option to further extend the term of this agreement through February 2001. www.verity.com

ORACLE'S PANAMA TO ENABLE DYNAMIC WEB CONTENT FOR MOBILE DEVICES

3/17/99

At CeBit, Oracle previewed technology for delivering dynamic Web content to users of mobile devices, including GSM smart-phones, Windows CE devices and Palm Pilots. The technology, code-named "Project Panama," will allow Internet and mobile service providers to deliver personalized services directly to mobile devices without having to modify content for them. Content providers will benefit from the ability to extend their reach beyond the desktop PC to a whole new group of mobile device users. Currently, service and content providers and mobile operators must create custom Web content designed to meet the special requirements of mobile devices, including limited screen size and memory.

Project Panama will remove the limitations of retrieving Web-based material by automatically translating the HTML- or XML-based format of Internet content to the languages understood by wireless devices. Utilizing protocols including Wireless Access Protocol (WAP), Project Panama will enable access to all existing Web content through mobile devices. Project Panama is slated to be integrated into the existing network infrastructure and will be built on top of Oracle's Internet platform. www.oracle.com

This could make for some interesting possibilities when combined with Oracle 8i and some of the XML development promised by Oracle. We wonder which areas their own solutions groups will apply some of this technology to.

RADIAN SYSTEMS RELEASES XML-BASED PRODUCTS

3/17/99

Radian Systems, Inc. announced the extension of its WSDOM family of products by releasing two software applications, WSDOM XML-Xpress and WSDOM XML-Portal, based on XML. These applications provide the means to take legacy data in any form and distribute it via the Internet. WSDOM XML-Xpress allows companies to take information from virtually any Legacy database or application and transform it to XML-tagged files. WSDOM XML-Portal serves as a repository and manager for XML-tagged data. It is the entry point to an organization where users can configure and view personalized information using a Web browser. www.radsys.com

We don't know exactly how this works, but there will certainly be a growing need to integrate older imaging applications into XML-based content management systems.

CASCADE ANNOUNCES INVESTMENT

3/16/99

Cascade Systems Inc., announced that it has secured \$6 million in new venture capital funding. There are two principal participants, namely Adobe Ventures and H & Q Venture Associates. Cascade's business focus is to deliver scaleable, high performance cross-media publishing solutions to its customers that include traditional publishers such as newspapers, magazines, and now increasingly,

catalogers and retail advertisers.
www.cascadenet.com

FILENET LAUNCHES INITIATIVE FOR INSURANCE INDUSTRY

3/16/99

FileNET Corp. announced it has launched an initiative to offer market-specific integrated document management solutions for the insurance industry. As a result of this initiative, FileNET and its ValueNET business partners dedicated to serving health, life, property and casualty insurers are delivering tailored solutions to help enable these companies to more effectively manage document-intensive processes unique to this competitive market. As a central part of this initiative, FileNET will work closely with industry-focused systems integrators, resellers and third-party solutions providers to develop top-tier packaged solutions that meet specific IDM needs across the diverse sectors of the insurance industry. These applications, based on FileNET's Panagon family of IDM products, address critical line-of-business activities including new business underwriting, claims processing, customer service, premium processing, reinsurance and records management and Web publishing.
www.filenet.com

DOCUMENTUM ANNOUNCES MOVE INTO WEB APPLICATION MARKET

3/16/99

Documentum, Inc. announced its strategy to expand its product line by delivering a broad range of Web applications, based on its new Web application environment, to foster innovation of new products and processes. The Documentum Innovation Application Series will be tailored for the company's targeted vertical industries and focused on five categories: marketing and sales, quality management, research management, financial risk management and project/team management. The Documentum Innovation Application Series is based on the company's new Documentum Web Application Environment, which consists of a Web application server, a family of Web clients, and development and administration tools. The Documentum Web Application Environment also enables the development and deployment of custom Web applications by Documentum customers and system integrator

partners. Documentum's Innovation Application Series is designed to meet specific industry requirements in Documentum's four key market segments: process manufacturing, discrete manufacturing, financial services, and business and government services.
www.documentum.com

NETRIGHT & MDY INTEGRATE TECHNOLOGIES

3/16/99

NetRight Technologies announced the integration of MDY Advanced Technologies' RMS (records management systems) with the iManage document management system (DMS). The result of the integration allows for seamless management of physical files and electronically stored documents. The marriage of these two systems, part of NetRight's iDevelop program, allows users to better manage the wealth of their firm's hard copy files and on-line documents with greater ease and efficiency. Users can concentrate on the substance of their work and not worry about the logistics of navigating back and forth between their document and record management systems. MDY's RMS is designed for the large capacity/high-volume environment of large corporations, law firms and government agencies. The application incorporates the generation of bar codes for file tracking; retention scheduling, archiving and final disposition scheduling; integration with electronic document management systems like iManage.
www.netright.com, www.mdy.net

OASIS CONTENT ON XML.COM

3/16/99

OASIS, the Organization for the Advancement of Structured Information Standards, announced that it will provide XML.com, a Web resource for XML professionals, with content in the form of daily XML-related news. OASIS will supply the popular "What's New" page from the OASIS/Robin Cover SGML/XML Web Page for re-publishing on XML.com. As a result of the new agreement between the two organizations, OASIS will become a content provider for XML.com. OASIS and XML.com will maintain links between the OASIS web site (www.oasis-open.org), the Robin Cover SGML/XML Web Page (www.oasis-open.org/cover/) and XML.com (www.xml.com). Sponsors of the OASIS/Robin Cover SGML/XML Web Page,

including GCA, Inso, ISOGEN and Sun Microsystems, will also be sponsors of the Cover material on XML.com. www.oasis-open.org, www.xml.com

MICROSTAR AND VERVET ANNOUNCE XML BUNDLE FOR E- COMM

3/15/99

Microstar Software Ltd. and Vervet Logic today announced an agreement to bundle Near & Far Designer XML from Microstar and XML Pro from Vervet. The package will be available from both companies for a special promotional price. Together the products allow for XML-based Web application design (Near & Far Designer) and XML content creation (XML Pro) in a comprehensive suite for Web developers at a competitive price. Microstar also announced the availability of an XML only version of Near & Far Designer. The product is designed to meet the specific needs of Web application developers in the rapidly growing market for XML publishing and e-commerce applications. www.microstar.com, www.vervet.com

SHANA ANNOUNCES FILENET SUPPORT

3/12/99

Shana Corp. today announced the release of its FileNET Panagon IDM plug-in for v2.6 of Informed Designer and Informed Filler, Shana's e-forms design and deployment tools. Together, Shana's Informed and FileNET's Panagon IDM Document Services software provide tools and services for the design, deployment and maintenance of form-centric solutions. The Informed/FileNET plug-in requires Informed version 2.6 and Panagon IDM Desktop version 2.0 or greater. The plug-in is available immediately for free to any registered user of Informed version 2.6 and can be downloaded from the following URL: <http://www.shana.com/product/filenet/>

INSO BOARD ELECTS STEPHEN O. JAEGER CHAIRMAN

3/12/99

Inso Corporation announced that Stephen O. Jaeger has been elected non-executive Chairman of the Board of Directors effective immediately, filling a position which had been vacant. Mr.

Jaeger is currently an independent member of the Board of Directors and Chairman of the Audit Committee. Mr. Jaeger, 54, is one of the founders of Inso and has served on the Company's Board of Directors since its Initial Public Offering in 1994. He previously served as Executive Vice President, Chief Financial Officer, Treasurer and Member of the Board of Directors of Houghton Mifflin Company. Mr. Jaeger, who is currently a principal, director and officer of PharmaCom Group Inc., has also served as Vice President, Chief Financial Officer and Treasurer of The Perkin-Elmer Corporation. Previously, he served as Senior Vice President and Chief Financial Officer of the North American Operations of The British Petroleum Company PLC ("BP") and as a Division Manager at BP's London headquarters, reporting to British Petroleum's Treasurer. Mr. Jaeger also currently sits on the Board of Directors of Strategic Diagnostics Inc. He is a Certified Public Accountant and a veteran of the U.S. Navy. Mr. Jaeger received an MBA in Accounting from Rutgers University and a B.A. in Psychology from Fairfield University. www.inso.com

UWI.COM INTRODUCES INTERNETFORMS DESIGNER 1.2

3/11/00

UWI.Com, announced a new release of InternetForms Designer, the visual interface for professional XML forms creation. InternetForms Designer 1.2 enables developers to create and deploy secure, intelligent, and legally-binding documents for their e-commerce applications while taking advantage of the openness of XML. The new release also includes several new features that improve developer productivity and enhance ease-of-use. The release of InternetForms Designer 1.2 completes the newest version of the InternetForms System, a suite of products based on XFDL (Extensible Forms Description Language), the XML protocol for legally-binding transactions on the Internet. XFDL was co-authored by UWI.Com and Tim Bray, co-editor of the original XML specification, and has been submitted to the W3C for consideration as an Internet standard. The InternetForms System also includes InternetForms Viewer, a web browser extension for completing and signing InternetForms, as well as a broad range of processing applications for popular databases, imaging, document

management, and workflow systems, legacy access, and Palm PCs. www.uwi.com

DOCUMENTUM ANNOUNCES

SUPPORT FOR S.W.I.F.T

3/10/99

Documentum, Inc. announced its inclusion into the Society for the Worldwide Interbank Funds Telecommunications (S.W.I.F.T.) Partner Program as a registered vendor in the Derivatives Provider category. Documentum's suite of finance industry solutions, based upon the Documentum Enterprise Document Management System 98 (EDMS 98), currently supports the S.W.I.F.T. financial message standards. This integration provides Documentum finance customers with an industry standard method for communicating documents between counterparties. Documentum is also working with S.W.I.F.T. to attain the necessary information and support to achieve the next level of accreditation, known as Silver. Virtually every major bank uses the S.W.I.F.T. network to communicate interbank payments and settlements. Other less sophisticated communication mechanisms include fax telex and email. S.W.I.F.T. establishes standards for message transfer to provide low-cost, competitive financial processing and communication services of the highest quality, integrity and reliability. Documentum support for the message standards now enables its industry leading Swaps and Derivatives confirm generation system to interface to the S.W.I.F.T. network. www.documentum.com

SUN UNVEILS XML SUPPORT IN

JAVA

3/9/99

Sun Microsystems, Inc. announced its intent to create a Java platform standard extension for XML through the Java Community Process. The XML standard extension will be an industry-developed API that enterprises and developers can rely on for high quality XML language integration with the Java platform. Sun has outlined an initial version of the XML standard extension that provides basic functionality including the ability to read, manipulate, and generate XML technology-based data streams and formats. These core features form the building blocks for developing fully-functional XML language oriented applications. The XML

standard extension will consist of a specification, reference implementation, and compatibility test suite. The XML standard extension will conform to the XML 1.0 specification, will leverage existing efforts around other Java technology-based APIs, and will be developed using the Java Community Process. <http://java.sun.com/xml>

NETSCAPE TO INTEGRATE XML

INTO E-COMMERCE APPS

3/9/99

Netscape Communications Corporation announced that it will integrate comprehensive support for XML across its portfolio of e-commerce applications to help customers harness the benefits of XML to streamline interoperability between companies to better manage their commerce foundation in the Net Economy. Netscape's implementation of XML will support e-commerce transactions, business processes and catalog exchanges. The Netscape CommerceXpert family of packaged applications enable Internet commerce exchange, corporate procurement, online selling and customer information services. Netscape CommerceXpert products that are scheduled to support XML include Netscape BuyerXpert, Netscape ECXpert, Netscape SellerXpert and Netscape TradingXpert. www.netscape.com

XEROX SHIPS DOCUSHARE 2.0

3/9/99

Xerox Corporation announced immediate availability of DocuShare 2.0, the company's knowledge sharing software platform. DocuShare 2.0 includes significant new features and extensions that allow users, developers and VARs to build highly-customized solutions for sharing knowledge over the Web. DocuShare 2.0 is the first commercially available implementation of WebDAV the emerging standard endorsed by Netscape, Microsoft and Oracle for managing large document repositories across the Web. Xerox has also built on the DocuShare platform to provide interoperability with popular Xerox and third party document capture and output devices. To better serve customers large and small, DocuShare is now available through Xerox Business Services (XBS), as an accessory to Xerox Document Centre networked multifunction devices, and through its VAR channel. DocuShare 2.0 is available in three

versions. DocuShare Basics is designed for distributed workgroups requiring a Web-based interface. DocuShare Office meets the needs of more complex organizations, and offers a secure, easily customizable Web interface as well as integration with Microsoft Windows through the XML-based DocuShare Windows Client. DocuShare Enterprise cost-effectively integrates with enterprise-wide applications such as Oracle databases. DocuShare pricing in the US starts with a Basic server and 25-user license for only \$1,345. An Office-level server with 500 licenses is \$14,995. An unlimited Enterprise server license is \$44,995, and includes links to Oracle databases. All prices are \$US, and include support for one year. www.xerox.com

KODAK NAMES GERRY SUTTON PRESIDENT OF EASTMAN SOFTWARE

3/9/99

Eastman Kodak Company today announced that Gerry Sutton has been appointed President of the company's Eastman Software subsidiary, effective immediately. Sutton will report to Candy Obourn, President of Kodak's Document Imaging business, with Eastman Software continuing to operate as a subsidiary unit of the company. Sutton replaces Robert Weiler, who had been president of Eastman Software since the unit's inception in 1997. Weiler will remain a consultant to the business. Kodak will align the subsidiary under the company's Document Imaging business, the supplier of micrographics and document imaging products and services. Sutton's most recent assignment was as general manager for Kodak's Business Imaging Systems worldwide service bureau operations and sales. In addition he has served as general manager for the business in the U.S. and Canada, Europe, Africa and Middle East Regions and has managed the Asia Pacific Regional operations for Eastman Software. www.eastmansoftware.com

INFOTERIA UNVEILS "XML SOLUTION COMPONENTS"

3/8/99

Infoteria Inc. unveiled a new software product named "XML Solution Components." XML Solution Components is a series of components for building the XML-based solution systems. Using XML Solution Components, the inter-Enterprise XML-based information system, and XML-based e-Commerce internet systems are

built easily. The first version of XML Solution Components consists of 7 components, iAccess, iHTML, iMessage, iNotes, iOracle, iPad, and iRule. For example, iMessage handles the XML data send via SMTP and retrieves it from the mail box to the XML storage. iHTML generates HTML file from XML data with XSL based style rules, so that the end-users do not require the latest Web browser such as Internet Explorer 5.0 to access to XML-based system. Each component in XML Solution Components can be purchased separately. The components are available as Executables, Windows COM modules and C++ libraries. The components will separately start shipping in May, 1999 to August, 1999. Japanese versions will also be available in addition to the English versions. Infoteria Inc., founded in 1998, is a software company that focuses on XML technology. The company is dedicated to the development of a wide range of practical XML software products from XML access libraries to XML Servers for the purpose of inter-enterprise electronic commerce. www.infoteria.com

ARBORTEXT SHOWS "FREE-FORM" XML EDITING

3/8/99

Arbortext, Inc., demonstrated a "free-form" XML editing capability that will be available in upcoming releases of Epic and ADEPT products. Content management systems that allow free-form editing enable an author to create and refine XML documents without a corresponding DTD.. Arbortext's support for free-form editing means Epic and ADEPT users can edit well-formed XML documents as easily as they edit valid XML documents today. The amount of content available in XML is rapidly expanding and users of proprietary tools will be virtually "locked out" of the XML wave because of the huge cost of conversion. With Arbortext's free-form XML editing capability, no conversion is necessary -- authors can instantly read, modify and write well-formed XML data from any source, or incorporate that data into a valid XML document. www.arbortext.com

ONDISPLAY ANNOUNCES XML SUPPORT

3/8/99

OnDisplay announced the immediate availability of CenterStage 3.3 which provides XML support for rapid business-to-business application integration. Leveraging CenterStage's graphical approach to heterogeneous content integration, the XML features allow trading partners to be integrated in less than one-third the time required using first generation programming oriented business-to-business integration tools. The XML support allows companies to parse, query, transform and map XML bi-directionally with ERP applications, E-Commerce applications, databases and legacy systems. OnDisplay is an active proponent in the development of XML as an emerging standard for e-business integration, specifically in the areas of content aggregation and application integration. OnDisplay is a member of several XML-related industry consortiums such as CommerceNet, Open Applications Group (OAG), and ICE, and will support XML-based E-Commerce frameworks such as Microsoft's BizTalk and Ariba's cXML initiatives. OnDisplay will incorporate support for these XML DTDs into CenterStage to further automate business-to-business collaboration across industry standard specifications. www.ondisplay.com

AUTONOMY NEW HIRES IN WASHINGTON AND BOSTON

3/8/99

Autonomy, Inc. announced the establishment of offices in Washington, D.C. and Boston. Autonomy has named six new hires for marketing and sales: Dan Buan, Darlene G. Hines, Rita Joseph, Mitchell Logan and Julie Hartigan in the Washington, D.C. office and Allyson Miller in the Boston office. The eastern regional division will report directly to Steve Jaffee, director of eastern region, while the federal division reports to Jon Wilks, vice president of sales. Autonomy develops software that automatically organizes large, unstructured volumes of information into personally relevant communications to help corporate intranets and commercial websites serve the changing needs and interests of users. www.autonomy.com

HUMMINGBIRD TO ACQUIRE PC DOCS GROUP

3/4/99

Hummingbird Communications Ltd and PC Docs Group International Inc. announced they have entered into an agreement pursuant to which Hummingbird would acquire PC Docs Group. Each outstanding common share of PC Docs Group will be exchanged for 0.3333 of a common share of Hummingbird. As a result of the transaction, PC Docs Group will become a wholly-owned subsidiary of Hummingbird. The transaction values PC Docs Group at approximately US\$155 million, representing a 38% premium for PC Docs Group shareholders based on the average closing prices of the two companies' shares over the last ten trading days prior to the announcement of the transaction. Following the completion of the transaction, which is estimated to be during May 1999, PC Docs Group will become an operating division of Hummingbird, continuing to serve and support its customers in close collaboration with the Hummingbird organization. The Boards of Directors of Hummingbird and PC Docs Group have each unanimously approved the transaction. Ruby Osten will become Vice Chairman of an expanded seven person board of directors of Hummingbird and will retain his position as President of PC Docs Group.

It has been pretty clear for awhile that some sort of acquisition would result from all the friendly and unfriendly discussions between PC Docs and potential buyers. The combo will be a fairly large software company. Hopefully the transition will be quick and smooth.

MICROSOFT ANNOUNCES BIZTALK

3/4/99

Microsoft Corp. has announced Microsoft BizTalk, a new cross-platform e-commerce framework that makes it easy for businesses to integrate applications and conduct business over the Internet with trading partners and customers. The BizTalk framework is based on XML schemas and industry standards that enable integration across industries and between business systems, regardless of platform, operating system or underlying technology. Microsoft also announced plans to incorporate the BizTalk schema into the Microsoft Commerce Platform, initiatives for the MSN network for Internet services, and future

versions of Office, the BackOffice family and Windows operating systems. BizTalk makes integrating software in an internal technology environment easier and more cost-effective. Because BizTalk is a cross-platform framework, it allows software to communicate between different common object models, programming languages or shared database schemas. BizTalk is designed to enable the integration of software so that businesses can immediately increase the efficiency of their internal business systems and take advantage of e-commerce while making optimal use of existing investments in hardware and software. Microsoft plans to host a design review of new BizTalk schemas with customers, industry vendors and industry consortia in the second half of 1999. The design review will be an open forum for providing input on the BizTalk framework and will result in the publishing of all current and future BizTalk protocols. All BizTalk documents, message handling protocols and service descriptions will be maintained on the Microsoft Web site as a public resource. For more information about BizTalk, see www.microsoft.com/presspass/commerce/

We don't know exactly what this means yet, in spite of the announced support described in a number of the following news items, but it is obviously something to keep tabs on.

SAP AND MICROSOFT TO DEVELOP XML APP

3/4/99

SAP AG announced that it will work closely with Microsoft Corp. to develop new content specifications for key e-commerce functionality. The collaboration will focus on developing new XML specifications for the SAP Business Framework and Microsoft's BizTalk framework. The BizTalk framework will provide the foundation for SAP and Microsoft to help accelerate semantic interoperability -- a common business language -- by providing schemas for catalog and business document interchange between SAP and Microsoft applications. The interchange will be based on the SAP Business Application Programming Interface (BAPI) and the Microsoft COM infrastructure areas, extended by tight integration into the Microsoft BizTalk Server. Both companies will initially focus on the integration of buy- and sell-side business

processes and will define XML schemas for catalog and business document interchange between SAP and Microsoft applications within the next six months. The specification that is created will be used to integrate the SAP Business-to-Business Procurement solution and the Microsoft Commerce Server. The newly created XML specification will provide streamlined, accelerated and easy-to-use business processes and eliminate current system boundaries, help companies create more online business, and increase the opportunity to communicate and cooperate with other companies. www.sap.com

PEOPLESOFT AND MICROSOFT TO JOIN ON BIZTALK

3/4/99

PeopleSoft Inc. announced they have selected Microsoft technologies and standards to develop key elements of the PeopleSoft Business Network (PSBN), including PSBN's role-based Enterprise Portal and a series of Community Applications. PSBN is an electronic business network of Internet business solutions that will deliver a broad range of relevant information, including applications and content, to a large number of end users through an Enterprise Portal. Announced in November 1998 and scheduled for availability later this year. The two companies also announced that PeopleSoft plans to collaborate with Microsoft on the XML-based BizTalk framework for application integration and e-commerce.

www.peoplesoft.com

DATACHANNEL ANNOUNCES SUPPORT FOR BIZTALK

3/4/99

DataChannel, announced that its XML Framework, portfolio of XML software solutions and services, will support Microsoft's BizTalk to enable cross platform electronic commerce over the Internet. www.datachannel.com

LEVEL 8 TO SUPPORT XML

3/4/99

Level 8 Systems, provider of messaging middleware and enterprise application integration (EAI) solutions, announced support for Microsoft Commerce Interchange Pipeline (CIP) and the BizTalk framework in its upcoming EAI product, Geneva E/A Integrator. Geneva E/A

Integrator ("Geneva") is a Windows NT Server-based enterprise application integration product that supports XML based messaging and workflow integration across heterogeneous platforms and applications. Geneva, integrates with Windows Distributed interNet Applications (DNA) architecture technologies including MTS and MSMQ, XML, HTTP, and other middleware technologies. Geneva will be officially launched at the end of March. www.level8.com

WEBMETHODS TO SUPPORT

BIZTALK

3/4/99

webMethods Inc., announced support for both XML-based BizTalk, Microsoft's vision for cross-platform electronic commerce, and the next generation of the Microsoft Commerce Interchange Pipeline (CIP). Additionally, webMethods announced availability of cross-platform interoperability between its webMethods B2B products and current and future releases of Commerce Interchange Pipeline, including the version of CIP currently available with Site Server 3.0 Commerce Edition. www.webmethods.com

VITRIA JOINS IN SUPPORT FOR

BIZTALK

3/4/99

Vitria Technology, Inc. announced it will integrate its complete XML-based Enterprise Application Integration (EAI) with the Microsoft' Commerce Interchange Pipeline (CIP). Vitria BusinessWare allows companies to build graphical models of their business processes, and then directly execute these models, managing the flow of business events and information and harnessing transparently the underlying applications. www.vitria.com

ACTIVE SOFTWARE TO SUPPORT

BIZTALK

3/4/99

Active Software, Inc., provider of Enterprise Application Integration (EAI) software products, announced support for Microsoft Commerce Interchange Pipeline (CIP) and BizTalk Server. Active Software's ActiveWorks Integration System will integrate BizTalk Server with disparate front and back-office applications, providing a solution to conduct business with

partners and consumers over the Internet. Microsoft BizTalk Server will provide the tools and infrastructure to enable richer business process integration within and between companies and will make it easy for customers to use BizTalk by incorporating the standard XML schema and protocols defined by the BizTalk framework. www.activesw.com

INTERLEAF UPGRADE FOR WORLDVIEW AND RDM USERS

3/3/99

Interleaf, Inc. announced the availability of BusinessWeb 2.0 and BusinessWeb Plus 2.0, Web-enabled e-content solutions. BusinessWeb and BusinessWeb Plus combine Web technology with Interleaf's document management, distribution, workflow and Web viewing software to provide secure, Web-enabled access to Interleaf WorldView Press document collections and Interleaf RDM document repositories. BusinessWeb and BusinessWeb Plus enable browser search, retrieval and viewing of intranet-based corporate document repositories and electronic collections from a Java-enabled browser. The BusinessWeb viewing solution resides on the client, while BusinessWeb Plus uses a thin-client Java applet solution. Interleaf has integrated advances in its Xtravert Java viewing technology. The Xtravert technology allows users to more easily search through text in Web documents, and for users of BusinessWeb Plus, replaces the WorldView Java Viewer with Java viewing technology, expanded user interface and better text and graphic rendering techniques. Both solutions now offer document printing support for Postscript or PCL printers. www.interleaf.com

MICRO MODELING PARTNERS WITH OBJECT DESIGN

3/3/99

Micro Modeling Associates (MMA), a technology consulting firm, announced a strategic partnership with Object Design. MMA will leverage Object Design's object-oriented database management systems and tools, including eXcelon, their XML data server, to develop customized business solutions and Web applications for large corporations. As a premier member of ODI's eXtreme Advantage Partner Program, MMA will integrate eXcelon into its enterprise knowledge management service

offering for Fortune 500 businesses. MMA participated on Object Design's eXcelon steering committee alongside companies such as KPMG and Knight-Ridder, and is now incorporating eXcelon into its own technology framework. www.micromodeling.com

UWI.COM RETAINS PRICEWATERHOUSE COOPERS TO SECURE PARTNERSHIP

3/3/99

UWI.Com, the provider of XML-based Internet forms for business-to-business e-commerce, announced that the company is actively seeking a strategic partnership that will take advantage of the market for the company's solutions. The company has retained the services of PricewaterhouseCoopers Securities LLC to facilitate this strategic move. Qualified parties are invited to access the corporate profile website at <http://b2b.uwi.com> or contact Mark Fahlberg at: 703/610-7550. www.uwi.com

WEBMETHODS ANNOUNCES SUPPORT FOR cXML

3/3/99

webMethods Inc., provider of XML-based business-to-business e-commerce and integration solutions, announced that it will support Commerce XML (cXML), an open XML-based standard created to facilitate e-commerce within trading communities. webMethods is among 40 companies that have joined Ariba Technologies in the development of cXML, a suite of lightweight XML DTDs and their associated processes that define the exchange of catalog content and transaction information between buyers and suppliers. www.webmethods.com

INSO ANNOUNCES VERSION 3.1 OF DYNABASE

3/2/99

Inso Corporation announced the availability of Version 3.1 of DynaBase, their Web content management and publishing platform. DynaBase 3.1 delivers performance improvements versus version 3.0 for content personalization and searching, while also adding new usability features and Java-based management capabilities that address the requirements of large-volume corporate and commercial

publishers. DynaBase 3.1 adds support for managing and searching multiple content repositories. This enables publishers to more easily separate content for distributed authoring teams, segregate news feeds and other special data, and efficiently assemble content for searching and publishing on the Web, intranets or extranets. Publishers can now effectively manage ten times more content using a confederation of databases. DynaBase 3.1 includes a new Java API that provides full content management functionality (e.g. check-in/check-out, version control, etc.) and can be used to automate much of the Web publishing process. Full content management capabilities have also been added to Web Author, DynaBase's Java-based interface, providing Macintosh, Solaris and other Java users with access to all content management functions. The new version of DynaBase also includes a unique XML template system, along with sample templates. www.inso.com

RICOH ANNOUNCES OPEN SOURCE FRAMEWORK FOR WEB

3/2/99

Ricoh Silicon Valley (RSV) announced an open source release of its Platform for Information Applications (PIA), a framework for the development of flexible and dynamic information applications for small to medium-sized offices and workgroups. Designed specifically for light-weight, task-specific information applications, the PIA framework is distinguished by its ability to embed intelligence and action into collections of active pages without the need to learn a programming language. PIA will be available for download under the Ricoh Source Code Public License from www.RiSource.org, a site dedicated to providing open source support to developers of information applications for workgroups and small offices. PIA defines document-oriented information applications with its unique use of XML to specify processing. The PIA framework separates an application into a core processing engine (called an agency) and task specific modules (called agents) which consist primarily of simple web pages. The agency provides basic support for processing electronic documents -- a key component for utilizing web-based information. In addition to basic http client and server functions, the engine can dynamically parse and transform structured documents.

Operating as a server, proxy, or client, the agency flexibly routes request to the appropriate agent(s) and provides hooks for customization and enhancement at all levels of the processing. Agents provide the user interface and task-specific information processing (with the processing logic represented in XML)--making it easier to develop and maintain by non programmers. These pages may include special tags which are dynamically interpreted by the agency. Interface designers, graphical artists, or technical writers may develop the XML pages, and actual information design can be modified without code modification. www.ricoh.com

INTRANET SOLUTIONS PARTNERS WITH LIZARDTECH

3/2/99

IntraNet Solutions, Inc., announced that its Intra.doc! Web-based document and content management system now supports the MrSID (Multiresolution Seamless Image Database) Portable Image Format developed by LizardTech, Inc. LizardTech provides imaging technology and solutions to allow instant access to massive high-resolution digital images and multimedia content. This partnership enhances Intra.doc!'s ability to easily, publish, access and manage all of an organization's corporate information, including complex images from sophisticated engineering drawings to four-color photos on intranets/extranets and the Internet. The MrSID Portable Image Format enables Intra.doc! users to reduce massive high-resolution images down to at least 3 percent of the original image size without any visual image degradation. This capability lets Intra.doc! customers import, export, manipulate, transmit and store reproduction quality images -- even within Adobe PDF-based documents -- while preserving the entire image's integrity. Since the MrSID files are a mere fraction of the original size, transmission times and storage requirements are decreased dramatically. www.intranetsol.com, www.lizardtech.com

MKS ANNOUNCES UPGRADE OF WEB INTEGRITY

3/2/99

Mortice Kern Systems Inc. (MKS) announced a new release of Web Integrity, the company's cross-platform Web object management

solution. Web Integrity allows individual content authors to own, manage and change their own content while automating processes for approving, publishing and tracking change to Web pages. Web Integrity 2.4 is now available direct from MKS. Pricing starts at \$25,000US for a single server license of Web Integrity (NT or UNIX) and 25 client licenses. Web Integrity supports Web browsers and Web servers on a variety of platforms. www.mks.com

ADOBE ANNOUNCES INDESIGN

3/2/99

Adobe Systems officially unveiled their new page layout software, Adobe InDesign, at the Seybold conference. It is based on a new, open, object-oriented architecture that is extensible. InDesign had been known as "K2" while under development, and is the first real threat to Quark in the graphic design market since Quark became almost a de facto standard there years ago. Adobe also demonstrated some tight integration between the recently acquired GoLive web publishing tool and PhotoShop, Illustrator, Acrobat 4.0 and other Adobe products. www.adobe.com

This is important news for those involved in graphic arts and publishing applications but, although an impressive looking product, it is designed for graphics professionals rather than office workers or those publishing only web documents.

ORACLE SHIPS 8i

3/2/99

Oracle Corp., said 8i, its latest database program, designed to work seamlessly with the Internet, was now available from dealers. In January, they postponed shipment of 8i to allow more time for integrating other software and development tools with the product. It was originally slated to ship by the end of 1998. 8i has tools such as a built-in Java Virtual Machine, an "Internet file system," which will store and manage Web pages, multimedia data, word processing files and spreadsheets, and XML support. The database runs on Windows NT, Solaris and Hewlett-Packard's Unix, among others. www.oracle.com

OBJECT DESIGN ANNOUNCES EXCELON SHIPPING AND PARTNER PROGRAM

3/1/99

Object Design, Inc., announced that it has launched the eXtreme Advantage Partner Program for solutions providers and systems integrators interested in reselling or providing services based on the company's new eXcelon XML data server .eXcelon, which began shipping today. EXcelon supports Windows NT 4.0 and Windows 2000 platforms. Unix support will be available soon. eXcelon is available now from Object Design's eXtreme Advantage Partners. Pricing for development licenses start at \$995 per developer. Pricing for deployment licenses start at \$15,000 per CPU.

www.objectdesign.com

EXTRICITY NAMES NEW VP SALES

3/1/99

Extricity Software, Inc., supplier of business-to-business integration applications, added Jim Lochry as Vice President of Worldwide Sales. Lochry, formerly the Vice President of Worldwide Sales for Versant Object Technology and with five years experience as a senior sales executive at Oracle Corporation, brings over 15 years of experience in successfully driving sales efforts in the enterprise software arena.

www.extricity.com

XYVISION'S PARLANCE DOCUMENT MANAGER NOW ON NT

3/1/99

Xyvision Enterprise Solutions, Inc.(XyEnterprise) announced the availability of its two products, Parlance Document Manager and Xyvision Production Publisher (XPP)for the Microsoft Windows NT Platform. Both NT products will afford XyEnterprise customers the same information management and high-speed publishing capabilities experienced on UNIX platforms, while allowing them to take advantage of the cost and ease of use offered by Windows NT. www.xyvision.com

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CALENDAR

AIIM '99 Show and Conference, April 12-15, Georgia World Congress Center, Atlanta, GA 301.587.8202

AIIM's annual show focusing on document management, imaging, workflow, and storage and retrieval is a mammoth event.

XML Forum, April 11, Georgia World Congress Center, Atlanta, GA 301.587.8202

An AIIM pre-conference forum on the use of XML hosted by CAP Ventures.

Internet World Spring, April 12-16, LA Convention Center. 203.226.6967

The Spring version of Internet World is one of the largest. If it has to do with the Internet it will be here.

XML Europe '99, April 27-30, Palacio de Exposiciones y Congresos in Granada, Spain, 1703 519 8159

The successor to the SGML Europe Conference. A good place to find out the latest on XML and SGML activity in Europe.

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ISSN 1067-8719