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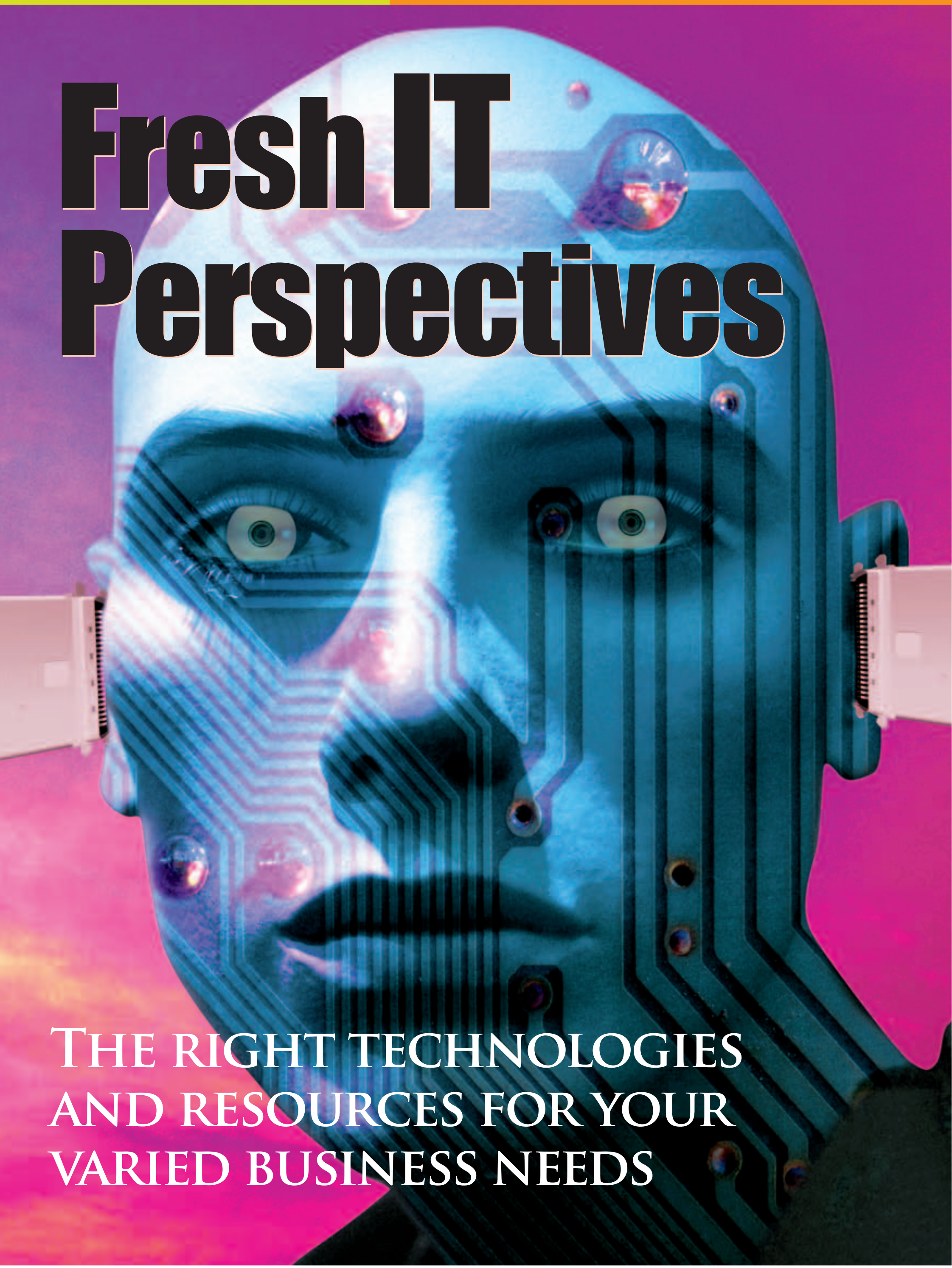

Fresh IT Perspectives

THE RIGHT TECHNOLOGIES AND RESOURCES FOR YOUR VARIED BUSINESS NEEDS

Top IT Solution Providers!

- > ArcMind
- > Azul
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- > Elastic Path
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- > HostMySite.com
- > MapInfo
- > Parasoft
- > Windward
- > Xenos
- > Xythos

Xythos Software:

Document Management Everyone Can Use

Unmanaged Content is Drowning Many Organizations

Unstructured data is doubling in size each year within most enterprise organizations. Yet in many of these same organizations, this vital information is hidden within individual desktops and fragmented in server silos across the enterprise. Employees spend countless hours looking for relevant content and waste many more hours reproducing work, ultimately costing employers millions of dollars in lost productivity. Organizations must find safer and easier ways to manage and share their content as they struggle to respond to growing security challenges impacting how they protect their enterprise information.

Global 2000 Organizations Will Respond Within the Next 24-36 Months

Most organizations can no longer afford to ignore this problem. Industry analysts have identified a trend toward simple document and file management solutions to meet this challenge and predict increased adoptions of content management systems over the coming years – particularly low-cost solutions designed for enterprise-wide deployments. These systems will provide the improved document collaboration features that users demand while delivering the enhanced security and data protection features that IT organizations require.

Solutions for a Distributed and Mobile Workforce

Xythos Software is a recognized leader in providing open standards-based document and file management solutions for distributed, global organizations. Xythos technology powers applications from leading software companies, including Oracle, SAP and SAS, while Xythos' applications support millions of users within academic, commercial and government institutions. Xythos' solutions are at work protecting document collaboration within a wide variety of processes including:

- **Protecting Strategic and Tactical Warfare Data:** The Xythos WebFile Server was integrated into the United States Joint Forces Command CDCIE portal, allowing U.S. and Coalition forces in Iraq to securely access and share real-time intelligence documents. Xythos' open APIs and WebDAV support enabled rapid application integration, while granular document access control helped address the military's content security requirements. Learn more: http://www.xythos.com/home/xythos/promotions/ITSG_JFCOM.html
- **Advancing Medical Research Collaboration:** The Surgical Planning Lab at Brigham and Women's Hospital enlists the help of doctors and researchers around the globe and needed a way for each of them to more easily contribute and review content as part of the grant writing process. After deploying the Xythos Enterprise Document Manager, the lab was able to collaborate more efficiently resulting in a $40 million, multi-year NIH grant award. Learn more: http://www.xythos.com/home/xythos/promotions/ITSG_BWH.html
- **Enabling the Virtual Classroom:** At the nation's largest co-operative education institution, Northeastern University, collaboration must take place everywhere—on or off campus. Northeastern's IT team developed a portal-based file storage and collaboration service with Xythos to help address the challenge of supporting its 50,000 distributed users and better facilitate the research and teaching process. Learn more: http://www.xythos.com/home/xythos/promotions/ITSG_NE.html

Xythos Enterprise Document Manager 5.0

The Xythos Enterprise Document Manager enables all of the previous use cases by providing each of the essential document and file management features distributed organizations need to safely access, manage and share content over the web. It can be accessed via any web browser, from anywhere, increasing collaboration capability and employee productivity.

The Xythos WebFile Server functions as the underlying WebDAV-compatible content management platform for the Enterprise Document Manager and can be used to integrate document and file management capabilities into third-party applications or portal environments. The WebFile Server works together with enterprise authentication security standards, including LDAP and Active Directory, providing an easy and secure way to manage user and group access rights to a Xythos system. It also supports SSL and VPN transport encryption to ensure that all point-to-point connections are protected. Used in combination with Xythos' advanced document level access control lists, the WebFile Server provides one of the most flexible yet secure content management platforms available.

The Xythos Enterprise Document Manager is designed to work together with the applications that users already know, accelerating user adoption and reducing support requirements. Typical deployments require minimal training because the interface is so simple and intuitive. As a result, enterprise-wide implementations are completed in a fraction of the time required for traditional ECM systems.

To learn more about Xythos and its award-winning system architecture, read our latest white paper: http://www.xythos.com/home/xythos/promotions/it_sg.html ■

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more relevant results than Google's appliance.

context searches mean better searches than Google's appliance.

your best choice for the most efficient searching of XML.

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element

DocSoft:
A New Element

We live in the thick of the Information Age — the explosion of digital information in all sectors of modern life has hindered business and organizations from quickly and accurately finding information. The challenge in our time is quickly finding relevant information in the proverbial haystack of material which grows ever larger by the second.

The future of search technology is "context searching," which allows users to return more defined and relevant results with each search. By reducing the amount of irrelevant results, context searching streamlines the process, increasing productivity by sharply decreasing overall search time.

XML (eXtensible Markup Language) defines documents using tags, or elements, to encapsulate and describe data. Because XML is becoming more widely used throughout all industries, a context search engine which indexes XML-originated data is a must for businesses seeking increased efficiency and output. By using tags (or 'elements') to define the data, a relationship is created between the elements and the actual data within them.

DocSoft now offers Element, the first appliance for the next generation of plug-and-play search technology. Element is offered as a series of search appliances for small businesses as well as enterprise solutions. Element provides standard searching on the most popular business document formats, but most importantly, it provides context searching of virtually any XML-originated document.

How It Works

The administrative user sets up a context map for each element relationship (either single or parent/child) using Element's web-based Administration Console. The context map assigns descriptive noun names for each selected element or parent/child relationship using standard XPath. This provides the end user a means of identifying in which tags the data was found, regardless of whether the tag names are an accurate descriptor of each element's data.

Once the context maps are created, the administrator points the indexer to repositories via HTTP or standard network address paths – a definite advantage over other search appliances. The administrator then sets intervals for each repository to be indexed.

The intuitive search interface provides the end user the ability to search across all document types or choose a specific document type to search (such as MS Office documents, PDF, HTML; or different XML documents that adhere to different schemas).

The user selects one or more 'contexts,' then types in keywords on which to search. The results are returned quickly, containing only documents meeting the specified contexts. Element's process returns fewer documents, but each returned document is very relevant to the search criteria, eliminating the extra 'sifting' required to find specific data in a large number of results.

Conversely, the user can simply type in a string and hit the search button like a standard search engine. But when the results are returned, the results also display a list of contexts in which the query string was found, enabling the user to make better decisions on which documents to open and view.

The Difference

The difference between Element and the Google appliance is obvious; Google doesn't search or index XML. Plus, the Google appliance only indexes the first 100 KB of any document, and will not search any HTML files over 2.5 MB in size. By contrast, Element is fully configurable, meaning that your system administrator can choose how much of each document to search: 100 KB, 1 MB or even the entire document.

Another feature unique to Element is the ability to search embedded RDF data. RDF (Resource Description Framework), a formal data model from the W3C, uses XML for the description of web resources working with machine-readable metadata. RDF can also be embedded in a variety of media using Adobe's Extensible Metadata Platform (XMP). Element's ability to provide context searching on embedded RDF metadata sets it far apart from all other search engines.

Element's new search technology significantly reduces the end user's search time by refining the results for them. The adage that "the meaning is in the context" is the mantra of Element, and in the demanding world of keyword search engines, quality always wins out over quantity. ■

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To see more visit **www.elasticpath.com/flexible**

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Elastic Path Software:

How To – Building Enterprise Apps with Open Source Frameworks

Advice "from the trenches" on using open source frameworks to simplify enterprise software development

Software Re-use in the Real World

Any software developer worth the price of their iPod will tell you that "reusability" is one of the Holy Grails of software development: it is incredibly valuable, but equally as elusive. How many developers working on insane deadlines have time to sit back and think about all the wonderful ways that their business components "might" be used in the future? Even standards committees led by industry experts have trouble with this.

So where is this reusability that we've been promised? Enter the world of open source software. Over the past couple years, there has been an explosion of open source tools and frameworks for developers to choose from. Projects like Struts, Spring and Hibernate have become household terms in the vocabulary of today's enterprise software developers. Here at Elastic Path, we have a simple philosophy when it comes to writing code: do it as a LAST resort. OK, I know what you're thinking: A software company that doesn't like to write code?!?! Yup, that's right! Because the more of it you write, the more of it you have to document, test, debug and maintain. And with all of the wonderful open source tools and frameworks out there, our philosophy isn't hard to live by.

Choosing Your Weapons Wisely

Alright, so you're a team lead or architect and you need to build a new web application. One of your first responsibilities on this project should be to sort out the high level architecture. In the past, this could be a really daunting task involving lots of late-night architecture sessions and Jolt cola. Today, it really boils down to: what frameworks and tools should I use and how do I make them all play well together?

Some things to consider when evaluating open source frameworks include:

- How popular is it?
- How big/responsive/friendly is the developer community?
- Has it been used in large-scale apps?
- How good is the documentation?
- How steep is the learning curve?
- How active is the CVS/Subversion tree (ie. Is this project alive and kicking or dead as a doornail?)
- Do people in your team or company have experience with it?
- Is it based on a recognized standard?
- Does it come with a restrictive license? (most of them don't)

We've done a ton of this framework research here at Elastic Path so I'll share some of the open source technologies that we've found useful in real-world enterprise development:

- Presentation layer: Velocity
- Web layer: Struts (but we're moving to Spring MVC)
- Web services layer: Axis, XMLBeans
- Business/Services layer: Spring (this is also used to wire objects throughout our application)
- Data Access layer: Hibernate, JBossCache (for Java object caching)
- Business rules engine: Drools (now part of JBoss)
- Security: Spring ACEGI
- Builds: Ant
- Validation: Jakarta Commons Validator
- Testing: jUnit, httpUnit, jWebUnit, Checkstyle (currently evaluating), PMD (currently evaluating)
- Logging: Log4J
- Search: Lucene
- Code generation: XDoclet, Middlegen, Torque, Hibernate tools, scripting languages (Perl, PHP, Python, Ruby, Groovy)
- AJAX: DWR, Echo2 (currently evaluating these)

I hope this has given you some practical advice in using open source frameworks in your next project. If you're interested in an extended version of this article please visit: www.elasticpath.com/papers ■

About the Author

Dave Koo is the VP, Product Development at Elastic Path Software, Inc.

ArcMind:

Welcome to ArcMind, Inc.

ArcMind is a full-service, software development company that can help you succeed on your next project.

ArcMind provides systems integration, consulting and mentoring services serving Global 1000 companies with a primary focus on J2EE, Hibernate, Maven, Spring and JSF (Java Server Faces).

Consulting

Our objectives are not for your company to hire more and more consultants. Although we are a consulting firm, our focus is on building your team through mentoring and training. Our experienced consultants mentor your team to have the skills to be successful and make our consultants and services obsolete. This is called mentoring. We can put members on your team "who have been there and done that" with Hibernate, Maven, Spring, Tapestry, JSF , and J2EE.

Training

In addition to consulting and mentoring, ArcMind provides Hibernate Training , Maven Training , Spring Training, Tapestry Training, JSF (Java Server Faces) Training. We also offer combined, custom courses. One popular option is to combine JSF, Spring and Hibernate into a single week, QuickStart course. We specialize in private on-site training.

Top-notch, Experienced Trainers

Our trainers and mentors are real world developers. They can help you deliver your next project in a timely fashion. Our trainers are experienced developers who have worked with the technologies and have real-world experience. These trainers can later work with your team as a mentors and consultants saving you valuable ramp up time because they have "been there and done that before". We write our own lab-centric courseware.

Testimonial

"ArcMind recently completed a 6 month long engagement at our company. ArcMind demonstrated the highest degree of professionalism and technological skill while keeping a difficult project on time and on target. Our project had combined number of technologies such as Spring 1.2, Hibernate 3.0, JSF 1.1, Drools and many others. ArcMind's was able to address a whole slue of JSF's shortcomings. This project was preceded with training that covered JSF, Spring and Hibernate technologies. ArcMind's training techniques are some of the best in the industry. The instructor exhibited a deep knowledge of the subject."

– Director of Development at a large eCommerce company

"We hired ArcMind at the beginning of a major Java development initiative. ***This was some of the best money we have spent.*** *Their consulting on tool selection, organization of our project and other areas laid a foundation that we continue to benefit from. They worked with us onsite, remotely, and through an ongoing relationship."*

–Picture Marketing, Miami, FL.

"ArcMind taught a one week long Spring/Hibernate class for us at Sabre. They did a great job keeping the class entertaining while covering a difficult material. ArcMind's class covers in great details the topic at hand and includes numerous labs to help practice each lesson. Highly recommended!"

– Sabre Systems, Dallas TX.

"I attended ArcMind's training class on Spring/Hibernate - I can say without exaggeration that it is the ***best technical training*** *I have ever attended! The test driven lab work were what I liked best. (The ArcMind instructor) had a lot of hands-on industry knowledge that make him an expert in his field.* ***I wish all classes were like this!*** *"*

– Senior Software Engineer, Dallas, TX.

"(The instructor's) knowledge of J2EE, Java and Open Source technologies is both deep and wide. His training and mentoring skills are the best that I've come across. His passion and proficiency has been inspiring for me and many others in the development community. ArcMind's input and guidance was crucial when my organization needed to determine a strategy for leveraging new technologies a few years ago."

– Senior Software Developer, Boston MA.

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The future of EDI is B2B over IP

EDI sure had promise in the sixties – but its complexity, inflexibility, and the bottleneck of the VAN make it very costly today.

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Xenos: B2B OVER IP: Fulfilling the Promise of EDI

Agility, flexibility, and integrity are attributes which underscore any successful business. Typically, this success is based on the way businesses process information. From design and production, through order entry and shipping, information is the critical commodity, so much so that over the years, businesses have gone to great expense to optimize information flow within their supply chain. The reliance on EDI and x400 networks has been one such investment. Designed within a business network paradigm which existed in the 1960s, these technologies delivered a reliable and secure platform for business transaction processing. But the business paradigm has evolved in the era of the Internet and EDI Value Added Networks (VAN) have not kept pace.

eBusiness Adaptability

With the ubiquity of the Internet, an entirely new way of electronically transacting business securely has been developed to deliver on the promise offered by EDI. It's called B2B over IP, and it enables real-time straight-through processing of EDI and any other data transaction type over the Internet. The bottomline? Where VAN-based EDI is costly, complex, and restrictive, B2B over IP is cost-effective, flexible, adaptable, easy to use, and available to any company, large or small.

With B2B over IP benefits so sizable, and electronically transacted business likely to double in the next three years, it's clear that the days of conventional VAN-based EDI are numbered. The reason is simple: despite recent downward pricing pressures, EDI VANs remain too expensive for many companies. As a result, VAN-linked companies cannot fully benefit from EDI because many of their suppliers are not yet EDI enabled.

B2B over IP is another in a growing number of IP-based applications that significantly and cost-effectively improve an organization's competitive advantage by leveraging existing wide area network (WAN) investments and eliminating the need for third-party networks. As a result, adding new trading partners is simple, fast, and virtually free. And, it can be completed easily without the need for third-party intervention or even for highly-trained technical staff.

Protect Legacy EDI Investments

Another benefit of B2B over IP is that it can work seamlessly within existing EDI environments. So, if large companies are already committed to VAN-based trading practices with specific partners, they can continue these relationships and protect their legacy investments. But, at the same time, when adding new trading partners, they can leverage the Internet using a B2B over IP platform, thereby enabling electronic trading with any company—not just those who can afford VANs—in any data format.

Securely Transact In Any Data Format

Dealing with multiple trading partners involves a myriad of possible data formats. In order to achieve the full benefits of B2B over IP, solutions must offer secure, authenticated, auditable, and guaranteed delivery of messages for all types of electronic transactions, not just those transported in EDI formats.

Equally, it's not enough for B2B over IP solutions to simply transform data from one format to another. As today's electronic transaction environments become increasingly hectic, involving spiraling numbers of transactions, solutions must be highly scalable, a capability only possible when transformation is performed in real time. Transformation engines that are XSLT- or ETL-based are hamstrung by their high processing overhead; these batch technologies require that data be validated before it is processed.

By comparison, transformation engines that are based on XML rules eliminate the two-steps. The result? Companies relying on XML rules-based transformation engines report impressive throughput of up to 150,000 transactions per hour. Such speeds are critical in B2B over IP environments. So too is the importance of high-speed transformation under load, for example, where EDI invoices must be routed, separately from csv-based payments. At the end of the day, the speed of transaction to cash is mission critical.

B2B over IP solutions stand apart from VAN-based EDI because they do not require the high costs, complexities, and time delays associated with third-parties for implementation and maintenance. Moreover, when designed as an off-the-shelf solution that is simple and adaptable, they deliver a significantly reduced total cost of ownership.

In short, companies are able to sign new business, expand into new markets, and compete in ways not otherwise possible. With the right B2B over IP solution businesses can get off the VAN, get on the EDI bandwagon, broaden their universe of trading partners, and facilitate fast straight-through processing of any type of electronic transaction over existing Internet connections. All more cost-effectively than VAN-based EDI. ■

About the Author

Patrick Smith is the Director of Product Management for XML products at Xenos. Patrick's area of specialty is the development and deployment of global software applications employing distributed object technology and software reuse. He has over 14 years of experience in the customer relationship management, information technology, and telecommunications fields.

xenos

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MapInfo: Location Intelligence

Enabling more insightful decisions

"Location Intelligence enables organizations to reach their performance targets and provides a critical addition to a company's operational processes. Organizations today that fail to embrace location as a business context and technology will fall behind competitors and not be effective or efficient in their daily operations."

– Mark Smith, CEO and Senior Vice President of Research at Ventana Research

Your company collects enormous amounts of information. Data that tells you a lot about the "who," the "what," the "when" and the "how many." Whether you realize it or not, that data contains a hidden asset you can't see in a spreadsheet or chart that can provide you with a significant competitive advantage.

The "Where"

Organizations are realizing the power and benefits of including Location Intelligence in their day-to-day operational and analysis tools. This additional capability has benefits such as:

- Helping employees make more informed decisions
- Improving customer services
- Augmenting facility and asset management
- Enhancing planning and organizational responsiveness

MapXtreme® 2004, for the .NET development environment, and MapXtreme® Java, for Java developers, make possible the development of map-enabled applications. Each provides a single environment for deployment of applications to either the desktop or the web. And they comply with both IT and geospatial industry standards ensuring interoperability.

MapXtreme 2004

Designed for Windows® programmers who are familiar with the Microsoft® .NET development environment, the MapXtreme 2004 SDK works with a number of languages including VisualBasic.NET, C#, Visual C++ and ASP.NET. It fully integrates with VisualStudio. NET and uses drag and drop functionality to facilitate rapid application development.

MapXtreme Java

Completely 100% Java, MapXtreme Java has the key advantages of scalability, multi-platform support and write once, run anywhere saving development time and cost. MapXtreme Java comes with a set of visual and non-visual JavaBeans™ that speed application development because they can be used with visual IDEs such as Borland® JBuilder,™ Oracle® JDeveloper, or Sun® ONE Studio. Developers can use the standard drag and drop and set properties mechanisms to add objects to their applications.

MapX Mobile

MapX Mobile helps organizations seeking to improve the efficiency and productivity of their mobile workforce by enabling the creation of map-enabled applications for Pocket PC powered devices. A mobile workforce can receive, view and analyze data wherever critical decisions are made. MapX Mobile has built in GPS support and enables complete customization via standard development languages such as embedded C++ and .NET.

MapXtreme 2004, MapXtreme Java and MapX Mobile provide you with the tools needed to easily incorporate mapping technology into your applications. These capabilities help you present data in easy to understand formats. Join your colleagues who enable Location Intelligence across their organizations.

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Who is Location Intelligent?

A Major Financial Services Firm – enabling their customers to find ATMs and vendors around the world by phone or website.
A Leading Reinsurance Provider – visualizing risk exposure.
U.S. Department of Commerce – analyzing trade statistics visually at ese.export.gov.
Several Major Telecommunications Providers – helping customers determine which services are available by location.
A Transportation and Delivery Firm – employing an internal application that enables their sales representatives to develop quotes more accurately and quickly.
A Major European Solutions Provider – offering a web-enabled vehicle tracking and telematics solution.
South Florida Water Management District – providing citizens, scientists, teachers and students access to a vast amount of information about the Everglades at glades.sfwmd.gov.

And many, many more.

About MapInfo®

MapInfo enables organizations to become location intelligent through the use of software, data and professional services. Location intelligence helps organizations:

- make more insightful decisions by visualizing information such as sales territories and store performance;
- lower costs through operational efficiencies and better management of assets;
- increase revenue through better site selection and product/service offerings;
- improve customer service through self-help and easy to understand visuals;
- see where the threats are and where opportunities exist. ■

Azul Systems:

The Azul CentiCore Solution for Only $59K

Delivers the Power of 100 CPUs for the price of two Dell Servers

On November 7, 2005, Azul Systems, Inc., announced the availability of the Azul CentiCore integrated solution, combining the power of multicore architecture with open source software designed to provide SMP processing power at an affordable price for small or medium size enterprises (SMEs). The CentiCore solution is a pre-configured integrated solution comprised of one specially configured 96-way Azul Compute Appliance with 32GB shared memory, two 2-way/1GB Linux servers, an HP ProCurve Gigabit Ethernet switch both from Penguin Computing, and the open source JBoss Application Server and JBoss Portal.

This specially-configured solution enables small and mid-tier enterprises (SMEs) with symmetric multiprocessing (SMP) quality compute resources, while delivering all the benefits of commodity scale-out economics with significantly fewer servers to manage. Without any application level modifications, binary compatibility requirements or operating system dependencies, network attached processing directly addresses the issues faced by IT managers worldwide.

Network attached processing allows businesses to seamlessly tap into Azul compute pools, regardless of existing infrastructure, and solves some of the most difficult challenges typically associated with scaling service-oriented applications such as Java™ or J2EE™ platforms. This fundamentally new approach allows customers to get more out of their existing servers and drive significant cost out of managing their data centers.

All The Benefits of Scale-Out With A Lot Fewer Servers To Manage:

- Ensure predictable service levels and faster response times under unpredictable loads
- Eradicate over-provisioning and minimize software licensing costs
- Increase existing hardware utilization of server infrastructure
- Minimize power consumption and environmental constraints
- Reduce capacity planning from months to days
- Accelerate Service-Oriented Architecture (SOA) deployments

The CentiCore solution occupies 8U of standard rack space, consumes 1.75 kilowatts and is priced at less than two similarly configured 4-way Dell™ PowerEdge™ 6850 systems. Through a strategic partnership with JBoss® and Penguin Computing®, Azul Systems® has combined the substantial benefits of open source and multicore technologies. The CentiCore solution is creating a multiplier effect in cost savings making it ideal to address the needs of SMEs or individual projects in large enterprises.

More Bang for the Buck

Enterprises of all sizes struggle with getting more out of the infrastructure they already own. By delivering dramatically more application throughput for transaction-intensive applications—with less cost, less complexity, and faster time-to-deployment—Azul enables datacenters to operate at significantly greater efficiency. Azul is the only solution offering true economy of scale: the larger the applications and the more applications accessing the Azul solution, the greater the margins.

Seamlessly Inject Into/Out of Existing Environments

Because the Azul solution is completely operating system agnostic, businesses can seamlessly tap into Azul compute pools regardless of which operating systems their applications run on, without forcing customers to modify applications or environment.

Predictable Service Levels; Lightning Fast Response Times

With virtually unlimited capacity, network attached processing enables organizations to cost-effectively scale their transaction-intensive and service-oriented applications. With Azul, small and mid tier enterprises can meet peak application loads arising from both seasonal (Christmas shopping, tax time) and unexpected (disaster relief) events without over-provisioning.

Control Hidden Commodity Costs

By scaling applications through massively shared capacity found in Azul Compute Appliances, IT can control the hidden management costs that arise from commodity server sprawl, real estate, power, cooling, maintenance and operational complexity associated with managing commodity servers.

The combined power of multicore and open source introduces a massive multiplier effect that provides unprecedented productivity and cost savings to IT projects. Application development will no longer be constrained by traditional server infrastructure limitations, but can now be tied to business goals and objectives.

Seeing is Believing

Visit: www.azulsystems.com/quitaddingservers and see how the Azul CentiCore integrated solution will accelerate your data center initiatives and lower the total cost of ownership throughout your business. ■

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HostMySite.com:

Toppling Standard Support Models

"Wait...You Guys Support That?"

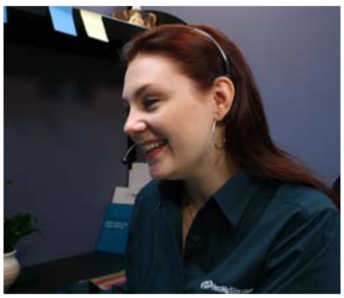
A Google search for 'hosted business software' returns a hulking 32,300 products, yet the average hosting company supports fewer than 40. But if your website requires one of the 32,300 online software products not supported by your host you're likely to spend a ton of money only to be left out in the cold.

The problem is that the thousands of products don't make the cut and are hard to use without help from the folks running the servers. If you have a website you're familiar with 'unsupported items', and the linked frustrations. The 'unsupported' attitude forces you to use stock solutions or risk hosting on your own. Stock software chokes innovation and drives commoditization, while flying solo on hosting is technically debilitating. Yet hosts plod on with tired service models.

This short sightedness leaves millions of dollars on the table. Consider the fledgling online business owner. They lack expertise, yet sink thousands of dollars into building their dreams. But how many quit after tangling with the 'not my problem' syndrome? The money they'd have spent on marketing, transaction fees, bandwidth, shipping, up-sells, cross-sells, Web design, etc., stayed right where it has always been–in the bank.

Online software vendors suffer as well, contending with both development and support burdens. With so many hosts refusing to service '3rd party applications,' vendors must host internally or suffer plodding responses, indifference, and frustration associated with outsourcing. A suitable hosting partner could easily lower the vendors costs and raise their productivity by limiting tedious post sale support and infrastructure problems.

HostMySite shocks customers with a bold solution to the problem. Rather than listing supported products, HostMySite topples convention with unlimited 'best effort' support for any product under the sun. If it goes online, HostMySite will help. Many hosts cringe at offering this level of service, because it's difficult to control costs and it creates an environment where customers call you first for assistance. But the upside is huge.



Ecstatic customers create a flood of word-of-mouth business. This lowers advertising cost and reduces churn. Customers are spoiled by the service and become 'un-switchable'.

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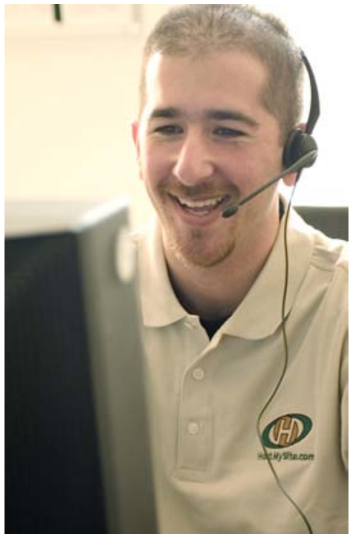
www.HostMySite.com



The odd customer that leaves for price usually returns. In this commoditized industry, HostMySite has never had to lower prices yet has grown an astounding 573% in 3 years. These stats landed them the 190 spot on Inc.500 Magazine's list of the 500 fastest growing privately held companies.

Managing the volume generated by this radical service approach is the trick. HostMySite pulls it off by focusing on quality hiring, training, employee empowerment, and a 'customer first' mentality. To be considered, an applicant must be a computer science graduate or have extensive industry experience, and pass a multi-part interview that focuses heavily on personality. Even though HostMySite is a multi-million dollar company hosting over 40 thousand websites, the owners still interview every candidate.

Once accepted candidates endure an intensive 30-day training period including 2 weeks of classroom training and 2 weeks of supervised email and chat support. At the end of each phase employees must pass an exam. Working 30 tickets a day, each tech deals with at least 300 issues before ever speaking with a customer unassisted. This intense training allows HostMySite to perform at a rate of 32 thousand phone calls per quarter with an average hold time of 8 seconds, and an average phone support resolution time of less than 6 minutes.

During training employees are drilled on guiding principles that promote 'The Pillars of Service', which embody HostMySite's service philosophy. Employees have infinite flexibility to resolve issues provided the resolution is in the spirit of the Pillars. HostMySite frowns on bureaucracy and empowers staff to do what is in the customer's best interest. Any of the 40 thousand website owners will tell you the system works.

Call HostMySite when you are ready for a solution that will save you time, energy and money. ■

Ensure Interoperability.

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Eliminate security vulnerabilities.

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Confirm compliance.

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"SOAtest has allowed us to implement an automated and repeatable testing process with the breadth of coverage needed to ensure every release is stable, meets requirements and prevents critical errors from reaching production."

– Brandon Steele, Business Development & Systems Analyst, Sabre Holdings

As enterprises today increasingly depend on IT to help drive business innovation and provide competitive differentiation many are turning to web services and Service Oriented Architectures (SOA) to create the flexible and agile IT infrastructure necessary to be able to be responsive to changing business demands. The potential for Web services to deliver considerable business benefits by connecting organizations to partners and customers cannot be overlooked in today's intensely competitive marketplace. However, the flexibility provided with web services also introduces a significant degree of complexity that is consistently underestimated.

Testing the security, compliance, and reliability of web services is paramount to successful SOA implementations, particularly those that are externally facing and business critical. Enterprises need to be able to certify and approve services for business and IT standards and deployment readiness. Services need to scale for availability, reliability, integrity, reusability and overall quality. These requirements create the need for a new SOA-specific testing paradigm and test tools that can test the complex layers of a web services transaction and guide the control and quality of an enterprise's SOA.

The Challenges of Ensuring Reliability

Services impose specialized testing challenges for SOA implementations. Testing tools must be able to inject realistic usage scenarios onto the infrastructure and validate interoperability as well as transaction completeness for transactions spanning multiple services and involving multiple messaging protocols. Testing must address verification of a service's functionality as well as its performance, scalability and security. With the highly interactive and interdependent nature of SOA based applications even small changes can cause major disruptions. Reuse, service access and service availability are fundamental to achieving a robust service oriented architecture, promoting the additional need for automated regression testing as an integral element of the test process.

SOAtest: Automated Web Services Test and Analysis

To meet the testing challenges posed by SOA deployments Parasoft Corporation provides SOAtest, a comprehensive and complete testing solution for Web services. SOAtest allows users to verify all aspects of a Web service, from WSDL validation, to unit and functional testing of the client and server, to performance testing in a single integrated tool suite. From the simple testing of individual operations of a Web service thru the construction of complex test scenarios, SOAtest provides a total and holistic testing strategy for your Service Oriented Architecture and offers a wide variety of functionality and testing techniques that immediately and thoroughly exercise the security, compliance, and reliability of Web services.

Validate Complex Web Services Transactions

SOAtest automatically generates and executes test cases that begin with small, simple sets of static and dynamic unit tests that validate the functionality, interoperability, and standards compliance (e.g., WS-I, XML) of a service. These tests can then be easily combined and extended to build increasingly powerful suites with test cases being built upon each other often using data from one test as the input for another in an iterative development process. SOAtest allows you to create simulated complex scenarios and workflows reflective of a users undertaking of series of transactions with a particular Web service.

Collaborate to Achieve Repeatable Process

Because of its flexible nature, SOAtest is the ideal solution for development, QA and performance teams. SOAtest allows test cases to be re-used, combined, and extended across teams, providing seamless transfer of knowledge and test case data. Functional and unit test cases created by development and QA can be used by the performance team to generate scenarios for use in load and performance testing, thereby eliminating the need for extensive script writing and script maintenance. SOAtest saves time and improves the accuracy of test creation and execution. In addition, SOAtest automatically creates security penetration tests that protect Web services from threats such as SQL injections, XML bombs, and parameter fuzzing.

For its wide breadth of functionality, the ease of creation of both simple and highly complex test cases, its integration of performance and security testing, its support for reuse and team collaboration, and the absence of any dependency on scripting Parasoft SOAtest is the gold standard for ensuring secure, reliable and compliant Web services. ■

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> TEAM BUILIDING

Build Trust for a Better Team

by Reuben Poon

Working together isn't the same as teamwork

>> There's a lot of interest in team building today. Many people realize the tremendous boost in productivity that comes with a well-oiled team. In the same way that companies recognize their competitive advantage comes from their employees, smart executives know teams can leverage individual strengths to increase capabilities past the sum of their people, making more effective and efficient teams.

The most important aspect of building a successful team is trust. Team members have to be able to trust one another and trust their leader. Leaders must put their trust in the team to accomplish its goal. When trust is the foundation, team members can readily admit their mistakes, rely on one another's strengths, and challenge each other's ideas to come up with the best solution. Three ways to build trust are physical activities, personal bonding, and participation.

Physical Activities

Common to team building are physical activities such as a ropes course. Teams face physical challenges that force them to rely on one another. This can be a great way to start building trust. The underlying purpose — building trust — should always be kept in mind when employing this tactic. If an activity doesn' build trust between team members then it can potentially *destroy* trust. This kind of trust building is crucial for teams where physical teamwork is required to succeed. High-performance physical teams such as firefighters, Navy SEALs, and SWAT teams depend on physical team building not only to succeed but survive. For more intellectual-based teams adding mental and emotional bonds will catalyze a team.

Personal Bonds

Regardless of the kind of team, success requires that strong emotional bonds form among team members. While there is no substitute for time spent together (both quantity and quality), the process can be helped along. Team members have to understand themselves and one another. Often a problem or conflict will arise because a team member doesn't realize that different people on the team think and view situations differently.

A great way to start is to have everyone share semi-personal histories. Some examples are where someone grew up and what was most difficult about his childhood. The key is to have everyone share something personal and relevant without being too invasive. This process helps team members be open and vulnerable. This vulnerability will allow them to be comfortable owning

up to their mistakes, recognizing their weaknesses for the good of the team, and putting aside politics to fight for an idea they think is best.

Another great way to build psychological bonds is to use a behavior-profiling tool such as Gallup's StrengthsFinder or the Myers-Briggs Type Indicator. These tools are great ways to help individuals understand themselves, what their strengths are, and the unique lens through which they view the world. By learning how other people are different they can see how capitalizing on these differences can make a team greater than the sum of its parts.

Great organizations create a culture or ethos where these behavior profiles are freely shared. This creates a common language that fosters communication and collaboration. Imagine how much easier your first day of work would have been if all your co-workers and your boss told you what makes them tick and how they operate? By giving your team a reliable way to describe themselves and one another, you open the door to understanding one another and how to work better with one another.

Participation

Once team members understand one another and form a psychological bond your team will continue to catalyze by spending time together and participating in team activities such as solving problems or being part of a project. By this point, your team should know and understand one another. The time spent together is where they really learn how to be a team: How to work together and leverage one another's strengths (as discovered in personal bonding). Fine tuning their interactions. Getting into a groove so teammates can sense what the others are thinking. The outcome of this bonding is like the chemistry seen with Joe Montana and Jerry Rice. These two superstars can read each other's mind and make great plays based on this understanding.

A great way to foster more participation is to revisit physical activities and psychological assessments. These activities should be repeated at regular intervals (once a quarter is a good span) to re-iterate and continue building the team.

Once your team has successfully done physical activity, built personal bonds, and participated together you'll have a much stronger team than you did before. Whether your team is just starting out or has been together for decades, these three trust building tips will help catalyze its performance. Rome wasn't built in a day and neither is a team. Remember that team building is an ongoing process and activities to build a team should be scheduled regularly. The time you invest will be exponentially rewarded in the future. ■

> "The most important aspect of building a successful team is trust"

> "Success requires that strong emotional bonds form among team members"

About the Author

Reuben Poon has a long history helping companies build teams and develop leaders. He is currently the president of The Nehemiah Team and sits on the board of directors for several leadership and business development organizations. For more information on building teams go to www.TheNehemiahTeam.com.

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What's in a Team?

It's important to realize what type of group you have before you try molding it into a team. In their groundbreaking 1993 article "The High-Performance Organization" in the Harvard Business Review, Jon R. Katzenbach and Douglas K. Smith make a distinction between a working group and an actual team. "A team is a small number of people with complementary skills who are committed to a common purpose, set of performance goals, and approach for which they hold themselves accountable." Common working groups include waiters at a restaurant or salespeople at a store. While working together has its benefits, it's not a prerequisite for success in a working group. Benefits to both types of groups include increased communication and greater group cohesion that promotes employee engagement. Because of this, traditional team-building tips (as in this article) hold some value but should be analyzed for their return in time and money.

> SECURITY

Ransom Hackers

by Christopher Faulkner

'We've got your computer, we want the money in small unmarked bills…'

>> *The next heist/ransom movie isn't likely to be about jewels or someone descending upside down on a cable from the ceiling to avoid setting off alarms. And it's unlikely that anyone will be secretly rooting for the villains – certainly not anyone who uses a computer.*

The newest ransom caper in real life involves hackers taking over an individual's or company's computer, scrambling or encrypting documents, videos, spreadsheets, databases, and other crucial files, and then demanding a ransom to unlock the files and make them usable again. Called "ransom-ware," this new malicious code combines the worst of spyware and Trojan horses.

It's the latest incarnation of hacker/ransom scams that started about five years ago with demands for payment to stop denial of service attacks or refrain from publishing sensitive information on the Internet. A more insidious form of extortion, also several years old and growing, involves putting malware on a computer through a virus, worm, or Trojan horse, pretending to "discover" it, and then directing the unsuspecting user to a web site that sells a product to get rid of it.

Encryption ransom-ware first surfaced in May, when hackers encrypted files, and demanded money to unlock them from a San Diego company called Websense that sells software that prevents employees from going to certain web sites – including those that might be security threats.

Websense learned of the extortion attempt from an individual whose files were garbled. The Trojan horse that encrypted his files included instructions to send an e-mail to an address for the directions on how to recover the files. It demanded that $200 in ransom money be deposited in an online account.

Rather than pay the ransom Websense mobilized its security team and discovered that the person working on the infected computer had visited a web site (since shut down) that exploited an Internet Explorer vulnerability to download a piece of malware. That malware, without the person's knowledge or action, then sent the computer to a second web site to download the encrypting code. That code searched all permanent and removable drives for 12 different kinds of files, including spreadsheets, garbled them, left the ransom note, and deleted itself.

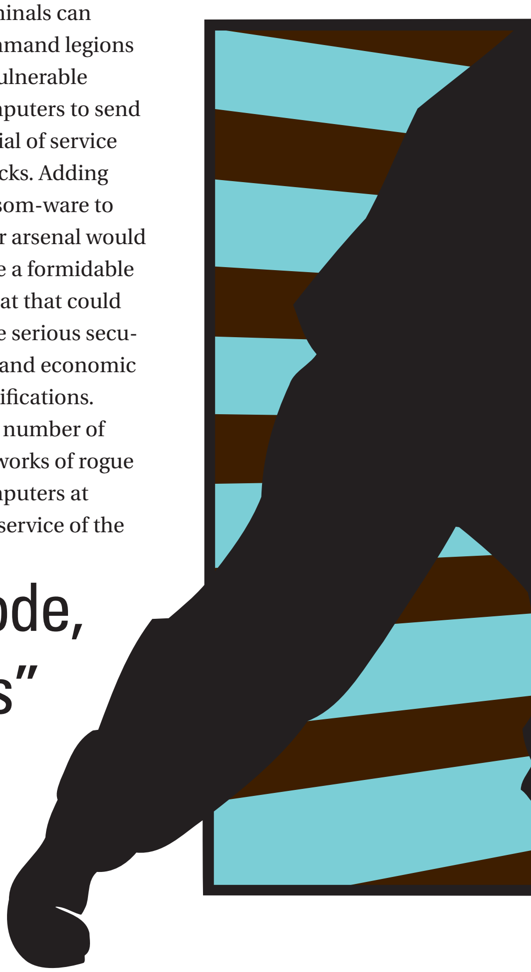
Luckily, the encryption code was simple, and a security expert in Chicago who heard about the incident was able to write a decryptor and recover the files.

But that solution might not work the next time.

If using cryptography for extortion follows the same path as other cyber-crimes, the extortionists will develop increasingly sophisticated methods and won't be asking for a mere $200. Many in the IT and intelligence fields believe that terrorists and drug dealers are financing their activities through identity theft, stolen and sold credit cards and other cyber-crimes. If true, both the motive and resources can take cyber-extortion way beyond what we've seen so far.

The criminal foundation to spread extortion beyond the current level is already in place. Professional criminals can command legions of vulnerable computers to send denial of service attacks. Adding ransom-ware to their arsenal would pose a formidable threat that could have serious security and economic ramifications. The number of networks of rogue computers at the service of the

> "Ransom-ware, the latest malicious code, combines the worst of spyware and Trojans"



"When your computer talks to another computer, **it may be talking to every computer that computer has ever talked to"**

criminal element rose to 30,000 networks from 2,000 in six months in 2004, according to a Symantec security official quoted in InformationWeek.

We're not anywhere near as prepared as we should be to deal with these threats.

A June U.S. Government Accountability Office study, based on input from security leaders at 24 federal agencies, said most agencies didn't even recognize the potential threats posed by spyware, phishing, and spam. "The blending of these threats creates additional risks that cannot be easily mitigated with currently available tools," the report said.

Confidence in local law enforcement and business' IT departments is also low. Nearly half of the 100 businesses that responded to a non-scientific online survey conducted by Carnegie Mellon University in 2004 said they wouldn't seek police help to investigate attempted cyber-extortion.

Asked why, most cited the downstream liability, followed by negative publicity, lack of confidence in the police, and fear of retribution. In addition, 45% said they didn't think their own IT departments were up to the task of preventing or dealing with a serious cyber-extortion attack.

Dealing with cyber-extortion is indeed a specialized field – and an expensive one. One online gambling site hired a vendor whose services ran about $100,000 a year to extricate it from a denial of services attack and prevent future attacks rather than pay the ransom.

The Carnegie Mellon study found that 17% of businesses had been the target of cyber-extortion, but that 68% of small and medium-sized businesses thought they were too small to be at risk and hadn't taken precautions or trained their employees.

Installing new security patches routinely and making sure all users have the latest signatures on their security software is part of the solution. Training employees to be vigilant is another.

The interconnectedness that the Internet brings to our businesses requires an updating of a 20th century admonition. When your computer talks to another computer, it may be talking to every computer that computer has ever talked to. Be safe. ■

About the Author

Christopher Faulkner, founder, president, and CEO, launched C I Host from his college dorm room. Now in its eighth year, C I Host is a privately held Web-hosting company that's ranked among the top five Web hosting companies in the world. Christopher was awarded an honorary Doctor of Business Administration from Concordia University in 2002 for his "entrepreneurial spirit and for his success from age 15 in running businesses in various industry segments."

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> MAKING PORTALS WORK

Virtual Directories

by Clayton Donley

The pathway to successful portal implementation

>> *One of the unalterable laws of the universe is that no project, regardless of how uncomplicated it first appears, is really ever as simple as it seems. Anyone who owns a home can attest to that.*

Take something as straightforward as repairing a dripping faucet. Remove the handle, replace a cartridge and/or a couple of "O" rings, put the handle back on, and you're done, right?

If you say "yes," either you've never actually repaired a faucet, or you've been very lucky. The more likely scenario is that you go to remove the handle only to find that the tiny screw that holds it in place is horribly corroded, causing you to strip the screw housing in your attempt to remove it. Because the screw will no longer hold the handle in place, you have to replace the entire faucet.

Now you have to shut off the water. But guess what? That valve is corroded too and will need to be replaced. This means shutting off all the water in the house. As you try to remove the faucet, you go through all the wrenches in your toolbox before finding out that you need a special faucet removal tool. So back to the hardware store you go. You get the wrench, remove the faucet, and realize the sink trap has seen better days. And so it goes. Your simple 10-minute do-it-yourself faucet repair has now turned into a nightmare that will ultimately cause you to reach for the phone book to find a licensed plumber and wonder what possessed you to attempt it in the first place.

In the IT world, this same scenario is being repeated with portal implementations. The idea behind a portal is simple – take all the information normally accessed in multiple locations using multiple applications and aggregate it together in one place.

There are many benefits to this strategy, not the least of which are saving employees time and improving productivity. That's one of the reasons that, despite the tech-spending backlash of the past few years, portals have been the one class of enterprise projects that has easily and consistently earned approval and funding.

Yet once the funding is approved and the implementation process begins, that straightforward portal project turns out to be a great deal more complex. The very reason for instituting a portal – user data is spread all over the enterprise – becomes a major hindrance to putting it in place. Then there's the human factor – the people who "own" the data in the corporation may not be inclined to let it out of their control for understandable legal or dubious political reasons.

Let's look a little more closely at each of these issues and how they can adversely affect the success of a portal project.

Data, Data Everywhere

You don't have to be a rocket scientist to know that typically every application in an organization serves a single specific purpose. Each application is tied to a directory or database of user information that tells the application who is entitled to see or use which information, and what their rights are in the application. As long as the user stays in that single application this arrangement works.

Portals, however, are aggregators of information. They offer a selection of data from multiple sources that provide a more complete picture of something the user needs.

One of the most common types of these enterprise applications is the human resources (HR) portal. Its purpose is usually to let employees serve themselves, look up information about themselves such as what their healthcare deductible is, how many vacation days they have left, or how much bonus they got last year rather than tying up HR personnel with inquiries. The idea is to make the process more efficient for the employee, and drive down the cost of administration for the organization by reducing human intervention. All admirable goals to be sure.

The trouble is tracking vacation days can be stored in a database or in an outsourced calendar service, information on bonuses in a payroll application, healthcare data with the healthcare provider, etc. Each of those applications has a directory that provides access to users. Yet for whatever reason, portals aren't designed to look in multiple directories for information. Instead, they're built to get the information from a single directory. Which means the leaky faucet project you started (implementing a portal) has now turned into a replacing the whole sink project – rebuilding the information infrastructure to accommodate the portal's requirements.

The typical solution to this dilemma is to build a meta-directory infrastructure that draws and synchronizes all of the information contained in one or more enterprise directories with each of the application service providers or application directories. In some cases, particularly when data is difficult to access over the network, this is the best choice. But this approach has a couple of drawbacks.

One is the problem of data latency caused by having to synchronize the application directories with the meta-directory. If the amount of data is relatively small, say, 500 users, synchronization can be done quickly and frequently, minimizing the concern. But if it's huge, as in a Fortune 1000 organization or a large government agency with 50,000 or 500,000 users, full synchronization can take several days to complete. As a result, the data the users are working with could be several days old, which defeats the purpose of a self-help portal.

Incidentally this delayed synchronization cycle poses a security problem as well as an inconvenience. Suppose a user is terminated with cause. Normal corporate policy calls for removing the user from all application databases immediately. This action will occur automatically with synchronization, but unless someone remembers to go in manually and remove the user from the meta-directory, he or she will still have access to the corporate network through the portal. In short, the longer it takes to synchronize the meta-directory with the individual repositories, the less effective the portal, and the greater the risk to the enterprise.

Synchronization also carries hidden costs. After considering the costs of building a synchronization or provisioning infrastructure, there are the costs of monitoring and ensuring the ongoing success and failure of synchronization events. With that said, it's also important to consider the costs of on-going application-specific directories. Each application directory requires separate backups, security, auditing, and assurance monitoring. Today's ASPs will do this by default. But these costs are often passed back to the client company through higher user charges.

Today's ASPs and private organizations must also consider new privacy legislation. Legal restrictions are now being put on when copies of information may be maintained across international borders as well as simply outside the company that owns the information. Which leads us to the other significant challenge...

Politics, Politics

Nothing can kill an enterprise project of any sort faster than internal politics. That's especially true when it comes to corporate data. If knowledge is power, then control of knowledge is the ultimate power.

In some cases there are good reasons for managers to be leery of letting information out of their control. Take healthcare data for example. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) clearly stipulates the importance of keeping personal healthcare information private. Violations carry stiff penalties. Anyone responsible for such sensitive data would naturally be reluctant for it to be uploaded into a database over which they have no control.

In other cases, the issues are more territorial than legal. Like it or not, the reality of the corporate (or government) world is that there are often many fiefdoms in the organization. Cooperating and sharing with others is not the way to maintain such fiefdoms. As George Orwell said in his book 1984, "He who controls the information controls the past. And he who controls the past controls the future." Not just his own, but the organization's.

In some cases, while politics may not initially be the issue, discussing altering or extending enterprise directories to include new application attributes can open up new problems since infrastructure managers are forced to decide what data gets in and what data stays out.

Virtual Directories as Enabler

Those are two of the primary obstacles to putting a portal in place, and they can be substantial. There is, however, a way to overcome those obstacles without completely revamping the entire infrastructure. It's a technology called a virtual directory.

Essentially, a virtual directory is a directory server that presents a single consolidated view of directory information to a portal. The difference, however, is that there are no duplicate data stores involved.

Instead, the virtual directory reaches into the native repositories scattered around the enterprise in real-time when an inquiry comes in and pulls the requested data together in context for the client application. It acts as the perfect directory server, giving the portal a single source with which to interact.

This method eliminates problems with data latency because the virtual directory is always pulling information from the source rather than a secondary database. Because the virtual directory can be configured to be the optimal directory for the application, the application doesn't have to be modified. And since there's nothing to synchronize, the portal always has the most current data. If a change occurs in the native repository five minutes after the inquiry and the application re-runs the query, the new data will be reflected. As a related benefit, eliminating synchronization frees network bandwidth and reduces the amount of maintenance that has to be done on the infrastructure.

Using a virtual directory also solves the thorny problems of data ownership because the data always remains under the control of the original owner. That owner can put business rules in place to control who can access what through the portal, without the risk of someone else putting different rules in place on a secondary database. As a result, the real concern of confidential data leaking through the portal is solved, and data owners can be assured that they are still in control.

In short, a virtual directory becomes an enabling technology, allowing the organization to realize the value of the portal simply and effectively.

Reduced Cost, Faster Implementation

On the networking side of things, using virtual directory technology provides additional financial benefits. Since it's middleware instead of infrastructure, a virtual directory is far simpler to implement. It will work with existing LDAP-enabled applications; you simply use the software to map between the portal and applications, a process that takes weeks rather than the months required to rebuild the infrastructure. As a bonus, the virtual directory also assists by providing necessary transaction load balancing and fault tolerance between client applications and authoritative directory sources.

As a result of using virtual directory technology, bringing the portal online requires fewer IT resources, greatly driving down the cost of the entire project. Organizations begin realizing the benefits and ROI faster. In fact, a portal implemented with virtual directory technology often pays for itself before an infrastructure-based portal project is completed. The information begins flowing to users as easily as turning on a faucet, which is the point of the installation.

Establishing a portal, whether for employees, customers, a supplier, or some other group, is a great way to leverage the data already contained in the organization for business advantage. But as Mr. Scott said in Star Trek 3: The Search for Spock, "The more complicated they make the plumbing, the easier it is to stop up the drain."

If you want to keep your portal project from becoming overly complicated, virtual directory technology may be the solution. It could very well be your portal to a better portal implementation. And remember, keep your portal architecture: Simple. Dynamic. And Secure! ■

About the Author

Clayton Donley is founder and chief technical officer of OctetString, whose Virtual Directory Engine (VDE) Suite and other products allow organizations to manage user identification quickly and seamlessly. He is an internationally recognized authority on identity management, and has served as a consultant on numerous high-visibility projects and as an author on the topic.
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> CORPORATE GOVERNANCE

Enterprise Preparedness

by Troy D. Smith

Now a corporate mandate

>> Organizations are experiencing unprecedented pressure from a number of directions to remain competitive in today's changing economy. The challenges of satisfying profit expectations, meeting customer demands, avoiding litigation, and complying with government regulations have created tough conditions for the executives who are managing the business. Besides the pressure to create new markets, manage cost, and generate profits, they must also demonstrate the ability to effectively manage adversity when it occurs. The current stringent regulatory environment coupled with a hypersensitive investment community has made the need to prepare for adverse events a corporate mandate. Recent incidents including corporate accounting fiascos, compromised customer data and privacy, product recalls, natural and manmade disasters, and terrorism illustrate the importance of developing an enterprise preparedness program.

Enterprise preparedness is an emerging orga nizational discipline that is perceived by employees, executives, investors, and business partners as an essential component of corporate governance. Enterprise preparedness by definition is the ability to respond, react, and recover from unexpected adverse events. When an organization develops its business plans, it makes many assumptions about future events on which the plan is based, such as elements contributing to growth and changes in the economy. However, many unforeseen damaging events aren't built into the plan.

Organizations must evaluate the operational risks they are confronting and develop a balanced, pragmatic program that ensures employee safety, minimizes business impact, and protects shareholder value. Typically companies have addressed some of the components that relate to preparedness, but rarely has it been integrated it into an overall program. A preparedness program provides integration across disciplines, effective testing procedures and a continuous improvement process to keep the capabilities current.

Preparedness isn't simply a defensive measure — recent studies demonstrate that prepared enterprises are more valued by investors. The landmark Knight and Pretty study from Oxford (Figure 1) provides compelling evidence that when an adverse event occurs, both prepared and unprepared companies suffer an initial negative "reflex" response, where the company's market value drops.

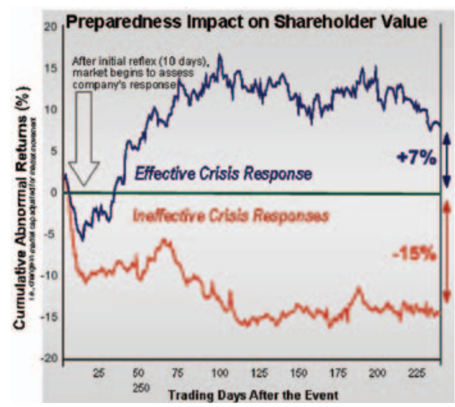


Figure 1

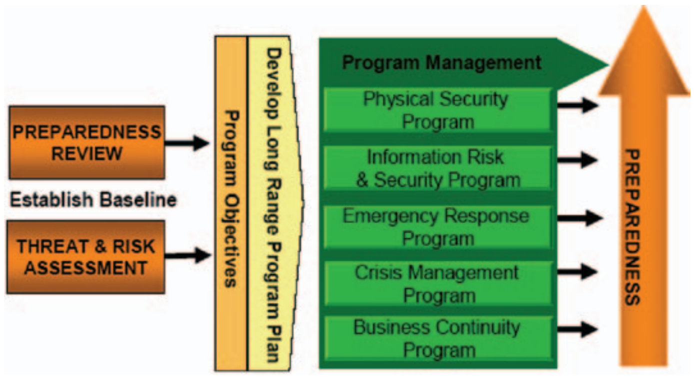
The key difference, however, is that the prepared organizations bounce back in a relatively short timeframe. Unprepared companies continue to see their market value spiral downward, in most cases heading toward bankruptcy.

As shown in Figure 2, developing a preparedness program begins with two critical foundational activities: a Preparedness Review and a Threat and Risk Assessment. Once the baseline is established, project objectives and a long-range program plan can be developed.

Preparedness Review

The overall objective of a preparedness review is to develop a capabilities baseline for the existing individual programs and understand better how they could be aligned in a more integrated way. The preparedness review should identify and analyze the various capabilities currently in place including: physical security, information security, emergency response planning, crisis management, and business continuity management. The assessment of these processes should include a gap analysis of the current status in terms of leading practices for an integrated preparedness program.

The controls, processes, organization, and governance associated with each program should also be identified and analyzed. Subject matter experts who are responsible for the administration and execution of the programs should be interviewed to make sure that they understand their roles and responsibilities. Ex-



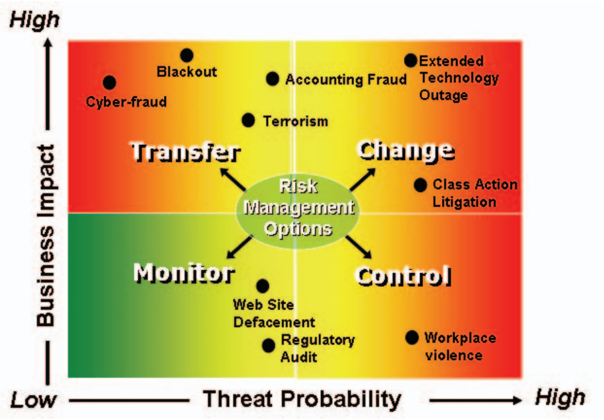


Figure 2: Enterprise preparedness program

Figure 3

ecutives as well as business lines should be interviewed to be sure the programs are coordinated with business strategy. A final activity consists in understanding how the organization is meeting regulatory compliance and industry guidelines.

Automated assessment tools can be extremely useful for collecting the captured information in a concise format that can generate a preparedness scorecard. Automated tools also enable effective progress and future compliance tracking.

Threat and Risk Assessment

Organizations should determine their operational risk exposure by evaluating the various threats and vulnerabilities that could potentially impact them. Once the threat sources, as shown in Figure 3, are identified, they need to be analyzed to determine the severity of the anticipated impact and the likelihood of the risk, as well as the effectiveness of the mitigation. The identification of the threats and the impact analysis should be done in a workshop format, with involvement from across the organization. Each constituency in an organization will have its own perspective and context for the specific threats and the impact that they might have. IT, business unit leadership, legal, human resources, and internal audit and risk leadership should all be involved in this critical activity.

The results of the risk impact analysis provide the general guidelines for selecting an initial risk mitigation strategy that will be integrated into defining the program objectives and long-range program planning.

Program Objectives and Long-Range Program Planning

Program objectives have to be clearly stated and determined in the context of the overall business strategy. These objectives will vary, depending on the type of industry, geographic locations, company culture, and other such considerations. A global financial services company that depends on technology to do business may have very different preparedness objectives than a U.S.-based manufacturing company with fewer technology dependencies.

Industry best practices call for an on-going strategic preparedness program of planning, training, exercising, quality assurance, maintenance, program awareness, and technology development. A program plan should include detailed tasks, task relationships, task timing, and the resources needed to achieve the approaches. Such a plan produces continuous improvement in a corporation's preparedness over time, and maximizes the return on investment in preparedness activities.

The Preparedness Program Plan development process should be done in workshops involving the organization's executive councils responsible for each step of the program. The organization may want to bring in independent parties to assist the team to develop a multi-year Preparedness Program Plan.

The collaborative technique used during the workshops completes a graphic Preparedness Program "timeline" chart as a visual guide to building a Preparedness Program Plan. The chart illustrates the relationships between and among the component elements of the Preparedness Program and identifies the numerous opportunities and synergies between planning, exercising, training, and other activities. Just as important, this visual tool identifies potential overlaps, gaps, and possible future conflicts among Preparedness Program elements or individual activities. The "timeline" will let the organization's management team consider the overall direction and goals of the Preparedness Program.

Conclusion

The resulting Preparedness Program Plan includes essential elements for planning, awareness, training, testing, budgeting, resourcing, quality assurance, organizational development, and technology development. Tests of the preparedness program plan should be run to validate the planning and training elements. It's essential to develop a challenging, realistic test plan as well as effective desktop exercises on a regular basis. In this discipline, waiting to test until there's an actual incident can lead to a catastrophic situation and jeopardize the business. ■

About the Author

Troy D. Smith is senior vice president and national leader of the Marsh U.S. Information Risk and Security Consulting practice. He is responsible for developing and deploying solutions to help organizations secure their information technology and data, mitigate corporate and personal liability, and minimize abuse of computing resources. He has over 20 years of experience in technology services and management consulting and has worked in numerous industries including insurance, consumer products, aerospace, health care, manufacturing, and transportation. Troy holds an undergraduate degree from Purdue University and an MBA from Loyola University of Chicago. He has completed the MIT Executive Program for Technology as well as the SANS Institute for Information Security program.

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Extentech Inc.

Announcing ExtenXLS Round Trip Reporting™

New Paradigm in Spreadsheet Reporting

What if you could update and expose business-critical formula logic to your Enterprise applications simply by uploading a spreadsheet to your server?

What if you could seamlessly utilize existing spreadsheets as a data entry tool, requiring zero coding effort and user training to get updated data back into your system?

What if you could combine the interactivity of a spreadsheet containing VB macros with the data and access control provided by your J2EE server?

ExtenXLS does all of this and more.

Extentech Inc. announces its latest development – ExtenXLS Round Trip Reporting™ – a dynamically-generated spreadsheet reporting tool that retrieves business logic trapped in file-based spreadsheets.

Round Trip Reporting™ collects data that is entered into downloaded spreadsheets back to your server—saving endless hours of data updating and retrieval and allowing reuse of existing spreadsheets as a data-entry tool.

Why ExtenXLS?

Every day, important work is misplaced on network drives: lost in inboxes, mistakenly deleted, or simply forgotten. Even when files are properly handled, the data behind the numbers quickly becomes out of date. Without accurate data, businesses risk making vital decisions based on stale information contained in stand-alone spreadsheet files.

Perhaps not as obvious, is the black hole that exists when it comes to the reuse, versioning, and access control of spreadsheet documents. In most environments, spreadsheet files reside in decentralized hard drive directories. Your business critical spreadsheet formulas, charts, pivot tables, and VB routines are simply too important to risk to this haphazard environment.

How It Works

ExtenXLS unlocks business logic tied up on hard drives by parsing spreadsheet files into robust, full-featured Java WorkBook objects. Round Trip Reporting™ provides the ability to download a spreadsheet created by ExtenXLS, edit it, then upload it a server where the modified data is extracted and turned into Java data objects for subsequent use in your programs.

Efficient Report Design & Flexible Output Options

Viewing spreadsheet reports is simple and easy: managers, analysts, and other end users can view the generated spreadsheet reports instantly within their browsers or they can download and open them using any compatible spreadsheet program.

In combination with Servlets and JSP pages, any number and type of data source can easily be used within the same report. Power users, designing their reports using their favorite spreadsheet program, are freed from having to train on yet another report design tool.

Using XML report definition files, ExtenXLS automates data retrieval from any number of sources, executing parameterized queries and placing the resulting values into the appropriate cells of a spreadsheet. ExtenXLS can convert the output spreadsheets to XML for consumption by external programs or to HTML for static delivery to a variety of display devices. Using this same XML definition, ExtenXLS can read modified spreadsheets back in and convert to Java data objects for updating data sources or embedding within your application.

Run Anywhere Robust Java API

As a pure-Java API, ExtenXLS runs on any platform, including all J2EE servers. It's best-in-class Excel compatibility, flexibility and portability makes ExtenXLS a key element for any organization wishing to incorporate reporting capabilities into their heterogeneous IT environment.

Who Uses ExtenXLS?

The world's second largest automobile company depends on ExtenXLS to standardize its data-entry capability for their vendors.

> *"The application reports key process indicators for parts suppliers. Used by suppliers and employees, it allows the Web application to return formatted data for their use. We needed to give the end user a file that they can easily extract data from and/or manipulate. The form had to allow for both simple (tabular) and complex (charts) data display.*
>
> *ExtenXLS gave us the ability to use Excel file format and functionality. And it gives the added ability to receive Excel as an electronic form. It is easy to understand and use. Support has been excellent.*
>
> ***Five packages were evaluated. Only ExtenXLS performed all tests correctly. All the others dropped data or could not support the test."***
>
> – Senior Architect, for major automobile manufacturer

Our proven, robust API is the preferred choice of developers of the most demanding applications in the manufacturing, pharmaceutical, and financial services industries including companies such as: Pfizer, Ford Motor Company, and H&R Block.

Proven in Critical Applications

ExtenXLS is used around the world in financial analysis reports, web reporting, statistical charting, and many other applications to create feature-rich reports containing: charts, formatting, text, formulas, and data.

With the power to execute spreadsheet formulas within a Java program, developers are able to reuse existing business logic residing within the spreadsheet documents already available to their organizations.

Visit Extentech online today to download your free trial version of ExtenXLS: http://extentech.com/jdj