

Changing The Game: Monthly Technology Briefs

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'Jericho' Style Security

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www.capgemini.com/ctoblog



'Jericho' Style security: Shifting to a new security model

Security has moved in one form or another to become a mainstream activity just as “across the firewall” activities have expanded over recent years. The traditional concept of an enterprise firewall has been as a “boundary fence” around the enterprise with all systems, applications, and users protected internally through well managed gateways. Looking ahead it is becoming difficult to see how it will be able to cope or even be more than just one element in a wider and more systematic approach to securing all the various parts of an enterprise environment.

The concept of protecting the parts rather than deploying a boundary perimeter of protection is correctly known as “De-Perimeterization,” and was the founding reason for a group of CIOs coming together in January 2004 to explore exactly how this could be made into a commercially viable solution. The group claimed at that time that they were unable to find consultants or vendors who were actively working in this area. They then decided to define the topic and feasible approaches themselves. The group called themselves the “Jericho Forum,” in reference to the Biblical city of Jericho and the “walls tumbling down.” Right from their very first meeting, the Jericho Forum has acted as an independent forum, but with the support of the Open Group for its administration and other activities.

For the sake of simplicity, many people prefer to use the term “Jericho style security” rather than the complicated “De-Perimeterization.” Also, the association with Open Group adds value to both sides because the Open Group focuses on work and standards, on “boundaryless information flows,” and on the ability to do business across and between enterprises, all of which calls for Jericho style security.

The Jericho Forum Board comprises user companies, and until the March 2009 election, the Board will include Boeing, Procter & Gamble, Eli Lilly, Standard Chartered Bank, Dresdner Kleinwort, Rolls Royce, and ICI, with a similar membership of global companies, plus a number of industry vendors and consulting companies, including Capgemini.

The latest Jericho Forum paper titled *Collaboration Oriented Architecture*, defines the reason why it attracts this high caliber of membership. Enterprises are increasingly making use of various forms of social, Web, and even straight email applications and services. The advent of “Software as a Service” and the possible addition of Cloud Computing, both of which move whole elements of the enterprises’ activities outside its perimeter merely serve to explain why it is now a mainstream topic, with the corresponding rise in the availability of methods, products, and implementations.

The Jericho Forum often uses the analogy of highways going into and out of a city to describe its basic principles. The traditional enterprise firewall approach is likened to having city gates requiring all travelers to be inspected before allowing those with good credentials to pass through, and to building walls along each highway to protect these approved travelers while in transit. At low levels of traffic and for simple well-defined purposes, this method works. However, the building up of traffic levels and the complexity of purposes makes it increasingly difficult

and expensive to try to handle the flow and it becomes a barrier to progress. The Jericho approach is not to protect the highway but the travelers and their activities, by predetermining the risks to each and then allowing the situation to determine the necessary secure outcome.

The Jericho Security Architecture offers a cohesive view of every element based on four distinctive layers, namely, securing the network, securing the host system, securing the application, and securing the data. Within each layer there is a further definition of the elements. For instance the host layer includes runtime services and their components, platform services and components, and the operating system. Likewise, the application layer focuses on presentation logic, business logic, and data access logic. The granularization is standardized so that the values applied to each element can be understood by any and all participating parties, that is, everything from an enterprise to a security manager through to any of the myriad of actual business tasks. It is this standardization that provides the flexibility to allow a safe participation in business activities.

To make this work, there is a “trust” model based on communities and their logical connections between people, processes, and technology, regardless of the device type or location. The trust value is awarded by an enterprise to its various elements, and the relationship between enterprises further determines how much trust to place on each of these values. Currently, all of this relies on the active participation between Jericho Forum members. The Jericho Forum approach will be adopted when two or more enterprises enter into business trading agreements online. To aid and simplify adoption, there are seven core process modules, all of which are based on the principle of object orientation and can be used individually, although obviously, it is intended that they should be used in an integrated manner. These comprise authentication, authorization, data classification, encryption, trust repository, end-point security, and accounting or audit.

Jericho provides 11 key commandments:

1. The scope and level of protection should be specific and appropriate to the asset at risk.
2. Security mechanisms must be pervasive, simple, scalable, and easy to manage.
3. Assume context at your peril.
4. Devices and applications must communicate using open, secure protocols.
5. All devices must be capable of maintaining their security policy on a mistrusted network.
6. All people, processes, and technology must have declared and transparent levels of trust for any transaction to take place.
7. Mutual trust assurance levels must be determinable.
8. Authentication, authorization, and accountability must inter-operate or exchange outside of your location or area of control.
9. Access to data should be controlled by the security attributes of the data itself.
10. By default, data must be appropriately secured both in storage and in transit.
11. By default, data must be appropriately secured when stored, in transit and in use.

When all of the Jericho elements are taken together and applied systematically, it provides a comprehensive and cohesive secure enterprise environment without the barriers to interacting and doing business with any other entity or enterprise.

More information about the Jericho Forum can be found at www.jerichoforum.org.

The impact of this and other technologies are discussed in the [Capgemini CTO blog](#).

Leading Company Results (Revenues)

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Q4:	Intel ↓19% @ \$10.2bn Autonomy ↑26% @ \$145.4mn	Nokia ↓20% @ \$12.7bn	IBM ↓1% @ \$27bn
Q3:	RIM ↑66.3% @ \$2.78bn Sony Ericsson ↓23% @ \$3.84bn	Infosys ↑35% @ \$1.17bn Wipro ↑25% @ \$1.13bn	TCS ↑24% @ \$1.5bn
Q2:	Microsoft ↑2% @ \$16.6bn		
Q1:	Apple ↑5% @ \$10.17bn		

Movements by Industry Leaders

Cisco is launching its Entertainment Operating System or EOS - a home entertainment hosting service - that will allow content providers to distribute music and videos direct to end consumers. The aim is to give smaller content providers a low cost route to market through using the service. It will strengthen the consumer demand for home entertainment products and to meet this Cisco is adding a new home server system called the Linksys Media Hub. In the business market a new arrangement with Infoblox allows Cisco to add an ISR router blade to the Infoblox hardware in order to offer a complete branch office solution of various capabilities in a single managed entity. www.cisco.com

Oracle claims a new World record for Application Servers using Oracle Fusion Middleware over HP Blade servers to reach the SPECjAppServer 2004 Benchmark. Oracle Enterprise Manager Configuration Manager has new configuration tools for real-time change management. www.oracle.com

Sun have acquired Cloud Computing specialist Q-Layer. It specializes in the deployment and management of public and private clouds, and will join their Cloud Computing business unit formed in July 2008. www.sun.com

HP iPrint Photo is a new specialized application for the Apple iPhone available through the Apple App Store. It offers wireless connected abilities to send photos and pictures for printing. HP is refreshing its Adaptive Infrastructure offering that aims to present a comprehensive approach that reduces operating costs in line with the requirements of CIOs for savings. www.hp.com

Intel and Adobe are working to put Adobe Flash directly onto the Intel processors, starting with putting Flash Player and Flash Lite on to the Media Processor CE 3100. There will be price cuts on many Intel chips to stimulate demand including popular lines such as the Xeon. Intel is to have a significant restructuring with the shutdown of five manufacturing plants and two testing facilities. www.intel.com

IBM has completed its acquisition of iLog and will add the technology to their SOA and Middleware suites. The new release of Lotus Notes/Dominino Version 8.5 adds support for Mac users and a range of new collaboration capabilities as one part of a number of announcements of new partnerships at the Lotus Sphere global event including Microsoft ActiveSync, Orange, Samsung and Verizon for SmartPhone services. The acquisition of OutBlaze, a Hong Kong based Web Mail services provider with more than 40 million users, adds more weight to the Lotus Collaboration suite. A partnership with LinkedIn integrates Lotus Notes, Lotus Connections, and Lotus Live to the external LinkedIn social community of Business Professionals. A preview of Lotus Sametime 8.5 with iPhone connectivity was given at the annual Lotus conference in Orlando. www.ibm.com

Microsoft Windows Server 2008 R2 Beta and Windows 7 Beta are now available for download on either MSN, or MS TechNet. Visual Studio capabilities for developing on the Windows Azure Cloud platform have been improved. It allows developers to use virtual images in a Microsoft data center to develop on it. A beta based on the Kidaro software called Microsoft Enterprise Desktop Virtualisation is now available for download and is planned to be part of the Microsoft suite for Desktop Optimization. Microsoft's second quarter results showed a profit drop of 11% on revenue that was up by only 2%. They put the blame on lower PC sales thereby restricting sales of the flagship Windows OS product and resulting in job cuts over the following 18 months. www.microsoft.com

SAP and IBM announce that Alloy Software, which integrates Lotus Notes with SAP Business Suite, is claimed to be a new generation of functionality through adding SAP reports into users' own choices of methods on how they want to use the information. www.sap.com

Google is appointing resellers of its Google Apps Premier Edition to provide a range of support services and encourage broader business takeup. Google has been consolidating a range of activities including shutting down some smaller services (Catalog Search, Google Notebook, MashUp Editor, Google Vidoe, and Dodgeball.com), as well as migrating Jaiku to the Google App Engine. Password security is claimed to be improved through new tools in Google Apps. www.google.com

What's Happening with Standards

The Institute of Electrical and Electronics Engineers (IEEE), is setting up 'Patent Pools' around IEEE standards to allow companies to cross license the necessary patents easily and in a controlled manner. www.ieee.org

Open Source Update

The Evans Data Open Source/Linux development 2008 survey of 360 Open Source developers found that 28% plan to employ Google App Engine and 15% Amazon Cloud Computing Services, and states that 30% of Open Source is now distributed through a variety of Open Source portals, more than any other method. www.evansdata.com

Redhat Enterprise Linux 5.3 update claims to add 150 upgrades to the Open Source implementation of Sun Java. www.redhat.com

More Noteworthy News

IDC reports that both hardware and software for storage was a high growth area in 2008 and is expected to remain high in 2009 due to the continued growth in digital content. Software was up 14.2% and Hardware up 16.7% in a market exceeding \$6bn. www.idc.com

Millions of Windows PCs have been infected with a new virus. It has been called a variety of names such as Conflicker, or Kido, although Microsoft patched the vulnerability back in October 2008. www.guardian.co.uk

CMS Watch reports that LinkedIn is moving to become an accepted enterprise social networking tool based on its universal uptake among users. Its tools/capabilities allows business executives to find and share relationships and interactions, but it still lacks the wider tools that platforms such as IBM can provide inside the enterprise. www.cmswatch.com

Apple iTunes Music store is removing digital rights management from its catalog of music provided by many of the big record labels therefore allowing sharing by users, although the format still remains the closed Apple AAC file which limits participation to Apple devices. Steve Jobs is taking medical leave from Apple after speculation about his health and lack of appearance at Apple events.

www.apple.com

Adobe LiveCycle ES Developer Express will be hosted on Amazon to provide a complete development sandbox in a prearranged individual image thus saving time and cost in developing. Adobe will publish the specifications for its Real-Time Messaging Protocol as part of its plan to open up its Flash Platform to developers. www.adobe.com

Skype 2.8 Beta for Mac OS X adds features for Mac users that are not currently available to Windows users and introduces WiFi hotspot provider Boingo to add further connectivity support. www.skype.com

Wipro has acquired Citi Technology Services, the Indian IT business of the Citigroup in a deal that extends the existing Wipro relationship. www.wipro.com

CA is to acquire Orchestria, a data security vendor, making the third acquisition of a security vendor in a few months and adding the Orchestria Data Loss Prevention product to the CA product suite. www.ca.com

Verisign is addressing the recent discovered flaw in its SSL certification that allows very skilled hackers the possibility of creating a false security certificate and will discontinue the use of the old and now felt to be vulnerable MD5 algorithm to further strengthen the new certification technology. www.verisign.com

The Chairman of Satyam – India's fourth largest software services company– admitted to fraudulently overstating their results by more than \$1bn over the last seven years triggering a 60% drop in their share price and calls for greater compliance regulation. <http://www.msnbc.msn.com/id/28539007/>

Axiotron, which modifies Apple Laptops to turn them into Tablet PCs by repackaging the Apple electronics into a new casing, have now released ModBook Pro based on the 15-inch screen MacBook. www.axiotron.com

Yahoo is partnering for Internet TV with Samsung, Toshiba, and LG, to merge the use of the TV with the Internet in order to deliver a range of services from Yahoo, Flickr, and Pandora. Yahoo is offering the channel to other partners and developers to introduce a new generation of capabilities and services. Yahoo Content Match European advertising is to close. The Spam management capabilities have been extended. www.yahoo.com

Citrix demonstrated their new iPhone client available as a free download through the Apple App store by the end of Q1 to provide connectivity to the Citrix XenApp (presentation server). This allows users to access server hosted Windows applications from their iPhone with full real time interaction. www.citrix.com

Nortel Networks has filed for bankruptcy asking for Chapter 11 protection to allow it time to restructure protected from its creditors. The UK subsidiary is a tier one sponsor of the London Olympic Games in 2010. www.nortel.com

Dell Download Store will offer business software from 12 vendors including Microsoft at the launch for direct purchase and download onto their machines in a new move. www.dell.com

Inflight WiFi will be trialed on United Airlines using Gogo, a specialized service for aircraft. www.gogoinflight.com

Salesforce.com Service Cloud on the Force.com platform supports as a service the use of various social networking sites such as Facebook, or LinkedIn, and links them to other activities such as sales support. www.salesforce.com

RIM is to open a Blackberry Apps store to enter the booming market created by Apple iPhone and Google Android and is asking developers to register with RIM and to use Paypal as the method for collecting their payments.

www.blackberry.com

T-Mobile Business 1-Plan for European Enterprise employee who must travel provides a pool of centrally purchased minutes that can be used by any employee as they travel across Europe. www.tmobile.com

Autonomy is acquiring InterWoven, the content management specialists, stating that this will expand Autonomy's positioning by the Legal and Compliance markets. www.autonomy.com

Jobs Watch:

The following are announced jobs cuts

Dell – is to close its Irish factory

Logitech – 15% of its global workforce

EMC – 2,400 jobs approximately 6% of its global workforce

Lenovo – 2,500 jobs approximately 10% of its global workforce

Motorola – 4,000 jobs with an emphasis on the mobile division

Google – 100 jobs

Autodesk – 750 jobs approximately 10% of its global workforce

AMD – 1,100 jobs in a third round of cuts

Ericsson – 5,000 jobs

Microsoft – 1,400 jobs immediately and 4,000 over the following 18 months which will be approximately 6% of the global workforce



About Capgemini and the Collaborative Business Experience

Capgemini, one of the world's foremost providers of consulting, technology and outsourcing services, enables its clients to transform and perform through technologies. Capgemini provides its clients with insights and capabilities that boost their freedom to achieve superior results through a unique way of working—the Collaborative Business Experience

—and through a global delivery model called Rightshore®, which aims to offer the right resources in the right location at competitive cost. Present in 36 countries, Capgemini reported 2007 global revenues of EUR 8.7 billion and employs over 86,000 people worldwide.

More information is available at www.capgemini.com.

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