RFG Predictions for 2005 (Part One of Three)

RFG believes 2005 will be a year of growing demands on IT, yet without appropriate corresponding budget increases on the operations side. Close scrutiny on major initiatives will continue, and in some cases expand, as legislation enacted years ago, such as the Sarbanes-Oxley Act of 2002 (SOX), now requires a higher level of compliance. In addition, security attacks will continue as they did in 2004. Budgetary and resource constraints, financial reporting, regulatory compliance, and security initiatives, therefore, will dominate many, if not most, IT-related discussions. Perceived and real financial benefits will continue to drive outsourcing, presenting ongoing staff management and motivation challenges to IT executives. All of this points to a year in which IT will continue soul-searching with regard to its core competencies and mission in the enterprise.

Business alignment and demonstrable value of IT initiatives, in part through metrics and service level management, will continue to gain momentum in the enterprise. Vendor consolidation will accelerate in all product sectors during 2005, emboldened by the Oracle acquisition of PeopleSoft. Such consolidation has both positive and negative potential for enterprises. However, in response to the consolidation of vendors and the desire to gain better control of vendors across the board, more and more IT executives will seek to create or enhance vendor management offices (VMOs). In addition, IT executives will look to their VMOs as one method to help them cut the cost of development and operations.

IT-Business Alignment

The alignment of IT with business, the associated issues, and tools. This category includes business alignment and performance measurement tools, such as the Balanced Scorecard, competency centers, IT project portfolio management, and service level management (SLM). Also included are collaboration solutions, as well as organizational matters, such as cultural issues, process changes, and silo politics.

Lead Analysts: Michael Dortch, Mimi Ho

After a few years of false starts, vendor solutions and strategies and enterprise initiatives will increasingly coalesce around this important goal. The number of enterprises and vertical markets in which greater IT-business alignment leads to demonstrable business benefits will reach or exceed critical mass for undeniable credibility for all but the most skeptical IT executives.

Regulatory compliance requirements will provide both carrots and sticks leading to this state of affairs. A number of enterprises, some likely high in profile, will face punitive penalties for non-compliance. The government can be expected to use publicity of, and trials related to, SOX non-compliance as methods of driving enterprises to raise the bar in complying with regulations. However, since much is open to interpretation, judiciary rulings can be expected to become the final arbiter of regulatory compliance.

Business continuity and risk mitigation – along with its complement, enablement of verifiable trust – will also motivate many IT executives and vendors to frame their respective initiatives in terms of greater IT-business alignment. The interconnections between technological risk and business risk will gain sharper focus, fostering more discussions including both IT and non-IT business decision-makers.

As 2005 progresses, more IT executives will evolve their use of Balanced Scorecard, IT Information Library (ITIL) guidelines and similar "point" resources, into IT strategies architected to maximize IT-business alignment and enterprise elasticity. More and more enterprises will also build and use common repositories of information about applications, IT infrastructure elements, services, and users, and their
interdependencies. Vendors will deliver more solutions equipped to support and use such repositories, although how interoperable multiple vendors' solutions will turn out to be will remain an open question, as it was in 2004.

Mainframes, Servers, Storage, and Storage Management

*Hardware and processes that provide for the processing and storage of data, excluding those used primarily in departmental, workgroup, or other smaller-scale deployments.*

Lead Analysts: Ed Broderick, Christie Hangey

Mainframes are not dead, but are alive and well. IBM Corp. will continue to see increasing sales in the mainframe arena as clients reexamine the hardware for its functionality and reliability. With the introduction of the zSeries 890 and 990, as well as the concepts of utility computing and on-demand, RFG believes IBM will be the beneficiary as consumers begin more readily to adopt on-demand computing and the concept of "pay as you consume."

The struggle for open systems supremacy will continue as server vendors IBM and Sun Microsystems, Inc. fight for market share. Both vendors will refresh and expand product offerings. Sun will spend most of the year scrambling to rebuild confidence in it by its customer base. Hewlett-Packard Co. (HP) will also continue to struggle to demonstrate a cogent and reliable strategy and prove that it should continue to be an enterprise vendor of choice.

On the storage side, the competition between EMC Corp., Hitachi Data Systems, and IBM will continue to be fierce. The companies will expand their product portfolio by acquisition in an attempt to provide the depth and breadth of offerings to become the enterprise storage vendor of choice. Software vendors such as Computer Associates International, Inc. and BMC Software, Inc. will seek to improve their offerings, implementing virtualization to compete with hardware offerings from vendors such as EMC and IBM.

Enterprise Information/Intellectual Property Management

*Technologies and processes focused on the care and protection of the information and intellectual property that uniquely defines each enterprise and its ability to compete, throughout the life cycle of that information. (This section does not discuss related regulatory or storage-related issues, which are covered elsewhere in RFG's Predictions for 2005.)*

Lead Analysts: Christie Hangey, Michael Dortch

The amount of information generated by the enterprise will continue to grow at the rate of 40 percent annually, making effective enterprise information management increasingly more critical. Regulatory compliance will continue to place pressure on IT to interpret rulings and will help bring information management to the forefront of IT priorities. Yet most enterprises will continue to struggle in 2005 to capture enterprise intellectual property, as well as define a proper classification schema. Also of concern to the enterprise will be destruction of data, as unclear retention periods put the enterprise at risk.

IT will continue to find new ways to enable, increase, and support collaboration among enterprise users. As more and more information is generated electronically, organizations will begin to focus not only on its capture and classification, but its integrity and security as well. Vendors will attempt to cast and re-cast themselves as focused on these issues as well. In this regard, Symantec Corp.'s "merger" with (or, more
accurately, acquisition of) Veritas Software Corp., announced in Dec. 2004, may be a harbinger of additional similar vendor moves.

More enterprises will examine policies regarding access and will modify them to address current enterprise security concerns. The market will continue to see consolidation among vendors, as well as industry vertical specialization, as vendors attempt to address the regulatory needs of various industry sectors.

Enterprise information management will continue its move from being strictly a departmental operation to one that is performed enterprise-wide. Companies will continue to attempt to standardize on one product or platform in an attempt to facilitate access to critical business information across the enterprise.

**Open Source**

*Software products with readily available source code, developed in a collaborative and open style that encourages peer review and contribution.*

Lead Analyst: Stacey Quandt

2005 will be a landmark year for open source. New business models based on certification and support for a "LAMP stack" based on Linux, the Apache Web server, MySQL AB's eponymous database, and Perl, PHP, and/or Python development tools will drive professional services opportunities. Open source service-oriented architectures from vendors such as JBoss, Inc. and Red Hat, Inc. will dispel the perception that open source does not equal traditional commercial software in functionality or scope.

In 2005, organizations will continue to assess open source software on the basis of commercial support, feature/functionality, ISV partnerships, and the maturity of the technology. The integration and certification of open source components by companies such as SpikeSource, Inc. and SourceLabs, Inc. will be key to adoption.

The promise of the Linux desktop will persist. However, the absence of integrated software components will lead to deployment within organizations using custom applications or delivering content through portal-based desktops.

The long-awaited release of MySQL 5.0, with its support for stored procedures, will be a watershed event. Also, Red Hat Enterprise Linux 4.0, with full support for the Linux v2.6 kernel, will further narrow the gaps between Linux and traditional commercial Unix alternatives.

The interest in open source ROI will continue, but in 2005 the focus will shift toward leveraging open source savings to deliver top-line growth. The gap between open source and closed source solutions will continue to narrow but, in general, open source solutions will still be faced with chasing a moving target. National governments will continue to embrace open source software to increase transparency, drive standards, and lower costs. Microsoft and Sun will respond with lower software operating system and application costs in select markets.

Users of technology, rather than vendors, will drive the support for open standards in open source software. For example, initiatives such as OpenIB will be important toward driving a high-performance InfiniBand stack on Linux. Questions about the perceived absence of open source roadmaps will persist, but this will not deter most IT executives from considering the technical and cost advantages of open source software.
The anticipated successful flotation of shares in JBoss in 2005 will invigorate the venture capital community to explore other open source investment opportunities. Much attention will be focused on MySQL in this regard. However, savvy investors and IT executives will focus on companies delivering solutions for the mobile device market, such as Trolltech and Sleepycat Software, and for groupware and messaging, such as Scalix Corp. and OpenExchange. Open source CRM from providers such as SugarCRM will also likely be worth watching.

Linux

Lead Analyst: Stacey Quandt

The Linux market has evolved since a year ago, with the availability of Linux distributions based on the v2.6 kernel, advances in x86 64-bit platforms, blades, and IBM OpenPower (Power5 systems specifically designed to run Linux) designed for performance improvements with fewer processors, and virtualization solutions will create new opportunities for Linux adoption. However, embedded Linux solutions in the home, medical devices, and other verticals will be greater than industry IT deployments.

As a result, the primary driver of future Linux adoption will focus less on workload and server consolidation and instead emphasize resource allocation through software and hardware virtualization and emerging workload management capabilities. Low costs of commodity 32-bit systems, IBM OpenPower, and the economics of AMD x86-64 and Intel EMT64 will continue to drive migration from Solaris on SPARC systems. However, Sun's release of its Solaris 10 operating system, with its support for containers, DTrace, and ZFS, will slow and potentially stall Solaris-to-Linux migration.

Overall, the Linux server market will grow with database, customer relationship management, enterprise resource management, and business intelligence deployments on Linux gaining ground. Also Linux on large SMP systems and on global shared memory systems will continue to drive high volume Linux server implementations within the high performance technical computing segment. IBM's experimental Linux-based BlueGene supercomputer, currently the top ranked supercomputer, will deliver innovation not seen since IBM's SP2 systems.

Key market segments will continue to be oil and gas, financial services, retail, government, pharmaceuticals, and life sciences. A market for Linux-based mobile phones is emerging in China. Linux mobile phones will emerge in EMEA in 2005, but will not become significant in North America until 2006. Intel's Advanced Telecommunications Computing Architecture platform and the maturation of 3G wireless services will lead to more Carrier Grade Linux use. Linux desktop use will grow regionally among consumers and enterprises, especially in emerging geographies. Linux thin-client deployments will exceed those on traditional PC client platforms in North America.

Enterprise Linux distribution providers will continue to seek differentiation through support of business-critical applications and advanced features such as clustering. This will erode the viability of independent software vendors (ISVs) that thrived by providing such features as enhancements to earlier distributions. Meanwhile, the price of enterprise-class Linux distributions, in particular Red Hat Enterprise Linux, will face pressure from lower-cost alternatives such as Novell, Inc.'s SuSE and China's Red Flag Software Co., Ltd. There will be several potentially competing efforts to increase interoperability of ISV offerings across multiple Linux distributions by bodies such as the Linux Core Consortium and Open Source Development Labs, Inc.
In 2005, the virtualization market will heat up, with new entrants challenging VMWare's software-based virtualization capabilities. IBM's hardware-assisted Hypervisor virtualization will highlight the relevance of a complete systems approach and the tradeoffs inherent in partitioning alternatives from vendors such as HP and Sun.

Legal questions regarding software licensed under the GNU General Public License will persist in 2005. Summary judgment will be reached in The SCO Group, Inc.'s lawsuit against IBM. Although the GPL is not on trial, subsequent to this the Free Software Foundation will explore revisions to the GPL. More corporations will institute policies compelling developers to understand the importance of consistent code attribution, code coherency, and documentation.

Security

*Products and services to protect mobile devices, networks, servers, and workstations from attack or viral infection.*

Lead Analysts: John Stehman, Michael Lipham

Enterprise security will tighten up in 2005 because of increased remote user access needs, the availability of more wireless enabled applications, and ongoing concerns with the Health Insurance Portability and Accountability Act (HIPAA) and Sarbanes Oxley Act (SOX) compliance. Protecting enterprise valuable data and limiting any potential liability for security breaches will now concern and involve many C-level executives. Many enterprises will discover that existing security mechanisms and point solutions no longer provide the required proactive security analysis and forensics required to maintain appropriate security levels to protect both enterprise information and IT users.

Layered security architectures will become the new framework embraced by most companies to protect information assets. Consequently, combinations of firewalls, intrusion detection systems (IDS), intrusion protection systems (IPS), and virtual private network (VPN) solutions will all experience a strong enterprise uptake as companies attempt to improve overall security for business applications, operating systems, and user platforms. No frills VPN products will also see renewed interest for many small office and home users because of the attractive cost and improved installation capabilities. It is likely that Public Key Infrastructures (PKIs), both outsourced and internal, will achieve minimal growth due to their costs, overall complexity, and other viable alternatives.

In the wireless environment, migration towards Wi-Fi Protected Access (WPA) and its second generation, WPA2, will continue because of the increased security they both provide – especially WPA2 for strong user authentication and encryption. However, some enterprises will still fail to utilize even the most minimal level of security, specifically Wired Equivalent Privacy (WEP), to protect against security breaches. In addition, enterprises will select from the new generation of security tools offered by companies, such as AirDefense, AirMagnet, and Bluesocket, to proactively manage, monitor, and maintain requisite levels of security. Overall, wireless security will improve significantly in the enterprise environment.

Phishing attacks will continue to grow, though not at the current exponential rate. The market for anti-phishing solutions will also increase to meet the demand, which is fueled by organizations' desire to curtail customers' financial losses and to protect and preserve brand names and reputation. More arrests will be made in the fight against spam and phishing, though it will continue to do little to decrease the volume of such fraudulent e-mails.
The proposed standards for enforcing proof of identity when sending e-mail, such as Yahoo, Inc., DomainKeys and Microsoft Corp., SenderID, will continue to have distinct but separate followings. Companies will begin using authentication to filter out spam when spammers increasingly register domains solely for the purpose of sending spam. Internet Service Providers (ISP)s could see increased pressure to play a more active role in defeating the burgeoning network of "bot" networks consisting of thousands of compromised client machines.

The fight against spyware will take a gentle turn to focus on removal rather then merely detection. Furthermore, the race for fully functional enterprise spyware detection and removal solutions will escalate. With regard to Web services, identity management will improve and more enterprises will therefore consider it. Lastly, the market for software to assure patching levels before network access is allowed may take off because of the tremendous demand for automating such error-prone and resource-consuming functions.

Tomorrow: "RFG Predictions for 2005 (Part Two of Three)"

Multiple RFG analysts contributed to this Research Note. Interested readers should contact RFG Client Services to arrange further discussion or interviews with the contributing analysts.