HRG Assessment:
Financial Services & Linux Applications

INTRODUCTION

The Harvard Research Group recently conducted an assessment of the emerging Linux marketplace, with particular focus on application deployment within the financial services industries. We appreciate your participation in our survey of Information Technology vendors, and are pleased to offer the following summary of our findings regarding the overall state of the market.

METHODOLOGY

Harvard Research Group decided that vendors offered the broadest vantage points on their respective markets and customers, so we talked with them – application developers, database and middleware providers, Linux distribution and support vendors, and platform manufacturers. HRG conducted qualitative interviews with 30 senior managers who were responsible for their company's Linux strategy.

Our interviews covered a broad cross-section of market players, comprising leading vendors within the following disciplines:

- Database and data warehouse
- Linux operating system distribution and support
- Leading platform / systems manufacturers
- Grid and Storage management
- Middleware and financial messaging
- Risk Management
- Trading, Back Office Systems and STP
- Wealth management
- Retail and Commercial Banking

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KEY FINDINGS

Looking across all markets, the Linux value proposition has taken hold in a huge way over the last twelve months, accelerating within the past six months. In the second quarter of 2003, BusinessWeek reports that sales of $3,000 Linux servers grew 40% over the preceding period. Harvard Research Group, in its 2003 High Availability Systems Mid-Year Forecast, has predicted that Linux-based servers with at least minimal provision for data protection and failover, will grow from $1.8 billion in 2002 to $4.3 billion by 2005.

Financial Services industries include Banking (Retail and Commercial); Securities and Investment Banking; and Insurance (Property and Casualty, Life and Disability). The securities industry tends to lead the market in the deployment of new technology, with banking, and then insurance following. This is certainly the way things are going with Linux.

Most major securities firms are actively engaged in researching advanced applications on Linux, as well as aggressively deploying Linux for basic infrastructure applications today. Virtually all of the vendors we spoke with confirmed that Wall Street buyers are leading the way for financial services. Major firms that have acknowledged major Linux initiatives include Reuters, JP Morgan Chase, Merrill Lynch, Goldman Sachs, Lehman Brothers, American Century, Credit Suisse First Boston and Morgan Stanley.

There are three fundamental reasons for Linux' rapid rise:

1. Price/performance
2. Functional fit and reliability
3. Vendor actions to reduce perceived risk

Price/performance. The core motivator today is to "Take Cost Out" (a new use for the TCO acronym), and the savings can be enormous. We hear example after example of functions traditionally executed on large, multimillion dollar RISC-based systems, that can now be done in a fraction of the time, and at a fraction of the cost, on clustered Intel servers running Linux. The combination of Linux and Intel technology, together with clustering and/or grid computing technology, enables organizations to dramatically improve their utilization of existing computing resources. This, combined with open source pricing (pay for the distribution and support, not the license) makes for tremendous return on investment.

Linux functional fit and reliability. Much like UNIX, fully supportive of Java and related technologies, Linux fits easily into the UNIX development and operating environments. With standard enterprise distributions available from Red Hat, SuSE / United Linux and others, customers have a choice they never had before: a truly vendor-independent operating system, that will operate across diverse platforms. Operating economies extend well beyond platform and license cost reduction. Customers can consolidate the number of supported operating platforms and focus their talent on fewer platforms.

Moreover, porting to Linux is relatively easy, and it works. IT managers at one company we spoke with proudly told us of a Linux server that hadn't been rebooted in eighteen months. Their feeling, shared by many, is that Linux is now every bit as reliable as Windows, if not more so. Oracle, which offers to actually repair Linux code at no charge for customers under support, told us that, as of our interview date, they had taken 40,000 support calls and had only needed to repair Linux code three times.

Vendors take the risk out. ROI and technology fit was not enough. The perceived risk posed by Linux was too great. This has changed. Leading industry vendors have effectively taken the risk out of Linux, in many ways that build upon one another:

Linux suppliers, particularly Red Hat and SuSE/United Linux, introduced enterprise-class distributions of Linux, fully tested and under revision control, certified to run across various vendor platforms. This brought order to the otherwise chaotic world of open source software.

IBM and HP adopted Linux across their platforms, bringing world-class service and large company endorsement to Linux on Intel. Dell and Sun have contributed to this as well.

IBM's support of Linux on its z-series mainframes brought a sense of "data center readiness" to Linux; this has been particularly impactful in the financial services arena, where practically all large enterprises run their core operations and transaction management on mainframes.

The industry's largest software vendors have brought their capabilities to the Linux ecosystem. Examples include:

- Veritas is moving its entire product line to Linux, bringing data center-class back-up, high availability services, and system management to Linux deployments.
- BEA and IBM brought the power of middleware (WebLogic and Websphere) and their support of Java to the Linux community.
- Oracle brought Real Application Clusters (RAC) and its offer of "Unbreakable Linux;"
- SAP, and then PeopleSoft, committed to bring their ERP and CRM solutions – the heart of enterprise IT – to Linux.

Linux deployment follows a logical progression. There is a definite progression to Linux market adoption, and today we are primarily on the first commercial step, the replacement of volume IT infrastructure. Web content servers, file and print servers, mail servers, and firewalls are in varying degrees being replaced by clusters of Intel servers, hundreds of processors in server farms running Linux. This is largely a custom, in-house process, implemented directly by IT organizations and their consulting / contract development partners.

The next major step up for most organizations will be the build-out of the Linux ecosystem, with deployment of Linux application servers and middleware, and the shift of database servers to the Linux platform. This ecosystem, in turn, will enable much broader rollout of commercial, Linux-based software solutions. These will include ERP, CRM, data warehousing, Business Process Management and Business Intelligence / Analytics applications. In parallel, we will start to see discrete applications, focused on specific financial services functions, coming to market. As Linux market presence builds, customers will begin to insist upon Linux for packaged software solutions.

We are still early in the game. Customers are, for the most part, focused on converting their infrastructure, and not yet insisting on Linux for their business applications. Several vendors told us that they had developed Linux implementations, but that customers were not yet asking for them. Several more indicated that customer demand had not grown to a level that would justify creation of a Linux product. Other large players are looking to divisional test cases within their corporations to prove the merit of Linux.

However, all agreed that it was not a question of whether they would support Linux, but when – and that this would be driven by their customers.

Harvard Research Group is an information technology market research and consulting company. The company provides highly focused market research, consulting services, and business modeling tools to vendors and users of computer hardware, software, and services. For more information contact Harvard Research Group as follows:

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