Delivering financial services industry solutions with Red Hat Enterprise Linux and HP
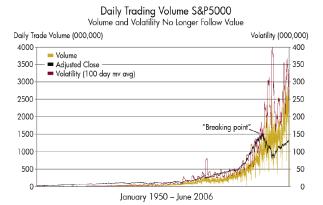
Customer challenges

Financial institutions face increasing pressures in the drive towards greater profits and market growth. While spending priorities may vary from one segment of the financial services industry to another, there are common IT imperatives that are underlying the spending: enabling organic growth in the firm through new products and services excellence, delivering improved operational efficiency by lowering cost of services for both infrastructure and applications, managing, monitoring and supporting silos of applications and infrastructure created "long ago and far away" (legacy infrastructure) and providing resiliency, business continuity and compliance required by multiple authorities.

Managing IT investment returns during periods of high volatility can be challenging. In the face of exponential growth of market volumes and profit pressures across all sectors in the financial services industry, firms have increasingly begun to turn to Red Hat Enterprise Linux and HP industry-standard servers such as the HP BladeSystem as a way to dramatically improve price/performance for increasingly more mission-critical applications. From risk applications to market data systems to equity options calculators, investment and retail banks, as well as insurance firms, are considering a broad range of Linux and open source solutions as a way to reduce costs, speed delivery of solutions and enhance competitive advantage.

Red Hat and HP—foundation for FSI solutions

Within the Securities and Investments segment, the dramatic rise of automatic generation of buy-and-sell orders through algorithmic and black-box proprietary trading is leading to even more dramatic increases in the volume of market and trade messages. Volume has increased over 2500 percent in the past five years. Reuters, Red Hat and HP have joined forces to optimize the Reuters Market Data System (RMDS) 6.0 on cost-effective HP ProLiant servers and Red Hat Enterprise Linux to provide a platform to meet these mounting challenges. Reuters has also introduced the Open Message Model (OMM) which gives Reuters customers and partners the ability to publish data across their enterprise in a wide variety of formats via the RDMS platform.
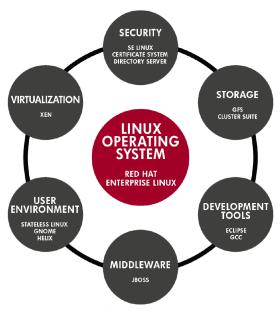
Financial services is an information-driven business: information about securities to hold and trade, information about interest rates, information about mortgage risks, information about customers, information about audits on information quality, information about potential fraud, etc. Because of these factors as well as increasing numbers of customers and products, the information in use by financial services companies is increasing, and will continue to increase. HP BladeSysem, Red Hat Enterprise Linux, and Oracle® Database 10g with Real Application Clusters (RAC) deliver on the vision of a business-responsive, cost effective datacenter—one in which IT managers have the freedom and the confidence to transform datacenters into grid computing infrastructures that turn resources into competitive advantages. Oracle RAC allows Oracle databases to run across a cluster of HP BladeSystem servers, providing unrivaled performance, scalability, and flexibility.

Daily Trading Volume S&P5000
Volume and Volatility No Longer Follow Value
January 1950 – June 2006

HP BladeSystem—building a better infrastructure

The best way to build a better infrastructure is to simplify it with the latest open, industry-standard innovations. Solutions built with Red Hat Enterprise Linux and HP BladeSystem c-Class infrastructure deliver outstanding price/performance through industry standards. An open source architecture and modular hardware design mean that a Red Hat Enterprise Linux on HP BladeSystem c-Class solution can support a vast range of enterprise or infrastructure applications, drive consolidation and migration from proprietary symmetric multiprocessing (SMP) UNIX® systems and UNIX infrastructure such as Solaris. Everything you look for when choosing an application—scalability, reliability, and performance; cost-effective operations; the ability to adapt to business changes; and improved efficiencies across the environment—is accelerated by Red Hat Enterprise Linux solutions on HP BladeSystem c-Class infrastructures.

HP BladeSystem c-Class goes beyond solving server issues. It solves infrastructure issues. To do that, HP has taken a total system approach to design, using advanced management tools to integrate computing, storage, power, and network resources into a virtualized, self-aware, automated environment. With HP BladeSystem, companies are managing a pool of resources as easily as one machine, and IT is ready to become a better service provider to your business.

The combination of lower acquisition costs and dramatically improved datacenter efficiency makes a strong business case for adopting the HP BladeSystem c-Class as the architectural foundation to transform the technologies, people, and processes behind your IT department.

Red Hat Enterprise Linux
Red Hat provides the industry's premier Linux and open source environment for commercial deployments. Red Hat Enterprise Linux solutions deployed on certified industry-standard hardware and running a wide variety of enterprise-caliber applications are delivering the capabilities of traditional proprietary UNIX systems, but at significantly lower cost. Red Hat maintains a single Enterprise Linux distribution that has been tested, hardened and certified across a range of enterprise environments and supports both technical and functional enterprise requirements.

Red Hat Enterprise Linux is a more stable distribution due to the focus on a commercial enterprise deployment, a predictable release cycle, a minimum of seven years support for each release, and through upstream development in the Fedora Project, where the

latest open source technologies are packaged and released in a free Linux distribution. Red Hat Enterprise Linux releases are provided approximately every 18 months and supported by Red Hat and its partners for seven years. During this time, Application Programming and Application Binary Interfaces (APIs/ABIs) remain stable, so that applications continue to work for the life of the product. It is the stability offered by Red Hat Enterprise Linux that makes it practical for product certification by ISV and OEM partners.

For mission-critical financial services computing environments, security is a requirement, not an add-on. Accordingly, with the Red Hat Enterprise Linux 4 release, security is a major focus, providing market-leading security features including Security Enhanced Linux (SELinux), Exec Shield, PIE, and Auditing.

Red Hat also guarantees maintenance, including critical bug fixes and security updates, for seven years from initial release of the product. Ensuring that an operating system is up to date and protected by the most recent patches and security enhancements is essential in today's Internet age, and Red Hat Network (RHN) is the mechanism that provides this value. As Red Hat continuously provides enhancements and security updates, RHN provides the mechanism to ensure that they are applied to customer systems quickly and efficiently.

Red Hat Enterprise Linux provides enhanced stability, performance, and scalability, specifically:

- A leading platform for open source computing
- A stable and mature infrastructure based on the Linux 2.6 kernel
- Technologies to meet today's security and compliance demands
- Exceptional performance and scalability for both 32- and 64-bit workloads

Value-added services
In the Financial Services sector, IT departments are charged with delivering business value with an eye on managing risk, as well as establishing, assessing and reporting against effective business controls. In an era of cost constraints, market turbulence and organizational stress, the role of governance has never been more critical.

Red Hat and HP offer a wide array of value-added services, so customers can focus on managing their business, not their infrastructure.

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HP Services

HP Consulting and Integration (HP C&I) is qualified to engage in any effort, from conceptual studies to systems development and implementation.

HP's Governance Services provide a framework for implementing and using policies to help better manage a company's IT resources and maximize its investments. The HP OpenView Governance practice provides enterprises the ability to effectively address operational risk, automating and centralizing controls.

HP Linux and Open Source Governance helps IT organizations that may be hesitant to move further into their enterprise with open source because they have questions about their ability to manage, integrate and support it. Through the SOA Governance and Architecture Service, HP is working with enterprises to help set in place the programs needed to establish and administer an SOA that enables IT to more efficiently and cost effectively support highly diverse—and often unpredictable—business requirements.

Creating a TCO for the Linux OS within financial services enterprises requires a thorough examination of costs that are incurred. The TCO Assessment Service utilizes an easy-to-use online modeling and executive decision-making tool from Alinean Corporation that enables system value comparisons and what-if analysis of different mixes and delivers these through flexible, customizable reports.

HP is a Red Hat Tier 1 partner and offers complete support and single point of accountability for Red Hat Enterprise Linux on HP servers. In fact, more than 99 percent of all open source and Linux service requests are resolved directly by HP, including those in support of Red Hat software subscriptions purchased through HP. Shielding the customer, HP works in close collaboration with Red Hat to resolve any remaining issues.

Red Hat and HP Migration to Linux Services ensure a successful Linux deployment, including complete, tested and proven platform configurations, solution stacks, and high-availability clustering software, and access to Red Hat and HP consulting, integration and support services.

Red Hat Services

Red Hat Professional and Consulting Services comprises a full set of consulting services, from design, configuration, deployment, management and implementation through upgrade planning as well as custom engineering and support services.

The Red Hat and HP advantage

The partnership of Red Hat and HP allows businesses to leverage the industry's best Linux expertise as needed—access to a vast array of highly qualified and diversified skills covering all facets of open source support needs, including a deep knowledge of hardware and software environments. From comprehensive solution design or migration to a Linux solution, Red Hat and HP are committed to helping financial institutions speed time to market through reduced implementation times, infrastructure optimization and support services for your Red Hat Enterprise Linux solution running on the HP BladeSystem c-Class.

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