

# Red Hat® delivered superior performance for open source Web applications

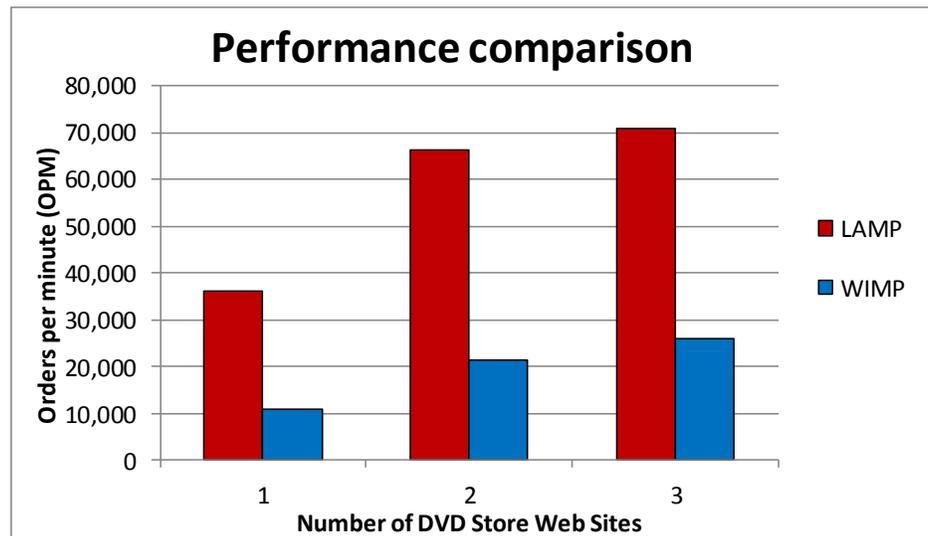


The open source LAMP stack in Red Hat Enterprise Linux® 6 delivered 3.3 times greater performance than the Microsoft® Windows® equivalent (WIMP)



In our tests in the Principled Technologies labs, we found that the open source Red Hat® Enterprise Linux® 6-based LAMP software stack (Linux + Apache + MySQL + PHP) delivered as much as 3.3 times greater performance for Web applications than a Windows-based WIMP stack (Windows + IIS + MySQL + PHP). Red Hat Enterprise Linux 6 is a high-quality operating system that provides an open source alternative to proprietary software. As these results show, Red Hat Enterprise Linux 6 provided a speedier user experience for a Web application based on Apache/PHP/MySQL. Red Hat Enterprise Linux 6 can help organizations get more out of their servers while improving performance.

Figure 1: The Red Hat LAMP stack outperformed the Microsoft WIMP stack for all three online e-commerce scenarios by as much as 231.6 percent.



We tested the performance of the two solution stacks using the DVD Store 2.1 benchmark for three levels of performance pressure/intensity, and found that the Red Hat Enterprise Linux 6-based open source LAMP stack was able to complete up to 3.3 times more online orders than the Microsoft WIMP stack. The test included creating new customer records and other actions typical of a robust e-commerce Web site. (See Figure 1.)

Figure 2 summarizes the results of our e-commerce performance tests, showing the number of orders per minute each software bundle could deliver as well as the percentage performance increase the Red Hat Enterprise Linux-based stack achieved.

Number of DVD Store Web sites	Number of simulated users	OPM with LAMP	OPM with WIMP	Performance increase using LAMP
1	60	36,056	10,872	231.6%
2	120	66,200	21,265	211.3%
3	180	70,931	26,046	172.3%

**Figure 2: Performance results, in orders per minute (OPM), for the two solution stacks.**

As operational and capital expenditures across the IT industry continue to soar, CIOs, CTOs, and datacenter managers are looking to cut costs by moving from traditional proprietary software to open source applications and by fully utilizing each physical server.

Choosing the best operating system is vital, as it directly affects the amount of processing each server can perform. Moreover, depending on the software stack that fuels your applications, the performance and operational benefits from such a selection could be significant. For example, switching your application stack to Red Hat Enterprise Linux 6-based LAMP could enable your business to boost the speed of key operations, such as processing large numbers of Web requests.

By deploying a complete software stack that dramatically outperforms competitors, your organization can reap the cost and performance benefits that come with increasing your infrastructure's efficiency.

To learn more about the workload that we used, our testing practices, and Red Hat Enterprise Linux 6, please see our full test report at [http://www.principledtechnologies.com/clients/reports/Red%20Hat/LAMP\\_stack\\_0412.pdf](http://www.principledtechnologies.com/clients/reports/Red%20Hat/LAMP_stack_0412.pdf).

## ABOUT PRINCIPLED TECHNOLOGIES



Principled Technologies, Inc.  
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We provide industry-leading technology assessment and fact-based marketing services. We bring to every assignment extensive experience with and expertise in all aspects of technology testing and analysis, from researching new technologies, to developing new methodologies, to testing with existing and new tools.

When the assessment is complete, we know how to present the results to a broad range of target audiences. We provide our clients with the materials they need, from market-focused data to use in their own collateral to custom sales aids, such as test reports, performance assessments, and white papers. Every document reflects the results of our trusted independent analysis.

We provide customized services that focus on our clients' individual requirements. Whether the technology involves hardware, software, Web sites, or services, we offer the experience, expertise, and tools to help our clients assess how it will fare against its competition, its performance, its market readiness, and its quality and reliability.

Our founders, Mark L. Van Name and Bill Catchings, have worked together in technology assessment for over 20 years. As journalists, they published over a thousand articles on a wide array of technology subjects. They created and led the Ziff-Davis Benchmark Operation, which developed such industry-standard benchmarks as Ziff Davis Media's Winstone and WebBench. They founded and led eTesting Labs, and after the acquisition of that company by Lionbridge Technologies were the head and CTO of VeriTest.

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