

# Proof of performance

Centralizing Microsoft Office SharePoint Server 2007 servers can save money, but only if you can optimize your WAN to provide solid performance to remote users. HP's tests prove F5 does just that.



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Photograph by Jason Grow

**ASK JIMI IBBETT** what the first requirement of a successful collaboration solution is, and he'll answer, "High performance." To this end, Ibbett has spent the last seven years testing and optimizing the performance of various iterations of Microsoft SharePoint software on HP ProLiant and BladeSystem servers. "SharePoint is no different than any other tool," he says. "If it isn't fast and responsive, no matter how great it is, people will be far less inclined to use it."

Ibbett, a senior member of the technical staff in Solutions Alliances Engineering (SAE) at HP, works closely with Microsoft, and the HP ProLiant, BladeSystem, and Storage teams to recommend best practices to optimize Office SharePoint Server 2007 performance. As more organizations upgrade to Office SharePoint Server 2007, a suite of software for fostering collaboration and organizational effectiveness, he sees a common theme emerging: Many customers are also consolidating their Office SharePoint servers in an effort to simplify IT infrastructure and cut costs.

While the efficiency and cost benefits of server consolidation are real, so are

the performance issues that may result from the increased reliance on an organization's WAN. In fact, HP found that the traffic produced by a single, powerful front-end web server can exceed the usable capacity of a T-3 circuit (44 Mbps). As bandwidth usage approaches saturation, response times increase, and so does user frustration. "SharePoint can help organizations become highly efficient," says Ibbett, "but enthusiastic user adoption, fueled by consistently high solution performance, is a key part of realizing ROI."

HP didn't have to look far to address these performance issues. The company had collaborated with F5 in the past, including working together to support the IT infrastructure for the 2007 Boston Marathon. F5 provided traffic management equipment to support the Marathon web site, which was designed and built by HP, the Marathon's official technology sponsor. F5's support proved essential as rain fell on race day, prompting many would-be roadside viewers to watch from the Internet instead. "F5 was the natural choice as we looked at potential solutions for improving Office SharePoint Server 2007 performance,"

says Rob Montgomery, SAE director at HP. "The company is a true leader in Application Delivery Networking, and we had seen the success of F5 products first-hand."

One key to F5's success in Application Delivery Networking is the F5 Application Ready Network (ARN). "F5's ARN for SharePoint 2007 is an application toolset that helps customers understand how to design and implement F5 solutions, and what benefits they can expect from F5," says Ryan Korock, solutions architect at F5. "For example, with built-in acceleration policies, our customers can optimize the performance of their SharePoint environment within minutes. Customers often think that to make applications faster, they need bigger hardware or more optimized code, but when we talk about high-latency links, and links with significant packet loss, bigger servers are not always the answer. The network should be taken into consideration. It's often the biggest enemy, and is frequently overlooked."

## Comprehensive Performance Tests

In late 2007, Ibbett and his colleague Chris Daly, a senior engineer at HP, used their

## ++++consolidation+++++

SAE lab to design, run, and test scenarios for improving overall system performance in Office SharePoint Server 2007 deployments. They used HP ProLiant and BladeSystem servers, HP Storage, and F5's BIG-IP Local Traffic Manager (LTM) with WebAccelerator, an advanced web application delivery solution that helps organizations overcome performance issues involving browsers, web application platforms, and WAN latency. In total, they ran more than 100 scenarios during the testing process.

Korock planned to be on-site for three days at the lab to help with setup. As it turned out, says Ibbett, "We only needed Ryan for a day and a half. The planning and implementation took half as long as expected, due to the ease of implementation of the BIG-IP devices, and the skills and experience of the people at F5."

HP tested two typical customer configurations: a branch office scenario representing corporate users performing read/write operations on a central Office SharePoint server farm; and an Internet scenario representing anonymous users with read-only access to an organization's externally facing Internet portal.

For both scenarios, the test server farm was intended to represent an enterprise-class

deployment. It included seven HP c-Class blade servers providing a high-performance, highly available Office SharePoint Server 2007 solution.

For the branch office scenario, HP used two BIG-IP LTM 6800s in a symmetric deployment, in which one BIG-IP system is located at the data center and the other is at the remote location. The BIG-IP LTM 6800 is a 2U network appliance capable of handling nearly 4 Gbps of sustained throughput.

In the read-only Internet scenario, HP designed an asymmetric deployment, with a single BIG-IP LTM 6800 with WebAccelerator located at the emulated data center. This configuration provides compression, taking advantage of users' browsers to decompress content. It also uses BIG-IP WebAccelerator Intelligent Browsing Referencing technology, which eliminates the need for web browsers to download repetitive or duplicate data, and ensures the best use of bandwidth by controlling browser behavior.

### Impressive Performance Gains

Over the course of several weeks, HP conducted more than 100 tests comparing the two scenarios to un-accelerated baselines. "We found that using BIG-IP LTM with WebAccelerator in a symmetric configuration improved throughput to the branch office by as much as eight times," Ibbett says. For users, that translates to dramatic improvements in response time. In fact, thanks to the caching capabilities of the BIG-IP LTM, HP found response time for opening documents improved by a



HP's Jimi Ibbett (second from left), together with F5's Ryan Korock, solution architect; Rebecca Johnson, business development manager; and Jeff Bellamy, senior business development manager.

**"Using BIG-IP LTM with WebAccelerator in a symmetric configuration improved throughput to the branch office by as much as eight times." —Jimi Ibbett, Senior Member of Technical Staff, Solutions Alliances Engineering, HP**

factor of 20, meaning it took one-twentieth of the time. Similarly, search improved by a factor of 4, and folder list opening improved by a factor of 2. Consequently, HP's results were right in line with F5's own ARN testing for Office SharePoint Server 2007.

In the asymmetric Internet scenario, results were just as positive. Throughput nearly doubled, while average page response times showed improvements ranging from factors of 3 to 5. "We were exceedingly pleased with the performance improvement we achieved," Ibbett says. "The results show customers need no longer have concerns over WAN-based deployments."

The HP test results are good news for customers looking to garner increased ROI from consolidating Office SharePoint servers, giving them a solution to deliver SharePoint services over the WAN efficiently. "It means that customers doing wide-scale Office SharePoint Server deployments will realize increased server capacity because BIG-IP with WebAccelerator decreases the load on the servers, and can also significantly reduce band-

width use. In addition to more efficient server usage, they get an enhanced user experience," Korock says.

The solution holds another benefit for customers. "Customers naturally want to go to a single solution vendor for potentially complex deployments such as Office SharePoint Server 2007, which can include servers, storage, PCs, smartphones, networking, software, and professional services to arrive at the right strategy and configuration," Ibbett says. "For HP to be able to provide customers with a tested partner solution is a big win. It's a great thing to have such a strong partner as F5 at our side."

The positive vibe is mutual. "We're excited to be helping HP bring the most relevant and effective solutions to their customers' SharePoint implementations," says Rebecca Johnson, business development manager at F5. "It's a great thing for the customer when they can go to one deployment source—HP—for a complete, beautifully planned and architected solution."\*

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### Additional resources

For more information about the HP test scenarios and BIG-IP Application Delivery Networking capabilities, or to learn more about the F5 ARN for Microsoft Office SharePoint Server 2007, visit [www.f5world.com](http://www.f5world.com).