

SOLUTION BRIEF

**F5 Solutions Enhance the Performance,  
Availability and Security of Microsoft  
SharePoint Portal Server 2003 Deployments**



## **Microsoft** F5 Solutions Enhance the Performance, Availability and Security of Microsoft SharePoint Portal Server 2003 Deployments

**Executive Summary** Microsoft® and F5 have collaborated on an efficient way to intelligently direct traffic for Microsoft SharePoint® Portal Server 2003 with the F5 BIG-IP application traffic management device. Microsoft and F5 have conducted interoperability testing between the BIG-IP system version 9.0 and Microsoft SharePoint Portal Server 2003. The resulting solution enables customers to achieve mission critical availability and better scalability while increasing the return on investment of their infrastructure. With new optimization features, the BIG-IP system provides impressive performance enhancements for SharePoint Portal Server deployment, improving application response time by over 120%. The F5 FirePass controller SSL VPN offers remote users this same level of performance and secure access to the Microsoft SharePoint Portal Server 2003 network, from any device in any location.

Microsoft SharePoint Portal Server 2003 enables enterprises to develop an intelligent portal that seamlessly connects users, teams, and knowledge so that people can take advantage of relevant information across business processes to help them work more efficiently. F5 Networks' traffic management and security solutions enhance the performance of SharePoint Portal Server with mission-critical availability, intelligent traffic management, increased efficiency, strengthened security and tremendous scalability.

With its complete and integrated feature set, including Intelligent Compression, new TCP optimizations, and its Traffic Management Operating System (TM/OS), version 9 of the BIG-IP system improved the response time of SharePoint Portal Server by over 120% while reducing bandwidth consumption by 75% in recent Gomez Performance Network testing of the deployment.

These results are even more impressive because they represent real-world performance rather than best case claims or LAN-based testing; the Gomez Testing service uses real clients from all corners of the globe in order to provide a true representation of Internet conditions, WAN issues and other inefficiencies seen in full application transactions. The BIG-IP system also enhances the security of the SharePoint Portal Server implementation with comprehensive authentication, authorization, auditing and payload parsing capabilities.

For remote users, the FirePass controller SSL VPN provides safe and speedy access to the network and to SharePoint Portal Server resources on any device, in any location, without the financial and administrative overhead associated with IPSec VPN solutions.

**Challenge** Microsoft SharePoint Portal Server deployments are critical to the business of any organization that relies on a portal solution to facilitate and support collaboration and information access. These services are expected to be highly available and to respond quickly to user requests, while remaining secure to protect the often sensitive nature of the content. Failure to meet any of these requirements can result in severe and costly consequences.

Additionally, many organizations today face the challenge of providing secure and efficient access to remote users connecting to the internal corporate network via widely disparate connection speeds. If a user connects through a high latency connection such as dial-up, the server cluster

### **Key Benefits**

- **BIG-IP TCP Express WAN optimizations increase SharePoint Portal Server performance by 125%**
- **Achieve 74% bandwidth reduction for SharePoint servers**
- **Reduce timeout errors for dialup users by 85%**

## SOLUTION BRIEF

performance could be adversely impacted for other users on faster connections, as server resources are tied up with the slower connections.

**Solution** Organizations that deploy the BIG-IP system with Microsoft SharePoint Portal Server benefit from an optimally performing, highly available, and secure solution, which provides a higher quality experience to the end user. This solution can also significantly reduce costs in terms of reduced management hours, improved scalability, increased server efficiency and decreased bandwidth consumption.

At the heart of BIG-IP v9 lies the unique Traffic Management Operating System (TM/OS) architecture, providing organizations with a unified system for optimal application delivery. TM/OS, acting as a full proxy for SharePoint Portal Server, offloads and manages traffic control, freeing server resources and increasing server capacity for any application running through the BIG-IP device. In real-world condition testing, the BIG-IP acceleration features dramatically improve the end-user performance for SharePoint Portal Server by 125%.



**Figure 1: The BIG-IP system's optimization features enhance performance of SharePoint Portal server deployments 125% in testing with the Gomez Performance Network**

The power and flexibility of the Traffic Management Operating System (TM/OS) enable the BIG-IP device to optimize and accelerate SharePoint Portal Server deployments with features like Intelligent Compression and content spooling. Compressing a variety of file types, including HTML, XML, Javascript, and J2EE applications, the BIG-IP system provides greater than 70% savings in bandwidth for SharePoint Portal Server deployments. The BIG-IP system's iRules policy-based engine and Universal Inspection Engine for deep packet inspection offer granular control of traffic and compression. These features enable organizations to further enhance SharePoint Portal Server deployments by allocating bandwidth for higher priority applications, controlling traffic spikes, and providing priority to traffic classes based on any L4 or L7 parameter.

Utilizing independent client and server side TCP stacks, BIG-IP TCP Express features optimize client side delivery while maintaining server-optimized connections on the inside of the network, efficiently controlling the traffic flows for SharePoint Portal Server deployments. For example, when remote users connect to SharePoint Portal servers at varying connection

rates, the BIG-IP device independently handles each connection, optimizing end-user experience and server performance. The reduction in TCP errors with TCP Express improves the transmission quality of SharePoint Portal Server by 85% in real world testing.

The BIG-IP system's patented cookie persistence method is ideal for SharePoint Portal Server deployments. With this method, the BIG-IP system inserts a cookie on the client, ensuring that users always return to the same SharePoint Web server. Cookie persistence provides consistent results without constant authentication disruptions, thus increasing end user satisfaction.

Together, these features ease corporate data center deployments of Microsoft SharePoint Portal Server as the BIG-IP solution provides a superior framework for guaranteeing network and application availability, performance, security and scalability.

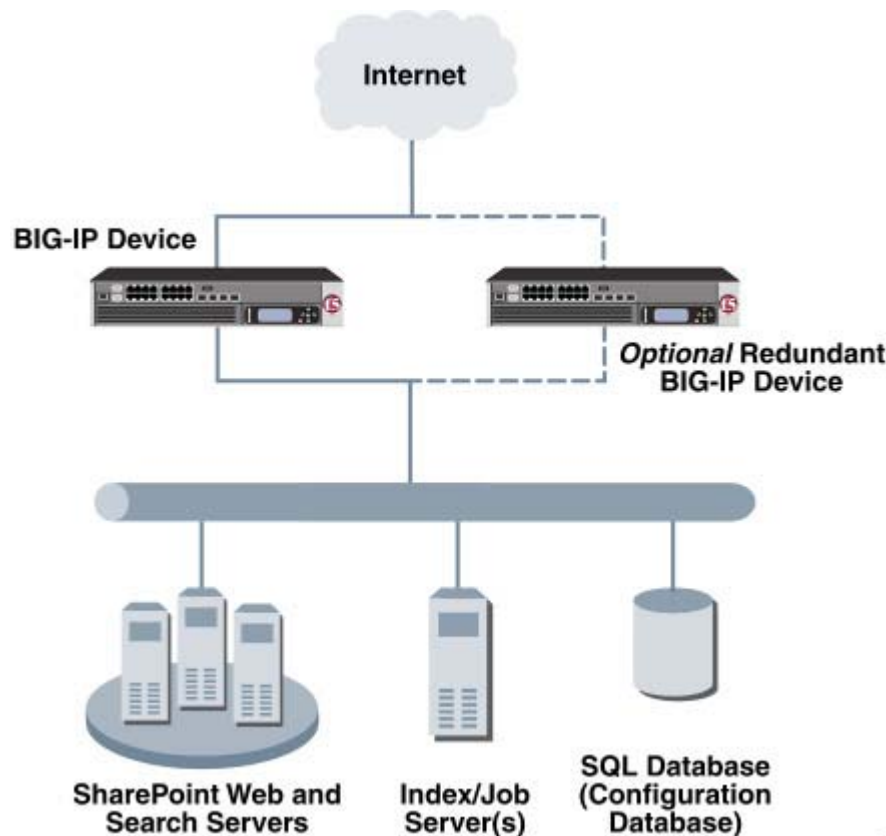
For employees who need to access portal server resources when away from the corporate LAN, F5 Networks' FirePass SSL VPN provides secure and efficient remote access to SharePoint Portal Server. Once authenticated by the FirePass controller, users pass through the corporate firewall and are able to access portal applications and data from any device in any location. Users can access multiple resources as easily as from inside the corporate LAN, without having to re-

## SOLUTION BRIEF

authenticate. And for all users accessing SharePoint Portal Server remotely, FirePass controller's caching and compression capabilities provide additional performance enhancement and server offload while securely delivering business-critical content.

The FirePass controller not only delivers and secures access to SharePoint Portal Server, but also allows for granular control of access to intranet resources on a configurable group basis using Active Directory for authentication. For example, the FirePass controller can provide employees with access to all resources while allowing partners access only to a particular directory and restricting the SharePoint resources they can access by URL.

To further enhance end-point security and information protection, the FirePass device can be configured to perform pre-login checks for viruses and for anti-virus software on the client, while the FirePass controller's Protected Workspace feature ensures that downloaded files, cookies, and cached content are not left behind on the client device. With these end-to-end security features, the FirePass controller provides comprehensive security for SharePoint Portal Server resources and for remote users.



*Figure 2: Deploying the BIG-IP system with SharePoint Portal Server 2003 devices*

**Benefits** **Maximum Availability** - Because every minute an application is down or not responding properly can cost an organization thousands of dollars, deploying the BIG-IP system with Microsoft SharePoint Portal Server 2003 is essential for providing organizations with business-critical availability. Through the use of its advanced health checking capabilities, the BIG-IP device can recognize when a resource is unavailable or under-performing and direct traffic to an available resource. With the BIG-IP product, all of your applications can achieve 99.999% uptime, while reducing operational complexity and costs.

**Increased Server Efficiency** - Because version 9 of the BIG-IP system, with its TM/OS engine, is a full proxy, it can optimize any end point that connects through the system. As a full broker of communications, the BIG-IP system optimizes communication for every single end device communicating through it. This optimization can take place up and down the entire stack, from the transport layer to the protocol and application layers, taking the workload off of the servers for increased server efficiency. The BIG-IP device's TCP Express optimization also dramatically improves the reliability of WAN communications. Dial-up users connecting to Microsoft SharePoint Portal Server experience connection reliability improvements of more than 40% while timeout errors are reduced by greater than 80%.

**Enhanced Security** - The BIG-IP device includes numerous security features that enforce, fortify, and accelerate the secure delivery of applications and Web services. It provides the capability for deploying more stringent access control, secure administration, and helps resist common attacks, such as Denial of Service and Dynamic Denial of Service.

**Simple Scalability** - The BIG-IP system provides a highly scalable solution that allows enterprises to meet growing organizational demands on Web and application resources. If one service is nearing capacity, scaling it is as simple as adding another instance of the service to your network and then to the BIG-IP load balancing pool. The BIG-IP solution allows organizations to scale their applications horizontally, providing considerable cost savings.

**Secure Access from Anywhere** - F5 Networks' FirePass controller enables enterprises to provide secure, reliable and intuitive remote access to corporate applications and data using standard web browser technology. This award-winning SSL VPN solution provides complete cross-platform support without resource-draining client software installation and configuration or changes to server-side applications. FirePass controller extends support for any IP application to Apple Macintosh, PocketPC and Linux clients, in addition to Microsoft Windows, and expands client and application security for web, email and file application access. It also offers the only open API and SDK that enables third party application vendors to build seamless, secure remote access into their client applications.

**About F5** F5 enables organizations to successfully deliver business-critical applications and gives them the greatest level of agility to stay ahead of growing business demands. As the pioneer and global leader in Application Traffic Management, F5 continues to lead the industry by driving more intelligence into the network to deliver advanced application agility. F5 products ensure the secure and optimized delivery of applications to any user - anywhere. Through its flexible and cohesive architecture, F5 delivers unmatched value by dramatically improving the way organizations serve their employees, customers and constituents, while lowering operational costs. Over 6,000 organizations and service providers worldwide trust F5 to keep their businesses running. The company is headquartered in Seattle, Washington with offices worldwide.

**About Microsoft SharePoint** SharePoint Products and Technologies facilitate collaboration within an organization and with partners and customers. Using the combined collaboration features of Windows SharePoint Services and SharePoint Portal Server 2003, users in an organization can easily create, manage, and build their own collaborative Web sites and make them available throughout the organization.

SharePoint Portal Server 2003 is a secure, scalable, enterprise portal server built upon Windows SharePoint Services that you can use to aggregate SharePoint sites, information, and applications into a single portal. All features of Windows SharePoint Services are available in SharePoint Portal Server 2003.