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F5 Increases the Agility, Performance, and Security of your Microsoft SharePoint 2010 Platform

Microsoft® SharePoint® Server 2010 enables innovative and intelligent business collaboration for organizations around the world. Businesses use Microsoft SharePoint to seamlessly connect users, teams, and knowledge. SharePoint 2010 helps reduce costs by consolidating intranet, extranet, and Internet sites on a single platform, on-premises or in the cloud.

F5 has developed a flexible and forward-looking application delivery network for SharePoint 2010 that drives your business ahead. Depend on F5 to be your strategic point of control when architecting SharePoint for high availability, security and performance. Our revolutionary approach to intelligent application delivery makes SharePoint content more available, your users more productive, and your SharePoint deployment more secure.

F5 enables IT agility, your way.

Key benefits

Deploy quickly and accurately

F5's iApp templates enable fast, accurate, and flexible deployments, allowing you to spend less time deploying SharePoint and more time using it.

Optimize SharePoint performance

F5 technology can significantly increase SharePoint 2010 performance and efficiency over the WAN.

Gain SharePoint server capacity

Extend server capacity by offloading tasks like SSL processing and compression onto F5's unified, simple to manage platform.

Provide unified global access

Consolidate SharePoint remote access, LAN access, and wireless connections in one interface.

Secure your SharePoint implementation

From powerful network- and protocol-level security to attack filtering, F5 protects SharePoint deployments that help run your business.

Decrease the size/cost of database maintenance and operations

Reduce costs and achieve greater control of the management of corporate data with F5's intelligent file virtualization.

"When we moved our Microsoft application servers (such as SharePoint) behind the BIG-IP LTM devices, we immediately noticed a dramatic performance improvement—the difference was like night and day. The performance of those servers was very noticeable—and not just with SharePoint but with all of our applications at all of our sites."

Excerpted from A.T. Kearney Case Study on F5.com

"Now, we can easily manage our Citrix and Exchange Server applications—and support other applications like Microsoft SharePoint Server as we grow—from a single platform."

Excerpted from Reliance Protection Security Services Case Study on F5.com

"[F5] enabled us to improve our SharePoint application performance and increase our number of users, thus enabling us to reduce our hardware costs."

Source: IT Architect, Global 500 Pharmaceuticals Company

"It appeared that F5 and Microsoft had done a lot of work together to integrate their products—that close integration between F5 and Microsoft was a driving factor in our decision."

Excerpted from A.T. Kearney Case Study on F5.com

Why F5?

F5 Networks is the market share leader in Application Delivery Networking, focused on ensuring the secure, reliable, and fast delivery of SharePoint 2010 and other applications. The following is an overview of why so many businesses rely on F5 to be the strategic point of control for their SharePoint 2010 investments.

F5 has a broad and deep partnership with Microsoft

- Microsoft and F5 have a global partnership that spans more than 11 years
- F5 is a Microsoft Partner Solution Center (MPSC) Alliance partner with offices and a lab at the Microsoft headquarters in Redmond, Washington
- F5 is one of only 60 Microsoft Technology Center Alliances Program partners
- F5 works with Microsoft on solution development across products and technologies
- F5 provides training for Microsoft technical field, services and support teams

F5 optimizes Microsoft SharePoint

- Reduce page load times and document transfer times by up to 63% using F5 policies that are customized for the type of SharePoint environment in use
- Overcome WAN latency and bandwidth constraints without having to deploy multiple devices or client side software
- The F5 solution is flexible, yet powerful enough to use for SharePoint as well as the other Microsoft UCC applications, like Exchange and Lync Server.

F5 increases SharePoint performance by offloading SSL and other services

- Use F5 for SSL processing and certificate management to significantly increase SharePoint server capacity
- Conserve SharePoint resources by performing security operations on F5 for SharePoint-specific protection
- Offload compression and caching onto F5 devices to gain SharePoint server capacity

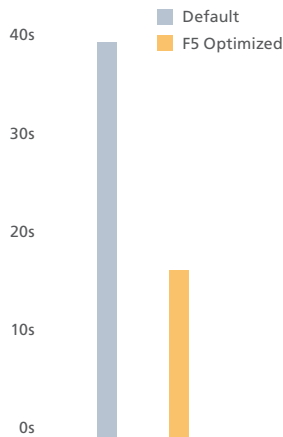
F5 ensures your SharePoint 2010 deployment remains secure

- Enhance SharePoint 2010 security with granular application-layer protection
- Protect SharePoint with F5's devices that are ICSCA Labs certified at both the Web Application Firewall and Network firewall levels
- Prevent unauthorized access and enforce anti-virus levels and other policies with pre-logon checks for web clients that ensure corporate compliance
- Set granular, easy-to-configure secure access policies that assign permission levels depending on the device being used (such as mobile device, kiosk, or work PC)

F5 helps keep end users, and SharePoint administrators productive and satisfied

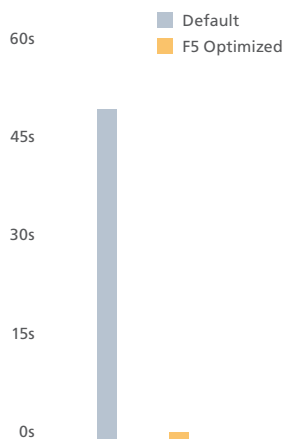
- Deploy in minutes while mitigating the risk of failed or delayed deployments with iApp templates for SharePoint 2010
- Reduce costs and achieve greater control of the management of corporate data with F5's intelligent file virtualization for SharePoint.
- Use one F5 device to manage all access policies regardless of the access network
- Stay in compliance with regulations like PCI DSS, SOX, Basel II, HIPAA, while providing the performance users and administrators expect
- Gain a comprehensive view of users, the SharePoint application, and the network, which helps better respond to changing business needs

Upload of a 4.5MB Excel document to SharePoint 2010 over the WAN (in seconds)



F5 significantly improves the upload speed of Excel documents over the WAN.

Repeat downloads of a 5MB Word document from SharePoint 2010 over the WAN (in seconds)



After the initial download of the document, F5 optimization provides a dramatic decrease in download time for every subsequent user

Detailed Benefits and F5 Value for SharePoint Server 2010

F5's Application Ready Solution for SharePoint Server 2010 ensures a secure, fast and available deployment, providing the following benefits to organizations and their end users.

F5 improves SharePoint 2010 end user experience and application performance

As network-wide optimization becomes a priority, organizations are shifting their strategy from a basic IT infrastructure that is overly complex, costly and difficult to manage, to a more dynamic infrastructure where costs are controlled, processes are fully automated, and integration and collaboration between users and applications is pervasive. F5 enables businesses to be more agile, dynamic, and responsive with application infrastructure technologies that help simplify infrastructure and management, and improve performance for SharePoint Server. Our solutions reduce costs and increase ROI, while minimizing the impact to your business.

Increasing SharePoint performance

Because SharePoint is a business-critical application, users expect it to be responsive and always available. IT application teams can spend a significant amount of time trying to tune SharePoint to improve performance and efficiency, especially when users complain about slow or unresponsive applications. However, these issues almost always have nothing to do with the SharePoint application, but are the result of overloaded servers or adverse network conditions over the LAN and WAN (such as latency and bandwidth). F5's comprehensive Application Ready Solution solves many of these issues by optimizing SharePoint delivery over local and global network, ensuring SharePoint is always fast and available, so users remain productive.

F5 solutions combine intelligent application delivery with advanced WAN optimization technologies. Our devices adapt, in real time, to the latency, packet loss, and congestion characteristics of WAN links, to fully use available bandwidth and accelerate application traffic. This enables traditional acceleration technologies like SSL offload, compression, caching, and traffic prioritizing to combine with optimization technologies like symmetric deduplication and application quality of service, reducing complexity in your data center and increasing performance for your end users.

For example, F5 technology ensures web browsers only download truly dynamic and unique content by eliminating the download of repetitive data and browser conditional requests for static data that is incorrectly considered dynamic. This can often deliver a dramatic increase in interactive user performance when using collaboration applications like Microsoft SharePoint.

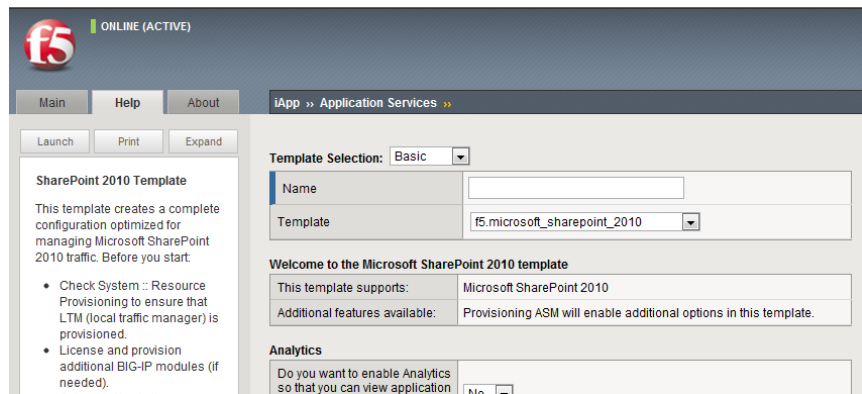
F5 can further improve the performance of SharePoint traffic by optimizing application protocols, prioritizing traffic, optimizing TCP from clients to servers, and reducing the amount of data sent over the WAN, helping to prevent costly bandwidth upgrades. These technologies ensure that critical or time-sensitive applications, like SharePoint, receive priority over others to maximize performance over the WAN. F5 provides granular control of traffic based on your needs, enabling you to manage and prioritize bandwidth per application and improve quality of service for SharePoint users over the WAN.

Easy implementation and management

Not only does F5 help improve the application experience for the end user of your SharePoint deployment, but we ease the burden for the F5 administrator as well. We help simplify system management by consolidating security, acceleration, access, and availability in one easy to manage platform. We continually work with Microsoft to carefully configure, test, and tune our products for SharePoint, ensuring the best possible platform for organizations with SharePoint deployments.

The iApp template for SharePoint 2010 enables you to deploy F5 extremely quickly for an error-free, optimized configuration

Our deployment guides have long helped IT departments quickly and accurately configure F5 devices for SharePoint. Now, F5 makes configuring, optimizing and securing our devices for SharePoint even simpler and much faster, taking the results of our testing and collaboration with Microsoft and turning it into an application template. This template, called an iApp, acts as the single point interface for building, managing, and monitoring SharePoint 2010 across the entire F5 solution. This enables you to deploy and control functionality like single sign on, secure remote access, intelligent load balancing, and advanced health monitoring, on one device, as a single application service. The template takes only minutes to complete, and produces an accurate, SharePoint-optimized F5 configuration, saving weeks or even months of development time.



With F5, you no longer have to wade through pages of object-level configuration statistics to come up with meaningful analysis for your SharePoint implementation. Analytics are associated with the SharePoint application service, so all performance statistics, and diagnostic and troubleshooting information for SharePoint are in one easily accessible location, in a variety of formats.

Increasing SharePoint 2010 server capacity

Microsoft SharePoint 2010 is extremely effective at what it was designed to do: provide a comprehensive business collaboration platform. One of F5's core strengths is the ability to extend server capacity while increasing application and server performance. We do this by taking on many of the duties that each server traditionally has to perform. If each SharePoint server has to carry out processor-intensive tasks such as compression, caching, SSL processing, and certificate management, the amount of processing power these devices have left to perform core tasks is reduced.

F5's high powered devices include customized hardware and software specifically designed for offloading these types of tasks onto F5's devices. For SSL offload in particular, the benefits of F5 are even greater when you consider the migration to 2048 bit (and higher) SSL key lengths, which require five times more server resources. By offloading these duties, F5 greatly improves server efficiency and frees resources on the SharePoint devices. This enables the SharePoint servers to use more processing power on performing the tasks for which they were designed.

Streamline SharePoint 2010 operations and reduce storage costs

F5 helps reduce the size and cost of SharePoint 2010 SQL database maintenance operations with intelligent file virtualization technology. SharePoint 2010 includes enhanced support for 3rd party storage solutions designed to support the storage of large files (Binary Large

Objects or BLOBs) outside SharePoint. The files themselves are stored as unstructured data in a NAS-type file storage system yet the file objects themselves are still accessed through the SharePoint browser interface and therefore completely seamless for end users.

F5 compliments this expanded SharePoint capability by integrating with SharePoint and third party storage solutions with our file virtualization solutions. F5 sits between SharePoint and the NAS file storage to virtualize the storage end points. This layer of abstraction enables customers to categorize their data and set storage policies so the most expensive real-time storage devices are used only for the most important content. Less important or older content can be automatically “expired” and moved to less-expensive storage devices which significantly reduces the cost of maintaining and backing up files on tier-1 storage devices.

When applications are responsive, especially core applications like SharePoint, adoption rates increase and users are more satisfied and productive. This leads to the added benefit of reducing the load on call centers and helpdesks, as users are less likely to call the IT department complaining about speed issues that usually have nothing to do with the application itself. This protects the investment in the application, minimizing the initial negative impact on the ROI of a new application deployment due to lost productivity and increased call volume.

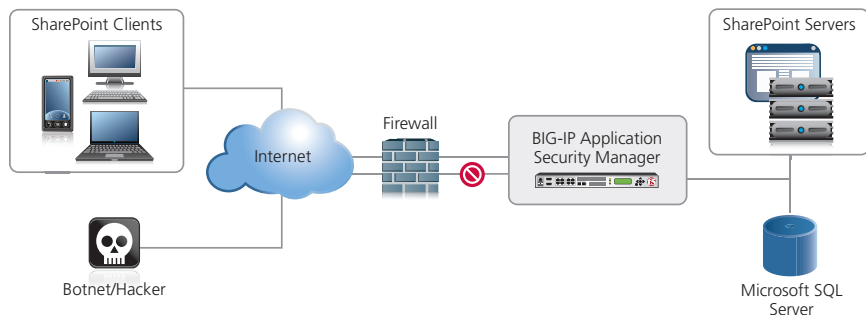
F5 enhances SharePoint 2010 security

Organizations are finding that traditional security technologies are struggling to keep pace with the expanding threat landscape. Malicious users are creating more sophisticated attacks focused on compromising specific applications. These attacks are perpetrated at the application layer and appear to be completely legitimate requests, passing through most network firewalls with ease. In 2011, 36% of respondents to an Applied Research survey reported they had seen their firewalls fail under the load of an application-layer denial of service attack¹.

Protect SharePoint from known and unknown threats

Most of today’s Intrusion Detection and Protection Systems, and even many application firewalls, are limited to guarding against a limited list of known attacks. But with the influx of new attacks targeting applications, this type of negative security protection isn’t enough. Unlike signature inspection methods, F5 also provides a positive security model, permitting only valid and authorized application transactions, while automatically protecting critical web applications from entire classes of HTTP and HTTPS-based threats (known and unknown). F5 security devices report previously unknown threats (such as brute force and zero-day attacks) and mitigate web application threats, shielding the organization from data breaches. Our full inspection and event-based policies deliver a greatly enhanced ability to search for, detect, and apply numerous rules to block known L7 attacks. F5 also supports DNSSEC, which adds an additional layer of security and prevents DNS hijacking and cache poisoning.

F5 protects your SharePoint implementation from application-specific attacks



F5 devices are certified by ICSA labs at both the application firewall and network firewall levels, ensuring you are receiving the best possible protection for SharePoint and your entire network.

Secure and optimize SharePoint data over the WAN

F5 ensures site-to-site data security with the ability to symmetrically encrypt all data between local and remote F5 devices. This secure connection, or tunnel, not only secures data between F5 devices, but significantly improves transfer rates, reduces bandwidth, and offloads applications for more efficient WAN communication. This technology can be used to secure and optimize SharePoint replication and back up data across the WAN.

Safeguard sensitive information

Because SharePoint deployments often contain sensitive internal information, making sure the application is secure is not only important, it can be vital to the success of the business. Failure to keep data secure can be extremely costly, not only because of the value of the data itself, but the stiff penalties imposed for failing to meet compliance initiatives such as PCI, HIPAA, SOX, BASEL II, and other regulations. F5 devices are certified by ICSA Labs at both the application firewall and network firewall levels, ensuring you are receiving the best possible protection for SharePoint and your entire network.

F5 enables advanced, built-in security protection and remote auditing to help your organization comply with industry security standards, including PCI DSS, HIPAA, Basel II, and SOX, in a cost effective way—without requiring multiple appliances, application changes, or rewrites. F5 provides advanced reporting on attacks such as layer 7 denial-of-service (DoS), brute force, SQL injection and more. With PCI reporting, F5 lists security measures required by PCI DSS 1.2, determines if compliance is being met, and details steps required to become compliant if not. In addition, F5 integrates with leading security vendors for vulnerability assessment, auditing, and real-time and database reporting to provide security breach reviews, attack prevention, and compliance.

And F5 makes this security compliance easy and saves valuable IT time by enabling the exporting of policies for use by offsite auditors. Auditors working remotely can view, select, review, and test policies, without requiring critical time and support from the web application security administrator.

Protecting the corporate brand and intellectual property

Application security threats can disrupt business and damage the corporate brand. F5 helps you protect your brand by shielding your websites from web scraping attacks that copy and reuse valuable intellectual property and information. By differentiating between a human and a bot behind a browser, F5 protects against automated requests to obtain data. Pre-built application ready security policies for SharePoint can recognize an increase in request volumes and alert our devices to review whether requests are desired. Known IP addresses previously found to web scrape can be blacklisted for detection and blocking. In this way, F5 helps prevent embarrassing and costly application breaches that cost millions of dollars in declining revenue, regulatory fines, and brand value.

F5's comprehensive Endpoint Security for remote access gives your SharePoint deployment the best possible protection for (and from) remote users. F5 technology prevents infected PCs, hosts, or users from connecting to your network and applications, and delivers a Secure Virtual Workspace, pre-login endpoint integrity checks, and endpoint trust management.

F5 products allow organizations to implement comprehensive application security, providing a centralized point of enforcement, and a coordinated and unified line of defense that lowers TCO and improves ROI.

F5 enables you to converge and consolidate remote access, LAN access, and wireless connections within a single management interface, and provide easy-to-manage access policies, helping you free up valuable IT resources and scale cost effectively.

Providing unified security enforcement and access control for SharePoint 2010

In today's global economy, as organizations expand into new markets and grow through mergers and acquisitions, more and more organizations outsourcing development, services or applications, and are trying to cope with the need to extend the reach of their internal applications to partners, contractors and suppliers. This means companies are faced with more users and devices attempting to access SharePoint and other protected resources. Access control and enforcement is especially critical for SharePoint, as it is a collaboration tool and repository for shared documents. F5 enables you to converge and consolidate remote access, LAN access, and wireless connections within a single management interface, and provide easy-to-manage access policies, helping you free up valuable IT resources and scale cost effectively.

Centralized SharePoint access

F5 provides centralized access and application availability services to users based on the context of the user and the application they are accessing. By driving application and user identity into the network, organizations have a more centralized, repeatable and cost effective way to scale up access control services. This simplified access management system allows users to easily access approved web applications, like SharePoint, and networks without multiple authentications for greater worker productivity.

As users roam from office to remote locations, an F5 client accesses corporate networks and applications dynamically enabling mobile users to stay connected without business productivity declining. Application acceleration and security are designed together with access to scale supporting application growth and performance. With F5, businesses stay in compliance of various local and regional regulations related to access and security reducing fine payouts and protecting the organization from data loss.

Granular access control for SharePoint

Many organizations have contractors, partners, suppliers and employees all trying to access SharePoint from different devices in different locations. While this might sound like an administrative nightmare, F5 makes it extremely simple. F5 pre-logon checks and protected configurations provide the ability to grant users access different levels of access to SharePoint, depending on the device they are using, or location from which they are attempting access. For users who are authorized, but do not meet predefined device-based security requirements, F5 technology can create a secure area on the client PC for that session and have the user enter their sensitive information with a secure virtual keyboard.

Another important aspect of F5's universal access approach is the ability to divide the network itself into various segments to protect and monitor access from one segment to the other. At the network level, you can use IP addresses, VLANs, MAC addresses, and packet filtering mechanisms to define practically any combination of network security policy based on any network parameter, such as originating or destination VLAN, IP address, and protocol. You can refine this security with strict access rules based on authentication results or application responses.

F5 provides organizational efficiency and an easy way to scale management by allowing our devices themselves to be partitioned into administrative domains. This enables organizations to assign varying degrees of administrative rights and views to each device. For example, the application owner for SharePoint can be given permission to only view or modify objects that reside in the SharePoint domain.

F5 simplifies policy and group management for IT departments, and provides central reporting and auditing, which reduces the overall cost of management. F5 has the most comprehensive end point security, enforcement, and auto-remediation, with no 3rd party software required.

F5 provides comprehensive application management services that support evolving application requirements, enabling real-time load balancing across data centers.

Enabling seamless business continuity and disaster recovery for SharePoint 2010

Because every single minute an application is down or not responding properly can cost an organization thousands of dollars, deploying F5 devices with Microsoft SharePoint Server 2010 is essential for providing organizations with business-critical availability. Whether planning for a natural disaster, trying to achieve regulatory compliance, or just carefully planning a new application deployment, F5 can help. F5 enables virtualized data centers, VPN access, optimization and traffic management in an integrated fashion.

In a situation where employees cannot reach the office to work, but at least one data center is still functioning, F5 provides secure remote access to the corporate network and applications like Microsoft SharePoint that is much easier to implement and scale than traditional solutions – and much quicker to deploy and maintain in a disaster situation.

Comprehensive and cohesive solution

F5's complete remote access solution brings together access security, acceleration and application availability services. F5 has the industry's most comprehensive solution for site failover and business continuity. In addition to performing comprehensive site application availability checks, you can define the conditions for dynamically and transparently shifting all traffic to a backup data center, failing over an entire site, or controlling only the affected applications. This includes geolocation (finding the best SharePoint site based on user location with respect to available sites) and site resilience (real-time knowledge of the health of each SharePoint site and when to failover to a backup site). And with F5's intelligent file virtualization, SharePoint file storage can be replicated between sites, so if the primary site goes down, the secondary/disaster recovery site can seamlessly take over.

Even a hardware failure of a single server can cause expensive downtime, until a administrator can remove the device from service. F5 makes hardware failures a complete non-issue by automatically detecting a failure, and directing traffic away from the problematic server. Once the problem has been solved, F5 devices automatically detect the server and begin sending traffic there. This is also useful for patch management or maintenance windows. Administrators can easily remove groups of devices, or even entire data centers, from the F5 configuration, perform patching or other maintenance while other devices or data centers remain in service. Once the maintenance is complete, those servers go back in the pool, and the remaining servers are taken down for maintenance, all with zero downtime.

Simplify multi-homed deployments

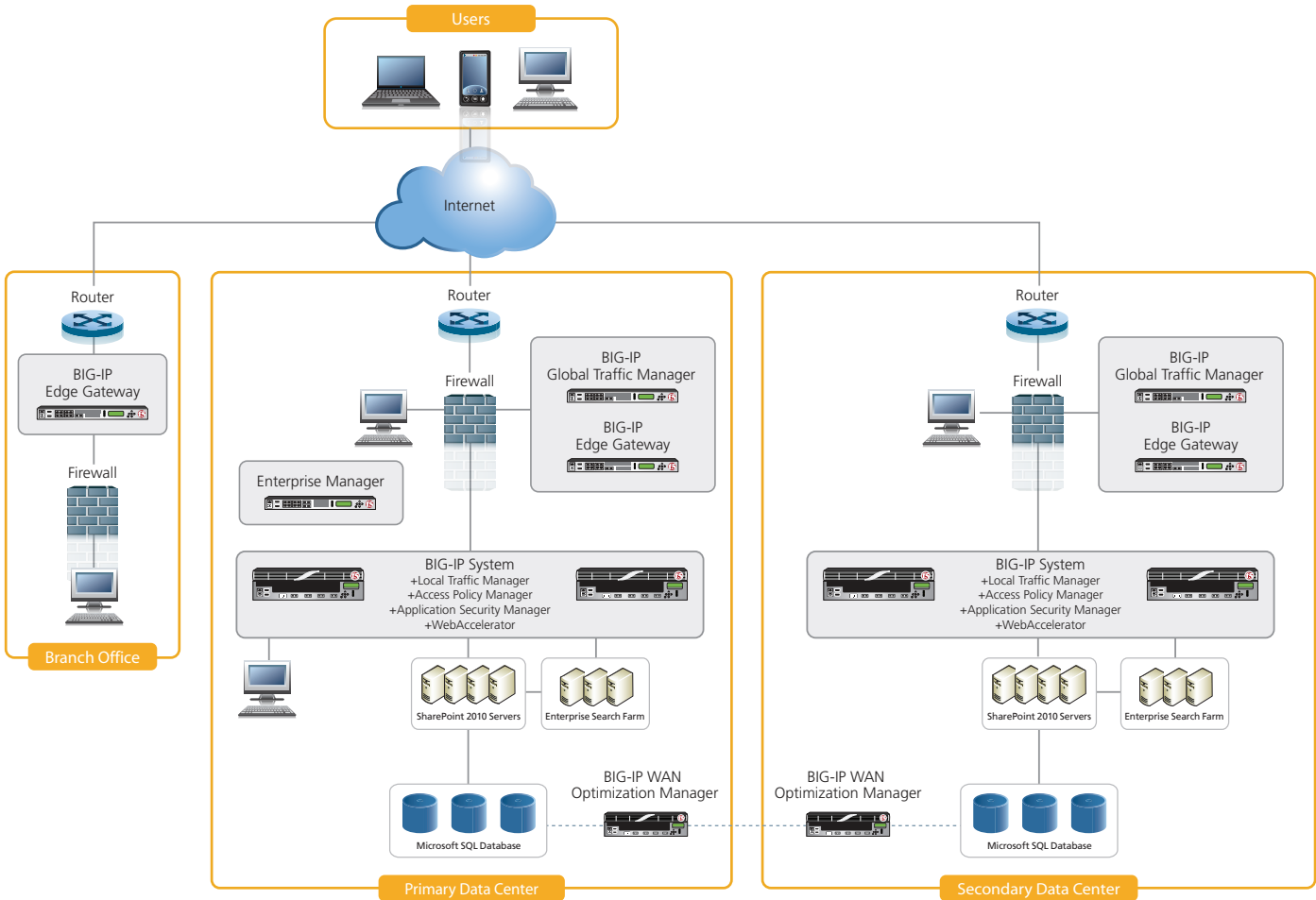
For organizations with multiple ISP links, F5 simplifies multi-homed deployments so you no longer need ISP cooperation, large bandwidth connections, designated IP address blocks, ASNs, or high-end routers to protect your network from ISP failures. Using DNS-based technology that removes the dependency on Border Gateway Protocol (BGP) to provide failover capabilities, the F5 eliminates multi-homed problems such as latency, high update overhead, and inferior traffic management, ensuring users can always get to the SharePoint deployment. Organizations can benefit from guaranteed availability without delays or costly misrouting. It also gives you the ability to aggregate inexpensive links, with more granular control over which link to use based on performance, costs, and business policies.

Summary

Today's IT departments are faced with the tricky challenge of maintaining application and network performance and keeping users happy and productive, while attempting to maximize business value with a very close eye on costs. F5's Application Ready Solution for SharePoint substantially improves SharePoint application performance, security, and efficiency, using our dynamic and adaptive technology. Explore it. Deploy it. And run your business with it.

F5 Global Configuration Diagram for Microsoft SharePoint 2010

The following logical diagram shows a global configuration using the F5 suite of products to optimize, secure, and deliver Microsoft SharePoint 2010 deployments over the WAN and LAN.



More Information

To learn more about F5's Application Ready Solution for Microsoft SharePoint 2010, use the search function on F5.com to find these and other resources.

Application Page

[Microsoft SharePoint 2010](#)

Deployment Guides

[Microsoft SharePoint 2010 \(BIG-IP v11\)](#)

[Microsoft SharePoint 2010 \(BIG-IP v10, ARX\)](#)

[Microsoft FAST Search Server 2010 \(BIG-IP LTM v10.2.x, v11\)](#)

[AvePoint DocAve File Share Connector for SharePoint \(F5 ARX Series\)](#)

White Papers

[Microsoft SharePoint Server 2010 Performance Study | Dell Technical White Paper](#)

Case Studies

[A.T. Kearney](#)

[Reliance Protection](#)

Microsoft Solutions Page on DevCentral

<http://devcentral.f5.com/microsoft>

F5 Product Offerings

[BIG-IP Product Family \(Application Delivery Controller\)](#)

[FirePass \(SSL VPN\)](#)

[Enterprise Manager \(F5 Device Management\)](#)

[ARX Series \(File Virtualization\)](#)

[Data Manager \(File Virtualization\)](#)

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