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## Accelerate Web Applications, Increase Productivity, and Save Money

Your organization depends on web applications to support mission-critical business operations and to give you a competitive edge. But while users near the data center may have virtually instant access, mobile and remote users end up wasting time waiting for pages to load or find that the application doesn't work at all. Productivity plummets as users become frustrated with application performance and flood already stretched network administrators with support calls.

BIG-IP® WebAccelerator™ gives your users an instant improvement in web application performance and helps you reduce costs. By offloading your network and servers, BIG-IP WebAccelerator decreases your spending on additional bandwidth and new hardware. Users get fast access to applications, and you gain greater ability to focus IT resources on projects that drive your organization's business objectives.

### Key Benefits

#### Accelerate applications 2x to 10x

Spend less time worrying about frustrated users and more on projects that support strategic business decisions.

#### Deploy according to your business needs

Improve asymmetric deployment performance by 2x to 5x, and symmetric deployment by up to 10x.

#### Save with SSL acceleration

Reduce server processor utilization by up to 50 percent.

#### Optimize server and bandwidth usage

Extend server capacity and reduce bandwidth usage.

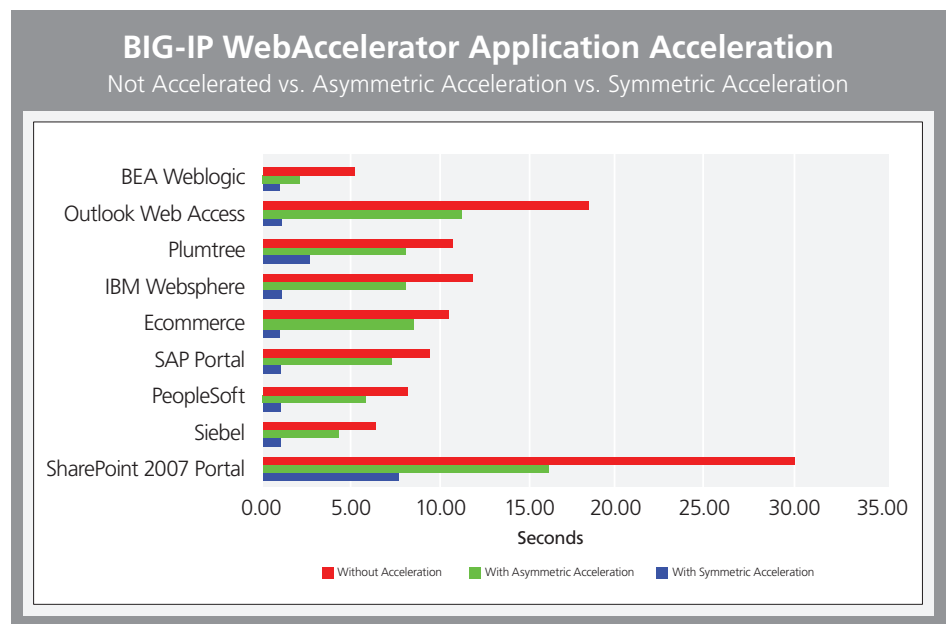
#### Simplify deployment and management

Use pre-defined policies for apps such as Microsoft SharePoint, Oracle Portal, SAP ERP, and more to simplify configuration.

## Web Application Acceleration

BIG-IP WebAccelerator solves web content delivery issues by ensuring the best use of bandwidth and preventing repetitive or duplicate data from being served to users. This speeds up the first and repeat visits to portal, CRM, e-learning, and e-commerce sites. The result is significantly decreased download times, reduced bandwidth usage, and lower costs for using enterprise web applications in remote office and mobile deployments.

To accomplish this, BIG-IP WebAccelerator uses two important sets of functionality: Dynamic Content Control and Dynamic Data Offload.



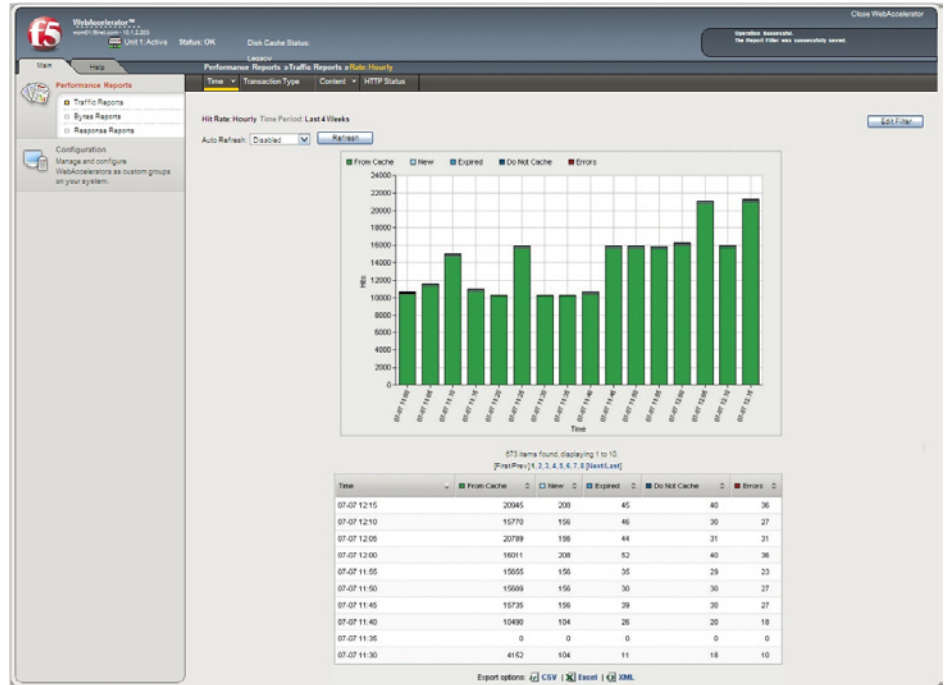
## Dynamic Content Control

Dynamic Content Control (DCC) is a group of capabilities that control users' browser behavior to ensure the best use of bandwidth and prevent repetitive or duplicate data from being downloaded. By reducing the amount of conditional requests and data transmitted between the browser and the web application, DCC reduces the effects of WAN latency and errors. DCC does not require Java applets or make changes to the browser that are common in delta compression methods.

DCC includes three main functionalities:

- **Intelligent Browser Referencing™**—Ensures that the browser only downloads truly dynamic and unique content by eliminating the download of repetitive data and browser conditional requests for static data that is incorrectly considered dynamic.
- **MultiConnect**—Enables browsers to open more simultaneous connections between the browser and web application for increased parallel data transfers. MultiConnect is extremely effective on high latency/high bandwidth networks such as satellite and mobile networks.
- **Dynamic Linearization**—Enables users to display PDF pages or jump to specific pages and view them without having to wait for the entire document to download first.

BIG-IP WebAccelerator provides a comprehensive set of reports, graphs, and logs that enable both network administrators and web application managers to monitor web application performance.

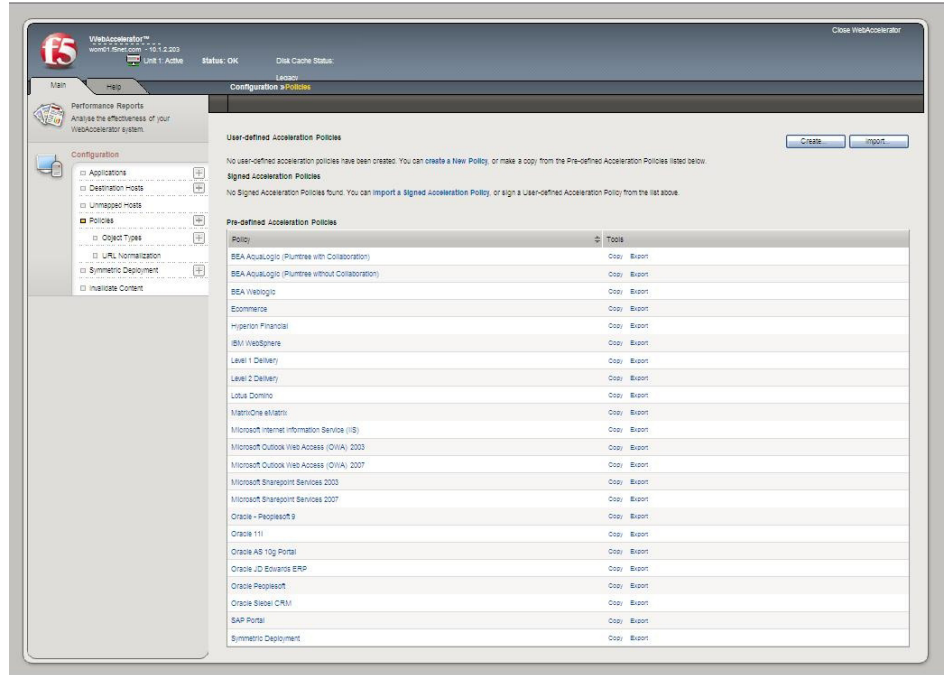


## Dynamic Data Offload

Dynamic Data Offload (DDO) extends server capacity and reduces server processing by offloading repetitive requests for data. BIG-IP WebAccelerator offers the following DDO functions:

- **SSL Acceleration**—Offloads computationally intensive SSL encryption and decryption, reducing server processor utilization by up to 50 percent. Consolidates private key creation and storage, SSL certificate management, and FIPS SSL support. BIG-IP WebAccelerator standalone 3600 device runs on the F5 TMOS™ architecture and defaults to 5000 TPS in hardware.
- **Dynamic Caching**—Caches data that may seem dynamic (contains query parameters, cookies, or session IDs) but is actually static data or changes in an identifiable pattern. By fully inspecting every aspect of HTTP requests, controlling caching behavior, and invalidating cached data, BIG-IP WebAccelerator caches a high percentage of data from dynamic web applications while maintaining proper application behavior.
- **Dynamic Compression**—Compresses dynamic data from web applications and ensures that compression is used only when it will improve performance. Dynamic Compression is different from standard compression implementations because of its high efficiency and its ability to avoid widespread browser compression bugs. Even dynamic content requiring unique session IDs within every link on the page can be delivered and compressed, often with zero compression overhead.
- **HTTP Protocol Optimizations**—Maintains high user performance levels by optimally tuning each HTTP and TCP session for each user's connection conditions. Optimizations for Microsoft NTLM authentication protocol enhance access to protected resources.

An example of BIG-IP WebAccelerator validated web application acceleration policies.



## F5 Application Ready Solution

F5 works with some of the world's largest software vendors to bring you F5 Application Ready Solutions, a complete set of resources that simplifies the design, deployment, and management of your applications across the network. F5 Application Ready Solutions are designed, engineered, tested, and documented with BIG-IP WebAccelerator—along with F5's integrated product line—in a variety of real-world environments.

F5 Application Ready Solutions reduce the time, money, and errors associated with deploying and managing mission-critical, enterprise applications. Only F5 offers this comprehensive set of essential, application-specific tools.

### Application Acceleration Policies

- Pre-defined, validated web acceleration policies enable you to quickly configure and deploy BIG-IP WebAccelerator to optimize your application acceleration right from the start. These policies can be used as built-in templates to enable you to customize BIG-IP WebAccelerator for your specific web applications.
- Validated web application acceleration policies that ship with BIG-IP WebAccelerator include Microsoft SharePoint, Oracle Portal, SAP ERP 6, Microsoft Office Outlook Web Access, Siebel 7.7, Oracle PeopleSoft, and many more.

### Signed Acceleration Policies

- Allows F5 Partners to create, sign, and encrypt custom Application Acceleration Policies for BIG-IP WebAccelerator, and customers are able to verify the author of a BIG-IP WebAccelerator policy.

### Application Ready Solution Guides

- A comprehensive overview of each specific Application Ready Solution guide details how it can ease your application deployment and shows you the specific results you can achieve with your BIG-IP WebAccelerator implementation.

### Deployment Guides

- Detailed, step-by-step procedures walk you through deployment from day one. Every procedure has been thoroughly tested and optimized in real-world environments to achieve top performance. Each deployment guide contains a comprehensive set of configuration scenarios to cover your specific needs.

### Active User Community

- An active, collaborative community of more than 36,000 registered users on F5 DevCentral offers feedback, documents, and tips for a successful deployment. Dedicated Application Ready Solution pages provide application-specific content, including downloads, help and forum discussions, links to related podcasts, and more.

## Deployment Options

BIG-IP WebAccelerator can be deployed in a range of different configurations to address your organization's business needs as they evolve.

### Cost-Effective Asymmetric Deployment

- BIG-IP WebAccelerator can be placed in the data center in an asymmetric deployment to achieve performance improvements of 2x to 5x. Unique to BIG-IP WebAccelerator, asymmetric web acceleration offers immediate, significant ROI for a moderate investment.
- Additionally, if you have contracted with a subscription-based Content Delivery Network (CDN), simply implementing BIG-IP WebAccelerator in the data center can dramatically reduce CDN usage and its related burst charges.

### Symmetric Deployment for Maximum Acceleration

- Symmetric deployments can provide acceleration of up to 10x over unaccelerated applications. In a symmetric implementation, BIG-IP WebAccelerator is deployed at the data center and at one or more key remote locations. By serving unchanged content directly from the remote device, symmetric acceleration further eliminates the effects of high latency connections. The result is maximum performance acceleration and additional decreases in bandwidth usage.

### Clustering to Scale

- BIG-IP WebAccelerator devices can be clustered to create very large arrays to scale capacity as your web application acceleration needs grow.

### Creating a Private Content Delivery Network (CDN)

- Many organizations cannot use commercial CDNs because their content is internal, dynamic, and confidential. Deployed symmetrically in conjunction with other F5 solutions, BIG-IP WebAccelerator enables your organization to create its own private CDN. This provides your enterprise web sites with high availability and performance, content control, and DoS protection, and it can help you meet regulatory compliance.

### E-Commerce Stand-in Capability

- When e-commerce web servers go down, BIG-IP WebAccelerator can ensure high availability by “standing in” and continuing to serve static content that is already cached. BIG-IP WebAccelerator can prevent lost or abandoned shopping carts and hand off to financial transaction servers for processing.

### Product Module or Standalone Solution

- BIG-IP WebAccelerator is available as a product module on BIG-IP® Local Traffic Manager™ or as a standalone solution: the BIG-IP WebAccelerator 3600 device (see F5 Hardware datasheet).

### Acceleration and Security in One

- Customers wanting to accelerate and secure web applications can run BIG-IP WebAccelerator Module and BIG-IP® Application Security Manager™ concurrently on the same BIG-IP device. This saves the cost of extra hardware, rack space, and energy consumption, while simplifying deployment through consolidated and centralized access to the management interface.

## The Power of the BIG-IP System

### F5 TMOS Plug-ins

- Native integration with TMOS Plug-ins gives BIG-IP WebAccelerator faster performance and better stability under high load. This full compatibility with BIG-IP Clustered Multi-Processing (CMP) enables it to run on multi-core systems. Additionally, the F5 iRules™ scripting language can be used with BIG-IP WebAccelerator.

### NTLM Authentication Support

- The NTLM authentication protocol requires frequent re-authentication with the application server and can significantly impact web application performance. Native NTLM authentication optimization is now part of the TMOS OneConnect™ feature, which enables greater performance scalability when accelerating NTLM-enabled web applications.

### Resource Provisioning

- BIG-IP WebAccelerator’s resource provisioning automatically allocates CPU, memory, and disk space for the modules licensed on the BIG-IP system, based on the provisioning options chosen. This makes optimal system resource allocation easier, and an enhanced UI provides graphical representation of the allocations. Often BIG-IP modules can be enabled without requiring a system reboot.

### Evaluation Licensing

- For existing BIG-IP customers, this feature enables customers to evaluate BIG-IP WebAccelerator and other BIG-IP product modules without needing to re-license the BIG-IP device.

### Logical Volume Manager (LVM)

- Unlike normal disk storage, LVM virtualizes physical disks into logical volumes that allow disk partitions to be resized as needed without having to reinstall TMOS or requiring system down time in order to migrate data to a larger disk partition. The result is increased flexibility and improved performance for BIG-IP WebAccelerator's disk-based caching.

## BIG-IP WebAccelerator Platforms

For detailed physical specifications, please refer to the BIG-IP Series Hardware Datasheet. BIG-IP WebAccelerator is available as an add-on module for integration with BIG-IP Local Traffic Manager on the 8900, 8800, 8400, 6900, 6800, 6400, and 3600 platforms. BIG-IP WebAccelerator is available as a standalone solution on the 3600 platform.



8900 Series



8800 and 8400 Series



6900 Series



6800 and 6400 Series



3600 Series

## More Information

Visit these resources on F5.com to learn more about BIG-IP WebAccelerator.

### White papers:

#### Acceleration 101

[www.f5.com/pdf/white-papers/acceleration-101-wp.pdf](http://www.f5.com/pdf/white-papers/acceleration-101-wp.pdf)

#### Acceleration 102

[www.f5.com/pdf/white-papers/acceleration-102-wp.pdf](http://www.f5.com/pdf/white-papers/acceleration-102-wp.pdf)

### Case study:

#### Engineering Firm Boosts Performance of Microsoft Office SharePoint Server

[www.f5.com/pdf/case-studies/mustang-engineering-cs.pdf](http://www.f5.com/pdf/case-studies/mustang-engineering-cs.pdf)

### Podcast:

#### Web App Acceleration 101

[www.f5.com/news-press-events/f5-on-demand/podcasts/20070911web-app-acceleration.html](http://www.f5.com/news-press-events/f5-on-demand/podcasts/20070911web-app-acceleration.html)

### Article:

#### Best Practice Deployment of Acceleration Solutions Based on ROI

[www.f5.com/news-press-events/news/2007/20071211.html](http://www.f5.com/news-press-events/news/2007/20071211.html)

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