



## **BIG-IP® Add-On Modules**

*Because F5 application delivery products are modular, they're extensible by design and can easily incorporate new functions and quickly adapt to changing application/business challenges. The following are available Product Modules and Feature Modules for BIG-IP application traffic management products.*

### **Feature Modules**

*Feature Modules are individual feature packs that can be added to a BIG-IP traffic management platform.*

#### **Message Security Module**

The BIG-IP Message Security Module (MSM) is the industry's first reputation-based network edge security module. Leveraging reputation data from Secure Computing's TrustedSource™ multi-identity reputation engine, MSM extends protection for enterprise message applications to the edge of the corporate network – providing businesses with a more powerful and efficient tool for dealing with the growing volume of unwanted email.

##### **Eliminates Up To 70% of Unwanted Email**

BIG-IP MSM can eliminate up to 70 percent of unwanted email at the edge of the network utilizing TrustedSource – before it gets through the firewall – significantly increasing the scaling capacity of existing enterprise anti-spam solutions.

##### **Real-Time Lookup of Sender Reputation**

BIG-IP MSM incorporates reputation-based message management, which goes far beyond blocking the known 'bad' emails by giving customers the ability to set up sophisticated message distribution policies, based on sender reputation. This allows enterprises to intelligently filter or divide messages among multiple message scanning infrastructure tiers for a faster and more cost-effective approach.

##### **Reduced Costs**

MSM is part of the F5 family of security solutions for Message infrastructure – enabling organizations to reduce their bandwidth expenditures, use fewer server resources, reduce their business continuity risks, and lower their overall infrastructure costs.

##### **Runs On The Unique TMOS Architecture**

Because BIG-IP MSM runs on F5's TMOS architecture, it is easy to install as an add-on module to existing BIG-IP version 9.x systems. Best of all, customers can benefit from this BIG-IP capability to reduce the load on any type of second tier anti-spam inspection, providing more diversity for filtering and reducing the number of devices required.

#### **Intelligent Compression Module**

Users today are continually impacted by poor web application performance caused by WAN latency and connection bottlenecks. By dramatically reducing the volume of traffic that is sent to the user, the Intelligent Compression Module allows you to receive a marked gain in application performance while greatly enhancing the end user experience.

##### **Faster Download Times**

Organizations can improve their page rendering speed by up to 5 times.

##### **Lower Bandwidth Bills**

Efficiently compresses a broad variety of content types including HTTP, XML, Javascript, J2EE applications and many others. Organizations can reduce their bandwidth bills by up to 80%.

##### **Client Aware Compression (patent pending)**

Organizations can apply compression based on BIG-IP's unique ability to measure client Round Trip Time and connection type such as dial-up – conserving processing cycles while targeting compression to only those user groups who will benefit.

### **Available Modules**

#### **Feature Modules**

- Message Security Module
- Intelligent Compression
- L7 Rate Shaping
- IPv6 Gateway
- Advanced Client Authentication
- SSL Acceleration
- Advanced Routing
- Fast Cache

#### **Product Modules**

- BIG-IP Application Security
- BIG-IP Global Traffic Manager
- BIG-IP Link Controller
- BIG-IP WebAccelerator Module

*Customers should contact F5 or their Partners to confirm which modules are supported by their particular F5 product.*

### Transparent To Users; Requires No End User Agent

Reduces HTTP traffic using GZIP and Deflate compression algorithms which are supported in today's Web browsers. Compression is completely transparent to the end user, requiring no downloads or agents.

### Adaptive Compression

Allows organizations to control and scale back cycles devoted to compression based on system load, ensuring optimal performance across all functions.

### L7 Rate Shaping Module

Contention for shared bandwidth often degrades application performance, and organizations have little control in guaranteeing that high priority traffic is passed ahead of non-priority traffic. BIG-IP L7 Rate Shaping Module adds fine-grained bandwidth control to better manage application bandwidth usage and traffic spikes.

### Ensures Application Performance and Availability

Ensures that business critical applications are not impacted by non-priority traffic. Delivers optimal application performance by allocating bandwidth for higher priority applications.

### Reduces Device Costs

Eliminates special purpose Rate Shaping products for simplified, centralized traffic management capabilities.

### Sophisticated Bandwidth Control

Provides flexible bandwidth limits, full support for bandwidth borrowing, and traffic queuing (stochastic fair queue, FIFO ToS priority queue).

### Granular Traffic Classification L2 through L7

Controls rate classes based on any traffic variable; allows application bandwidth to be shared across similar priority applications for better resource sharing.

### Rate Limiting

A valuable security function which ensures that specific types of application traffic stay within authorized boundaries.

### IPv6 Gateway Module

With demand for IPv6 increasing, many sites are facing new requirements to handle IPv6 traffic. Organizations need a clear and seamless strategy for staging network migration as IPv6 traffic grows. The IPv6 Gateway Module allows organizations to handle their IPv6 requirements without wholesale network and application upgrades.

### Lower Cost

Provides complete IP transformation and load balancing capabilities between v4 and v6 networks; directs traffic across mixed IPv6 and IPv4 resources. Insulates organizations from costly application changes to support IPv6.

### IPv6 Support

Module supports object definition; object probing, AAAA, A6 and DNAME; SNMP support; F5 iControl API support, and statistics. Allows BIG-IP to support IPv4 and IPv6 addresses (self-ips, virtual servers, proxies, nodes and snats).

### IPv6/IPv4 Translation

Specific applications and geographies will require IPv6, but a mass migration will not occur rapidly. With this module, organizations can translate traffic for consumption by either IPv4 or IPv6 end points, allowing them to stage their migration gradually as demand for IPv6 increases.

### Advanced Client Authentication Module

Managing authentication individually across applications is costly. Top level authentication enforcement consumes server cycles that could be used elsewhere. The Advanced Client Authentication Module provides top level client authentication of HTTP and other traffic types to LDAP, Radius and TACAS directories.

### Centralizes Application Authentication

Reduces management costs and decreases server and application load.

### Advanced Authorization and Authentication for SSL

Checks user certificates using the Online Certificate Status Protocol (OCSP) before granting network access.

### Insulates Applications From Attacks

Stops unwanted traffic before it reaches your servers and applications.

### Customizable Authentication Framework

Supports the Pluggable Access Module (PAM) for passing client information to external devices for authentication; allows organizations to integrate BIG-IP into any type of authentication device that will accept PAM services.

### SSL Acceleration Module

The SSL Acceleration Module\* offloads CPU-intensive processing from servers and migrates SSL decryption onto a high performance device designed to efficiently handle SSL transactions.

### 100% SSL

Organizations can now migrate 100% of their communications to SSL; the SSL Acceleration Module removes all the bottlenecks for secure, wire speed processing (concurrent users, bulk throughput, and new transactions per second).

### Consolidation

Consolidates SSL certificates directly onto BIG-IP – saving hundreds of dollars per certificate.

### Centralizes Management

Centralizes certificate management to a single source, greatly simplifying administrative duties.

### Reduces Cost

Eliminates the need to buy and install SSL-capable server software on every server within the network.

### Selective Content Encryption & Encrypted Cookies

Provides the industry's most granular control to holistically, partially, or conditionally encrypt data without coding changes into applications.

### Advanced Routing Modules

BGP, RIP, and OSPF Modules enable BIG-IP to share routing information with other devices for better interoperability within the corporate network.

### Border Gateway Protocol (BGP)

Makes it possible for ISPs to connect to each other and for end-users to connect to more than one ISP, improving availability.

\* Different BIG-IP hardware platforms offer and are capable of supporting varying degrees of SSL TPS. All platforms include 100 TPS of SSL processing standard.

### Routing Information Protocol (RIPv1 & RIPv2)

Allows network routers to adapt dynamically to changing network connections, improving performance.

### Open Shortest Path First (OSPF)

Distributes routing information between routers and chooses the least-cost path as the best path, saving money and improving performance.

### Fast Cache Module

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BIG-IP's Fast Cache Module improves application and server performance by offloading repetitive requests for content from the backend infrastructure – while intelligently targeting its performance on a per-application basis. The Fast Cache Module provides superior flexibility and control to ensure that organizations achieve greater offload and faster service to their customer base.

### Reduces Server Utilization

Organizations can reduce server load by up to 50%, reduce server costs and speed end user performance to frequently visited pages.

### Multi-Store Caching

Creates dedicated cache repositories to target caching on a per application basis, delivering maximum service and speed to where its needed most.

### Pre-Compressed Content

The Fast Cache Module can store and serve compressed content, eliminating wasteful re-compression of content and associated performance hits.

### Static and Dynamic Content Caching

Allows organizations to specify content that is dynamically built (i.e. dynamic HTML) for caching. Conditionally flushes cache repositories to maintain content freshness.

## Product Modules

*Product modules are F5's software versions of our appliance products designed to run on an existing BIG-IP. These products are also available as stand-alone appliances.*

### BIG-IP Application Security Module (ASM)

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The BIG-IP Application Security Module runs on the BIG-IP application traffic management platform, providing robust application security with BIG-IP traffic management capabilities in a single system – without the need to buy or install more hardware.

The ASM provides application layer protection from both targeted and generalized application attacks. BIG-IP ensures that those applications are always available and performing optimally.

Together, you get a complete, robust solution that reduces box clutter, lowers maintenance and management costs, and provides proactive application protection while ensuring exceptional application performance.

### Protection of Brand Equity

The ASM significantly reduces the risk of loss or damage to data, intellectual property and web applications – protecting an organization's brand equity and reputation.

### Proactive Protection Against Identity Theft

Provides the industry's most comprehensive protection of identity information (credit card numbers, bank accounts, etc.) by controlling access as well as updates to identity information as part of every HTTP request/response.

### Regulatory Compliant

New regulations such as the Basel Accords, HIPPA and CA SB 1386 are making the security of personal customer data a key imperative. The ASM ensures compliance with these emerging regulations, making it an absolute necessity for any company handling sensitive information.

### Reduces Remediation Costs

In addition to the costs of attacks themselves companies have extensive costs associated with responding to the attack and repairing the damage. This response is not limited to the IT department – it can also involve public relations, brand image, litigation, and even regulatory costs. The Application Security Module stops attacks before they can do any type of harm.

### Plug and Protect Appliance

Once installed, the module's proprietary, automated learning mechanism quickly and accurately builds security policies tailored to the unique requirements of the applications it protects – dramatically reducing policy management and manual configuration duties.

### BIG-IP Global Traffic Manager Module

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Site outages, attacks and application/infrastructure failure are a major cause for end-user dissatisfaction that can lead to a loss of revenue and clientele. The BIG-IP Global Traffic Manager (GTM) Module provides high availability, maximum performance and global management for applications running across multiple and globally dispersed data centers.

### High Availability

Distributes end user requests according to business policies, data center and network conditions; enables transparent delivery of applications and web services across multiple sites; and ensures global business continuity and application availability.

### Better Performance

Improves performance and client experience by directing users to the best performing site on a global basis.

### Improved Control

Increases flexibility by delivering global traffic control that can direct users according to any business policy.

### Better Management and Efficiencies

Fully leverages secondary data centers by providing a holistic view into application and data center health from a single locale. This reduces management overhead while increasing the efficiency, scalability, and ROI of the global network.

## BIG-IP Link Controller Module

As organizations increase their use of the Internet to deliver their applications, maintaining only one link to the public network represents a single point of failure and serious network vulnerability. The BIG-IP Link Controller Module seamlessly monitors availability and performance of multiple WAN connections to intelligently manage bi-directional traffic flows to a site – providing fault tolerant, optimized Internet access.

### High Availability

Detects errors across an entire link to provide end-to-end, reliable WAN connectivity. It monitors the health and availability of each connection, detecting outages to a link or ISP. In the event of a failure, traffic is transparently and dynamically directed across other available links so users and external customers always stay connected.

### Comprehensive Link Monitoring

Provides a comprehensive view into the health and throughput of links through the gateway router, ensuring availability and providing insight into the bandwidth and capacity of any given link. It also detects failures caused by ISP mis-configuration or other manual errors that might otherwise be missed.

### Composite Monitors

Combines multiple monitors to quickly and accurately determine the health and availability of a link. If a problem is detected, it can route traffic to other available links – reducing downtime costs while improving the client experience.

### Maximum ROI and Quality of Service

Ensures traffic is directed over the best possible link and ISP, maintaining the highest quality of service and speed for users; maximizes ROI for connectivity by allowing organizations to aggregate inexpensive links.

## BIG-IP WebAccelerator Module

When combined with selected BIG-IP Local Traffic Manager platforms, the BIG-IP WebAccelerator module provides additional acceleration technologies such as Intelligent Browser Referencing (IBR) and Dynamic Data Offload to provide an extended level of web application acceleration as an integrated solution. The BIG-IP WebAccelerator module is specially suited for web applications such as Portal, CRM, ERP, Collaboration, and many others.

### Accelerate Web Apps 3x – 10x

Accelerates web applications for remote and mobile users 300% and up.

### Cuts Bandwidth Usage

Significantly reduces bandwidth usage by reducing the amount of data sent (IBR and data compression).

### Greater Server Capacity

Improves server capacity by offloading repetitive content serving (dynamic caching).

### Lower Costs

Reduces web application deployment and maintenance costs by utilizing validated web application acceleration policies.

### Validated Web Application Policies

Includes validated web application acceleration policies from the most popular web application vendors.



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