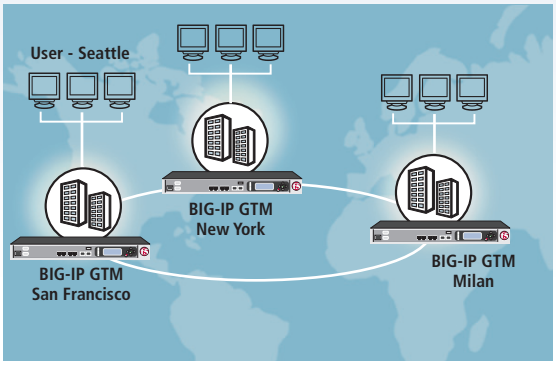


BIG-IP Global Traffic Manager

Maximum ROI, high availability, and superior client experience for organizations with multiple data centers and distributed sites.

Site outages, attacks, and application infrastructure failures are a major cause for end-user dissatisfaction, leading to a loss of revenue and clientele. The BIG-IP Global Traffic Manager (formerly known as 3-DNS) provides high availability, maximum performance, and centralized management for applications running across multiple and globally-dispersed data centers.

Built on F5's modular and scalable TMOS architecture, the BIG-IP Global Traffic Manager distributes end user application requests according to business policies, data center, and network conditions to ensure the highest possible availability.

Key Benefits:

- Enables transparent delivery of applications and web services across multiple sites
- Ensures global business continuity and application availability
- Dramatically improves performance and client experience by directing users to the best site on a global basis
- Increases flexibility by delivering global traffic control to direct users according to any business policy including geography, load, time of day, etc.
- Provides a holistic view into application and data center health from a single locale, reducing management overhead
- Increases the efficiency, scalability, and ROI of the global network by leveraging secondary data centers
- Enables automation of complex tasks to reduce maintenance and management overhead

Guaranteed Global High Availability and Reliability

Since organizations rely on their applications to stay competitive, ensuring the availability of those applications is critical. Only the BIG-IP Global Traffic Manager offers complete and sophisticated health monitoring that supports a wide variety of application types, giving organizations the ability to adapt quickly and stay competitive.

Complete Health Monitoring

The BIG-IP Global Traffic Manager checks the health of the entire infrastructure, eliminating single points of failure and routing traffic away from poorly performing sites. By collecting performance and availability metrics from each data center, ISP connection, servers, caches, and even end user content, the BIG-IP Global Traffic Manager ensures high availability and adequate capacity prior to directing traffic to a site.

Application-Centric Monitoring

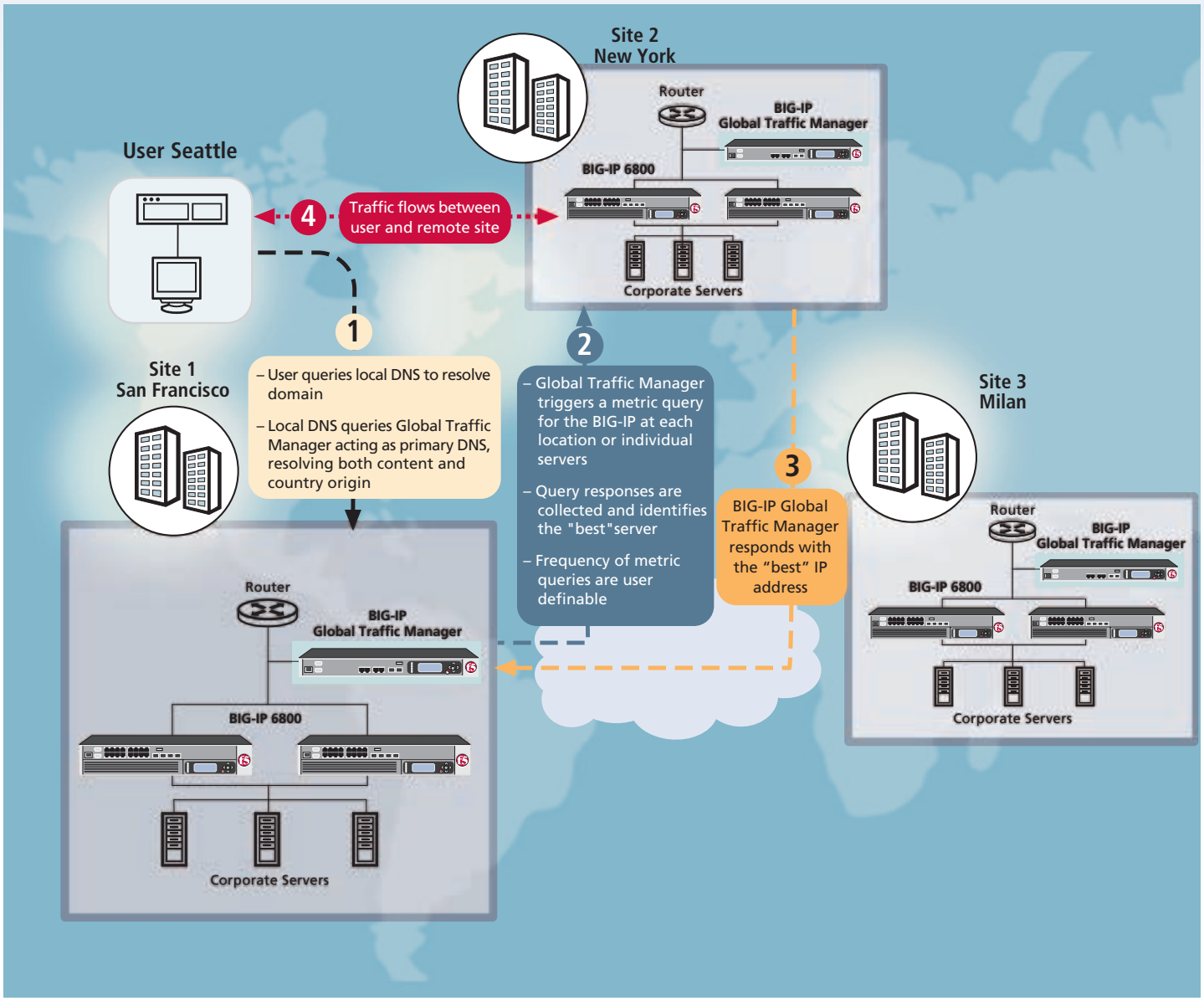
Today, applications are more sophisticated and require intelligent health checking to determine availability. Instead of relying on a single health check, the BIG-IP Global Traffic Manager aggregates multiple monitors so you can check application state at multiple levels. This results in higher availability, improved reliability, and the elimination of false positives to reduce management overhead.

Only the BIG-IP Global Traffic Manager provides pre-defined, out-of-the-box health monitoring support for over 18 different applications, including SIP, Oracle, LDAP, mySQL, and more. The BIG-IP Global Traffic Manager performs targeted monitoring of these applications to accurately determine their health, reduce downtime, and improve the client experience.

The BIG-IP Global Traffic Manager also tracks the health of applications that are dependent on one another and marks down all related objects if the health check of one object in that group fails. This enables you to align and monitor application objects according to business logic and profitability, build scalable traffic distribution policies, and better manage application dependencies.

Disaster Recovery/Business Continuity

The BIG-IP Global Traffic Manager provides the industry's most comprehensive solution for site failover and business continuity. In addition to performing comprehensive site availability checks, you can define the conditions for shifting all traffic to a backup data center, failing over their entire site, or controlling only the affected applications.


Site 2
New York
Router
BIG-IP
Global Traffic Manager
BIG-IP 6800
Corporate Servers
User Seattle
4
Traffic flows between user and remote site
1
– User queries local DNS to resolve domain
– Local DNS queries Global Traffic Manager acting as primary DNS, resolving both content and country origin
2
– Global Traffic Manager triggers a metric query for the BIG-IP at each location or individual servers
– Query responses are collected and identifies the "best"server
– Frequency of metric queries are user definable
3
BIG-IP Global Traffic Manager responds with the "best" IP address
Site 1
San Francisco
Router
BIG-IP
Global Traffic Manager
BIG-IP 6800
Corporate Servers
Site 3
Milan
Router
BIG-IP
Global Traffic Manager
BIG-IP 6800
Corporate Servers

Intelligent Global Load Balancing, Maximize Performance, Improve Client Experience

Organizations with distributed data centers are unable to distribute their global traffic by routing the user to the best and closest data center based on specific business policies. Changing network and user conditions can overwhelm a data center during peak traffic times. Only BIG-IP Global Traffic Manager provides comprehensive application management services that support the evolving application requirements organizations face today.

Superior Global Load Balancing

The BIG-IP Global Traffic Manager includes the industry's most advanced traffic distribution capabilities to match the needs of any organization or globally-deployed application. These include:

- Round Robin
- Global Availability
- LDNS Persistence
- Application Availability
- Geography
- Virtual Server Capacity
- Least Connections
- Packets Per Second
- Round Trip Time
- Hops
- Packet Completion Rate
- User-Defined QoS
- Dynamic Ratio
- LDNS Round Robin
- Ratio
- Kilobytes Per Second

Superior Intelligence

The BIG-IP Global Traffic Manager routes users to the best global resource based on comprehensive site and network metrics. For example, the QoS load balancing mode includes a hops coefficient, based on the number of hops between the client and the local DNS. Managers can use hop rate to send the user to the data center that has the fewest hops between the user and the data center, ensuring more rapid access. Dynamic Ratio load balancing mode solves the problem of "winner takes all" common to other global traffic management systems. Dynamic Ratio sends a portion of traffic to the best performing site, second best performing site, and so on – in proportion to the health and performance of the network and server resources.

Client Continuity for Stateful Applications

The BIG-IP Global Traffic Manager is the only solution that tracks application state and provides the intelligence to deliver a superior client experience. End user connections can now persist across applications and data centers and be automatically routed to the appropriate data center or server based on application state. Session integrity is always maintained, with no more broken sessions, lost or corrupted data. Organizations gain improved infrastructure scalability, lower TCO, and fewer support calls.

Intelligent Traffic Routing Control – iRules

Only the BIG-IP Global Traffic Manager includes a simple yet powerful programming language, iRules, that you can use to customize the dynamic distribution of global traffic. The BIG-IP Global Traffic Manager looks deep inside DNS messages to distribute application traffic to the desired data center, pool, or virtual server. This capability reduces latency, increases protection against malicious attacks, and improves application performance. Because iRules is based on an easy-to-use TCL-based scripting language, administrative costs are nominal.

Wide Area Persistence

The BIG-IP Global Traffic Manager provides sophisticated modes of persistence to ensure that users are directed to the right resources. It intelligently distributes traffic to the same site to maintain consistency for applications or transactions. The BIG-IP Global Traffic Manager synchronizes persistence information across all devices, ensuring that users are directed back to the same site regardless of their entry point. Finally, it propagates the desired persistence information to local DNS servers, reducing the required frequency of synchronizing back-end databases.

Geographic Load Balancing

The BIG-IP Global Traffic Manager resolves IP addresses down to the country, increasing topological control for managing global traffic. For sites maintaining content in different languages, this ensures that users around the world get the information they need in their own language.

Custom Topology Mapping

The BIG-IP Global Traffic Manager offers organizations deploying Intranet applications the ability to set up custom topology mappings. By defining and saving custom region groupings, you can configure topology based on traffic distribution policies that match your internal infrastructure.

Unmatched DNS Performance

BIG-IP Global Traffic Manager delivers breakthrough DNS performance to handle even the busiest Internet sites. Organizations can now provide the best Quality of Service for their end users while eliminating poor application performance.

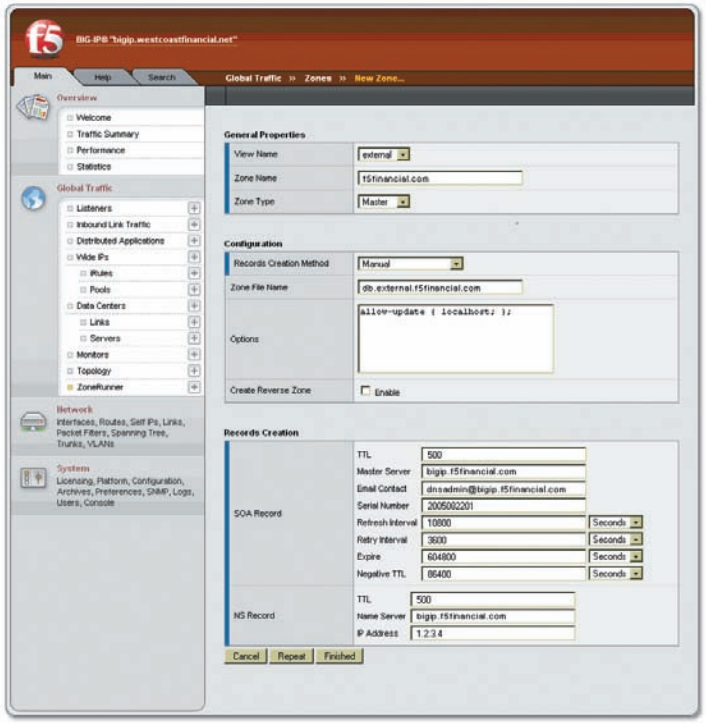
Superior Management and Lower Operational Costs

Managing a distributed network across multiple sites from a single point is an enormous challenge. The BIG-IP Global Traffic Manager provides the tools that give you a global view of your infrastructure with the means for managing the network and business policies to ensure the highest availability of your business-critical applications.

ZoneRunner

Only the BIG-IP Global Traffic Manager provides an integrated zone file management tool called ZoneRunner. ZoneRunner reduces DNS risks and simplifies DNS zone file management. It provides a secure environment for managing the DNS infrastructure while reducing administrative overhead by validating and error-checking zone files. Built on the newest version of BIND, ZoneRunner provides:

- Auto population of commonly-used protocols
- Validation/error checking for zone file entries
- Rollback for the last transaction
- Secure environment for DNS management
- Command line version of zone management
- Zone importation from an external server or a file
- Automatic reverse lookups
- Easy creation, editing, and searching of all records
- Reduced administration for a lower TCO
- Improved infrastructure scalability



ZoneRunner reduces DNS risk and simplifies zone file management.

Powerful Web-Based User Interface

The BIG-IP Global Traffic Manager provides a simple and cost-effective way for organizations to manage their global infrastructure from a centralized location:

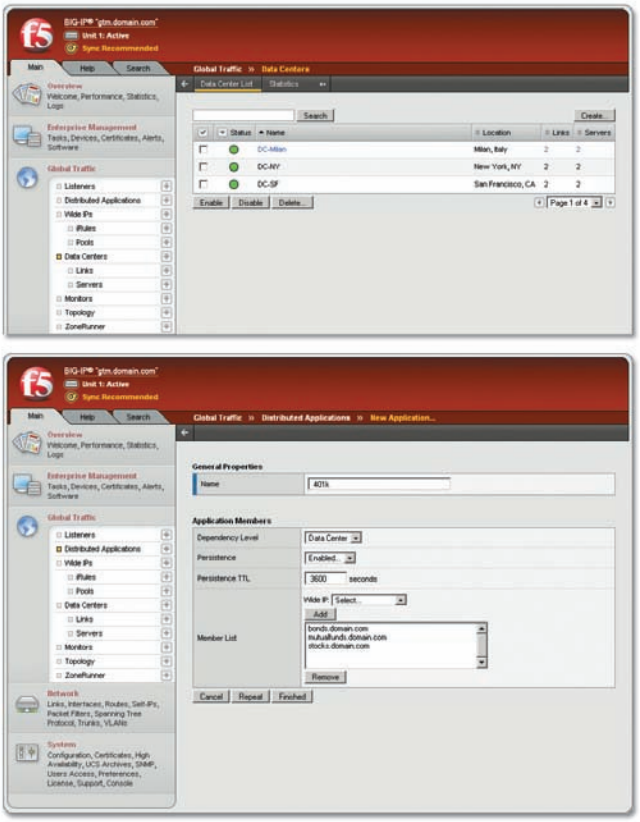
- Efficient list/object management for complete visibility of global resources
- Unique naming of global objects reduces administration and builds the infrastructure around business policies
- Superior sorting and searching for fast access to global objects
- Streamlined setup and object creation reduces configuration times
- Context-sensitive help for information on objects, commands, and configuration examples
- Ability to manage distributed applications as part of one collective group

IPv6 Support

With the demand for IPv6 increasing, many sites are facing new requirements to handle IPv6 traffic. The BIG-IP Global Traffic Manager provides scalability and support for the next generation network, resolving AAAA queries with improved manageability that doesn't require wholesale network and application upgrades.

Distributed Application Management

Organizations have struggled to align their applications and infrastructure with their business goals and policies. BIG-IP Global Traffic Manager gives organizations the ability to implement dependencies between application services and manage them efficiently. With distributed application management, organizations can reduce administrative costs, build scalable traffic distribution policies, and improve efficiency with granular control of data center objects.



BIG-IP Global Traffic Manager provides a simple and powerful way to manage your global resources

Automated Setup and Synchronization

Autosync automates setup and secure synchronization of redundant BIG-IP Global Traffic Manager devices. With Autosync, you can make configuration changes from any BIG-IP Global Traffic Manager in the network, eliminating difficult hierarchical management common to DNS.

Configuration Retrieval

VS AutoDiscovery enables the BIG-IP Global Traffic Manager to pull down configurations from any number of distributed BIG-IP systems. In large enterprises, this removes the need to repeat configurations across products, saving time.

SNMP Management Application Support

The BIG-IP Global Traffic Manager integrates its MIBs and a SNMP agent with DNS. This allows SNMP management applications (for example, HP OpenView) to read statistical data about the current performance of the BIG-IP Global Traffic Manager. SNMP management packages have an exact view of what the BIG-IP Global Traffic Manager is doing, while keeping an eye on standard DNS information.

Data Center and Sync Groups

The BIG-IP Global Traffic Manager allows the creation of logical groups of network equipment to ensure the efficient use of monitoring and metrics collection. The result is a highly scalable solution that can support the Internet's busiest sites by intelligently sharing the information with members in the logical group.

Network Integration and Flexibility

3rd Party Integration

The BIG-IP Global Traffic Manager also provides the industry's most flexible solution by communicating and integrating with a broad array of network devices. This includes support for various types of remote hosts, including SNMP agents: UCD, snmpd, Solstice Enterprise, and the NT/4.0 SNMP agent.

The BIG-IP Global Traffic Manager also talks to 3rd-party caches, servers, routers, and load balancers to accurately diagnose the health of your network end points and provide a heterogeneous solution for global traffic management.

Security for Critical Site Resources

Organizations are increasingly being exploited at the DNS level with DoS attacks that compromise the security of their site. Difficulty in differentiating between legitimate DNS requests and attacks is also a very real concern. The BIG-IP Global Traffic Manager includes inherent security controls and features to protect against attacks, and to keep applications and legitimate traffic moving.

Security Control

The BIG-IP Global Traffic Manager strengthens site security and diffuses attacks before they can start. iRules can help you create policies that block DNS requests from rogue sites or known sources of attacks before they can do damage.

Inherent Security

The BIG-IP Global Traffic Manager includes a number of other inherent security features designed to protect against common attacks and provide added protection for your sites. The BIG-IP Global Traffic Manager ships, by default, in a very secure mode with these features:

- Uses packet filtering to limit or deny access to and from Web sites based on monitoring the traffic source, destination, or port
- Is a hardened device designed to resist common attacks:
  - Thwarts teardrop attacks
  - Protects itself and servers from ICMP attacks
  - Does not run SMTPd, FTPd,Telnetd, or any other attackable daemons

Scalable Security

The BIG-IP Global Traffic Manager's unmatched DNS performance can tolerate high levels of DNS attacks, protecting organizations while still maintaining maximum and continuous availability for applications and services.

A Powerful Foundation

TMOS

At the heart of the BIG-IP Global Traffic Manager is a revolutionary architecture called TMOS, an intelligent, modular, and scalable foundation for quickly adapting to future business challenges and streamlining management duties. TMOS enhances every function riding on top of the BIG-IP Global Traffic Manager – delivering total vision, flexibility, and control across all services while empowering the BIG-IP Global Traffic Manager to intelligently adapt to diverse and evolving distributed application goals.

Ordering Information

BIG-IP Global Traffic Manager is available on the 1500 platform, and as an add-on module for integration with the following BIG-IP Application Traffic Management platforms: BIG-IP 520, 540*, 1000*, 2400*, 5100, 5110, 1500, 3400, 6400, and 6800.*

**These platforms need hardware upgrades to run BIG-IP Global Traffic Manager. Please contact your F5 representative for details.*

Optional modules available for the BIG-IP Global Traffic Manager:
- *IPv6*

Minimum System Requirements

Processor: *PIII 1GHz or higher* ***System Memory:*** *768 MB RAM* ***Compact Flash (if present):*** *512 MB*

Physical Specifications

Processor: *Single CPU*

Base Memory: *768 MB*

ASIC: *None*

Gigabit Ethernet CU Ports: *4*

Gigabit Fiber Ports (SFP-GBIC Mini): *2 optional*

Traffic Throughput: *500 Mbps*

Dimensions:
17.5"w x 21.5"(OAL)/20.0" behind mounting ears x 1.75" (1U)

Weight: *19 lbs.*

Operating Temperature:
41° to 104° F (5° to 40° C) per Telcordia GR-63-CORE 5.1.1 and 5.1.2

Relative Humidity:
10 to 90% @ 40° C, per Telcordia GR-63-CORE 5.1.1 and 5.1.2

Safety Agency Approval:
UL 60950 (UL1950-3)
CSA-C22.2 No. 60950-00 (Bi-national standard with UL 60950) CB TEST CERTIFICATION TO IEC 950 EN 60950

Electromagnetic Emissions Certifications/Susceptibility Standard:
EN55022: 1998: +A1: 2000+A2: 2003
EN6100-3-2: 2000 and
EN6100-3-3:195+A1: 2000
FCC part 15B Class A
EN55024: 1998+A1: 2001+A2: 2003
EN55024 1998 Class A
FCC Part 15B Class A

Maximum Power Consumption: *300 W*

Maximum Heat Output: *1025 BTUs*

Input Voltage:
90-240VAC +/- 10%
90-132 6A
80-264 3A

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