Configuring BIG-IP DNS (formerly GTM)

Category: Networking & Security | **Vendor:** F5

Duration: 16.00 hours (2 days) **13.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

This course gives networking professionals a functional understanding of the BIG-IP DNS system as it is commonly used. The course covers installation, configuration, and management of the BIG-IP DNS system, and includes a combination of lecture, discussion, and hands-on labs.

About This Course

- Overview of the Domain Name System and DNS resolution flow through BIG-IP DNS
- Configuring DNS listeners
- Accelerating DNS resolution with DNS Express, DNS cache, and DNS server load balancing
- Intelligent DNS resolution with wide IPs and wide IP pools
- Using probes and metrics to assist the intelligent DNS resolution process
- Intelligent DNS load balancing methods
- Monitoring intelligent DNS resources
- Logging GSLB load balancing decisions
- Using DNSSEC
- Integrating iRules in the DNS resolution process
- Managing BIG-IP DNS sync groups

Who Should Attend

This course is intended for system and network administrators responsible for installation, setup, configuration, and administration of BIG-IP DNS systems.

Prerequisites & Entry Requirements

General Prerequisites:

There are no F5-technology-specific prerequisites for this course:

However, completing the following before attending would be very helpful for students with limited BIG-IP administration and configuration experience:

- Administering BIG-IP (TRG-BIG-OP-ADMIN) instructor-led course
- F5 Certified BIG-IP Administrator

The following web-based courses, although optional, will be very helpful for any student with limited BIG-IP administration and configuration experience:

- Getting Started with BIG-IP web-based training
- Getting Started with BIG-IP Global Traffic Manager (GTM) web-based training

The following general network technology knowledge and experience are recommended before attending any F5 Global Training Services instructor-led course:

- OSI model encapsulation
- Routing and switching
- Ethernet and ARP
- TCP/IP concepts
- IP addressing and subnetting
- NAT and private IP addressing
- Default gateway
- Network firewalls
- LAN vs. WAN

The following course-specific knowledge and experience is suggested before attending this course:

- DNS resolution process
- Experience configuring DNS content and resolution servers

- DNSSEC

Learning Outcomes

Upon successful completion of this course, participants will be able to:

- Provision the BIG-IP system for operation
- Back up the BIG-IP system configuration for safekeeping
- Describe how the Domain Name System (DNS) resolves host names into IP addresses
- Describe how the BIG-IP DNS system can participate in the DNS resolution process
- Use DNS Express on the BIG-IP DNS system to accelerate DNS resolution
- Cache DNS query responses on BIG-IP DNS to accelerate DNS resolution
- Load balance DNS queries to a pool of DNS servers and monitor pool health
- Configure the key features of the BIG-IP DNS system to perform intelligent DNS resolution
- Describe the LDNS probes used by BIG-IP DNS to support path-based load balancing
- Configure a wide IP pool to use a path load balancing method
- View and confirm DNS resolution behavior using path load balancing methods
- Use static and dynamic load balancing methods to intelligently resolve DNS queries
- Use persistence to effectively return one or more clients to the same virtual server on each query
- Use manual resume to control certain load balancing behavior in the event of an outage
- Configure and use load balancing decision logs to fine-tune and troubleshoot DNS resolution
- Configure monitors on the BIG-IP DNS system in support of DNS resolution
- Configure BIG-IP DNS to participate in the DNSSEC chain of trust
- Configure limit settings on virtual servers, servers, and wide IP pools to temporarily direct client traffic away from resources that may not be performing at certain thresholds of efficiency
- Configure iRules on a wide IP to customize intelligent DNS resolution
- Describe the other wide IP types provided with BIG-IP DNS
- Configure a BIG-IP DNS sync group
- Apply all the principles learned throughout the course to configure a BIG-IP DNS system based on hypothetical specifications

Detailed Course Outline

Chapter 1: Setting Up the BIG-IP System

- Introducing the BIG-IP System
- Initially Setting Up the BIG-IP System
- Archiving the BIG-IP Configuration
- Leveraging F5 Support Resources and Tools
- Provision the BIG-IP System and Confirm Network Configuration

Chapter 2: Introducing the Domain Name System (DNS) and BIG-IP DNS

- Understanding the Domain Name System (DNS)
- Reviewing the Name Resolution Process
- Implementing BIG-IP DNS
- Using DNS Resolution Diagnostic Tools

Chapter 3: Accelerating DNS Resolution

- Introducing DNS Resolution with BIG-IP DNS
- BIG-IP DNS Resolution Decision Flow
- Configuring BIG-IP DNS Listeners
- Resolving DNS Queries in the Labs (Lab Zone Records)
- Load Balancing Queries to a DNS Server Pool
- Accelerating DNS Resolution with DNS Cache
- Accelerating DNS Resolution with DNS Express
- Introducing Wide IPs
- Using Other Resolution Methods with BIG-IP DNS
- Integrating BIG-IP DNS into Existing DNS Environments

Chapter 4: Implementing Intelligent DNS Resolutions

- Introducing Intelligent DNS Resolution
- Identifying Physical Network Components
- Identifying Logical Network Components
- Collecting Metrics for Intelligent Resolution

- Configuring Data Centers
- Configuring a BIG-IP DNS System as a Server
- Configuring a BIG-IP LTM System as a Server
- Establishing iQuery Communication between BIG-IP Systems
- Configuring a Non-F5 Server
- Defining Links and Routers
- Configuring Wide IP Pools
- Configuring Wide IPs
- Managing Object Status
- Using the Traffic Management Shell (TMSH)

Chapter 5: Using LDNS Probes and Metrics

- Introducing LDNS Probes and Metrics
- Types of LDNS Probes
- Excluding an LDNS from Probing
- Configuring Probe Metrics Collection

Chapter 6: Load Balancing Intelligent DNS Resolution

- Introducing Load Balancing on BIG-IP DNS
- Using Static Load Balancing Methods
- Round Robin
- Ratio
- Global Availability
- Static Persist
- Other Static Load Balancing Methods
- Using Dynamic Load Balancing Methods
- Round Trip Time
- Completion Rate
- CPU
- Hops

- Least Connections

- Packet Rate

- Kilobytes per Second

- Other Dynamic Load Balancing Methods

- Virtual Server Capacity

- Virtual Server Score

- Using Quality of Service Load Balancing

- Persisting DNS Query Responses

- Configuring GSLB Load Balancing Decision Logs

- Using Manual Resume

- Using Topology Load Balancing

Chapter 7: Monitoring Intelligent DNS Resources

- Exploring Monitors

- Configuring Monitors

- Assigning Monitors to Resources

- Monitoring Best Practices

Chapter 8: Advanced BIG-IP DNS Topics

- Implementing DNSSEC

- Setting Limits for Resource Availability

- Using iRules with Wide IPs

- Introducing Other Wide IP Types

- Implementing BIG-IP DNS Sync Groups

Chapter 9: Final Configuration Projects

Skills You Will Learn:

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- Back up the BIG-IP system configuration for safekeeping
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Frequently Asked Questions

Q: What delivery options are available for Configuring BIG-IP DNS (formerly GTM)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 2-day Configuring BIG-IP DNS (formerly GTM) course provides up to 13.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Configuring BIG-IP DNS (formerly GTM) training?

The training takes place over 2 day(s), with each day lasting approximately 16.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Configuring BIG-IP DNS (formerly GTM)?

Yes, we provide corporate training, dedicated training, and closed classes for Configuring BIG-IP DNS (formerly GTM). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Configuring BIG-IP DNS (formerly GTM), F5 Networks, TRG-BIG-DNS-IL

Q: Why choose Nexus Human for Configuring BIG-IP DNS (formerly GTM)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Configuring BIG-IP DNS (formerly GTM) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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