



# F5 NETWORKS CONFIGURING BIG-IP DNS: DOMAIN NAME SYSTEM

Course Code: WGAC-F5N-GTM

Explore configuration and ongoing management of the BIG-IP DNS system, and includes a combination of lecture.

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

## What You'll Learn

Learn configuration and ongoing management of the BIG-IP DNS system, and includes a combination of lecture, discussion, and hands-on labs.

## Who Needs to Attend

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

## Prerequisites

Administering BIG-IP; TCP/IP Addressing and Routing, WAN/LAN elements; and Data Center Server redundancy concepts.



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TRAINING MODE: VIRTUAL

DURATION: 4 DAYS

## Virtual Live Outline

### Lesson 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

### Lesson 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

### Lesson 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

### Lesson 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)

#### Lesson 5 : Using LDNS Probes and Metrics

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

#### Lesson 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

#### Lesson 7 : Monitoring Intelligent DNS Resources

- Exploring Monitors
- Configuring Monitors

- Assigning Monitors to Resources
- Monitoring Best Practices

#### Lesson 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

#### Lesson 9 : Final Configuration Projects

Contact us today [info@clc-training.com](mailto:info@clc-training.com) or call us at +971 52 247 9487

Office location : 19th Floor , Spider Business Tower, Sheikh Zayed Road, Near World Trade Centre Metro DUBAI