

# **Enterprise Computing Solutions - Education Services**

# **TRAINING OFFERING**

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## Configuring BIG-IP DNS (formerly GTM) v15.1

CODE: LENGTH: PRICE:

F5N\_BIG-DNS-I 16 Hours (2 days) kr20,400.00

### **Description**

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.

Topics covered in this course include: v14.1 Course Topics

BIG-IP initial setup (licensing, provisioning, and network configuration)

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

#### **Objectives**

Introducing the BIG-IP System
Initially Setting Up the BIG-IP System
Configuring the Management Interface
Activating the Software License
Provisioning Modules and Resources
Importing a Device Certificate
Specifying BIG-IP Platform Properties

Configuring the Network

Configuring Network Time Protocol (NTP) Servers Configuring Domain Name System (DNS) Settings

Configuring High Availability Options
Archiving the BIG-IP Configuration

Leveraging F5 Support Resources and Tools

v14.1 COURSE OUTLINE Chapter 1: Setting Up the BIG-IP System BIG-IP System Setup Labs

Understanding the Domain Name System (DNS) Reviewing the Name Resolution Process

Implementing BIG-IP DNS

Chapter 2: Introducing the Domain Name System (DNS) and BIG-IP DNS Using DNS Resolution Diagnostic Tools

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

Chapter 3: Accelerating DNS Resolution Integrating BIG-IP DNS into Existing DNS Environments

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

Chapter 4: Implementing Intelligent DNS Resolutions Using the Traffic Management Shell (TMSH)

Introducing LDNS Probes and Metrics

Types of LDNS Probes

Excluding an LDNS from Probing

Chapter 5: Using LDNS Probes and Metrics Configuring Probe Metrics Collection

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

Using Quality of Service Load Balancing

Persisting DNS Query Responses

Configuring GSLB Load Balancing Decision Logs

Using Manual Resume

Chapter 6: Load Balancing Intelligent DNS Resolution Using Topology Load Balancing

**Exploring Monitors** 

**Configuring Monitors** 

Assigning Monitors to Resources

**Chapter 7: Monitoring Intelligent DNS 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 Review Questions

#### **Audience**

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

#### **Prerequisites**

There are no F5-technology-specific prerequisites for this course: However, completing the following before attending would be helpful for students with limited BIG-IP administration and configuration experience:

Administering BIG-IP instructor-led course

or

F5 Certified BIG-IP Administrator

The following free web-based courses, although optional, will be very helpful for any student with limited BIG-IP administration and configuration experience. These courses are available at F5 University:

Getting Started with BIG-IP web-based training

Getting Started with BIG-IP DNS 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** Need more information - please go to F5 webpage under "Education"

#### **Programme**

Introducing the BIG-IP System Initially Setting Up the BIG-IP System Configuring the Management Interface Activating the Software License Provisioning Modules and Resources Importing a Device Certificate Specifying BIG-IP Platform Properties Configuring the Network Configuring Network Time Protocol (NTP) Servers

Configuring Domain Name System (DNS) Settings Configuring High Availability Options Archiving the BIG-IP Configuration

Leveraging F5 Support Resources and Tools

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

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Establishing iQuery Communication between BIG-IP Systems

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Configuring Monitors

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#### **Session Dates**

På begäran, kontakta oss

## Ytterligare information

Denna utbildning finns också som utbildning på plats. Kontakta oss för mer information.