



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

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# Configuring BIG-IP AFM: Advanced Firewall Manager v16.1

CODE:	LENGTH:	PRICE:
F5N_BIG-AFM	16 Hours (2 days)	€1,995.00

## Description

This course uses lectures and hands-on exercises to give participants real-time experience in setting up and configuring the BIG-IP Advanced Firewall Manager (AFM) system. Students are introduced to the AFM user interface, stepping through various options that demonstrate how AFM is configured to build a network firewall and to detect and protect against DoS (Denial of Service) attacks. Reporting and log facilities are also explained and used in the course labs. Further Firewall functionality and additional DoS facilities for DNS and SIP traffic are discussed.

### Topics covered in this course include:

#### v14.1 Course Topics

- Installation and setup of the BIG-IP AFM system
- AFM network firewall concepts
- Network firewall options and modes
- Network firewall rules, policies, address/port lists, rule lists and schedules
- IP Intelligence facilities of dynamic black and white lists, IP reputation database and dynamic IP shunning.
- Detection and mitigation of DoS attacks
- Event logging of firewall rules and DoS attacks
- Reporting and notification facilities
- DoS Whitelists
- DoS Sweep/Flood
- DNS Firewall and DNS DoS
- SIP DoS
- Network Firewall iRules
- Port Misuse
- Various AFM component troubleshooting commands

## Objectives

### v14.1 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
- Chapter Resources
- BIG-IP System Setup Labs

#### Chapter 2: AFM Overview and Network Firewall

- AFM Overview
- AFM Release History
- AFM Availability
- What do you see?
- Terminology
- Network Firewall
- AFM Contexts
- AFM Modes
- AFM Packet Processing
- AFM Rules and Direction
- Rules Contexts and Processing

- Configuring Network Firewall
- Network Firewall Rules
- Geolocation
- Redundant and Conflicting Rules
- Stale Rules
- Lists and Schedules
- Rule Lists
- Address Lists
- Port Lists
- Schedules
- Policies
- Policy Status and Firewall Policy Management
- Inline Rule Editor
- Send to Virtual
- Packet Tester

### **Chapter 3: Logs**

- Overview
- Event Logs
- Logging Profiles
- Log Throttling
- Logging and Logging Profiles
- BIG-IP Logging Mechanisms
- Publisher
- Log Destination
- Custom Search
- Logging Global Rule Events
- Log Configuration Changes
- QKView and Log Files
- SNMP MIB
- SNMP Traps

### **Chapter 4: IP Intelligence**

- Overview
- Feature 1 Dynamic Black and White Lists
- Black List Categories
- Feed Lists
- IP Intelligence Policies
- IP Intelligence Log Profile
- IP Intelligence Reporting
- Troubleshooting IP Intelligence Lists
- Feature 2 IP Intelligence Database
- Licensing
- Installation
- Configuration
- Troubleshooting
- IP Intelligence iRule

### **Chapter 5: Device DoS**

- Denial of Service and DoS Protection Overview
- Device DoS
- Configuring Device DoS
- Variant 1
- Variant 2
- Auto-Threshold Configuration
- Variant 3
- Bad Actor and Blacklist Address
- Device DoS Profiles
- DoS Protection Profile
- Dynamic Signatures
- DoS iRules

### **Chapter 6: Reports**

- Reports
- Reporting
- General Reporting Facilities
- Time Series Chart
- Details

- Report Export
- DoS Screens
- Dashboard
- Analysis
- Custom Page
- Settings
- Scheduled Reports
- Troubleshooting Scheduled Reports
- Overview
- Summary
- Widgets
- Custom Widgets
- Deleting and Restoring Widgets
- Firewall Manager

### **Chapter 7: DoS White Lists**

- White Lists
- Configuration
- tmsh
- Source Address List

### **Chapter 8: DoS Sweep Flood Protection**

- Sweep Flood
- Configuration

### **Chapter 9: IP Intelligence Shun**

- IP Intelligence Shun
- Manual Configuration
- Dynamic Configuration
- IP Intelligence Policy
- tmsh
- Extending the Shun Feature
- Remotely Triggered Black Hole
- Scrubber

### **Chapter 10: DNS Firewall**

- DNS Firewall
- Configuration
- DNS Query
- DNS Opcodes
- Logging
- Troubleshooting

### **Chapter 11: DNS DoS**

- DNS DoS
- Configuration
- DoS Protection Profile
- Device DoS

### **Chapter 12: SIP DoS**

- Session Initiation Protocol (SIP)
- Transactions and Dialogs
- SIP DoS Configuration
- DoS Protection Profile
- Device DoS
- SIP iRules

### **Chapter 13: Network Firewall iRules**

- Network Firewall iRules
- iRule Events
- Configuration
- Recommended Practice
- More Information

### **Chapter 14: Port Misuse**

- Port Misuse
- Port Misuse Policy
- Attaching a Service Policy

## Audience

This course is intended for network operators, network administrators, network engineers, network architects, security administrators, and security architects responsible for installation, setup, configuration, and administration of the BIG-IP AFM system.

## Prerequisites

Students must complete one of the following F5 prerequisites before attending this course:

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 Local Traffic Manager (LTM) web-based training

Getting Started with BIG-IP Advanced Firewall Manager (AFM) 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

v12 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

### **Chapter 2: AFM Overview and Network Firewall**

AFM Overview

AFM Release History

AFM Availability

What do you see?

Terminology

Network Firewall

AFM Contexts

AFM Modes

AFM Packet Processing

AFM Rules and Direction

Rules Contexts and Processing

Configuring Network Firewall

Network Firewall Rules

Geolocation

Redundant and Conflicting Rules

Stale Rules

Lists and Schedules

Rule Lists

Address Lists

Port Lists

Schedules

Policies

Policy Status and Firewall Policy Management

Inline Rule Editor

### **Chapter 3: Logs**

Event Logs

Logging Profiles

Log Throttling

Traffic Flow Statistics

Logging and Logging Profiles

BIG-IP Logging Mechanisms

Publisher

- Log Destination
- Custom Search
- Logging Global Rule Events
- Log Configuration Changes
- QKView
- Other Log Files
- SNMP MIB
- SNMP Traps

#### **Chapter 4: IP Intelligence**

- Overview
- Feature 1 Dynamic Black and White Lists
- Black List Categories
- Feed Lists
- IP Intelligence Policies
- IP Intelligence Log Profile
- IP Intelligence Reporting
- Troubleshooting IP Intelligence Lists
- Feature 2 IP Intelligence Database
- Licensing
- Installation
- Configuration
- Troubleshooting
- IP Intelligence iRule

#### **Chapter 5: Device DoS**

- Denial of Service and DoS Protection Overview
- Configuring Device DoS
- Configuring Device DoS Vectors
- Variant 1
- Rate and Leak Limit
- Variant 2
- Auto-Threshold Configuration
- Variant 3
- Bad Actor and Blacklist Attacking Address
- Device DoS Profiles
- DoS Protection Profile

#### **Chapter 6: Reports**

- Reports
- Reporting
- General Reporting Facilities
- Charts
- Details
- Report Export
- Network Screens
- DoS Screens
- Settings
- Overview
- Summary
- Widgets
- Time Periods, Settings, Export, and Delete Options
- Firewall Manager

#### **Chapter 7: DoS White Lists**

- White Lists
- Configuration
- tmsh
- Source Address List

#### **Chapter 8: DoS Sweep Flood Protection**

- Sweep Flood
- Configuration

#### **Chapter 9: IP Intelligence Shun**

- IP Intelligence Shun
- Manual
- Dynamic

IP Intelligence Policy  
tmsh  
Troubleshooting

### Chapter 10: DNS Firewall

DNS Firewall  
DNS Query  
DNS Opcodes  
Troubleshooting

### Chapter 11: DNS DoS

DNS DoS  
DoS Protection Profile  
Device DoS

### Chapter 12: SIP DoS

Session Initiation Protocol (SIP)  
Transactions and Dialogs  
SIP DoS  
DoS Protection Profile  
Device DoS  
SIP iRules

### Chapter 13: Network Firewall iRules

Network Firewall iRules  
iRule Events  
Use Cases  
Recommended Practice  
More Information

### Chapter 14: DoS iRules

DoS iRules  
iRule Events  
Use Cases  
More Information  
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:  
HTTP and DNS protocols

## Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
07 May 2026	Virtual Classroom (CET / UTC +1)		English	Classroom		€1,995.00

## Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)