Arrow ECS Finland Oy - Education Services

TRAINING OFFERING

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Troubleshooting BIG-IP v17.1

CODE:	LENGTH:	PRICE:
F5N_BIG-TRBL-INT2	16 Hours (2 days)	€2,200.00

Description

This course gives networking professionals hands-on knowledge of how to troubleshoot a BIG-IP system using a number of troubleshooting techniques as well as troubleshooting and system tools. This course includes lectures, labs, and discussions.

Objectives

- Describe the role of the BIG-IP system as a full proxy device in an application delivery network;
- Set up, start/restart/stop, license, and provision the BIG-IP system;
- Create a basic network configuration on the BIG-IP system including VLANs and self IPs;
- Use the Configuration utility and TMOS Shell (tmsh) to manage BIG-IP resources and use as a resource when troubleshooting;
- Create, restore from, and manage BIG-IP archives;
- Understand and implement troubleshooting methodology to find and resolve issues;
- View resource status, availability, and statistical information and use this information to determine how the BIG-IP system is currently processing traffic;
- Use iApps to update BIG-IP configuration;
- Perform troubleshooting and problem determination activities including using the iHealth diagnostic tool, researching known issues and solutions on AskF5, submitting a problem ticket to F5 Technical;
- Understand the tools (ping, netstat, tcpdump, ssldump, WireShark, diff, Kdiff3, Fiddler, BIG-IP logs, etc.) available to use to identify BIG-IP and network issues from bottom to top;
- Support, and view traffic flow using tcpdump;
- List log files available, understand log levels, and use the appropriate files, log levels, and filters for troubleshooting;
- Implement High Speed Logging (HSL) and SNMP traps to perform troubleshooting and problem determination activities;
- Describe the role of iRules in affecting traffic behavior and how to use them to aid with troubleshooting and problem determination.

Audience

This course assumes that you have successfully completed the Administering BIG-IP course, or equivalent, and have hands-on experience working in a production BIG-IP environment for several months. You should have a solid understanding of the environment in which the BIG-IP is deployed. This course is meant for BIG-IP administrators, network engineers, applications engineers, etc., who will be responsible for troubleshooting problems associated with their BIG-IP system.

Prerequisites

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

- Administering BIG-IP instructor-led course
- F5 Certified BIG-IP Administrator

The following free web-based training 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

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:

- HTTP, HTTPS, FTP and SSH protocols

Programme

v17.1 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 Configurations

Chapter 2: Reviewing Local Traffic Configuration

- Reviewing Nodes, Pools, and Virtual Servers
- Reviewing Address Translation
- Reviewing Routing Assumptions
- Reviewing Application Health Monitoring
- Reviewing Traffic Behavior Modification with Profiles
- Reviewing the TMOS Shell (TMSH)
- Reviewing Managing BIG-IP Configuration Data

Chapter 3: Troubleshooting Methodology

- Step 1: State the Problem
- Step 2: Specify the Problem
- Step 3: Map the System
- Step 4: Develop Possible Causes
- Step 5: Test Theories
- Step 6: Iterate Until Root Cause Identified
- Documenting a Problem
- Putting the Troubleshooting Steps to Use

Chapter 4: Working with F5 Support

- Leveraging AskF5
- Finding Resources on DevCentral
- Using the BIG-IP iHealth System
- Working with F5 Technical Support
- Running End User Diagnostics (EUD)
- Requesting Return Materials Authorization
- Understanding F5's Software Version Policy
- Managing Upgrades and Hotfixes
- Managing the BIG-IP License for Upgrades
- Managing BIG-IP Disk Space
- Upgrading BIG-IP Software

Chapter 5: Troubleshooting – Bottom to Top

- Introducing Differences between BIG-IP and LINUX Tools
- Troubleshooting with Layer 1/Layer 2 Tools
- Troubleshooting with Layer 2/Layer 3 Tools
- Troubleshooting with Layer 3 Tools
- Troubleshooting with LINUX Tools
- Troubleshooting Memory and CPU
- Troubleshooting with watch
- Troubleshooting with Additional tmsh commands

Chapter 6: Troubleshooting Tools

- tcpdump
- Wireshark
- ssldump
- Fiddler
- diff
- KDiff3
- cURL

Chapter 7: Using System Logs

- Configuring Logging
- Log Files
- Understanding BIG-IP Daemons Functions
- Triggering an iRule
- Deploying and Testing iRules
- Application Visibility and Reporting

Chapter 8: Troubleshooting Lab Projects

Session Dates

Aikataulutamme kiinnostuksen mukaan. Ota yhteyttä

Additional Information

This training is also available as onsite training. Please contact us to find out more.