

Developing iRules for BIG-IP

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

Duration: 24.00 hours (3 days)

19.5 CPD Hours

Rating: ★ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Who Should Attend

This course is intended for system administrators, network administrators and application developers responsible for the configuration and administration of the BIG-IP LTM system.

Prerequisites & Entry Requirements

General Prerequisites:

Prior to attending the Configuring BIG-IP with iRules course the student must have attended the Configuring LTM course. The student can also benefit from several months experience configuring and designing with the BIG-IP LTM product before attending this course.

Students should also be familiar with:

- Common network terminology
- TCP/IP addressing and routing
- Internetworking concepts
- Common elements of WAN and LAN environments
- Programming Basics (Tcl is a plus)

Students should be proficient in:

- Basic PC operation and application skills
- Basic Web browser operation (Internet Explorer is used in class)
- TCL and TMSH commands

Learning Outcomes

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

After completing this course, you should be able to :

- Setting Up the BIG-IP System
- Getting Started with iRules
- Exploring iRule Elements
- Developing and Troubleshooting iRules
- Optimizing iRule Execution
- Securing Web Applications with iRules
- Working with Numbers and Strings
- Processing the HTTP Payload
- Working with iFiles and Data Groups
- Using iRules with Universal Persistence, Stream, and Statistics Profiles
- Incorporating Advanced Variables

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 System Configuration
- Leveraging F5 Support Resources and Tools

Chapter 2: Getting Started with iRules

- Customizing Application Delivery with iRules

- Triggering an iRule
- Leveraging the DevCentral Ecosystem
- Creating and Deploying iRules

Chapter 3: Exploring iRule Elements

- Introducing iRule Constructs
- Understanding iRule Events and Event Context
- Working with iRule Commands
- Logging from an iRule Using SYSLOG-NG (LOG Command)
- Working with User-Defined Variables
- Working with Operators and Data Types
- Working with Conditional Control Structures (IF and SWITCH)
- Incorporating Best Practices in iRules

Chapter 4: Developing and Troubleshooting iRules

- Mastering Whitespace and Special Symbols
- Grouping Strings
- Developing and Troubleshooting Tips
- Using Fiddler to Test and Troubleshoot iRules

Chapter 5: Optimizing iRule Execution

- Understanding the Need for Efficiency
- Measure iRule Runtime Efficiency Using Timing Statistics
- Modularizing iRules for Administrative Efficiency
- Using Procedures to Modularize Code
- Optimizing Logging
- Using High-Speed Logging Commands in an iRule
- Implementing Other Efficiencies
- Using Looping Control Structures (WHILE, FOR, FOREACH Commands)

Chapter 6: Securing Web Applications with iRules

- Integrating iRules into Web Application Defense
- Mitigating HTTP Version Attacks
- Mitigating Path Traversal Attacks
- Using iRules to Defends Against Cross-Site Request Forgery (CSRF)
- Mitigating HTTP Method Vulnerabilities
- Securing HTTP Cookies with iRules
- Adding HTTP Security Headers
- Removing Undesirable HTTP Headers

Chapter 7: Working with Numbers and Strings

- Understanding Number Forms and Notation
- Working with Strings (STRING and SCAN Commands)
- Combining Strings (Adjacent Variables, CONCAT and APPEND Commands)
- Using iRule String Parsing Functions (FINDSTR, GETFIELD, and SUBSTR Commands)

Chapter 8: Processing the HTTP Payload

- Reviewing HTTP Headers and Commands
- Accessing and Manipulating HTTP Headers (HTTP::header Commands)
- Other HTTP commands (HTTP::host, HTTP::status, HTTP::is_keepalive, HTTP::method, HTTP::version, HTTP::redirect, HTTP::respond, HTTP::uri)
- Parsing the HTTP URI (URI::path, URI::basename, URI::query)
- Parsing Cookies with HTTP::cookie
- Selectively Compressing HTTP Data (COMPRESS Command)

Chapter 9: Working with iFiles and Data Groups

- Working with iFiles

- Introducing Data Groups
- Working with Old Format Data Groups (MATCHCLASS, FINDCLASS)
- Working with New Format Data Groups (CLASS MATCH, CLASS SEARCH)

Chapter 10: Using iRules with Universal Persistence, Stream, and Statistics Profiles

- Implementing Universal Persistence (PERSIST UIE Command)
- Working with the Stream Profile (STREAM Command)
- Collecting Statistics Using a Statistics Profile (STATS Command)
- Collecting Statistics Using iStats (ISTATS Command)

Chapter 11: Incorporating Advanced Variables

- Reviewing the Local Variable Namespace
- Working with Arrays (ARRAY Command)
- Using Static and Global Variables
- Using the Session Table (TABLE Command)
- Processing Session Table Subtables
- Counting “Things” Using the Session Table

Skills You Will Learn:

After completing this course, you should be able to :

- Setting Up the BIG-IP System
- Getting Started with iRules
- Exploring iRule Elements
- Developing and Troubleshooting iRules
- Optimizing iRule Execution
- Securing Web Applications with iRules
- Working with Numbers and Strings
- Processing the HTTP Payload
- Working with iFiles and Data Groups
- Using iRules with Universal Persistence, Stream, and Statistics Profiles
- Incorporating Advanced Variables

Frequently Asked Questions

Q: What delivery options are available for Developing iRules for BIG-IP?

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
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Q: How many CPD hours does this course provide?

The 3-day Developing iRules for BIG-IP course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Developing iRules for BIG-IP training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Developing iRules for BIG-IP?

Yes, we provide corporate training, dedicated training, and closed classes for Developing iRules for BIG-IP. 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: Developing iRules for BIG-IP, F5 Networks, TRG-BIG-IRULE-CFG

Q: Why choose Nexus Human for Developing iRules for BIG-IP?

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 Developing iRules for BIG-IP training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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