

Table of Contents

| | |
|--|------------|
| Module 1: Course Overview | 1-1 |
| Course Overview | 1-1 |
| Lab - Installation and Setup | 1-3 |
| | |
| Module 2: The Problem Determination Process | 2-1 |
| Define the Problem | 2-1 |
| Identify Possible Causes | 2-2 |
| Define Hypotheses | 2-3 |
| Develop Plans, Resources, and Test | 2-4 |
| Lab - Troubleshooting Questions | 2-5 |
| | |
| Module 3: F5 Support | 3-1 |
| Support Overview | 3-1 |
| Ask F5 | 3-2 |
| DevCentral | 3-4 |
| BIG-IP iHealth | 3-5 |
| Support Cases | 3-11 |
| Software Version Policy | 3-13 |
| System Upgrades: Hotfixes, Releases | 3-15 |
| Lab - Install Maintenance Hotfix | 3-21 |
| Lab - iHealth Analysis Lab | 3-23 |
| EUD and RMA | 3-26 |
| References | 3-29 |
| | |
| Module 4: Product Architecture | 4-1 |
| Architecture Overview | 4-1 |
| SCCP/AOM Details | 4-2 |
| Lab - AOM Lab (Optional)..... | 4-5 |
| Switch Board | 4-6 |
| Host Subsystem | 4-7 |
| | |
| Module 5: Troubleshooting – Bottom to Top | 5-1 |
| Host Architecture | 5-1 |
| Layer 1 / 2 Tools | 5-2 |
| Layer 2 / 3 Tools | 5-5 |
| Layer 3 Tools | 5-6 |
| traceroute and tracepath | 5-12 |
| netstat | 5-14 |

| | |
|--|------------|
| telnet | 5-17 |
| bigtop | 5-18 |
| Lab - Lower Layer | 5-21 |
| top | 5-23 |
| watch | 5-28 |
| Additional tmsh commands | 5-31 |
| End-User Diagnostics | 5-33 |
| Lab – EUD (Optional) | 5-42 |
| References | 5-43 |
| Module 6: Troubleshooting Tools..... | 6-1 |
| tcpdump | 6-1 |
| Lab - tcpdump | 6-9 |
| Wireshark | 6-10 |
| Lab - Wireshark | 6-13 |
| Fiddler | 6-14 |
| Lab - Fiddler..... | 6-18 |
| Kdiff3 | 6-19 |
| ssldump | 6-20 |
| cURL..... | 6-21 |
| Lab - Capture and Analysis Tool Lab | 6-22 |
| Lab - cURL | 6-23 |
| Optional Lab – Kdiff3..... | 6-24 |
| References | 6-25 |
| Module 7: Logs & Notification..... | 7-1 |
| System Log Configuration | 7-1 |
| Log Files..... | 7-4 |
| Remote Syslog Notification | 7-8 |
| Lab - Remote System Log Server | 7-9 |
| The Alertd Process | 7-11 |
| LCD Notification..... | 7-14 |
| SNMP Notification..... | 7-15 |
| Lab - SNMP Trap..... | 7-19 |
| EMail Notification..... | 7-22 |
| References | 7-24 |
| Module 8: Troubleshooting Labs..... | 8-1 |
| Network Configurations for Projects | 8-1 |
| Project #1 | 8-3 |

| | |
|--|------------|
| Project #2 | 8-4 |
| Project #3 | 8-5 |
| Project #4 | 8-6 |
| Project #5 | 8-7 |
| Optional Project #6 | 8-8 |
| | |
| Appendix A - Installation..... | A-1 |
| Pre-Installation Information | A-1 |
| Installation Worksheet | A-4 |
| Installing BIG-IP LTM software | A-5 |
| | |
| Appendix B – New Features | B-1 |
| New Feature summary for Version 11.2.0 | B-1 |
| New Feature summary for Version 11.1.0 | B-6 |
| New Feature summary for Version 11.0.0 | B-10 |
| | |
| Appendix C – Detailed Configuration Steps for Configuration Lab | C-1 |
| Creating Pools | C-1 |
| Creating a Persistence Profile | C-2 |
| Creating Virtual Servers | C-3 |
| | |
| Printout of PowerPoint Slides | |

