DiffServ-Aware Traffic Engineering Workshop

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

Duration: 8.00 hours (1 days) **6.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

This one-day course covers the basics of the traffic engineering database as it relates to DiffServ-Aware TE. The DiffServ-Aware TE course covers the purpose and use of DiffServ-Aware TE, how to set up and configure DiffServ-Aware TE LSPs, and how to troubleshoot issues with DiffServ-Aware TE LSPs.

About This Course

Day 1

Chapter 1: COURSE INTRODUCTION

Chapter 2: Basic Operations of MPLS Traffic Engineering

- RSVP Behavior Without CSPF
- CSPF Algorithm
- CSPF Tie Breaking
- Administrative Groups
- Inter-Area Traffic Engineered LSPs
- Path Computation Element Protocol
- Corouted Bidirectional LSPs
- Proactive Loss and Delay Measurements Over Associated Bidirectional LSPs
- LAB 1: MPLS Traffic Engineering

Chapter 3: DiffServ-Aware TE Theory

- DiffServ-Aware TE Overview
- Class Types and TE Classes
- Bandwidth Constraints
- P2MP LSPs and DiffServ-Aware TE
- Traffic Protection and DiffServ-Aware TE

Chapter 4: DiffServ-Aware TE Implementation

- Configuring DiffServ-Aware TE
- Verifying and Monitoring DiffServ-Aware TE LSPs
- Multiclass DiffServ-Aware TE LSPs
- DiffServ-Aware TE Case Study
- LAB 2: Implementing DiffServ-Aware TE LSPs

Chapter 5: Troubleshooting DiffServ-Aware LSPs

- DiffServ-Aware LSP Troubleshooting Overview
- Troubleshooting CSPF-based LSPs
- Troubleshooting DiffServ-Aware LSP Setup
- Troubleshooting CoS for Existing DiffServ-Aware LSPs
- LAB 3: Troubleshooting DiffServ-Aware LSPs

Who Should Attend

This course benefits individuals responsible for configuring and troubleshooting issues with DiffServ-Aware TE LSPs

Prerequisites & Entry Requirements

General Prerequisites:

- Intermediate-level networking knowledge.
- Understanding of the Open Systems Interconnection (OSI) model and the TCP/IP protocol suite.

Learning Outcomes

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

- Describe the path selection process of RSVP LSPs signaled without the use of Constrained Shortest Path First (CSPF).
- Describe the IGP extensions needed to build and maintain the Traffic Engineering Database (TED).
- Explain how the CSPF algorithm selects the best path based on provided constraints.
- Explain how administrative groups can be used to influence path selection.
- Explain the behavior of inter-area traffic engineered LSPs.
- Describe the purpose, features, and operations of DiffServ-Aware TE.
- Explain the differences between DiffServ-Aware TE LSPs and standard LSPs.
- Explain the purpose of class types and TE classes.
- Describe the MAM and Russian doll bandwidth constraint models.
- Explain the purpose of multiclass DiffServ-Aware TE LSPs.
- Explain DiffServ-Aware TE LSP oversubscription.
- Describe how to configure DiffServ-Aware TE LSPs.
- Explain how to forward traffic into DiffServ-Aware TE LSPs.
- Explain how to provide traffic protection for DiffServ-Aware TE LSPs.
- Describe how to configure automatic bandwidth adjustments for DiffServ-Aware TE LSPs.
- Explain how to verify and monitor DiffServ-Aware TE LSPs.
- Describe DiffServ-Aware LSP troubleshooting.
- Explain how to troubleshoot CSFP issues.
- Explain how to troubleshoot DiffServ-Aware TE issues.
- Explain how to troubleshoot CoS for existing DiffServ-Aware LSPs.

Skills You Will Learn:

- Describe the path selection process of RSVP LSPs signaled without the use of Constrained Shortest Path First (CSPF).
- Describe the IGP extensions needed to build and maintain the Traffic Engineering Database (TED).
- Explain how the CSPF algorithm selects the best path based on provided constraints.
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- Describe DiffServ-Aware LSP troubleshooting.
- Explain how to troubleshoot CSFP issues.
- Explain how to troubleshoot DiffServ-Aware TE issues.
- Explain how to troubleshoot CoS for existing DiffServ-Aware LSPs.

Frequently Asked Questions

Q: What delivery options are available for DiffServ-Aware Traffic Engineering Workshop?

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

Q: How many CPD hours does this course provide?

The 1-day DiffServ-Aware Traffic Engineering Workshop course provides up to 6.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the DiffServ-Aware Traffic Engineering Workshop training?

The training takes place over 1 day(s), with each day lasting approximately 8.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for DiffServ-Aware Traffic Engineering Workshop?

Yes, we provide corporate training, dedicated training, and closed classes for DiffServ-Aware Traffic Engineering Workshop. 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: DiffServ-Aware Traffic Engineering Workshop, Service Provider Routing and Switching, DSTE

Q: Why choose Nexus Human for DiffServ-Aware Traffic Engineering Workshop?

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 DiffServ-Aware Traffic Engineering Workshop training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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