DiffServ-Aware Traffic Engineering Workshop (DSTE)

ID DSTE **Price** US $ 1,000.—(excl. VAT) **Duration** 1 days

Who should attend

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

Prerequisites

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

Course Objectives

- 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.

Course Content

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

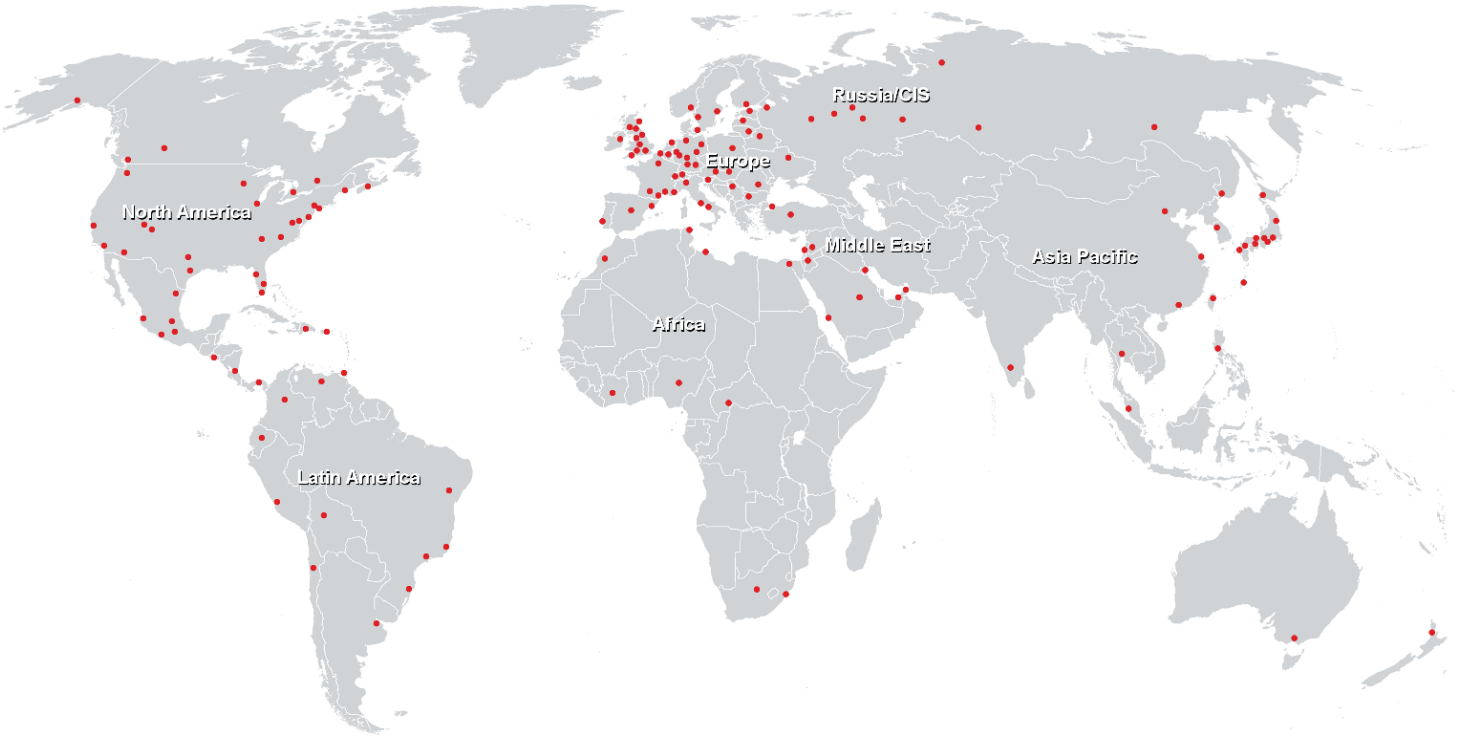
- Configuring DiffServ-Aware TE
- Verifying and Monitoring DiffServ-Aware TE LSPs
- Multiclass DiffServ-Aware TE LSPs
- DiffServ-Aware TE Case Study
- LAB 2: Implementing DiffServ-Aware TE LSPs

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

DiffServ-Aware Traffic Engineering Workshop (DSTE)

Training Centres worldwide





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