

# DMTXR (DEPLOY, MAINTAIN, AND TROUBLESHOOT CISCO IOS XR SOFTWARE) 3.0

## Objetivo

The Cisco® Advanced Services Deploy, Maintain, and Troubleshoot Cisco IOS® XR Software (DMTXR) Version 3.0 instructor-led course offered by Cisco High-Touch Delivery Learning Services provides you with the advanced knowledge and skill sets required to successfully deploy, maintain, and troubleshoot Cisco IOS XR Software in a typical network environment. You will learn the fundamental concepts on which the operating system is based to understand how to troubleshoot problems relating to process failures, frozen processes, high CPU and memory consumption, and interprocess communication (IPC). You will learn to interpret log messages and configure exception reporting and logging. Emergency recovery procedures for operating system recovery, Cisco CRS-1 system recovery, Cisco XR 12000 Series Router system recovery, and Cisco IOS XR Software configuration and password recovery are covered. In addition, you will use system commands to monitor interfaces, controllers, and application-specific integrated circuits (ASICs) while troubleshooting traffic flow issues through both the Cisco CRS-1 Carrier Router and the XR 12000 Series Routers. This course combines lecture materials and hands-on labs throughout to make sure that you are able to successfully deploy, maintain, and troubleshoot Cisco IOS XR Software on the Cisco CRS-1 Carrier Router and XR 12000 Series Routers in your network. After completing this course, you should be able to:

- Describe the function of the system database and configuration manager
- Configure and monitor a Terminal Access Controller Access Control System+ (TACACS+) Authentication Authorization and Accounting (AAA) configuration on Cisco IOS XR Software
- Explain the architecture of the Cisco IOS XR Software operating system and the commands to monitor its operation
- Describe processes in Cisco IOS XR Software and the commands used to monitor process lifecycles
- Identify and explain the methods and mechanics of IPC
- Implement Network Time Protocol (NTP) in a Cisco IOS XR Software routed network
- Explain how to interpret logging messages and configure exception reporting and logging
- Use show commands to troubleshoot traffic flow issues in a Cisco IOS XR Software router
- Use show commands to trace packet flow through the Cisco CRS-1 line card and switching fabric to isolate and resolve fault conditions
- Describe emergency recovery procedures to perform operating system, system configuration, and password recovery on Cisco IOS XR Software routers
- Use show commands to trace packet flow through the Cisco XR 12000 line card and switching fabric to isolate and resolve fault conditions

## Público Alvo

- System engineers
- Technical support personnel
- Channel partners and resellers

## Pré-Requisitos

- Completion of the Cisco CRS-1 or CRS-3 Essentials course, or Cisco XR 12000 Series Essentials, Cisco ASR 9000 Essentials, or Cisco IOS XR Software Fundamentals
- Fundamental knowledge of Cisco IOS XR Software configuration and operation
- Experience maintaining and troubleshooting Cisco IOS XR Software routers in a service provider or enterprise production environment

## Carga Horária

40 horas (5 dias).

## Conteúdo Programático

- Module 1: Configuration Management
  - Module 2: AAA Security
  - Module 3: Monitoring the Cisco IOS XR Operating System
  - Module 4: Monitoring Processes
  - Module 5: Interprocess Communication
  - Module 6: Network Time Synchronization
  - Module 7: Error Messages and Core Dumps
  - Module 8: Cisco IOS XR Packet Forwarding
  - Module 9: Cisco IOS XR Local Packet Transport Services
  - Module 10: Cisco IOS XR Management Plane Protection
  - Module 11: Troubleshooting Cisco CRS Traffic Flow
  - Module 12: Cisco IOS XR Emergency Recovery
  - Module 13: Troubleshooting Cisco XR 12000 Traffic Flow
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- Lab 1: Setting Up the Initial Configuration
  - Lab 2: Configuration Management
  - Lab 3: Configuring AAA Security
  - Lab 4: System Monitoring
  - Lab 5: Monitoring Processes
  - Lab 6: Network Time Synchronization
  - Lab 7: Error Messages and Core Dumps
  - Lab 8: Troubleshooting Packet Forwarding
  - Lab 9: Troubleshoot Local Packet Transport Services
  - Lab 10: Configuring Management Plane Protection
  - Lab 11: Troubleshooting Cisco CRS Traffic Flow
  - Lab 12: Cisco IOS XR Emergency Recovery Procedures
  - Lab 13: Troubleshooting Cisco XR 12000 Traffic Flow