Troubleshooting Windows Server 2016 Core Technologies (10991)

- **Formato do curso:** Presencial e Live Training
- **Localidade:** Lisboa
- **Data:** 20 Abr. 2020 a 04 Mai. 2020
- **Preço:** 1730€
- **Horário:** Pós-laboral - 18h30 - 22h00
- **Duração:** 35 horas

This course covers a wide variety of troubleshooting scenarios that a network administrator might encounter in their work. A high percentage of this course is labs that require students to identify problems and implement a solution that might include multiple technologies.

Students will learn about common errors and resolutions related to Windows Server core technologies including: Active Directory Domain Services (AD DS), storage, certificates, Microsoft Hyper-V, load balancing, and failover clustering. Authentication to Office 365 is also covered.

Some advanced services such as Microsoft Azure integration, containers, advanced security features such as shielded virtual machines etc., and Linux Integration and support are not covered.

Destinatários

This course is intended for IT professionals who are experienced Windows Server administrators and want to expand their troubleshooting skills. Students should be experienced with day-to-day administration of Windows Server. These students may or may not have Windows Server 2016–specific training.

Pré-requisitos

In addition to their professional experience, students who attend this training should already have the following technical knowledge:

- Networking fundamentals, including IPv4 and Domain Name System (DNS)
- Principles and management of AD DS
- Basic understanding of public key infrastructure (PKI)
- Windows PowerShell basics

- Hyper-V
- Load balancing
- Failover clustering

Students who attend this training can meet the prerequisites by attending the following courses, or obtaining equivalent knowledge and skills:

- [20740: Installation, Storage, and Compute with Windows Server 2016](#)
- [20741: Networking with Windows Server 2016](#)
- [20742: Identity with Windows Server 2016](#)

Objectivos

After completing this course students will be able to:

- Understand the common steps in the troubleshooting process, and the commonly used troubleshooting tools. Utilize remote administration tools and how to troubleshoot Windows PowerShell commands and script.
- Troubleshoot network connectivity issues by using Windows Server 2016 tools.
- Troubleshoot network connectivity issues by using Microsoft Message Analyzer. Troubleshoot IPv4 and IPv6 settings, network communication, the configuration of DHCP and client name resolution.
- Troubleshoot authentication issues, including user and computer authentication issues and AD DS replication issues.
- Troubleshoot authentication to Office 365.
- Troubleshoot issues related to application access.
- Troubleshoot issues related to accessing web-based applications.
- Troubleshoot issues related to file access.
- Manage and troubleshoot BitLocker.
- Troubleshoot issues related to server storage.
- Troubleshoot and optimize DFS namespaces and replication.
- Troubleshoot advanced file services.
- Troubleshoot issues related to Group Policy.
- Troubleshoot a Group Policy application.
- Troubleshoot issues related to AD DS.
- Explain control management of AD DS objects and how to backup and restore AD DS objects.
- Troubleshoot issues related to domain controllers and trust relationships between domains and forests.
- Troubleshoot remote access to data and apps.
- Describe remote access options for apps, and how to troubleshoot Remote Desktop Services.
- Troubleshoot issues related to virtualization.
- Troubleshoot high availability.
- Troubleshoot failover clustering and Hyper-V clustering.

Programa

Implement a troubleshooting methodology

This module describes the common steps in the troubleshooting process, and the commonly used troubleshooting tools. This module also describes how to use remote administration tools and how to troubleshoot Windows PowerShell commands and scripts.

Lessons

- Overview of the troubleshooting process
- Overview of troubleshooting tools
- Use remote administration tools
- Troubleshoot Windows PowerShell commands and scripts

Lab : Implement a troubleshooting methodology

- Implement a troubleshooting methodology

Lab : Use troubleshooting tools

- Use troubleshooting tools

Lab : Troubleshoot a remote server computer

- Use remote tools to administer a remote server

Lab : Troubleshoot a script

- Troubleshoot a script

Troubleshoot network connectivity

This module explains how to troubleshoot network connectivity issues by using Windows Server 2016 tools. This module describes using Microsoft Message Analyzer to troubleshoot network connectivity issues. This module also describes how to troubleshoot IPv4 and IPv6 settings, network communication, the configuration of DHCP and client name resolution.

Lessons

- Troubleshooting with Message Analyzer
- Troubleshooting IP settings
- Troubleshoot network connectivity
- Troubleshooting DHCP
- Troubleshooting client name resolution

Lab : Resolve network connectivity issues

- Resolve a network problem

Lab : Troubleshoot DHCP

- Resolve DHCP issues
- Install and configure the DHCP server role
- Configure DHCP failover

Lab : Resolve name resolution issues

- Resolve a name resolution issue (1)
- Resolve a name resolution issue (2)

Troubleshoot authentication issues

This module describes how to troubleshoot authentication issues, including user and computer authentication issues and AD DS replication issues. This module also describes troubleshooting authentication to Office 365.**Lessons**

- Troubleshoot user and computer account authentication
- Troubleshoot AD DS replication issues
- Troubleshoot authentication to Office 365

Lab : Resolve sign-in problems

- Resolve a sign-in problem (1)
- Resolve a sign-in problem (2)

Lab : Resolve sign-in problems at branch offices

- Resolve sign-in problems at branch offices

Troubleshoot application access issues

This module explains how to troubleshoot issues related to application access including issues related to accessing traditional Windows Server apps and issues with certificates that are used for application access. This module also describes how to troubleshoot issues related to accessing web-based applications.

Lessons

- Troubleshooting access to Windows Server apps
- Troubleshooting issues with certificates
- Troubleshooting access to web-based apps

Lab : Troubleshoot application access issues

- Troubleshoot application startup
- Troubleshoot application security warnings
- Troubleshoot application authentication

Troubleshoot file access issues

This module describes how to troubleshoot issues related to file access, including access to files and shared folders. This module also describes how to manage and troubleshoot BitLocker.**Lessons**

- Troubleshooting access to files and folders
- Manage and troubleshoot BitLocker

Lab : Troubleshooting file access

- Troubleshoot file access (1)
- Troubleshoot file access (2)

Lab : Test BitLocker on a Windows 2016 Server

- Test BitLocker on Windows Server 2016

Troubleshoot storage issues

This module describes how to troubleshoot issues related to server storage. This module also describes how to troubleshoot and optimize DFS namespaces and replication. Additionally, this module describes how to troubleshoot advanced file services.

Lessons

- Troubleshooting server storage issues
- Troubleshoot DFS
- Troubleshoot advanced file services

Lab : Troubleshooting server storage issues

- Repair data redundancy
- Troubleshoot file replication
- Troubleshoot Dynamic Access Control

Troubleshoot Group Policy

This module explains how to troubleshoot issues related to Group Policy, including how group policies are processed. This module also describes how to troubleshoot Group Policy application.**Lessons**

- Group Policy overview
- Troubleshoot Group Policy application

Lab : Troubleshooting GPO application

- Troubleshoot GPOs (1)
- Troubleshoot GPOs (2)
- Troubleshoot GPOs (3)

Troubleshooting AD DS

This module describes how to troubleshoot issues related to AD DS, including the tools used for AD DS

administration. This module also describes control management of AD DS objects and how to backup and restore AD DS objects. Additionally, this module explains how to troubleshoot issues related to domain controllers and trust relationships between domains and forests.

Lessons

- Overview of AD DS administration tools
- Control AD DS administration
- Backup and restore AD DS objects
- Troubleshoot issues related to domain controllers
- Troubleshoot AD DS trusts

Lab : Deploy LAPS

- Troubleshoot local administrator password configuration
- Install and configure LAPS
- Deploy and test LAPS

Lab : Recover AD DS objects

- Recover missing user accounts

Lab : Resolve common AD DS problems

- Restore the Toronto AD DS site
- Restore the TOR-DC1 and FSMO roles
- Restore the Adatum Contoso forest trust

Troubleshoot remote access to data and apps

This module describes how to troubleshoot remote access to data and apps, including VPN connectivity. This module describes remote access options for apps, and how to troubleshoot Remote Desktop Services.

Lessons

- Troubleshoot VPN connectivity
- Overview of remote access for apps
- Troubleshoot Remote Desktop Services

Lab : Troubleshoot remote access to data and apps

- Resolve common remote access problems
- Troubleshoot VPN connectivity
- Troubleshoot access to a RemoteApp program

Troubleshoot visualization issues

This module describes how to troubleshoot issues related to virtualization, including the issues that need to be considered when configuring virtual machines and virtual machine resources.

Lessons

- Issues with VM configuration
- Troubleshoot VM resources

Lab : Troubleshooting Hyper-V

- Troubleshoot replication
- Troubleshoot PowerShell Direct access
- Troubleshoot Hyper-V networking
- Troubleshoot Hyper-V VM storage
- Troubleshoot VM startup

Troubleshooting high availability

This module explains how to troubleshoot high availability, including load balancing methods and the considerations for implementing them. This module also describes how to troubleshoot failover clustering and Hyper-V clustering.

Lessons

- Considerations for implementing load balancing
- Troubleshooting failover clustering
- Troubleshooting Hyper-V clusters

Lab : Troubleshooting high availability

- Troubleshooting high availability for a virtual machine
- Troubleshooting storage for high availability
- Troubleshooting a failover cluster