

Course : Windows 2016, what's new for administrators

Practical course - 3d - 21h00 - Ref. OWN

Price : 2100 CHF E.T.

Windows Server 2016 offers new features for improved security management and greater operating reliability. This training course will enable you to discover the new environment, learn how to implement it and evaluate its behavior.

Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Installing, configuring and setting up a server with Windows Server 2016
- ✓ Perform administration tasks via new interfaces and PowerShell
- ✓ Implementing architecture security
- ✓ Monitoring resources with graphical tools and PowerShell

Intended audience

Systems and network technicians, administrators and engineers.

Prerequisites

Good knowledge of Windows 2012 or 2008 server administration and Active Directory. Experience in system administration desirable.

Course schedule

1 Installing Windows 2016

- Positioning of the various 2016 versions (Gui, Core, Nano).
- Overview of new features (Windows Defender, Windows Container).
- New features in the Windows 2016 Server interface (notification center, Start menu).
- Installation in CoreServer mode.
- Installation in NanoServer mode, dedicated Wim.
- Setting up roles and functionalities with the dashboard.
- Roles in local or remote sessions.

Hands-on work

Installing NanoServer mode. Installing roles in local or remote sessions.

PARTICIPANTS

Systems and network technicians, administrators and engineers.

PREREQUISITES

Good knowledge of Windows 2012 or 2008 server administration and Active Directory. Experience in system administration desirable.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more. Participants also complete a placement test before and after the course to measure the skills they've developed.

2 Local and remote administration

- Manage all servers via the graphical server manager.
- Adding packages and managing roles.
- Role administration and functionalities managed by NanoServeur.
- Network and firewall configuration (Nano Server Recovery console).
- Perform administration tasks with CorePowerShell.
- Remote role installation.

Hands-on work

Implement server group management. Install roles remotely. Manage server with PowerShell.

3 Infrastructure and networks

- DHCP, DHCP FailOver, DNS and DNSSecure.
- IPv4 and IPv6 servers and protocols.
- New Direct Access products (VNP).
- IP address manager (IPAM).
- Creating DNS zones and records with PowerShell.
- Optimize bandwidth with NIC Teaming.
- BranchCache mode: in distributed or hosted mode.

Hands-on work

Install a DHCP failover. Create zones and DNS records with PowerShell.

4 Disks, shares and file systems

- The new ReFS (Resilient File System) file system.
- File system availability.
- Unified remote management for file services and storage pools.
- Configure storage spaces in Windows Server 2016.
- Overview of dynamic access control (DAC).
- Data governance (Dynamic Access Control): configuration and planning.
- Dynamic disk space.
- Windows Defender malware protection.
- File and folder security.
- The BitLocker system, securing partitions with Bitlocker, TPM.

Hands-on work

Setting up dynamic access control (DAC) and ReFS. Disk troubleshooting.

TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

5 Active Directory

- Installation prerequisites.
- Active Directory installation on physical and virtual servers.
- New object management interfaces.
- Active Directory Administration Center (ADAC).
- Advanced audit functions.
- Object management, creation of groups, users and Organization Units.
- Active Directory recycle garbage can management.
- Create objects with PowerShell and the graphical interface, automate administration with PowerShell.
- Local accounts and groups, user profiles.

Hands-on work

Configure Active Directory. Create groups, users and Organization Units. Manage objects with the new interface. Use AD queries.

6 Troubleshooting and optimization

- The new server management monitors.
- Windows 2016 Server startup methods.
- Recovery tools.
- System backups and restores.
- PowerShell scripts to manage and troubleshoot the server.
- Network access optimization and BranchCache mode.

Hands-on work

Use BCDEDIT, recovery tools and PowerShell scripts to manage and troubleshoot the server.

7 Virtualization

- The basic concepts of virtualization.
- Windows 2016 Server operation with the hypervisor.
- Windows and Hyper-V Container.
- The Docker framework and Windows Server containers.
- Hyper-V in Hyper-V.
- Creation of virtual machines (VMs), switches and other hardware components.
- VM and snapshot management. VHDX format.
- Live Storage Migration (hot moving a VM without a cluster).
- Interaction between PowerShell and Hyper-V.

Hands-on work

Creating snapshots, virtual machine, installing Windows Server 2016 on Hyper-V. Using Live Storage Migration.