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Sign up

Certified Azure Red Team Expert training (CARTE)

ALL-IN-ONE: EXAM INCLUDED IN PRICE

5 days (35 hours)

Overview

Certified Azure Red Team Expert (CARTE) is an intensive 5-day training course for professionals wishing to master offensive and defensive security tactics in a Microsoft Azure environment.

It immerses you in realistic attack/defense scenarios, covering reconnaissance, initial access, escalation, persistence, exfiltration and bypassing defenses.

Thanks to a comprehensive multi-tenant lab, you'll learn how to exploit vulnerabilities, implement Red Team techniques and propose precise mitigation measures.

By the end of the course, you'll be able to simulate complex attacks, detect indicators of compromise and write a comprehensive report for technical and business stakeholders.

As with all our training courses, this one will introduce you to the latest update of Azure Red Team Expert.

Objectives

- Simulate and counter Azure Red Team techniques
- Execute multi-vector attacks in a secure lab
- Detect and analyze advanced compromises
- Produce an attack report with recommendations

Target audience

- Cloud / Platform architects
- DevOps engineers working on Azure
- DevSecOps professionals

Prerequisites

- Knowledge of Azure / Entra ID security concepts
- Practical experience of Azure administration and CLI scripting
- Aptitude for advanced offensive/defensive labs

Training program: Hyper-V Core Virtualization

Installing and configuring Hyper-V Core

- Introduction to Hyper-V and its use cases
- Architecture and differences between Hyper-V Core and Hyper-V on Windows Server
- Hardware requirements and system compatibility
- Step-by-step installation of Hyper-V Core Server
- Initial configuration via sconfig and remote tools
- Workshop: Complete installation of Hyper-V Core on a physical or virtual machine

Creating and managing virtual machines

- VM creation via PowerShell and remote Hyper-V Manager
- Resource settings: CPU, dynamic RAM, virtual disks
- Manage checkpoints
- Deploy a standardized VM template
- Basic network configuration (vSwitch, NAT, external/internal)
- Workshop: Deploying and configuring several VMs with simulated internal network

Storage and advanced network virtualization

- Virtual disk types (VHD/VHDX, differential, fixed, dynamic)
- Use of shared storage and redundancy strategies
- Advanced virtual switch configuration
- Network isolation, VLANs, teaming and QoS
- Integration with third-party storage solutions (SAN, NAS)
- Workshop: Creating a complete virtual infrastructure with shared storage

Security, backup and high availability

- Security best practices for Hyper-V
- Managing permissions and resource isolation
- Backing up and restoring VMs with Windows Admin Center and PowerShell

- High availability options: clustering, Live Migration
- Hyper-V replication and manual failover
- Workshop: Setting up a VM replication scenario

Administration and automation

- Using Hyper-V PowerShell for day-to-day administration
- Performance monitoring with PerfMon and Event Viewer
- Automation scripts for common tasks
- Integration into an enterprise environment: Active Directory, WSUS, etc.
- Task scheduling and VM lifecycle management
- Workshop: Creating an audit and optimization script for a Hyper-V host

Optimization and best practices

- Performance diagnostics: CPU, memory, disk I/O
- Resource optimization strategies on physical hosts
- Enterprise usage scenarios: Dev/Test, sandbox, production
- Security and sustainability recommendations
- Resolution of common Hyper-V Core failures
- Workshop: Complete audit and optimization plan for an existing Hyper-V host

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced IT technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the forthcoming course, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Certification

A certificate will be awarded to each trainee who has completed the entire course.