



COURSE OUTLINE

Course Name: Certified Security Expert R81.10

DURATION	SKILL LEVEL	DELIVERY METHOD	TRAINING CREDITS	TECHNOLOGY
3 Day(s)	Advanced	In Class/ VITL	Check Point Learning Credits (CLC)	Check Point

Course Overview

Advanced three-day course teaches how to build, modify, deploy and troubleshoot Check Point Security Systems on the GAiA operating system. Hands-on lab exercises teach how to debug firewall processes, optimize VPN performance and upgrade Management Servers.

The Check Point Cyber Security

Engineering course is an advanced 3-day course that teaches how to build, modify, deploy and troubleshoot Check Point Security systems. This course validates your understanding and skills necessary to configure and optimally manage Check Point Next Generation Firewalls.

Prerequisite

Working knowledge of Windows, UNIX, networking technology, the Internet and TCP/IP.

Audience

Working knowledge of Windows, UNIX, networking technology, the Internet and TCP/IP.

At Course Completion

- Provide an overview of the upgrade service and options available.
 - Explain how to perform management upgrade and migration.
 - Articulate the process using CPUSE features.
 - Articulate the purpose and function of Management High Availability.
 - Explain Primary vs Secondary, Active vs Standby and Synchronization.
 - Explain disaster recovery steps in case the primary management server becomes unavailable.
 - Provide overview of Central Deployment in SmartConsole.
 - Articulate an understanding of Security Gateway cluster upgrade methods.
 - Explain about Multi Version Cluster (MVC) upgrades.
 - Discuss Gaia Commands and how they are used.
 - Explain the main processes on Security Management Servers and Security Gateways.
 - Describe how to work with scripts and SmartTasks to configure automatic actions.
 - Explain the Management Data Plane Separation (MDPS)
 - Explain kernel operations and traffic flow
 - Articulate Dynamic and Updatable Objects in Security Gateways
 - Explain the policy installation flow and files used.
 - Describe the use of policy installation history.
 - Explain concurrent and accelerated install policy.
 - Describe an overview of APIs and ways to use and authenticate.
 - Explain how to make changes in GAIA and management configuration.
 - Explain how to install policy using API.
 - Explain how the SecureXL acceleration technology enhances and optimizes Security Gateway performance.
 - Describe how the CoreXL acceleration technology enhances and improves Security Gateway performance.
 - Articulate how utilizing multiple traffic queues can make traffic handling more efficient.
 - Discuss Site-to-Site VPN basics, deployment and communities.
 - Describe how to analyze and interpret VPN tunnel traffic.
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- Explain Link Selection and ISP Redundancy options.
 - Explain tunnel management features.
 - Discuss Check Point Remote Access solutions and how they differ from each other.
 - Describe how client security can be provided by Remote Access .
 - Explain authentication methods including machine authentication.
 - Explain Multiple Entry Point (MEP).
 - Discuss the Mobile Access Software Blade and how it secures communication and data exchange during remote connections.
 - Describe Mobile Access deployment options.
 - Discuss various features in Mobile Access like Portals, Link Translation, running Native Applications, Reverse Proxy and more.
 - Explain basic concepts of Clustering and ClusterXL.
 - Explain about Cluster Control Protocol (CCP) and synchronization.
 - Describe advanced ClusterXL functions and modes like Load Sharing, Active-Active, VMAC mode etc.
 - Discuss Cluster Correction Layer (CCL) to provide connection stickyness.
 - Advanced Logs and Monitoring
 - Explain how to determine if the configuration is compliant with the best practices.
 - Explain how to set action items to meet the compliance.
 - Discuss how SmartEvent functions to identify critical security issues.
 - Describe the components of SmartEvent and their deployment options.
 - Discuss how SmartEvent can assist in reporting security threats.
 - Explain how to customize event definitions and set an Event Policy.
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Topics

Management Upgrade and Migration

Management High Availability

Security Gateway Upgrades

Advanced Check Point Maintenance

Security Gateway Operations

Policy Installation

Gaia and Management APIs

Acceleration

Site-to-Site VPN

Remote Access VPN

Mobile Access VPN

Clustering

Advanced Logs and Monitoring

Exams and Certifications

Notes and Annotations

[What is Next](#)
