

# Check Point Security Engineering R77

## Learn to troubleshoot Check Point security systems

Check Point Security Engineering is an advanced 3-day course that teaches how to effectively build, modify, deploy and troubleshoot Check Point Security systems on the Gaia OS. We will study firewall processes and take a close look at user and kernel processing and Stateful Inspection. Labs include configuring security gateways, implementing VPNs, and performing advanced troubleshooting tasks on the firewall.

### WHO SHOULD ATTEND?

This course is designed for expert users and resellers who need to perform advanced deployment configurations of a security gateway. This could include the following:

- System Administrators
- Support Analysts
- Network Engineers
- Anyone seeking CCSE certification

### PREREQUISITES

Successful completion of this course depends on knowledge of multiple disciplines related to network-security activities including UNIX and Windows operating systems, Certificate management, system administration, networking (TCP/IP) knowledge, and Check Point Security Administration course/CCSA Certification.

### COURSE TOPICS

- Advanced and in-depth explanation of Check Point firewall technology
- Key tips and techniques for troubleshooting Check Point firewall technology
- Advanced upgrading concepts and practices
- Clustering firewall, management concepts and practices
- Software acceleration features
- Advanced VPN concepts and implementations
- Reporting tools, deployment options and features

### COURSE OBJECTIVES INCLUDE

- Perform a backup of a Security Gateway and Management Server using your understanding of the differences between backups, snapshots and update-exports

- Upgrade and troubleshoot a Management Server using a database migration
- Upgrade and troubleshoot a clustered Security Gateway deployment
- Use knowledge of Security Gateway infrastructures, chain modules, packet flow and kernel tables to perform debugs on firewall processes
- Build, test and troubleshoot a ClusterXL Load Sharing deployment on an enterprise network
- Build, test and troubleshoot a ClusterXL High Availability deployment on an enterprise network
- Build, test and troubleshoot a management HA deployment on an enterprise network
- Configure, maintain and troubleshoot SecureXL and CoreXL acceleration solutions on the corporate network traffic to ensure noted performance enhancement
- Using an external user database such as LDAP, configure User Directory to incorporate user information for authentication services on the network
- Manage internal and external user access to resources for Remote Access or across a VPN
- Troubleshoot user access issues found when implementing Identity Awareness
- Troubleshoot a site-to-site or certificate-based VPN on a corporate gateway using IKE View, VPN log files and command-line debug tools
- Optimize VPN performance and availability by using Link Selection and Multiple Entry Point solutions
- Manage and test corporate VPN tunnels to allow for greater monitoring and scalability with multiple tunnels defined in a community including other VPN providers
- Create events or use existing event definitions to generate reports on specific network traffic using SmartReporter and SmartEvent to provide industry compliance information to management
- Troubleshoot report generation given command-line tools and debug-file information

### LAB EXERCISES INCLUDE

- Upgrade to Check Point R77
- Core CLI elements of firewall administration
- Migrate to a clustering solution
- Configure SmartDashboard to interface with Active Directory
- Configure site-to-site VPNs with third-party certificates
- Remote access with Endpoint Security VPN
- SmartEvent and SmartReporter

### CERTIFICATION INFORMATION

This course helps prepare for CCSE exam #156-315.77 available at VUE test centers [www.vue.com/checkpoint](http://www.vue.com/checkpoint). It contains 90 multiple-choice, scenario-based questions. A passing score is 70% or higher in 120 minutes. The exam is based on 80% course materials and 20% hands-on experience with Check Point products. Students must have a valid CCSA certification before challenging the CCSE exam.