



## TRAINING OFFERING

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# Check Point Certified Security Expert (CCSE) R81.20 & Troubleshooting Expert (CCTE) R81.10 Bundle (includes 180 days' lab access)

CODE:	LENGTH:	PRICE:
CKT_CPSECCTE_R81.X	40 Hours (5 days)	£2,995.00

## Description

This bundle course covers the following two Check Point training courses:

- Check Point Certified Security Expert (CCSE) R81.20 (3 days)
- Check Point Certified Troubleshooting Expert (CCTE) R81.10 (2 days)

The CCSE R81.20 part of the course covers the fundamentals needed to deploy, configure, and manage daily operations of Check Point Security Gateways and Management Software Blades that run on the Gaia operating system.

The CCTE R81.10 part of the course provides advanced troubleshooting skills to investigate and resolve more complex issues that may occur while managing your Check Point security environment.

## Objectives

### CCSE R81.20

- Identify basic interfaces used to manage the Check Point environment.
- Identify the types of technologies that Check Point supports for automation.
- Explain the purpose of the Check Management High Availability (HA) deployment.
- Identify the workflow followed to deploy a Primary and solution Secondary servers.
- Explain the basic concepts of Clustering and ClusterXL, including protocols, synchronization, connection stickyness.
- Identify how to exclude services from synchronizing or delaying synchronization.
- Explain the policy installation flow.
- Explain the purpose of dynamic objects, updatable objects, and network feeds.
- Understand how to manage user access for internal and external users.
- Describe the Identity Awareness components and configurations.
- Describe different Check Point Threat Prevention solutions.
- Articulate how the Intrusion Prevention System is configured.
- Obtain knowledge about Check Point's IoT Protect.

- Explain the purpose of Domain-based VPNs.
- Describe situations where externally managed certificate authentication is used.
- Describe how client security can be provided by Remote Access.
- Discuss the Mobile Access Software Blade.
- Explain how to determine if the configuration is compliant with the best practices.
- Define performance tuning solutions and basic configuration workflow.
- Identify supported upgrade and migration methods and procedures for Security Management Servers and dedicated Log and SmartEvent Servers.
- Identify supported upgrade methods and procedures for Security Gateways.

#### CCTE R81.10

- Demonstrate understanding how to use advanced troubleshooting tools and techniques including: Interpreting diagnostic data with CPInfo, Collecting and reading statistical data using CPView, and Advanced troubleshooting risks.
- Describe the use of Logs and SmartEvent in troubleshooting.
- Describe the log indexing system and issues that can occur.
- Discuss methods to troubleshoot log indexing in SmartLog and SmartEvent.
- Explain the databases used in Security Management operations.
- Identify common troubleshooting database issues.
- Discuss Management Processes.
- Demonstrate understanding of advance troubleshooting tools and techniques including:
  - How the kernel handles traffic,
  - How to troubleshoot issues using chain modules,
  - How to use the two main procedures for debugging the Firewall kernel, and
  - How the two main procedures for debugging the Firewall kernel differ.
- Demonstrate understanding of user mode debugging, including collecting and interpreting process debugs.
- Debug user mode processes.
- Discuss advanced Identity awareness troubleshooting.
- Learn to run debugs on Identity Awareness.
- Explain Unified Access Control flow and processes.
- Explain Access Control kernel debugs.
- Describe Access Control process debugs.
- Explain basic and advanced Site-to-Site VPN troubleshooting tools and techniques, including:
  - Packet captures, IKE debugs, and VPN process debugs.

- Explain Client-to-Site VPN troubleshooting tools and techniques, including:
  - Remote access troubleshooting and Mobile access troubleshooting.

## **Audience**

- Technical Professionals who architect, upgrade, maintain, and support Check Point products.
- Security experts and Check Point resellers who desire to obtain the necessary knowledge required to perform more advanced troubleshooting skills while managing their security environments.

## **Prerequisites**

- Working knowledge of UNIX and/or Windows operating systems,
- Working knowledge of Networking,
- TCP/IP, z,
- CCSE training/certification, Advanced knowledge of Check Point Security Products.

## **Programme**

Topics: CCSE R81.20

- Advanced Deployments
- Management High Availability
- Advanced Gateway Deployment
- Advanced Policy Configuration
- Advanced User Access Management
- Custom Threat Protection
- Advanced Site-to-Site VPN
- Remote Access VPN
- Mobile Access VPN
- Advanced Security Monitoring
- Performance Tuning
- Advanced Security Maintenance

CCTE R81.10

- Advanced Troubleshooting Techniques

- Advanced Logs and and Monitoring
- Management Database and Processes
- Advanced Kernel Debugging
- User Mode Troubleshooting
- Advanced Identity Awareness Troubleshooting
- Advanced Access Control
- Site-to-Site VPN Troubleshooting
- Client-to-Site VPN Troubleshooting

## Follow on courses

Attend two [Infinity Specialization](#) courses and pass their exams to automatically become a Check Point Certified Security Master (CCSM). Attend four [Infinity Specialization](#) courses and pass their exams to automatically become a Check Point Certified Security Master Elite (CCSM Elite).

- Check Point Certified Endpoint Specialist (CCES)
- Check Point Certified Troubleshooting Administrator (CCTA)
- Check Point Certified Automation Specialist (CCAS)
- Check Point Certified Cloud Specialist (CCCS)
- Check Point Certified MDSM Specialist (CCMS)
- Check Point Certified VSX Specialist (CCVS)
- Check Point Certified Maestro Expert (CCME)
- Check Point Certified Cloud Network Security Expert for AWS (CNSE-AWS)
- Check Point Certified Cloud Network Security Expert for Azure (CNSE-AZURE)

## Test and Certification

Prepare for exams #156-315.81.20 (CCSE R81.20) and #156.585 (CCTE R81.10) at [www.VUE.com/checkpoint](http://www.VUE.com/checkpoint)  
Exam vouchers are available at an additional cost from [educationteam.ecs.uk@arrow.com](mailto:educationteam.ecs.uk@arrow.com) (0870 251 1000)  
Full information on Check Point's Certification Program can be viewed at <https://www.checkpoint.com/downloads/training/checkpoint-certification-faq.pdf>

## Further Information

Please note that Check Point only offer e-kit courseware for training courses. Each delegate will be provided with an official set of e-kit courseware.

Arrow ECS are a Check Point Platinum Elite Authorised Training Company (ATC) Partner and participate in the Check Point Learning Credits (CLCs) and Partner Coop Training Program.

## Session Dates

On request. Please [Contact Us](#)

## Additional Information

This training is also available as onsite training. Please contact us to find out more.