

Course name:	Check Point Security Master R77
Course form:	Lectures/consultations and intensive lab training
Course description:	This course provides an understanding of the advanced concepts and skills necessary to troubleshoot and configure Check Point Security Gateway and Management Software Blades. During this course, you will review advanced concepts in subjects such as chain modules, NAT, ClusterXL, VPN, CoreXL, SecureXL, IPS, and IPv6. You will also explore commands used to optimize your hardware capabilities.
Length:	3 days
Prerequisites:	Persons attending this course should have CCSE or equivalent knowledge Windows Server, UNIX and networking skills and TCP/IP experience Working knowledge of network and internet technology.
Examination:	This course helps prepare for <i>The Check Point Certified Security Master exam #156-115.77</i> . The exam 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 should have at least 6 months experience with Check Point products before tackling it.
Course content:	<p>Chain Modules</p> <ul style="list-style-type: none"> • Use CLI commands to study chain module behavior. Observe how policy changes impact chain. • Use CLI debug commands to find such issues as SIC, mis-configured rules, GUI client connectivity problems and improperly entered information. • Given specific internal or client need, analyze and apply appropriate hotfix and evaluate its effectiveness. <p>NAT</p> <ul style="list-style-type: none"> • Use CLI commands to troubleshoot NAT stages of Automatic Hide NAT and Automatic Static NAT. • Configure Manual NAT to define specific rules in unique NAT environments. <p>ClusterXL</p> <ul style="list-style-type: none"> • Using CLI commands to troubleshoot ClusterXL connections from information displayed in debug file, to review and clear connections table. • Modify file table.def to allow traffic through a specific cluster member. <p>VPN Troubleshooting</p> <ul style="list-style-type: none"> • Use CLI commands to locate source of encryption failures, to verify VPN connectivity and identify potentially mis-configured VPN's. <p>SecureXL Acceleration debugging</p> <ul style="list-style-type: none"> • Use CLI commands to view acceleration tables and verify accelerated connections. <p>Hardware Optimization</p> <ul style="list-style-type: none"> • Identify correct Check Point Hardware/Appliances for given scenario. • Performance tuning and evaluation of complex networks and technologies. • Scope proper sizing of hardware based on customer requirements. • Use Linux CLI commands to tune NIC performance, to improve FW performance, to improve load capacity, to tune firewall rule base. <p>Software Tuning</p> <ul style="list-style-type: none"> • Deploy NAT templates to reduce load on Rule Base application. • Configure cluster synchronization planning to improve network performance.

	<ul style="list-style-type: none"> • Identify performance limiting configurations. • Correct and tune different scenarios. • Identify causes of performance limiting factors (internal and external factors). <p>Enable CoreXL</p> <ul style="list-style-type: none"> • Configure CoreXL for specific CPU task assignment. <p>IPS</p> <ul style="list-style-type: none"> • Configure IPS to reduce false positives. • Use CLI debug commands to improve logging efficiency. • Use IPS Bypass to improve performance. <p>IPV6</p> <ul style="list-style-type: none"> • Deploy IPV6 in local environment. <p>Advanced VPN</p> <ul style="list-style-type: none"> • Identify differences between route-based VPNs and domain-based VPNs. • Configure VTI for route-based VPN gateways. • Configure OSPF for Dynamic VPN routing in Community. • Identify Wire Mode function by testing VPN failover. • Configure Directional VPN Rule Match for Route-Based VPN. <p>Lab Exercises Include</p> <ul style="list-style-type: none"> • Viewing Chain Module • Troubleshooting Management Issues • Investigating NAT Issues • Troubleshooting Cluster XL • Troubleshooting VPN Issues • Troubleshooting Secure XL • Hardware Optimatization • Software Tuning and Optimatization • Working with CoreXL • Troubleshooting IPS • Implementing IPv6 • Route-Based VPN
Course date:	According to customer request
Course place:	Košice, Check Point ATC training center, Intas s.r.o., Stromova 10