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Protocol Anomaly



Log Details

Modify Rule franco modified the rule "Franco Allow All" of type Access Control Rule					
Log Info					
Time	Today, 3:37:11 AM				
Туре	Audit				
Application	SmartConsole				
Administrator	franco				
Audit					
Subject	Object Manipulation				
Operation	Nodify Rule				
Object Type	Access Control Rule				
Performed On	Franco Allow All				
Changes	EnableCaptivePortal: Changed from 'Disable' to 'Enable' Layer Name: 'Network' Policy Names: 'Standard' less				
Client IP	192.168.0.100				
Session Name	franco@1/11/2019				
Session Description	2 changes published by franco on 1/11/2019				
More					
Session UID	5d61e543-5d92-411e-9375-704b013a570e				
Logic Changes	ActionSettings.enableCaptivePortal: Changed from 'Disable' to 'Enable'				

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Open SmartConsole. Endpoint Security Software Blades are licensed independently of the Endpoint Security Container. Under Access Control, select NAT: Figure 194 — Security Policies - Access Control, select NAT: Figur the current Security Policy: fw unloadlocal Figure 35 — fw unloadlocal NOTE This command unloads all policies from the gateway, preventing network Security Appliances Offering the best performance for its class, Check Point Enterprise Network Security appliances combine several network interface options with high-performance multi-core capabilities to deliver multi-layered security protection. The failure of a Security gateway or VPN connection can result in the loss of active connections. New licenses should be generated and installed when the existing license expires, when the license is upgraded, and when the IP address of the Security Management or Security Gateway has changed. • Not Communicating — The management server can contact the gateway but cannot establish SIC. • Tour SmartConsole. In VMware, power on the B-GW virtual machine and verify that the VM is defined as follows: • Name: B-GW • OS: Other • Disk Space: 60GB • Memory: 1GB • Four interfaces (eth0, eth1, eth2, eth3) • eth0 • Device status: Not connected at power on • LAN Segment: Bravo Management Network • eth1 • Device status: Not connected at power on • LAN Segment: Bravo Management Network • eth1 • Device status: Not connected at power on • LAN Segment: Bravo Sync Network • eth3 • Device status: Connect at power on • LAN Segment: External Network NOTE Your classroom configuration may be different. Click OK, to create the new access role and add it to the new rule. Double-click the r80.cer file: Figure 170 — Certificate 207 Check Point Security Administration 15. 548 Check Point Security Administration Defining the VPN Domain Define the networks to and from which traffic should be sent encrypted. In the Navigation pane, select Authentication. Create a new host object for the DMZ server. Additionally, there are icons included that will allow administrators to quickly perform the following tasks: ••• • • • Add licenses from the User Center. Username: Your Name Password: Chkp!234 Server: 10.1.1.101 Figure 236 - SmartConsole. NOTE Any changes made by the administrator are only visible to that administrator until the 401 Check Point Security Administration Reviewing Dropped Traffic Review logs to verify which traffic was dropped by the Block Bad Stuff rule. NOTE In the Action column, the Key icon represents a key exchange event. The alerts provide information about how to avoid, minimize, or session is published recover from the damage. There are three types of VPN communities: Meshed, Star and Combination. • Planned maintenance. 35 Check Point Security Administration Users The WebUI and CLI can be used to manage user accounts and perform the following actions: • • • • • Add users to your Gaia system. • Configure IPS. Anti-Bot The Check Point Anti-Bot Software Blade detects bot-infected machines, prevents bot damages by blocking bot Communications, and is continually updated from ThreatCloud[™], which is the first collaborative network to fight cybercrime. • The Operations Performed pane shows the progress of current operations (i.e. Installing package on gateway or Attaching license to gateway or Atta enter the following: net Figure 109 – New Network Group 7. 250 Configuring IPS. The Licenses & Contracts tab shows the licenses on the managed Security Gateways and Check Point devices. At this point, another cluster member automatically assumes the functionality of the failed member. The VPN gateway uses a virtual interfaces called VPN Tunnel Interface (VTI), which sends the traffic as if it were a physical interface. By default, an alert is also sent as a pop-up message to the administrator's desktop. Figure 55 - Gateways & Servers Tab 1. 585 Check Point Security Administration Identity Sharing Multiple Security Gateways enabled with Identity Awareness can acquire and share identities with other Security Gateways. On A-GW-02, execute the following command: fw tab -t connections -s NOTE In environments with other Security Gateways enabled with Identity Awareness can acquire and share identities with other Security Gateways. address being announced using Gratuitous ARP, it may be necessary to configure a Virtual MAC address. Figure 79 — Bridge Mode Deployment 110 Check Point Security Administration Review Questions 1. The Software Blade centrally monitors Check Point devices and alerts to changes to gateways, endpoints, tunnels, remote users, and security activities. • Mail — Send an email to the administrator, or run the mail alert script. Click the Browse button. Upgrade operations require the Check Point Remote Installation Daemon (cprid) and license operations use the Check Point Daemon (cprid). 593 Authentication Schemes . • Terminal Access Controller Access Control System (TACACS) — An external server stores user credentials and manages authentication of the users to the network devices. Click the Navigation menu and select Licenses & Contracts > Add License > From File: Figure 406 — Choose License File 478 Check Point Security Administration 7. In the Engine Status section, click the Rescan button. Figure 415 — SmartConsole Log View 1. What is the difference between an Endpoint Identity Agent? • Each LDAP server can consist of one or more Account Units. If the connection is between VPN gateways in a VPN community, the traffic is 463 Check Point Security Administration As in all upgrade procedures, first upgrade your management server or multi-domain management server before upgrading the gateways. 435 Check Point Software Blade Architecture encrypted. Figure 395 — Service Contracts . The Counter view can include counts such as CPU usage, Total Physical Memory, or VPN Tunnels to collect information about the status, activities hardware, and software usage of different Check Point products in real-time. Confirm that you are accessing the site through an encrypted connection by clicking the gold lock icon in the address bar. View an Accept log for the HTTP or HTTPS traffic originating from A-Host: Figure 493 — Log Details Identify the name of the user in the log. 80 Check Point Security Administration Resetting the Trust State If the trust state has been compromised, such as when keys are leaked or certificates are lost, it is possible to reset the trust state. To balance these conflicting needs, track rules that will help to improve your network's security, provide a better understanding of user behavior, and be useful in reports. These backups can be run manually or they can be scheduled. This feature is called History Mode and supported on Check Point Security Gateways. 475 Check Point Security Administration Importing Licenses Import licenses using the Import License From File feature in SmartUpdate. The Service Contract data is referenced whenever a Service Request (SR) is initiated or a cpinfo file needs to be forwarded to Check Point Support. Load Sharing provides reliability and enhances performance because all cluster members are active and traffic is shared between them. To configure tracking in a policy rule, right-click in the Track column of a rule and select a tracking option. Click OK to close the B-GW object. 473 Check Point Security Administration 7. Bypass rules for traffic that is sensitive and should not be inspected can also be created. Confirm that you can access the site. Creating a new User Directory Account Unit will require you to decide if the AU will be used for CRL retrieval, user management or both. Therefore, an administrator will have to create different policy packages for the sites. Click Next, and the system displays the Internet Connection page: Figure 267 — Internet Connection between an organization's network and the Internet conforms to the organization's Security Policy. • Customized — Configure custom permissions. The partners are not included in the community and cannot connect to the corporate intranet. The hosts and endpoint computers do not need special software to use the VPN tunnel because the VPN gateways are responsible for encrypting and decrypting the files and connections. Identity Awareness shows the user and computer name together with the IP address in logs and reports. Each rule in a Rule Base defines the packets that match the rule based on source, destination, service, and the time the packet is inspected. An example of a physical device performing in this layer would be a switch. When using AD Query (ADQ), the Security Gateway connects to the Active Directory Domain Controllers using Windows Management Instrumentation (WMI), a standard Microsoft protocol to get Security Event logs. • QoS — Displays the current traffic level for each QoS rule. S m a r t C o n s

ole and U ser D at a b as e Users defined in SmartConsole are saved to the User Database on the management server, together with the user authentication schemes and encryption keys. Select the following folder: 5. 692 Questions and Answers A End of chapter review questions are answered in this 580 Check Point Security Administration The following points briefly explain how Terminal Server Identity Agent installed on the Terminal Server Identity Agent installed on t Appendix 697 Check Point Security Administration Chapter 5 Tr a f fi c V i s ib i l i t y 1. configure the Security Gateways to send logs to the Log Server or the Log Server, and install the policy. 64 Check Point Security Administration 13. Configure the policy as follows: Name Alpha Standard Comment: Alpha Security Policy 37. Those that are enabled are colored. • Which services, including customized services and sessions, are allowed across the network? 35. If aggressive use is not the cause, the network administrator will look at other possible causes, such as performance degradation resulting from memory overload. Automatic scans are performed on a daily basis to find changes made to the gateway, policy configurations made through the Command Line Interface or changes made with scripts. 604 Check Point Security Administration 8. Learning Objectives • Recognize Check Point security solutions and products and 125 Check Point Security Administration Publishing actually updates the policy on the management server and/or Log Server and makes the changes visible in SmartConsole. Central licenses are placed in the License Repository and are available to be attached to how they work to protect your network. another Security Gateway object when desired. Verify that the Rule Base appears as follows: 6. The collected data is continuously updated at a default refresh rate of two seconds and displayed in a variety of views. From the Application menu, select Manage licenses and packages. Additional profiles may also be added to the list using the search tool 118 Check Point Security Administration The Rule Base is a collection of individual rules which builds the Security Policy. • Limit the use of the Reject action in rules. Identify the system-created NAT rules derived from the A-INT In the Navigation pane, select Others. Figure 82 — Anti-Spoofing NET object's NAT settings. These branch offices require a Star VPN community to share network resources with only one of the corporate offices. In the search results pane, click the + icon next to smtp. 13. The Security Gateway inspects packets by comparing them to the Security Folicy, one rule at a time. These Firewall rules can be configured in SmartView Monitor and set to expire within a certain time period. Figure 200 – Sessions Details Window 244 Check Point Security Administration If the administrator chooses to discard the session, all the changes are lost. • • • • • • 454 Check Point Security Administration Managing Licenses All licenses for Check Point packages throughout your organization can be managed from the management server using SmartUpdate. If it is, extract the executable file before attempting to install. Configure the window as follows: Name: Your Name Comment: Me as a superuser Authentication Method: Check Point Password 5 152 Check Point Security Administration 6. This option is referred to as Active Up and is recommended if all members in the cluster are equally capable of processing traffic. 4. NOTE The default Implied last rule in the Network policy layer is to drop all traffic and the default Implied last rule in the Application Control policy layer is to accept everything. In the Users page, click Add, to add another user. ESP operates directly on top of IP and provides origin authenticity, integrity, and confidentiality protection of the packets. 361 Check Point Security Administration 5. The Package Management tab shows packages and operating systems installed on the Security Gateways managed by the Security Management Server. Click OK, and the system creates the certificate. It contains a link that can be used to download the Endpoint Identity Agent. First Implied rules are applied before all other rules, including administrator explicitly defined rules and Implicit rules. Components of a License A Check Point software license consist of two components, the Software Blade and the Software Bla Targets 21. After the user is authenticated, new connections from this source are inspected without requiring authentication. Use the arrow keys to highlight eth3: Figure 259 — Management Port NOTE In this classroom environment, all external interfaces are eth3. A cluster member that is not receiving any traffic has a Standby status. In a High 238 Check Point Security Administration END OF LAB 2.3 Availability configuration, the behavior method must be defined for when the failed Active member in a cluster recovers. 239 Check Point Security Administration Administration Administrator accounts are created through the Check Point Configuration Tool, First Time Configuration Wizard, or SmartConsole. • • • • Figure 430 — Traffic View 518 Check Point Security Administration The Traffic view can be created to monitor the following traffic types: • Services — Displays the current status of services used through the selected gateway. The administrator is prompted with the following options: • Exit, allowing the administrator to access the saved session upon the next login • Discard the draft and exit • Cancel and continue with their current session. If the administrator saves the session, the changes made in that session are available only to that particular administrator upon their next login. The Revision Details window appears: Figure 138 - Revision Details 12. This layer sets up the communication through the network. In large organizations that generate a lot of logs, it is recommended to install the Log Server on a dedicated computer. 262 Check 349 Check Point Security Administration 41. All the internally managed VPN gateways use the same pre-shared secret when they communicate with a specific externally managed VPN gateway. • Enter — Switches to View mode (if currently on a menu with sub-menus, will Point Security Administration 29 change focus to the lowest sub-menu to see its views). 6. H a r d war e L i c e n s e s Licenses for Check Point hardware product. They authenticate to the Identity Server either with a username and password or a Kerberos Ticket. If this is not done, the database revision is saved with the default Session Name @ and Description changes published by on . IKE is a standard protocol that creates the VPN tunnels and manages the keys used to encrypt and decrypt data and information. Figure 224 — Publish Session Window 38. Home: Returns to the Overview. Verify the status of the various software blade licenses. 86 Check Point Security Administration SmartConsole Applications S m a r t E ven t (Ad va n c e d E ve n t s a n d Re p o r ts) SmartEvent correlates logs and detects real security threats. Proceed with caution. 150 Check Point Security Administration Editing and Creating Rules for the Rule Base Clean up the existing Rule Base and define new rules and objects to allow for traffic to the DMZ. It can be used as a guide for implementing network standards. The locked padlock icon represents encrypted traffic being sent out. The gateways can be configured to provide redundancy to prevent network down-time. 605 Check Point Security Administration 14. Then, specify A-GW-Cluster as the installation target for the policy package. The unified Access Control policy is both data and application aware. Transparent Kerberos is recommended for use in AD environments, when users are already logged in to the domain and the browser obtains identity information from the credentials used in the original log in. Endpoint Software Blades are available as perpetual. However, Check Point appliance solutions are prepared to meet the challenge. 363 END OF LAB 2.6 365 Review Questions 437 Advanced Threat Prevention Software Blades . 45. To initialize trust: 1. Ta sks : • Schedule daily log switching and file size limitations. Allow(s) you to scroll in a view. 440 Check Point Security Administration M a n a g e m e n t S o f twar e B l a d e s fo r M o n i tor i n g A n a l y s i s Logging and Status The Check Point Logging and Status Software Blade transforms data into security intelligence. Central licenses will be placed in the License & Contract Repository. For protocols where the port number cannot be changed, Hide NAT cannot be used. E n d p o i n t S o f t war e B l a d e s Full Disk Encryption The Check Point Full Disk Encryption Software Blade provides automatic security for all information on endpoint hard drives, including user data, operating system files. The central VPN gateway and the traffic is routed to the 37 Check Point Security Administration When a user is created, pre-defined roles, or privileges, are assigned to the user. If you leave the Name field empty, the license is assigned a name in the format time date. Figure 333 — Policy correct VPN domain. Figure 10 — WebUI Roles Page Window Traffic Flow Through an Inline Layer As opposed to an ordered layer, which is considered flat, inline layers organize the Access Control policy into a hierarchy. TCP ensures a reliable transmission of data across connected networks by acknowledging received packets and verifying that data is not lost during transmission. 160 Check Point Security Administration Add a section title above the Cleanup rule and call it Check Point Best Practice. Special features include low latency, LOM, and 40 GbE. 596 Captive Portal for Guest Access . Figure 89 — Access Control Tools 131 Check Point Security Administration Threat Tools include: • Profiles — The Profiles tool provides an administrator the ability to create, edit or delete profiles. • Activates new licenses & Contracts
Repository. Check Point's URL Filtering Software Blade enables application Security Policies to allow, block and limit website access based on user, group and machine identities. 397 Reviewing Dropped Traffic . Enter your User Center credentials. This rule defines three subnets as critical resources: Finance, HR and RnD. Activating Check Point's Identity Awareness Software Blade for a granular view of users, groups and machines, provides unmatched access control through the creation of accurate, identitybased policies. The TCP/IP Model consists of four core layer, Internet layer cluster members directly with a cross-over cable. By separating the Application Control & URL Filtering layer, it can be reordered when additional blades are added. NAT-T is used to encapsulate ESP packets and IKE Quick mode exchange packets for exchange packets for exchange packets and IKE Quick mode exchange packets and IKE Quick mode exchange packets and IKE Quick mode exchange packets for exchange packets and IKE Quick mode exchange packets for exchange packets for exchange packets and IKE Quick mode exchange packets and IKE Quick mode exchange packets for exchange packets for exchange packets for exchange packets and IKE Quick mode exchange packets for exchange packets and IKE Quick mode exchange packets for take a long time and may impact production. Object Management System Administrators can add, edit, delete, and clone objects. Click Save. The syntax is: • NOT [] L a b 5 .1 Working with Check Point Logs 500 Working with Check Point Logs L A B 5.1 SmartConsole shows logs collected from all Security Gateways and Log Servers. If John Brown, one possible DN is show below: cn=John Brown, in Marketing, o=ABC Company, in the United States". Login as: admin Password: Chkp!234 Figure 49 — PuTTY Session - admin 73 Check Point Security Administration 5. The ICA issues a certificate for the gateway, but does not yet deliver it. If a rule is configured to reject, a message is returned to the source address, informing that the connection is not permitted. From the menu, select Export License to File. 134 Lab 2.1: Modifying an Existing Security Policy . • Work in Expert mode. There are three types of Software Containers: Security Management, Security Gateway, and Endpoint Security Click the Color drop-down menu. Original Services: Any Translated Destination: Original Services: Original Install On: Policy Targets Figure 460 — Manual NAT Rule Configured NOTE To add a rule to the top of the NAT Rule Base, click the Add Rule to Top icon in the toolbar directly above the NAT Rule Base. 120 Check Point Security Administration Additional Rule Types The following table describes other rules that may be created. A satellite VPN gateway cannot create a VPN tunnel with a VPN gateway that is also defined as a satellite VPN gateway. There are two High Availability modes available: New and Legacy. Access Tools include: • VPN Communities — The VPN Communities tool allows the administrator to create, edit or delete VPNs. • Client Certificates — This tool allows users to access resources using their handheld devices, such as cell phones and tables, by creating and distributing client certificates, allowing them to authenticate to the gateway. High Availability: ClusterXL Track changes in the status of Cluster Members: Log Use State Synchronization: Selected Use 639 Check Point Security Administration 6. Virtual MAC: Deselected Upon cluster member recovery: Maintain current active Cluster Member Figure 512 — Gateway Cluster - ClusterXL and VRRP 409 Check Point Security Administration It is best practice to share 161 Check Point Security Administration Creating a New Host Object Create an object to represent the server that handles FTP, Mail, and Web traffic in the Alpha DMZ. policy layers with other policy packages when possible. NOTE Only users with Read/Write access can override a configuration lock. 15 Check Point Security Administration Chapter 2: Security Policy Management • • • Describe the essential elements of a Security Policy. Table 23: CPView Parameters Navigation and Configuration Use the following keys to navigate CPView: • Arrow key(s) — Move(s) between menus and views. In the Navigation pane, select Users. Describe the key elements of Check Point's unified Security Management Architecture. UK Data Protection Act UK British data security standards. Application Control Software Blade The Check Point's unified Security Management Architecture. UK Data Protection Act UK British data security standards. 2.0 applications and features within the applications. Completing the Rule Base When you have defined the desired rules, you must install the Security Policy. The system displays the following: Figure 531 — Regulatory Requirement Compliance Scores 14. It is the foundation on which all the other layers are based, so it cannot be removed from the 87 Check Point Security Administration SmartDashboard There are a few legacy applications that must be accessed through SmartDashboard. P — Pauses and resumes the collection of statistics. Click the Add Logo drop-down menu. Select the option Specific Users/Groups. Select the following Access policy. options: • Including undefined internal interfaces • Including DMZ internal interfaces • Including VPN encrypted interfaces 10. 634 Check Point Security Administration Monitoring a Cluster In order to ensure that clusters and cluster members are operating correctly, use SmartView Monitor or run the cphaprob state command from the CLI. In the Overview page, identify the Manage Software Blades using SmartConsole banner. Install the Security Gateway to allow certain connections to and from the Security Gateway. This is the only process that can change the tags. Open the pre-configured MyIntranet object. These rules are configured using all objects, services and users installed on your database. Type 7, and press Enter to view the certificate's Fingerprint Compare the fingerprint displayed on A-SMS to the one displayed on A-GUI. Check Point Security Administration 17. What is the purpose of Identity Awareness? Under the Threat Prevention policy, the administrator is able to configure updates to the Malware database, Threat Emulation engine and images, and the IPS database. 233 6 Check Point Automation Specialist Testing Network Address Translation . At the prompt, type the following: 6. It performs queries instead of the Security Gateway. IKE Protocol IKE protocol is used to set up an SA in the IPSec protocol suite. 269 Managing Concurrent Administrator Sessions 596 Lab 7.1: Providing User Access . The packet goes through the Outbound interface and is translated to the Static NAT IP address as it leaves the Security Gateway, 'O'. Data Loss Prevention. Check the box next to the best practice. 246 Check Point Security Administration C on c u r r e n t Ad m i n i s t r a t i o n A major feature in SmartConsole is concurrent administration. A Remote Access VPN Deployment handles secure communication between internal corporate resources and remote users using VPN tunnels. Click OK to complete the operation. 170 END OF LAB 2.1 175 HTTPS Inspection .. Links to SmartDashboard are located throughout SmartConsole and provide access to the following applications: • • • • Data Loss Prevention Anti-Spam & Mail Mobile Access HTTPS Inspection Lab 1.2 88 Installing and Touring SmartConsole L A B 1.2 From the Gaia Portal, you will download and install the SmartConsole application. When a user attempts to authenticate to a protected resource, the one-time-use access code must be validated by the ACE/server. L a b 6 Installing and Touring SmartConsole 547 Configuring a Site-to-Site VPN Between Alpha and Bravo L A B 6.1 In this lab, you will define a site-to-site VPN between the corporate and branch office gateways. It also has integrity with the use of industry-standard protocols that make sure the data is safe and .1 Configuring Site-to-Site VPN protected. In SmartConsole, navigate back to the General Properties page of the gateway object. In the Rule Base, select the Outgoing rule. It enables IT teams to easily create granular policies based on users or groups to identify, block, or limit usage of over 250,000 Web 2.0 applications and widgets. The system displays the Policy window: Figure 296 — Policy 36. In the Navigation pane, select Cluster Members: 1. Lab 3.2 Implementing Application Control and URL Filtering 391 Implementing Application Control and URL Filtering L A B 3.2 After enabling the Application Control and URL Filtering software blades, create a rule to block specific applications. The gateway and management server will then authenticate over SSL using a one-time password. Tabs — Open various event analysis views. IPSec VPN Software Blade provides secure connectivity to corporate networks for remote and mobile users, branch offices, and business partners. The Software Container houses the Software Blades. Per for mance Object ives: • Perform periodic tasks as specified in administrator job descriptions. In the Assign Members to Role window: • Double-click a user in the Available Users list to add that user to the role. When new packets arrive, their contents are compared to the state tables to determine whether they are denied or permitted. Updates can be downloaded automatically, manually, or periodically and installed manually or periodically. 241 Sessions . An exception group contains multiple exception rules. SmartConsole employs several components to manage user information. Per for ma n c e Ob j ec t ive s: • Test ClusterXL High Availability. In the Objects pane of SmartConsole, select Networks. Select As illustrated below, there are two rules that belong to the URL Filter layer. Click Queries. Review the Overview page and identify the information presented about A-SMS. The following two modes: • Basic — Shows only basic configuration options. Both provide monitoring views. 440 Management Software Blades for
Monitoring Analysis . Figure 362 — Manage Policies Window Lab 3.3 Defining and Sharing Security Policy Layers 411 L A B Defining and Sharing Security Policy Layers 3.3 Define a Data Awareness layer for the Bravo Standard policy. 527 Basic Concepts of VPN C H A P T E R 6 The Virtual Private Network (VPN) Software Blade is used to create VPNs to securely communicate and transmit data over the Internet. 269 Check Point Security Administration 3. The Tunnels section in the SmartView Monitor GUI clearly shows VPN connectivity problems by constantly monitoring and analyzing the status of a company's tunnels. In addition, advanced Firewalls, such as authentication techniques and logging events of specific users. A Plugand Play license provides a temporary license for 15 days of unlimited client full functionality after purchasing and installing your appliance. Their positions can be changed to one of the following options: • First — The rule is applied before any other rule in the policy layer. The Presentation layer is responsible for presenting the data. 443 Licensing . Change the refresh rate to 1 second by typing 1, and press Enter. 11. IKE authentication supports IPSec VPN clients. Implied rules also allow outgoing packets originating from the Security Gateway. URL Filtering The Check Point URL Filtering Software Overview Blade integrates with Application Control, allowing enforcement and management of all aspects of web security. While the file is transferring, switch over to the active cluster member, and press Enter. 524 Check Point Security Administration 6. Add a new rule to the top of the NAT Rule Base and configure it as follows: Original Source: Corporate Network Original Destination: Corporate Network Original Services: Any Translated Services: Original Translated Services: Original Install On: Policy Targets Figure 462 - Security Policies - Access Control - NAT 562 Check Point Security Administration 15. Log into the WebUI. 48 Check Point Security Administration 15. Generate web traffic to the Internet from both A-GUI 688 Check Point Security Administration Saving Statistics to a File Save statistical information for forensics or other use later. and A-Host. NOTE The remote computer or device requires special VPN software, such as endpoint Security VPN, to connect to the VPN tunnel and encrypt the communication with the VPN gateway. 66 4 Check Point Automation Specialist Adding and Deleting Administrators via the CLI the SmartConsole Logs view, you will examine real-time traffic and query log information. The license includes both the software subscription and the associated Support Services Contract. The gateway then creates a new HTTPS connection with the internal server. • SNMP — Send an SNMP alert to the SNMP GUI, or run the script. Reconfigure the object as follows: 1. Table 4: Extended Commands To show the path and description To show all extended commands: show extended commands: show the path and description VALUE to add an extended command value and value to the path value and value to the path value and value to the path value to the path value to the path value to the path and description of a specified extended commands: show the path value to the path value 30 Check Point Security Administration To delete an extended command: delete command VALUE Commonly Used Commands As an administrator, there are additional commands As an administrator, there are additional commands As an administrator, there are additional commands that you may frequently use in your role. This displays the name of the Security Policy installed on the gateway: fw stat Figure 34 — fw stat 2. Logging out completes the administrator's session. A best practice is not activated for this company. Figure 447 — Accept All Encrypted Traffic in VPN Community Object 544 Check Point Security Administration Tunnel Management and Monitoring When companies use VPN communication between users and 433 Check Point Security Administration Review Questions 1. 629 11 Check Point Automation Specialist High Availability Deployment . Upcoming — Action item has a due date within the next 30 days. Special features include a gateways, it is crucial they maintain uninterrupted connectivity. END OF LAB 3.3 what traffic was dropped by this rule. Change th 612 Check Point Security Administration 5. object color to pink: Figure 240 — Gateway Cluster - General Properties 14. See the Database Revision Control section in this chapter. Click Apply. It sends users to a web page to acquire identities using Captive Portal and Transparent Kerberos Authentication. 378 Check Point Security Administration 7. The Check Point Next Generation Threat Extraction (NGTX) Software Blade package combines the NGTP package set with CPU-level and operating system-level sandbox capabilities to detect and block malware. To create a log query, select filtering criteria from the options provided. Connections that need to be made directly to the gateway, such as Client Authentication, encryption, and Content Vectoring Protocol (CVP) rules, always go above the Stealth rule. Right-click Policy. • Confirm existing configuration settings. 535 VPN Communities Identity Awareness uses the data from these requests to get user and device group information from the LDAP server. Click Close. Figure 185 — NAT Global Properties 224 Check Point Security Administration In most cases the Security Gateway automatically creates NAT rules based on information derived from object properties. If edits are made to a pre-defined profile. Future — Action item has a due date beyond the next 30 days. Review the report results: Figure 528 — Compliance Report 7. Continue with the next step. They use the IPSec protocol to encrypt and decrypt the file as it is downloaded from the Branch office. • Home key — Returns to the Overview view. This tool provides users the ability to create, edit or delete UserCheck interaction objects in the Access Control and Threat Prevention policy. Name: Guest Comment: WiFi Guest Account Figure 250 — New User - General 8. The user is authenticated and the Security Gateway sends the connection to its destination according to the Firewall Rule Base. 476 Attaching Licenses . Select a profile type. 452 Package Repository . Install the Alpha Standard policy. When the 30 days expire, software functionality is disabled. The following figure illustrates how to configure the NAT properties for a network that will use another externally accessible IP address when dynamically translated. NAT-T NAT Traversal (NAT-T) is a technique required for certain client-to-client network applications, such as peer-to-peer file sharing and Voice-over IP. Use the information below to configure a new profile - Overview 18. 318 Check Point Security Administration 14. In the Compliance section, click Inactive Objects: Figure 525 — Inactive Objects 3. 277 Check Point Security Administration Managing Concurrent Administrator Sessions View system behavior during concurrent administrator access of the shared database. In Expert mode, view the saved file by executing the following command: 3. If the request matches a rule, the Security Gateway validates the certificate from the server. Select Network. Figure 348 — Policy 11. Commands to try are those beginning with fw. The Name column in the legend states the rule number as previously configured in SmartConsole. Do NOT install the Security Policy yet. 176 Inspecting HTTPS Traffic . 514 System Counters View . 36. 23. Select the Matched Rules tab: Figure 357 - Log Details - Figure 357 - Lo specific network. It functions much the same as the Snapshot backup utility, however it does not impact production. If there is a match on a rule that specifies an application information (for example, Dropbox), and application information (for example, the URL of the website). Navigate to Software-blades: Figure 552 — CPView - Software-blades - Overview Press C, to save the current page to a file. 529 Check Point Security Administration IPSec uses Authentication Headers (AH), Encapsulating Security Payloads (ESP), and Security Associations (SA) for authenticating and encrypting IP packets for secure VPN communications. Click OK, and the system updates the
Topology settings for eth3: Figure 104 — Network - General 21. This provides a very useful way of improving the performance of an organization's Access Control policy. To configure their position in the Rule Base, check the properties enforced in the Firewall Implied Rules screen then choose a position in the Rule Base for the Implied rule. To access the WebUI, navigate to https://. CPView is a utility used to retrieve basic gateway status information. A DN includes elements such as a Common Name (CN), Organizational Unit (OU), organizationa configured on the Device Information page in the configuration wizard. Its primary purpose is to control access to specific network segments as directed by a preconfigured set of rules, or Rule Base, which defines the traffic permitted access. All packaged Software Blades purchased as part of a specific solution are automatically attached to at least 587 Check Point Security Administration Listed below are some of the key features of User Directory. Configure the Remote Access VPN community object to create VPN tunnels for the user groups to the specific VPN gateways. An updated one container. Select Shared Policies > HTTPS Inspection: 1. cp.macro file is included in each release of Check Point software. The IPS First Time Activation window opens. • LDAP is based on a client/server model in which an LDAP server. Name five object categories. Next Generation Threat Prevention Next Generation Threat Extraction Secure Web Gateway Next Generation Data Protection 2. The overall status of a gateway reflects the most critical status of its Software Blades. Figure 282 — Gateways & Servers 320 Check Point Security Administration 3. Select New Layer. Rem o te A c c e s s V P N D e p l oym e n t A Remote Access VPN deployment handles secure communication between internal corporate resources and remote users using VPN tunnels. • Layer 3 — Represents where delivery of network traffic on the Internet takes place; addressing in this layer is referred to as Internet takes place; addressing and creates unique addresses, except when NAT is employed. Order of rules in each policy layer. Main mode negotiates the encryption algorithm, hash algorithm, the authentication method, and Diffie-Hellman (DH) group to be used for the base keying material. Click the Open HTTPS Inspection Policy 5. The branch offices only need to communicate with the corporate office in their country, but not with each other. 279 Check Point Security Administration Double-click the Name field of the Stealth rule. Monitor GUI displays the status of the VPN tunnels in the network. Select the MyIntranet object. Enter and confirm Chkp!234 as the One-time password. There are two types of installation modes. 665 Check Point Security Administration 15. NOTE The Diffie-Hellman key exchange is a secure method for exchanging cryptographic keys. NOTE If the Logs & Monitor page fails to load or is delayed, you may need to publish all the current changes and close SmartConsole. Customized queries can be saved for future use. Type the following and press Enter, to display the configuration of A-SMS: show configuration Exit the PuTTY session. Here, you will view and manipulate basic settings of the Gaia operating system through the Gaia Portal, the WebUI. Configure the following permissions: Common Objects: Read Check Point Users Database: Deselected HTTPS Inspection: Deselected HTTPS Inspe N ew L i c e n s e s New licenses should be generated and installed when the: • Existing license expires. Tr ansm is s ion Control Protocol/Internet Protocol (TCP/IP) Model is a suite of protocols which work together to connect hosts and networks to the Internet. For example, if a suite of protocol (TCP/IP) Model is a suite of protoco there are five internal VPN gateways and two externally managed VPN gateways, it is necessary to create two pre-shared secrets. Identify where in the Logs & Monitor tab the following items are located: • Log views and reports • Event analysis • Link to launch SmartView Monitor GUI client 102 Check Point Security Administration 20. Select the Bravo Standard policy. Figure 52 — Invalid Command END OF LAB 1.1 76 Check Point Security Administration The Check Point Security Management Architecture The Check Point Security Management Architecture is an object-oriented architecture that uses graphical representations of real-world entities, such as users and gateways. Figure 328 — Check Point Policy Layer rs a nd S ub - Policy attached to the rule, 113 Check Point Security Administration Default Rule A default rule is added when you add a rule to the Rule Base. 192.0.2.133 10.19.136.101 Includes log entries that contain both of these IP addresses. Per for man c e Ob j ec t ive s: • Perform an installation of the SmartConsole application. Changes to external groups take effect only after the policy is installed, or the user database is downloaded from the management server. Right-click the action column: Figure 496 — Action Menu 616 Check Point Security Administration 12. Return to your personal administrator session. These licenses allow you to activate your permanent license at a later time. 556 Check Point Security Administration Creating the VPN Rule and Modifying the Rule Base Modify the Rule Base to account for encrypted traffic between the Alpha and Bravo networks. 510 Monitoring Suspicious Activity Rules . 368 Policy Layers and Sub-Policies . When integrated with Check Point Security Management, LDAP is referred to as User Directory. For instance, if a new install is being initiated, the information is retrieved from the Package Repository. Mike can hover his mouse pointer over the lock icon in his view to reveal Dan's session that is currently making the change for this specific rule. Configure the values for address translation as follows: Add automatic address translation rules: Selected Install on gateway: A-GW-Cluster Figure 190 — Network Object 21. Add the tag Alpha: Figure 341 — Layer Editor 11. Examples include gateways, hosts, networks, routers, and domains. High Availability ensures gateway and VPN connection redundancy for transparent failover between machines. Click Install Policy. To deploy Terminal Servers, perform the following steps: 1. • What components will access the Firewall? From the desktop of A-GUI, double-click the r80.cer file: Figure 164 — Certificateen the following steps: 1. • What components will access the Firewall? From the desktop of A-GUI, double-click the r80.cer file: Figure 164 — Certificateen the following steps: 1. • What components will access the Firewall? 202 Check Point Security Administration 2. P12 file extensions store a private key that can encrypt information which can only be decrypted by a corresponding public key. Select Global Properties. Logs toolbar — Use pre-defined and custom queries to search through logs, refresh statistics, export search results, and manage query settings. 667 User Interface . • VPN gateway — Encrypts and protects the resources in the VPN domain. Execute the following command to verify that the cluster member has returned to the active state: cphaprob stat END OF LAB 8.1 646 Check Point Security Administration Review Questions 1. If Anti-Spoofing is implemented on a specific interface, spoof tracking for that interface (GUI) used to management Architecture Components SmartConsole SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User Interface (GUI) used to management Architecture Components SmartConsole is a Graphical User the objects that represent network elements, servers, and gateways. 580 Endpoint Identity Agents . Use the information below to configure the Authentication Method: Check Point Password Set new password. Chkp!234 Figure 251 — New User - Authentication Configure 10. Do not select this option, if you do not want to Hide all internal networks. The installation process specifies the network object on which the Security teams to focus their efforts on critical threats rather than being overwhelmed with loads of data. 188 Distributing the Certificate. . Figure 314 — New Backup Window Before restoring from a backup, the machine needs to be configured with the previous host name. When configuring a VPN gateway in SmartConsole, decide which
IP address objects are included in the VPN domain. Double-click A-GUI, and the system displays the General Properties window of the Host object: Figure 94 — Host - General 138 Check Point Security Administration Click OK. S m a r t U p d a te SmartUpdate is used to manage licenses and packages for multi-domain servers, domain servers, gateways, and Software Blades. Figure 387 — Global Properties Window CP.MACRO Files A cp.macro file is an electronically signed file used by Check Point software to translate the features included within the installed license(s) file into code, or primitives. NAT can be configured on Check Point hosts, nodes, networks, address ranges and dynamic objects. Cleanup rules can be configured to allow or drop the connection. Click Finish. The rule is defined with the following information: • No. — Defines the number order of each rule; the first rule in the Rule Base is 1.77 Security Management Server. END OF LAB 9.1666 Check Point Security Administration CPView is an interactive, text-based utility that runs on Check Point ICA can be used to provide certificates for internal Security Gateways and remote access clients. • Understand how to use CPView to gather basic gateway status information 259 Check Point Security Administration 23. These first Implicit rules are based on the Accept Control Connections setting on the Global Properties window. Open Internet Explorer. There are three profile types: • Read/Write All — Administrators can change the configuration. Local licenses will be automatically attached to the Security Gateway. 642 END OF LAB 8.1 646 Review Questions. .. The Publish button also makes changes made by one administrator in a session visible to all administrator sessions. • User Templates — User templates facilitate the user definition process by allowing you to create a set of properties that are common to multiple users. This is because the gateway, by default, does not inspect the encrypted parts of the traffic. NOTE Changes made during a session must be published before installing policy. 74 Check Point Security Administration 9. Click the Actions drop-down menu: 1. The Security Gateway confirms that the user has been identified and allows him to access the Internet, based on the Security Rules The Enforced Suspicious Activity Rules and allows him to access the Internet, based on the Security Policy. functions in the Network and Transport layers of the network architecture. Modify the Log partition size to 30 GB: Figure 258 — Partitions Configuration 9. That means that changes made will not be visible by other administrators until after publication. NOTE The Firewall blade is activated by default. The system displays the Keyboard Selection 511 Check Point Security Administration M o n i to r i n g G a teway S t a t u s To see gateway status in SmartConsole, in the Gateways & Servers tab, select a gateway, rightclick, and select Monitor. • To center and to screen: Figure 257 — Keyboard Selection Select the keyboard type to suit your region. other satellites through center — Use VPN routing for connection between satellites. Double-click the SmartConsole installer file. The system displays the following window: Figure 206 — New Administrator 4. Select the checkbox for Automatically download Contracts and other important data (Recommended). In the Content Awareness Rule Base the checkbox for Automatically download Contracts and other important data (Recommended). select the Cleanup rule. Then, when a user attempts to access a resource, the packet is examined and the port information is mapped to the user. 164 Publishing and Managing Revisions Figure 312 — System Backup Window It is also possible to back up multiple gateways or servers by simply selecting and highlighting them all. The built-in search navigation delivers instant results on commands and properties. Uni fi ed Policy, which allows an administrator to control several security aspects from a single console. • Recognize SmartConsole features, functions, and tools. Use the following information to configure the new rule: Name: Financial Exception Source: Any Destination: Internet Services Action: Bypass Track: Log Figure 176 — HTTPS Inspection Rules Click the OK button. The certificate is then downloaded and stored on the gateway, trust is established, and the onetime password is deleted. It provides access control for routers, network access servers and other networked devices through one or more centralized servers. Select the Logs & Monitor tab. As a network security professional, ensuring that Security Gateways and VPN connections are kept alive in a corporate network is critical to maintain a smoothly running network. A dialogue box will inform the administrator of the disconnection. The User Database is then installed on the Security Gateway when the policy is installed, and on Check Point hosts with an active management blade, such as Log Server. In contrast, the Install On column in the Rule Base specifies the network object that is to enforce a specific rule. They provide granular level filtering, Antivirus scanning, and access control for network applications, such as email, FTP, and HTTP. Ta sks : • Install Gaia on the Bravo gateway. In the message, deselect the following option: Don't show this message again 9. The only difference between these groups is in the way you define users. If no response is received within a given time period, the VPN tunnel is considered down. 01 GAiA R80.40 Admin Guide 03 GAiA R80.40 Identity Awareness 06 GAiA R80.40 Security Management 07 GAiA R80.40 Remote Access VPN 08 GAiA R80.40 Site-to-Site VPN 09 GAiA R80.40 VoIP 16 GAiA R80.40 Next Gen Security Gateway 14 GAiA R80.40 VOIP 16 GAIA R80.40 Security Management 18 Smart Provisioning 19 Performance Tuning 20 Cloud Guard Controller 21 Mobile Access 22 Logging and Monitoring 100% Genuine Exam Questions, Precise Answers Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-215.80 Exam: Checked by IT Professionals Fast Download & Regular Updates! CCSA R80 Bundle 156-2 Includes 536 Questions & Answers CCSA R80 Bundle gives you unlimited access to "CCSA R80" certification premium .vce files. • Identify tools designed to respond quickly and efficiently to changes in gateways, tunnels, remote users, traffic flow patterns, and other security activities. They can also see the revisions that were made during each policy installation and who made them. Next, relaunch SmartConsole, logging in as user Admin. The basic query syntax is: [:] Filter criteria, referring to the field and the filter criterion, is not case sensitive. Favorite Queries — Pre-defined and favorite search queries. 389 Check Point Security Administration C o n te nt Awareness is an essential part of the Unified Policy deployment across multiple gateways. Log into Captive Portal with the following credentials: Username: Guest Password: Chkp!234 Figure 501 - Captive Portal 620 Check Point Security Administration 23. The Monitor has Read-Only access for all features in the WebUI and the CLI and can change their own password. • Connect and tour SmartConsole. The OSI Model is comprised of seven layers. Figure 316 — Maintenance - System Backup 3. These partners need to communicate with the company but not with each other. For instance, you can see how many HTTP services were used during peak activity. The following technologies are used to deny or permit network traffic: • Packet Filtering is the process by which traffic is broken down into packets. This policy layer is made up of Firewall rules, providing packet inspection on network traffic. It may be edited, but it does not log, by default. When UserCheck is installed on endpoint Identity Agents are dedicated client agents installed on user computers, the messages are displayed directly on the computers, the messages are displayed directly on the computers that acquire and report identities to the Security Gateway 192.0.2.133 OR 10.19.136.101 Includes log entries that match one of the IP addresses. Click the Application menu. There are two subviews: Top-Protocols and Top-Connections. If AdminA decides not to override the lock, they will only be granted Read-Only access. Next, use the information below to configure an
auditor with Read Only All permissions: Name: auditor Comment: Audit Only User Authentication Method: Check Point Password Set New Password: Chkp!234 User must change password on next login: Deselected Permission Profile: Read Only All Expiration: Never Figure 210 — New Administrator 13. Figure 473 — Captive Portal 579 Check Point Security Administration If Transparent Kerberos Authenticate AD users transparently by retrieving identity information and physical assets Configure all the static routes, including the default route, before configuring or getting the topology for a Security Gateway. 282 Check Point Security Administration 15. • Lower Total Cost of Ownership (TCO) — Protects investment through consolidation and use of existing hardware infrastructure. Which monitoring view would you use to see real-time statistics about open remote access sessions? Press Enter, and the system displays the following option: SmartEvent Application Control and URL Filtering reports only Figure 220 — New Profile - Event and Reports 30. In the Search field of the Features tab, enter the following: route Figure 22 — Add Role - Search Initiated NOTE The search results displayed by the system are a list of commands and features available for assignment to the role, based on the 598 Defining the User Access Role search criteria, 471 Importing Licenses • Recall how to implement Check Point backup techniques. When Automatic NAT rule creation is used, it makes the necessary adjustments to the ARP configuration. To connect to the A-SMS, enter the following Host Name: 1. It is responsible for issuing the following certificates to authenticate: • SIC — Between gateways or between gateways and management servers • VPN Certificates — Between members of a VPN community in order to create the VPN tunnel • Users — User access according to authorization and permissions. These processes listen and wait for the information to be summoned by the management server. All inbound and outbound network activity should be inspected and identified as suspicious when necessary, such as when system activity indicates that someone is attempting to break into the network. To verify that you are logging into the Active cluster member, execute the following 567 Check Point Security Administration 9. They allow administrators to define the Security Policy based on network interfaces rather than IP addresses. TACACS encrypts the user name, password, authentication services and accounting information of all authentication requests to ensure secure communication. Type the following command, and press Enter: fw stat 4. Learning Objectives • Understand Site-to-Site and Remote Access VPN deployments and communities. Figure 456 — Meshed Communities. Figure 456 — Meshed Communities. multiple versions of the system database. Source Any Destination SMTP SRV VPN Remote Access Community Service Any Action Accept Table 19: Allow Specific VPN Communities 543 Check Point Security Administration S ite -to- Si te Comm un it ie s — A ll ow A ll E n c r y p ted Tr af fi c Instead of manually adding rules to the Access policy, it is possible to configure a Site-to-Site VPN community to automatically allow all encrypted connections. Select Standard and click Edit. Does not allow SMTP connections to the internal network, to protect against a compromised mail server. 90 Touring SmartConsole ... Click the + icon next to the following items to add them to the group: • A-DMZ-NET • A-INT-NET • A-MGMT-NET 153 Check Point Security Administration 8. Connect to the A-SMS. Running queries on the logs is easy, using the many pre-defined queries. The Threat Prevention Policy can contain multiple layers which the Security Gateway installs as one Rule Base. A new best practice was created, but a manual scan was not performed. Select Sessions > View Sessions. Change the Track to Log: 7. 618 Check Point Security .. Figure 469 — Enable Identity Awareness Administration 20. 294 Installing Gaia on a Remote Security Gateway 574 Check Point Security Administration The configuration wizard can configure a Security Gateway that uses one or more of identity acquisition sources. These best practices are based on security considerations and defined by security experts. Next, execute the command without a parameter is entered, the system displays the last historical data recorded. If no policy layer rules match the packet, the Implicit Default rule is 68 Check Point Security Administration 7. Review the list of Relevant Security Best Practices relating to the select item. In the Objects pane, navigate to and hover over applied. Type the following command and press Enter, to display information on eth0: show interface eth0 Figure 39 — show interface eth0 . Finally, create a Meshed VPN community with the London and New York VPN gateways. • Two different users will have two different port range pools, thus allowing the the A-SMS object to view the object summary: 5. 427 END OF LAB 3.3 433 Review Questions ... Identity Gateway to distinguish between the different connection owners. • Perform a backup via CLI. Click the + icon and select the following object: A-GW-Cluster Figure 297 - Policy - Installation Targets Configure d 40. Re-configure d 40. Re-configure the Outgoing rule as follows: Name: Outgoing Source: Alpha-Nets Destination: Any VPN: Any Services & Applications: http https ftp Action: URL Filtering Track: N/A Figure 490 — Outgoing Rule 23. 353 Check Point Security Administration Restoring a gateway or server is just as easy as backing it up. Figure 184 — Static NAT Configuration 223 Check Point Security Administration N AT - G l o b a l P ro p e r t i e s Several Global Properties influence how NAT is handled by a Security Gateway. cd /var/log/CPbackup/backup 364 Check Point Security Administration 9. Verify that only the B-GW (203.0.113.100) is listed as a 221 Check Point Security Administration Static NAT A static translation is assigned to a server that needs to be accessed directly from outside the Security Gateway. Open the Objects menu: Figure 431 — Security Policies - Access Control 521 Check policy target. Point Security Administration 2. There are a few pre-defined profiles that are automatically enabled upon upgrade. Double-click the A-GW-Cluster object to which it is attached. 24 Application Layer Firewall . Select the Check Point image: 4. Ta sks : • Configure the Security Policy for 571 Check Point Security Administration Overview of User Management Components Consistent user information is critical for proper security. Configuring an object for automatic creation of Static NAT rules adds two rules to the Address Translation policy. Identity Awareness. 123 Check Point Security Administration G l o b a l P ro p e r t i e s The Security Policy encompasses more than a set of rules and objects. 487 Check Point Security Administration Analyzing Logs C ollecting Information An important reason for collecting and viewing SmartConsole logs is to research alerts, rejected connections, and failed authentication attempts. 440 Management Software Blades for Policy Management Software Blades for Policy Management. If this rule is non-existent, the Implicit Cleanup rule is applied. Client-based Remote Access The users install an application or software client on their endpoint computers and devices. Verification of sufficient disk space. • Transport layer — Manages the flow of data between two hosts to ensure that the packets are correctly assembled and delivered to the targeted application. the current status of packets according to the size of the packets. Operations that relate to packages can only be performed here. PEP decisions are made based on the identity data collected from the PDP. The following three Global Properties can be modified to adjust the behavior of Automatic NAT rules on a global level: • Allow bi-directional NAT - If Allow bidirectional NAT is selected, the gateway will check all NAT rules to see if there is a source match in one rule and a destination match in another rule. Figure 330 - Manage Layers Tool 370 Check Point Security Administration The URL Filter layer can stand alone as an ordered layer in the Access Control policy or it can be used as an inline layer within another layer, such as the Network layer. Review the details of the device
status. Use the information below to configure the Session Details window: Session Name: DMZ Configuration Description: Created a DMZ object and added a new DMZ access rule. From the Policy drop-down 526 Check Point Security Administration Review Questions 1. The system displays the Topology Settings window. For this reason, it is important to define each rule in the Security Policy in the appropriate order. Cleanup and menu. select Bravo Standard: Figure 311 — Install Policy 37. END OF LAB 5.2 Stealth Rules There are two basic rules that Check Point recommends for building an effective Security Policy: the Cleanup rule and the Stealth rule. When users log in to the WebUI, they see only those features for which they have Read-Only or Read/Write access. Check Point ClusterXL High Availability ensures gateway and VPN connection redundancy for transparent failover between machines. Add a new rule below the Noise rule and configure it as follows: Name: Management Source: A-GUI A-SMS Destination: B-GW VPN: Any Services & Applications: https ssh version 2 Action: Accept Track: Log Install On: Policy Targets 340 Check Point Security Administration 10. To do this, you decide to install only the Security Gateway at the remote site and manage it from the existing Management Server at the corporate headquarters. In the Logs and Monitor tab of SmartConsole, view the block log for the attempted traffic: Figure 383 — Lock Details 16. Username: admin Password: Chkp!234 303 Check Point Security Administration 6. It is often used for a corporate intranet, which is only available to corporate offices. In the Navigation pane, select HTTPS Inspection: 1. Administrators can allow users to access features by adding those functions to the user's role definition. All selected licenses are exported. Concurrent administration is the ability administrators have to work side by side in a single Security Policy without conflict. Add a new rule above the Cleanup rule and configure it as follows: Name: Block Bad Stuff Source: Any Destination: Internet VPN: Any Services & Applications: Spyware / Malicious Sites Anonymizer Botnets P2P File Sharing Facebook-chat Skype WhatsApp Messenger-file transfer Action: Drop Track: Log 397 Check Point Security Administration 2. An example would be a web server or a mail server that needs to allow connections initiated externally. The locations from which users are allowed to access your network. This tagging feature provides more protection activation and deactivation granularity. For instance, it may present a conflict between an administrator who can only make changes from the DMZ to external. A session is the persistent logical linking of two software application 442 Check Point Security Administration S of twar e B l a d e Pa c kag e s To address evolving security needs, Check Point offers several Next Generation Software Blade packages for a complete and consolidated security solution focused on specific customer requirements. • To center, or through processes. the center to other satellites, to Internet and other VPN targets — Use VPN routing for every connection a satellite gateway handles. 521 END OF LAB 5.2 526 Review Questions 528 Introduction to VPN 42 Working with Gaia Portal L A B 1.1 This lab is an introduction to Check Point Gaia. With open servers, licensing is not hardware dependent and can be transferred between old and new L a b 1 .1 Working with Gaia Portal hardware. Application Laver Firewalls operate at the Application laver of the TCP/IP protocol stack to detect and prevent attacks against specific applications and services. If the policy blocks playing Facebook games, the traffic will be blocked whether the traffic is encrypted or not. Configure the window as follows: Add automatic address translation rules: Selected Translation method: Hide Hide behind the gateway: Selected Install on gateway: All Tag: WiFi Figure 492 — Network - NAT Configured 29. A correlation unit is used to analyze log entries and identify events. In the Navigation pane, select Logs > Additional Logging Configuration. Settings configured as Global Properties are enforced by all Security Gateways managed by the Security Management Server. These rules can be customized for individual users or groups. From A-GUI, install the Alpha Security Policy. SmartConsole traffic visibility tools are designed to help administrators effectively monitor traffic and connections, analyze log data, troubleshoot events, and guickly respond to changes in traffic flow patterns or suspicious security activities. The system displays the Access Control policy: Figure 92 — Security Policies - Access Control pol that account to authenticate to the management server until the certificate is renewed. Order of policy layers in a policy. 156-215.80 PREMIUM PDF file (Don't have cryptocurrency) (Free Course in PDF Format SECURITY ADMINISTRATION S t u d e n t & L a b M a n u a l © 2019 Check Point Software Technologies Ltd. 507 Check Point Security Administration Monitoring Traffic and Connections SmartConsole and SmartView Monitor provide a complete picture of network and security performance. Anti-Spoofing confirms that packets claiming Each protocol resides in a different layer of the TCP/IP Model. END OF LAB 5.1 to be from the internal network are actually coming from the internal network interface. 203 Check Point Security Administration 4. 382 END OF LAB 3.1 383 Access Control Policy Layers What type of VPN deployment handles communication between a network and remote users? Challenges include: • • • • Unknown IP addresses for the remote client needs to use unsupported network protocols The local ISP (Internet Service Provider) assigns a non-routable IP address to the remote user Office mode solves these routing problems. RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 and FAR 52.227-19. Use the information below to configure a new Network Group object: Name: Corporate Network Comment: All Internal Corporate Networks Objects List: A-DMZ-NET A-INT-NET A-WIFI-NET Object Comment: Alpha WiFi Network Network Address: 192.168.13.0 Net Mask: 255.255.255.0 Tag: WiFi Figure 248 - New Network 3. The packet from outside the gateway arrives at the Inbound interface, 'i', destined for the web server and passes Security Policy and NAT rules. State tables are covered in more detail in the CCSE course. The browser window will open the Check Point User Center/PartnerMap sign-in page. No With manual Upgrade is adjustments 352 Check Point Security Administration Per for min g B ac kup s Making a copy of the configuration of the Gaia operating system and the management server database is an important step in managing a network. performed when importing to a newer version Yes Table 8: Comparison of Backup Methods Next, delete all the objects in the Source field of the DNS rule. Use the information below to configure a new user: Login Name: Scpadmin Shell: /bin/bash User must change password at next logon: Deselected UID: 0 Assigned Roles: adminRole Access Mechanisms: Web Clish Access Figure 28 — Add User Configured NOTE The system automatically assigns the Real Name and Home Directory settings. This way, you can configure the client to trust the CA. Here are some general guidelines to help you manage your Rule Base effectively. Then, type the following and press Enter: set expert-password 3. If after a predefined time, no message is received from a cluster member, that member is assumed to be down and failover occurs. Remote users are authenticated with a pre-shared secret or digital certificates, including the Check Point ICA and third-party solutions such as SecurID and RADIUS. 561 Check Point Security Administration 14. AD Query and Browser-Based Authentication For Application Control. • IP address of the Security Management or In the NAT section, select Disable NAT inside the VPN community. The system adds a default section
title to the top of the Rule Base: Figure 118 - Section Title 4. Content Awareness Software Blade The Check Point Content Awareness Software Blade provides visibility and control over data transfers in network traffic. The Firewall remembers each reply for an existing request using the state tables. Doing so without configuring the Application Control policy will affect the next lab. 367 Check Point Security Administration Policy Layer Concept Managing the Security Policy of a large network can be overwhelming. Verify that No is selected. This means that the member that was previously in Standby mode prior to failover is now in Active mode and will continue to be in control as the Active member when the failed active member recovers. Other connections are routed in the normal way. 418 Check Point Security Administration Sharing a Policy Layer Confirm that the policy layer created in the Bravo Standard policy is available to be added to the Alpha Standard policy. Using Office Mode to Route Remote Access VPN deployment can present challenges when creating a VPN tunnel between the remote computer or device and the VPN gateway. Notice that the session has been disconnected by the personal administrator: Figure 247 — Security Policies - Access Control Click OK. 441 Check Point Security Administration User Directory The Check Point User Directory Software Blade leverages LDAP servers to obtain identification and security information about network users, eliminating the risks associated with manually maintaining and synchronizing redundant data stores and enabling centralized user management throughout the enterprise. Clear all options: Figure 215 — New Profile - Gateways 20. Configure the Methods for Acquiring Identity page as follows: 1. The default Cleanup rule is an Explicit rule that is

added by default to every new layer. The company's VPN gateway is defined as a central VPN gateway and the partner VPN gateways are defined as satellites. 462 Lab 4.1: Activating the Compliance Software Blade . Click the following option, and the user is prompted with Captive Portal: Continue to this webpage (not recommended) 619 Check Point Security Administration 22. The action for rule 2, instead of accepting or dropping the packet, matches the packet against an inline layer. Click the New icon. Alerts are sent by the gateways to the management server. Installation ensures that each Security Gateway enforces at least one rule. • Geo Policy — Create policy for traffic to or from specific geographical locations. Type the following command and press Enter: show backup status Figure 323 — show backup status 363 Check Point Security Administration 4. If the file already exists, the new licenses are added to the file. 699 Chapter 7: Managing User Access . How users can work remotely. 115 Security Zones . This is referred to as Single Sign On (SSO). Session details — View the session name and description and publish or discard the current session. NAT can be configured automatically or by creating Manual NAT rules. An Admin must provide a password for the Monitor before the Monitor user account can be used. The system supports card-key devices or token cards and Kerberos authentication. 487 Analyzing Logs During this chapter, we wil focus only on two-member ClusterXL deployments. In SmartUpdate, select a license from the License Repository and right-click. Existing user templates can be modified or deleted. The system displays the Manage Policies tab: Figure 299 — Security Policies - Manage Policies 335 Check Point Security 166 Check Point Security Administration 9. In addition, simple methods for activating and installing licenses for Check Point products make it easy to manage all licenses throughout the Administration 2. The system displays the Services & Applications picker: Figure 126 — Services & Applications Picker entire organization solely from the SmartConsole. From A-GUI, launch a web browser and attempt to visit a site on the Internet. 201 Check Point Security Administration Distributing the Certificate 1. If AdminA decides to override the lock, AdminB stays logged in but will have ReadOnly access. Figure 199 -Publishing a Session If the administrator publishes the session, all the changes are saved, made available to other administrators and a new revision of the Manage & Settings tab. readonlyfeatures Comma separated list of Gaia features that have read only permissions in the specified role. Click the New button and the system displays the New Policy window: Figure 301 — New Policy 4. For example, rules controlling access to a DMZ should be placed together. In SmartConsole, view the Security Policies tab. Under the Machine section, click the Communication button. roles Comma separated list of role names that are assigned to or removed from the specified user. The SmartView Monitor Non-Compliant Hosts by Gateway view shows hosts with these states: • Unauthorized — These hosts cannot access the Internet. 439 Check Point Security Administration Ad vanced Threat Prevention Software Blades Threat Emulation Check Point Threat Emulation prevents attacks from zero-day and undiscovered threats. Ta sks : • Review and configure basic settings tab > View Sessions > Actions > Disconnect. • Remote Authentication Dial-In User Service (RADIUS) — An external server stores user credentials and manages authentication of the users to the network devices. Open a Detect record: Figure 163 — Log Details 37. These are called system alerts. Using Cooperative Enforcement, a host that initiates a connection through a gateway is tested for compliance with the Endpoint Security Policy. All Check Point software components must be identical on all cluster members. • Configure the Bravo gateway via the Gaia Portal. If you choose not to configure certificates, the Security Management Server, Security Gateways, and LDAP servers will communicate without authentication. 650 Best Practice Tests . Learning Objectives • Understand the basic concepts of ClusterXL technology and its advantages. In the License Repository, right-click the object. Click and drag the A-DMZ object to the Destination column of the DMZ rule: 6. All solutions are managed centrally through SmartConsole to reduce complexity and operational overhead. 692 12 Check Point Automation Specialist Appendix A: 298 Check Point Security Administration 12. The backup may be stored locally or remotely on a TFTP, SCP or FTP server. Identity Awareness uses source and destination IP addresses of network traffic to identify users and machine identities. Figure 91 — Policy Package Installation **Ouestions and Answers** Mode NOTE If For Gateway Clusters install on all the members, if fails do not install at all is selected, the management server makes sure that it can install the policy on all cluster members before it begins the installation. 310 Check Point Security Administration 19. The Access Control and Threat Prevention policies are discussed in greater detail in the next chapter. The guest must then agree to the terms and conditions written in a network access agreement. To deliver a secure communication and encryption algorithms agreed upon between the two computers. If there is a problem with the active cluster member, the standby members are activated. Username: admin Password: Chkp!234 5. The Boolean operators AND, OR, and NOT are used to create queries with multiple filter criteria in order to refine search results. From this site, an administrator care search and filter the Web 2.0 Applications Database and use Check Point security research when creating rules for actions on applications for use and applies to all users of the computer that its installed on. The score determines the status of the best practice. 444 Check Point Security Administration Licensing Overview All Check Point appliances and software products must be properly licensed and configured on any gateway or management system. Summarize how administration roles and permissions assist in managing policy. • Describe the key elements of Check Point's unified Security Management Architecture. In addition, since the Internal CA on the management server automatically provides a certificate to each Check Point Security Gateway that it manages, it is often convenient to use this type of authentication. The User 316 Check Point Security Administration 9. Figure 319 — Actions Menu 4. • The Terminal Server Agent communicates with the gateway over SSL (usually port 443 unless configured Directory Schema The User Directory default schema is a description of the structure of the data in a User Directory. differently). A policy can have one or more layers as its building blocks. Verify that the following: Figure 60 — Welcome 7. If the Systems Counters view indicates that there are more failures than successes, it is possible that the company cannot accommodate the mass number of employees attempting to log on at once. If not selected, only the first match will be applied. END OF LAB 1.2 104 Check Point Security Administration Deployment Platforms Check Point appliances and open servers are two hardware options for deploying Check Point technology. The query result only shows log records that will match the filter criterion in that specified field. When a packet matches the Tech support rule, the Alert action is executed. To explain the traffic flow of a packet matches the Tech support rule, the Alert action is executed. with the gateway object. The first layer must contain the Firewall rules. Click Next: Figure 173 — Certificate Import Wizard 22. This prevents hosts with malicious software components from accessing the network. 133 Check Point Security Administration Install Policy When changes are made to a Rule Base it is important to install policy to enforce the changes. Sub-policies are also referred to as Inline layers. NOTE Protections are automatically tagged through the IPS update. In the Navigation pane, select Access Control. The VPN gateway encapsulates the IP packets with an available IP address from the internal network. When combined, the Application Control and URL Filtering Software Blades unify web application and widget control for improved security. When a Software Blade is purchased separately from a package, it is referred to as an "a la carte" blade. The number of results are displayed above the Results pane. Figure 380 — Inline Layer Implicit Cleanup Rule Modified 10. Security Gateway Virtual Edition (VE) The Check Point Security Gateway Virtual Edition protects dynamic, virtualized environments and external threats by securing virtual Edition swith the full range of Check Point Software Blades Use the information below to log into SmartConsole: Username: admin Password: Chkp!234 IP Address: 10.1.1.101 Read Only: Deselected Demo Mode: Deselected 94 Check Point Security Administration 3. These rules are in place to defend against network malware infections. The dedicated Log Server must be the same version as the Security Management Server. By clicking the View button, SmartConsole opens in Read-Only mode and shows SmartConsole as it was after the revision was published 141 Check Point Security Administration 10. Conflict on settings The settings, such as MME nesting, differ between layers. Ignore this warning and continue to the site. It provides privacy, securely encrypting all data sent over the network. 373 Check Point Security Administration 5. Select Blades 588 Check Point Security Administration Distinguished Name A DN is a globally unique name for an entity, constructed by appending the sequence of DN from the lowest level of a hierarchical structure to the root. The trust state must be reset on the gateway as well. While the file is run in a sandbox, Threat Extraction reconstructs
incoming documents to deliver zero malware documents in zero seconds. In the navigation pane, select Users. product Display the Gaia version. Double-click a log, to view the log details: 1. This property applies to automatically created NAT rules only. END OF LAB 6.1 569 Check Point Security Administration Review Questions 1. Endpoint is unique in that it requires both a management container and an endpoint container. The Compliance Software Blade enables continuous monitoring, strengthens regulatory compliance, maintains the Security Policy, and reduces audit time and costs. • Access Roles — Access Roles audit time and costs. parameter in a rule. Figure 344 — Network Policy Layer Cleanup Rules In the Network policy layer, the action for the Implicit Cleanup rule is set to drop traffic. Figure 417 — Log Details Window P r e - d e fin e d L o g Q u e r i e s SmartConsole provides a way to guickly and easily search logs using pre-defined log gueries. Add A-GW-Cluster and B GW as participating gateways: Figure 454 — New Meshed Community 4. Note that this user does not have sufficient privileges to execute this command. H i g h Availability provides the ability to maintain a network connection when there is a failure of the active Security Gateway or for maintenance reasons. Desktop Security The Desktop Security policy is the Firewall policy for endpoint computers that have an Endpoint Security VPN remote access client installed as a standalone client. Backups are saved as a tgz file. Once the packets have reached their destination, they are recompiled into the original message. Figure 511 — Gateway Cluster - Cluster 171 Check Point Security Administration 7. Without connectivity, an error message is generated. When the backup is complete, double-click the task to view the file path and name of the backup Members 3. Figure 504 — Two-Member Cluster Each Security Gateway in the cluster is called a cluster member. 159 Check Point Security Administration Organizing the Rule Base Add section titles to the Rule Base to better organize your Security Policy. 335 END OF LAB 2.5 350 Backups ... Next right-click the Accept icon in the Action field of the Marketing Access rule: Figure 487 — Security Policies - Access Control - AppCtrl 18. A Security Policy. Click on the Add Licenses From User Center icon, or from the Launch Menu, choose Licenses & Contracts > Add License > From User Center. Only HTTP traffic is allowed. Integration of policy enforcement with Application Control means enhanced Web and Web 2.0 protection. • Last — The rules in the policy layer were applied and none of them matched. It is built-in and supported on the Gaia operating system. 44. The Cleanur rule deals with all traffic that does not match any Explicit or Implicit rules. However, AntiSpoofing will overrule security zones because it does not automatically trust all networks in a zone. Check with your instructor before continuing to the next step. The Threat Prevention policy unifies the IPS, Antivirus, Anti-Bot and Threat Emulation Software Blade policies. Each view shows statistics related to a specific aspect of the system or to a specific Software Blade. It helps businesses to preemptively protect sensitive information from intentional loss by educating users on proper data handling policies and empowering them to remediate incidents in real-time. 437 Check Point Security Administration Application Control The Check Point Application Control to organizations of all sizes. View the accepted traffic showing the Guest user traffic: Figure 503 - Log Details END OF LAB 7.1 623 Check Point Security Administration Review Questions 1. Use the information below to configure the certificate: Issued By (DN): alpha.cp Private key password: Chkp!234 Valid From: Today until 7 years from now Figure 150 — Create NOTE The Security Gateways need to be configured as Certificate: Authorities in order to issue new certificates to web sites visited by users in the protected domain. • Default port numbers are 389 for standard connections to and from the Security Gateway. It governs how network hardware and software work together and illustrates how different protocols fit together. Select the Licenses & Contracts tab. When connecting to the Internet, protecting the network against intrusion is of critical importance. Audit and estimate costs of network use. 542 Allow All Site-to-Site VPN Connections . When a user or machine authenticates to the domain, an event is created and sent to the Identity 415 Check Point Security Administration 10. Information recorded in a Security Gateway's state tables will be used to modify the destination port of reply packets. Update and close SmartDashboard. In the Navigation pane, select User Management > Roles: Figure Collector agent. 51 Check Point Security Administration 2. Figure 506 — Configure Cluster Member Priority 630 Check Point Security Administration Configuring High Availability The ClusterXL tab is used to configure the cluster for a High 20 — User Management - Roles Availability or Load Sharing deployment. Select Installation Targets from the Navigation pane. • Stealth Rule — To prevent any users from connecting directly to the Security Gateway, add a Stealth rule to your Rule Base. The Compliance Software Blade is used to continuously scan the Security Policy and configuration settings defined within the Check Point Software Blades, Security Gateways and Security Security Gateways and Security Sec the two gateways are then shared between all Security Gateways in the network. For example, logging Implied rules, enabling Hit Count, and defining advanced VPN functions are all settings that are applied as Global Properties. Logout icon to the right of the username, and the system logs the user out of the Gaia Portal: Figure 31 — Gaia Portal Logout 62 Check Point Security Administration Working in Expert Mode Gaia has two modes, Clish and Expert. Information is taken from the repositories on the management server. Check Point licenses can be installed through SmartUpdate. Identify where in the Navigation frame the following items are located: • Application menu • Application main navigation • Session details and actions • Objects management 98 Check Point Security Administration 12. A policy package is a group of 583 Check Point Security Administration RADIUS Accounting gets identity data from requests generated by the accounting client. If users remotely access sensitive information from different locations and devices. System different types of policies that are installed together on the same installation targets. Administrators need to be able to provide secure access to that information. 635 Lab 8.1: Working with ClusterXL . Both the Cleanup and Stealth rules are important information. Next, initiate an FTP session from A-Host to B-Host. After the user authenticates, the VPN gateway assigns an IP address to the remote client. The layers concept also provides more options for policy management, including the ability to set different views and edit permissions per layer for different administrator roles and the ability to reuse a layer in different views and edit permissions per layer for different views and edit permissions per layer for different views and the ability to reuse a layer in different views and edit permissions per layer for different views and the ability to reuse a layer in different views and edit permissions per layer for different views and the ability to reuse a layer in different views and edit permissions per layer for different views and edit permissions per layer for different views and edit permissions per layer in different views and edit permissions per layer for different views and edit permissions per layer in different views and edit permissions p Implementation . This means that internal traffic is allowed to include Credit Card numbers, but traffic destined for an external location would be prohibited. Click Next, and the system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays the following: Figure 482 — Captive Portal Settings NOTE The system displays th option, the Captive Portal requests authentication data from the browser. In the Choose File to Export License(s) To window, name the file
or select an existing file and browse to the desired location. The Security Management Server is also used to maintain and store an organization's databases, including object definitions and log files, for all gateways. Once a Rule Base is defined, the Security Policy can be distributed to all Security Gateways across a network. In the Navigation pane, select Network Management: Figure 99 — Gateway Cluster - Network Management 143 Check Point Security Administration 13. The management server can be located anywhere, and should be routable to either the internal or external cluster addresses. Management duties for specific policy layers and sub-policies can be delegated to a designated administrator. The message displayed should indicate that the connection to the server is encrypted: Figure 177 — www.chase.com 11. Address translation rules are divided into two elements: Original Packet and Translated Packet. 689 END OF LAB 9.2 691 Review Questions . . For each cluster member, the window shows state change and critical device problem notifications. • Unknown — There is no connection between the gateway and management server. END OF LAB 2.6 365 Check Point Security Administration Review Questions 1. Multiple profiles can be created for each gateway and assigned to one or more rules. It deals with all aspects of the physical components of network connectivity, connects with different network types, and is independent of any specific network media. The Security Gateway becomes invisible to users on the network. 700 Check Point Security Administration Chapter 8 Work in g with Cluster XL1. • More — This option, when selected, displays the Track Settings window. This is important for audit purposes. The two sides of the tunnel cannot send or receive data. 87 SmartEvent (Advanced Events and Reports). Email notifications are sent for newly available updates, downloads, and installations. The Member State field shows if the cluster member is Up and active, or Down and standby, or Failed. This is accomplished through onscreen security alerts. In the Navigation pane, select Maintenance > License Status: 1. In the Navigation pane, select License Status. Under the Manage & Settings tab, select Revisions: Figure 137 — Manage & Settings - Revisions 174 Check Point Security Administration 11. 702 13 Security Administration P Welcome to the Security Administration course. This certificate is then used by all Security Gateways managed on the Security Management Server. Learning Objectives • Identify tools designed to monitor data, determine threats, and recognize opportunities for performance improvements. A global set of thresholds for system alerts can be configured and applied to gateways. The Check Point Firewall kernel module inspects packets between the Data Link and Network layers. Lab 2.2 HTTPS Inspection 180 L A B HTTPS Inspection 2.2 In this lab, you will understand how enabling HTTPS inspection affects your environment. Each primary view may also provide additional subviews. Activate or de-activate a regulation by clicking the checkbox next to the regulation. To reset the trust state: 1. 603 Check Point Security Administration Defining the User Access Role Create an access role that allows users in the Marketing department access to restricted sites on the Internet, if they are accessing these sites from the internal network. If a user ID of 0 is assigned to that user cannot be modified. Couple these tasks with the constantly evolving configuration and policy settings and these tasks guickly become daunting, time consuming, complex and costly. Updates are discussed in greater detail in the CCSE course. NOTE We transfer the file here after issuing the hash command to illustrate success. 345 Check Point Security Administration 22. It provides a centralized display of aggregated data and potential attack patterns from perimeter devices, internal devices, Security Gateways, and third-party security devices. In the Objects pane, select Network Objects > Hosts. Do not edit these layer properties. 489 Configure Logging 380 Check Point Security Administration 10. Ta sks : Configure the Application Control & URL Filtering Rule Base. Select Manage policies and layers: Figure 309 — Manage Policies 27. • Import licenses. 19. Each cluster member has three interfaces; one external interface, and one for synchronization. The following process occurs: • Authentication methods, encryption algorithms, and Diffie-Hellman groups are all negotiated. In the NAT page, select the following option: 3. Type the following command, and press Enter. Select the A-GW-Cluster object. 18. In the navigation pane, select Installation Targets. By default, the Implied rules are not logged. 354 Check Point Securit Administration Backup via CLI Log in to the Command Line Interface to perform the backup. Then, add the remote user information to the management server. Name the session Corporate-VPN. Click Apply to run the search. **312 Check Point Security** Administration 23. Select Attach Licenses: 1. Identities are acquired for Mobile Access clients and IPSec VPN clients configured in Office Mode when they connect to the Security Gateway. 351 Performing Backups 422 Check Point Security Administration Testing the Content Awareness Layer Test your environment's security settings by seeing if you are able to transmit credit card information through HTTP traffic. It defines rules for such things as how network resources can be accessed and who can access them, how data security measures are enforced, and how communication occurs within the network. compliant (100) or not compliant (0) while others are based on degree of compliance. Add automatic address translation rules: Selected Translation rules: Selected Translation Method: Static IP Address: 203.0.113.161 Install On: A-GW-Cluster Figure 192 - Host - NAT 10. After a gateway is safely re-installed, take time to query the audits and changes performed in each revision in order to understand what caused the issue to occur. An enhanced help system and auto-completion further simplify user operation. The management server monitors system alerts using the configured system alert thresholds. Another and from Expert mode: clusterXL admin up NOTE The VRRP page of the cluster object. 371 Check Point Security Administration Traffic Flow Through an Ordered Layer Ordered layers are enforced by the gateway. The Security Management Server then distributes that Security Policy to the various Security Gateways. A cluster is two or more Security Gateways configured to act as one unit. It includes all current and past license features as of the time that the software is released and permits the software to support new features. L a b 7.1 Providing User Access 596 L A B Providing User Access 7.1 Enable Identify Awareness to allow you to further refine your Security Policy for specific groups and users in specific sections of your environment. When this happens, another cluster member takes over the connection from the active member. S e c u r i n g t h e S y n c I n te r f a c e Since the synchronization network carries the most sensitive Security Policy information in the company, it is critical to protect this network against both malicious and unintentional threats. SmartUpdate enables remote upgrade, installation, and license management to be performed securely and easily. Clear all options: Figure 216 — New Profile - Access Control NOTE It may be necessary to scroll. Configure rules in the Access Control policy to allow the connections between the VPN gateways. The AD Query finds all AD users and computers. For example, if a packet from an external network has an internal IP address, Anti-Spoofing blocks that packet. Click Edit. Monitoring Tab The Monitoring tab allows a user to view the status and detailed operational statistics, in real time, for some routing and High Availability settings groups. It delivers complete and proactive intrusion prevention, all with the deployment and management advantages of a unified and extensible Next Generation Firewall solution. • VPN trust entities — Includes certificates and shared secrets. Exit Expert mode. Click Publish, and the system publishes the changes and releases the modified objects and rules for all privileged administrators. To do so, a rule must be created in the Rule Base to allow the unauthenticated quests Internet only access from an unmanaged device. 637 Reviewing High Availability Settings ... Organizing the layers this way can present some issues. RADIUS protocol uses UDP to communicate with the gateway. • Evaluate and manipulate rules in a unified Access Control Security Policy. Select Implied Rules from the dropdown menu and the Implied Policy window will appear. included in that layer. 480 Verifying the Status of Existing Licenses in the Gaia Portal . If you use the Paste License option, the fields will be populated with the license details. Search for and double-click the A-WIFI-NET object. Rules allowing internal network access to the Internet should be placed together. • Update the Alpha Security Policy. From the desktop of A-GUI, select Start > All Programs > Check Point SmartConsole [R80.xx version] > SmartConsole [R80.xx version]. Use the information below to configure an object to represent the DMZ server: 1. 495 Check Point Security Administration Creating Log Queries SmartConsole has a powerful and easy-to-use query language that can be used to create custom queries on-the-fly, in seconds. Use the table below to configure the new rule: Name: Job Search Source: Alpha-Nets Destination: Any Services & Job Search/Careers Applications: Linkedin Search Jobs Action: Drop - Blocked Message Track: Log Figure 381 — Job Search Rule 12. NOTE If you are unsure how to transfer the certificate file from A-GUI to A-Host, ask your instructions on how to perform this task in your environment. Name the new access role Guests. To activate Anti-Spoofing, configure the
Firewalled-interface properties. If more permissive rules are located at the top, the restrictive rules may not be used properly. Figure 90 — Installing Policy I ns t a l l a Po l i c y Pac kage is being installed. An explicit rule is required to transfer traffic between the same zone. Endpoint Identity Agents are recommended for leveraging identity for Data Center protection, protecting highly sensitive servers, and when accurately detecting identities is crucial. Use the following information to configure the Management Interface 300 Check Point Security Administration 15. Intrusion Prevention System The Check Point IPS Software Blade combines industry-leading IPS protection with advanced performance at a lower cost than traditional, stand-alone IPS solutions. 288 END OF LAB 2.4 292 Managing Remote Gateways 427 Check Point Security Administration 5. These protections can be overridden per profile. • IPSec keys are generated. However, HTTPS traffic can often hide dangerous web activity and malicious attacks from gateways, passing HTTPS but not inspecting the traffic. 18 Concept of a Firewall Inline and Ordered layers may be reused throughout multiple policy packages, making it simple to create and manage policy packages. 445 Perpetual versus Subscription Blade Licenses . The rules in the URL Filter layer, when used in another layer, are referred to as sub-policies. 176 Enabling HTTPS Inspection . B row s e r - B a s e d Aut h e n t i c a t i o n Browser-Based Authentication is HTTPS based. The default shell of the CLI is called Clish. 449 SmartUpdate To revert changes to a previously installed policy navigate to the Installation History tool and select the desired version to be installed. Navigate to the following address: Figure 158 -196 Check Point Security Administration 24. Right-click the Action column and select Inline Layer: 1. It will be available once the administrator logs back in. Copy the r80.cer file to the A-Host desktop. S — Allows you to manually set the number or rows and columns displayed. The policy must be published before it can be installed. 488 Deploy Logging . Click the New Layer button, and the system displays the Layer Editor window. The security zone can be matched in a rule as a source zone or a destination zone. NOTE This chapter only discusses High Availability clusters for Security Gateways. 85 Manage & Settings Tab . On the General Properties window, note that the version has changed to the current version: Figure 291 — Gateway Properties 327 Check Point Security Administration 26. The Security Gateway uses the password to sign certificates for the sites accessed. Right-click the No. column of the first rule in the Rule Base: 1. Use the following command to verify that the license is installed: cplic print 455 Check Point Security Administration There are three ways to add a license to the License & Contract Repository: from the User Center, from a file, or manually. Notice that both the Bravo Security Gateway and the Alpha Security Gateway cluster are listed as policy targets. 684 Check Point Security Administration Changing the Refresh Rate of CPView Manually edit the setting that defines the refresh rate. 366 C H A P T E R Policy Layers 3 Check Point's policy layers concept creates more options for Security Policy management. New and varied threats produce new defenses, more security vendors, costly new hardware, and an even more complex security environment. Configure the window as follows: 1. • Phase 1 — This phase operates in Main mode, which protects the identity of the two peers. The following profiles are defined by default, each corresponding to a specific LDAP server: • • • • OPSEC_DS — Default profile for a standard OPSEC certified User Directory Server Novell DS — Profile for a Novell Directory Server Novell DS — Profile for a Novell Directory Server Netscape Directory Server Novell DS — Profile for a Novell Directory Server Netscape Directory Ser 577 Check Point Security Administration Act i ve D i r e c to r y (AD) Q u e r y The Active Directory Query is a clientless identity acquisition method that allows the Security Gateway to seamlessly identify Active Directory users and computers. Logs are not automatically forwarded to a new Log Server. 66 Check Point Security Administration 3. LDAP Groups LDAP groups are created to classify users. The Compliance Software Blade is an integral part of monitoring the network's compliance with security standards. Afterwards, the guest is provided access to the Internet for a specified period of time. The fundamental concept of the Rule Base is "a connection that is not explicitly allowed is denied". 634 Monitoring a Cluster . Use the following information to configure the Additional Info tab: Contact Details: Bob in Dallas Phone Number: 1-972-555-0101 Email: Tag: IPS Figure 223 — New Administrator - Additional Info NOTE This screen may appear different than what is shown here, depending on which build of the R80.xx software you are using in your environment. Only administrators with the applicable permissions can create and manage permission profiles. Each administrator will have different sessions assigned. Special features include DSL and Web Management. To download your .vce reader click here Download CCSA R80 Free VCE Files Exam Title Files 156-215.80 Check Point CCSA R80 Free VCE Files Exam Title Files 156-215.80 Check Certification for free. • A progress indicator shows the progression of the operation. Media Encryption The Check Point Media Encryption Software Blade provides centrally enforceable encryption of removable storage media such as USB flash drives, backup hard drives, 6, and 7 are not always clear. Administrator permission profiles are configured in the Manage & Settings tab of SmartConsole. Next, log into the A-SMS: Figure 65 — A-SMS Clish 95 Check Point Security Administration 5. Special features include flexible input/output. • Who are the administrators and what 184 Check Point Security Administration 10. To add a license manually: 1. • Verify the status of existing licenses in Gaia Portal. In order to run are their roles? fw tab -t connections -s Figure 516 — fw tab -t connections -s 642 Check Point Security Administration 5. some CLI commands, you must be in Expert mode. • The time displays how much time the operation takes to complete. If the upgrade or distribution operation fails, use the command line to revert the disk to the saved image. Click Add, and the system displays the MGMT Daily backup in the Scheduled Backup list: Figure 318 — Maintenance > System Backup 6. 33. There are two types of tests: global and object-based. Add a new rule below the Block Bad Stuff rule and configure it as follows: Name: Streaming Rule Publish the changes. At the prompt, type the following and press Enter: cpconfig 6. It provides an infrastructure to ensure that data is not lost. Figure 12 — Gaia Software Updates Policy Page Hotfixes are downloaded and installed manually. Once configured with RADIUS, the Security Gateway becomes a RADIUS server client. This allows misuse or intrusion, due to improper rule configuration. 393 Creating a Rule to Block an Application . .. To view this pane, select Packages > View Repository. Results pane — Shows log entries for 350 Check Point Security Administration Backups Check Point provides several methods for backing up and restoring the operating system, networking parameters, and appliance configurations. • VPN management tools — Includes the management server and the most recent query. END OF LAB 2.5 SmartConsole, which allow companies to easily define and deploy Site-to-Site and Remote Access VPN tunnels. In the illustration 192.9.100.10. For example: cplic put 1.1.1.1 31Dec2015 dw59Ufa2z-eLLQ9NBgP-uyHzvQWKrHeSo4zLQx CPSG-C-2-U CPSB-FW Select the 614 Check Point Security Administration 4. The Firewalls in the community encrypt and decrypt the connections, however it is still necessary to configure them to allow the connections through the Firewall. 436 Security Gateway Software Blades . As a result, if an Licenses & Contracts tab in SmartUpdate. administrator is accidentally disconnected from the
management server, any changes made will not be lost. • Create and confirm administrator users for the domain. Review the logs. The policy is configured to prevent sensitive company information, such as confidential human resources documents, from inadvertently getting into the wrong hands. With SAs, System Administrators can manage exactly which resources can securely communicate per the Security Policy. Publish the change. In SmartConsole, navigate to the Alpha Standard policy. Pre-defined queries are organized into folders according to Software Blade commit End a transaction by committing changes. 481 Check Point Security Administration 5. Click Next: Figure 169 — Certificate Import Wizard 9. 308 Check Point Security Administration 16. If you can establish an FTP connection, then fail-over is working. 502 END OF LAB 5.1 507 9 Check Point Automation Specialist Monitoring Traffic and Connections 476 Check Point Security Administration 3. Automatic scans are also performed when an administrator changes objects that affect gateway or policy configuration. A new certificate is created and used for new HTTPS connections. • Relevant Objects — Related objects and their status. Each best practice is scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scale of 0 to 100 by averaging the results for each object scored on a scored on a scored on a with the appropriate set of gateways, thereby eliminating the need to repeat the gateway selection process each time you install the package. 232 Check Point Security Administration Configuring Static Network Address Translation Configure Static NAT on the DMZ server, LDAP server, and the Security Management Server. To view implied rules and change their position in the Rule Base, navigate to the Security Policies view and click on the Action button located in the toolbar. Figure 7 — Clish and Expert Shells 27 Check Point Security Administration Commands and Features Gaia commands are organized into groups of related commands called features. For Data Center and internal server protection. This is because it already exists in the first blade. It should always be placed at the bottom of the Rule Base. Then create a new customized profile that is assigned to an administrator that only has privileges to manage IPS functions. Restart SmartConsole and log in as the admin user. No additional hardware, firmware, or drivers are necessary. Next, edit the A-MGMT-NET object. It is an advanced log analyzer that delivers split-second search results, providing real-time visibility into billions of log records over multiple time periods and domains. Threat Prevention policy packages consist of the following policy types: • • • • IPS Anti-Bot Antivirus Threat Emulation 128 Check Point Security Administration The Threat Prevention policy has its own Exceptions section. These rules are applied immediately. 320 Creating a New Security Policy Therefore, it is advisable to be aware of the pending expiration dates of all licenses. Configure the window as follows: Leads To: This Network (Internal) Security Zone: InternalZone Perform Anti-Spoofing based on interface topology: Enabled Anti-Spoofing action is set to: Prevent 145 Check Point Security Administration 16. In the new VPN Traffic rule, right-click in the VPN field, and select Specific VPN Communities. Per for mance Object ives: • Prepare and schedule backups for the gateway. Select an unexpired license: Spoof Tracking: Log Figure 101 — Topology Settings Figure 409 — Attach Licenses 4. In the search field, enter VPN to view only VPN related logs. Remote Access For users that access the organization via VPN. Review existing Security Policy settings. From the A-GUI virtual machine, launch an Internet browser, such as Firefox or Internet Explorer. In SmartConsole, compliance status can be viewed by best practice, regulation, gateway or Software Blade. In SmartConsole, select Gateways & Servers from the Navigation bar. Each rule in the Rule Base contains a Threat Prevention selated to the enforcement of the Threat Prevention Software Blades. Scroll to view the Regulatory Compliance pane. Implicit Cleanup Rule — This default rule is applied if none of the rules are matched. GLBA USA Gramm-Leach-Bliley Act. Network Object, Service, VPN Community, User, and Server are five object, Service, VPN Community, User, and Server are five object categories. Next, use the information below to log in as a different user: Login: rtradmin Password: Chkp!234 Figure 51 — PuTTY Session - rtradmin 75 Check Point Security Administration 10. This means that user definitions are easy to change and manage. Use this view to identify VPN tunnel malfunctions and connectivity problems. Since Permanent Tunnels are constantly monitored, if the VPN tunnel is down, SmartConsole can send a log, alert or user 471 Check Point Security Administration 4. Double-click the B-GW object. After the file has been download, return to SmartUpdate to add the license & Contract Repository using the From File or Manually method. As noted before, Access Control policy layers are inspected in defined action the order in which they are defined. In this section, you will define operating system level users. 436 Check Point Security Administration S e c u r i t y G a teway S o f t wa r e B l a d e s Firewall The Check Point Firewall Software Blade is the industry's strongest level of gateway security and identity awareness. SmartEvent automatically prioritizes security events for action. Customized thresholds can also be configured for each gateway. It defines the format for data conversion. Policy, into smaller, more manageable sections that serve a certain purpose. Cluster member priority rankings can be modified at any time. Figure 416 — Track Settings Window 492 Check Point Security Administration The following options can be added to a Log: • Accounting — If selected, the log is updated every 10 minutes to show how much data has passed in the connection, such as upload and download bytes and browse time. Notice that all editable fields are grayed out and that the object color is still Firebrick: Figure 242 — Gateway Cluster - General Properties NOTE The personal administrator cannot edit the object nor see the color change because the object is locked by another administrator and the changes have not been 328 Check Point Security Administration 28. 9. NOTE After the expiration date, the account is no longer published. The user downloads the Endpoint Identity Agent from the Captive Portal and installs it on their computer. Verify that the following interfaces were imported as shown above: • eth1 • eth3 authorized to access network resources and applications. These alerts are sent when the following occur: • Events related to products, which are configured to be tracked as alerts, are matched by a connection. Cooperative Enforcement acts as a middle-man between hosts managed by an Endpoint Security Management Server and the Endpoint Security Management Server. Users and user groups in the Account Unit show in the same tree structure as on the LDAP server. 474 Check Point Security Administration 10. Secure Internal Communication is now established: Figure 289 — Trusted Communication 23. A user logs in to a computer using his Active Directory credentials. Rugged Appliances The Check Point Rugged appliance delivers Next Generation Threat Prevention for Critical Infrastructure and Industrial Control Systems. Figure 393 — License Status Options 461 Check Point Security Administration L i c e n s e Re p o r t s To generate a report of all licenses allocated for your full network environment: 1. 275 Check Point Security Administration 13. Open the Network layer by double-clicking it. To view this pane, select Licenses & Contracts > View Repository. Check Point appliances and open servers are two hardware options for deploying Check Point technology. Add the B-GW object to the list of installation targets: Figure 310 - Policy - Installation Targets 32. Clish is a restrictive shell and does not provide access to advanced system and Linux functions. Click OK, and the system displays the new user in the Users list: Figure 29 - User Management - Users - User Added 12. Click OK, and the system adds the
B-INT-NET object to the Source column of the Outbound rule: Figure 307 - Outbound Rule 344 Check Point Security Administration 20. Figure 119 — Rule Base Click the Publish button. Complete the steps required to initialize trust. Check Point Security Administration The SmartConsole is an all-encompassing, unified console for managing Security Policies, and managing a multi-domain environment. Launch SmartConsole. Best Practices For the most effective Rule Base, and to conserve resources, it is best practice to place rules that filter out a significant amount of traffic at the top of the Rule Base. In the Navigation pane, select Installation Targets. 107 Deployment Considerations . Concurrent administration is a feature in SmartConsole which allows multiple administrators the ability to work simultaneously on the same policy without conflict. reboot Restart the system. From SmartConsole, navigate to the Logs & Monitor tab. Figure 522 — Compliance Best Practices 652 Check Point Security Administration To find out more information about each best practice test, click the See All link in the Security Best Practices Compliance section. 557 Testing the VPN. . In most cases you do not need to worry about the cp.macro files. From the Navigation pane, select Encryption. 241 Check Point Security Administration Create a Permission Profile To create a new permission profile: 1. Consider only using this command when you need to regain access to the gateway and all other measures have failed. When the Accept option is added, in 297 Check Point Security Administration 8. cases where the source identity is unknown and traffic is HTTP, the user is redirected to the Captive Portal. To install the User Database on selected targets, log in to SmartConsole, and from the menu options, select Install Database on selected targets. needed to protect companies from those attacks. Verify that the following Security Gateways are listed as members: • A-GW-01 • A-GW-02 638 Check Point Security Administration In the Navigation pane, select ClusterXL and VRRP. Per for mance Objectives: • Utilize various traffic visibility tools to maintain Check Point logs. With a One Rack Unit (1RU) mountable form factor, the appliances are designed to meet protection needs and match the performance requirements of an enterprise network. Ta sks : • Verify the status of existing licenses in SmartConsole. In SmartConsole. In SmartConsole. In SmartConsole. In SmartConsole. Ta sks : • Verify the status of existing licenses in SmartConsole. SmartConsole . Name the five Check Point all-inclusive Software Blade package solutions. These Check Point features are further enhanced with the SmartConsole interface and the Gaia operating system. Select the following option: Enable Identity Captive Portal Figure 488 — Action Settings 607 Check Point Security Administration 20. 15 Lab Topology . In the Certificate Store page, select the following option: Place all certificates in the following store Figure 166 — Certificate Import Wizard Click the Browse button. If the thresholds are reached, it activates the defined action. 278 Check Point Security Administration 6. ACE manages the database of RSA users and their assigned hardware or software tokens. Ta sks : • Add a Data Awareness layer to the Bravo Standard policy. The Security Gateway enabled with Identity Awareness layer to the Bravo Standard policy. notation. Navigation toolbar — Navigate between SmartConsole views. Navigate to the Network policy layer. (This column is not shown in the figure below.) • Name — Gives administrators a space to name the rule, helping to annotate the Rule Base; by default, it is blank. Figure 343 — Implied Policy Rules Window An Explicit rule is a rule configured anisms Defines the access mechanisms that users can work with to manage Gaia. This section allows an administrator to create global exceptions and exception groups. NOTE Stateful Inspection technology was developed and patented by Check Point 199 Check Point Security Administration 34. The second rule instructs the Security Gateway to translate packets whose source IP address is part of the tunnel are verifying the credentials to create the VPN tunnel. Click OK to exit the A-GW-Cluster object properties. Click the right arrow and the system displays the following: Figure 74 — Manage & Settings 21. 447 License Activation. It is also known as a Firewalled machine. Figure 197 — New Profile Window When configuring a new policy layer in the Access Control policy, the Permissions tab will automatically populate a list of profiles that have 106 Check Point Security Administration Additional Check Point Appliance Solutions permissions to edit this layer, based on the Software Blades enabled for that policy layer. 130 Additional Policy Management Tools . 267 Check Point Security Administration 3. Choosing the right security appliance for a specific deployment situation can be a challenging task. Figure 367 — Data Protection Rule NOTE By "Negating" the field, the firewall will apply this rule to all traffic that doesn't match the items in the cell. Up to eight cluster members are supported in ClusterXL. On A-GW-01, type the following and press Enter: cpstat vpn -f traffic -o 1 14. Te r m i n a l S e r ve r I d e n t i t v A ge n t s Terminal Server Identity Agents are used to identify users in a Terminal Server sthat host Microsoft Terminal Servers, Citrix XenApp, and Citrix XenDesktop. An Account Administrator or Licenser will generate a license file through the Check Point User Center and then apply the license via SmartUpdate, an application within SmartConsole. history off Turns off the CPView history daemon. It is based on Active Directory users and machines to IP addresses in a method that is completely transparent to the user. For example, if a computer with IP address 10.1.1.201 needs to access 8.8.8.8 on the Internet for DNS, an outgoing request rule is required for the incoming reply for the same connection. Enter Expert mode: Figure 324 — expert 5. 608 Check Point Security Administration 22. 216 Hide NAT. From A-GUI, log into the A-SMS through the Gaia Portal using the following credentials: Username: admin Password: Chkp!234 2. NOTE The User Directory on a management-only server cannot be configured to authenticate to an LDAP server using certificates. At this point, the trust state is initialized but not trusted. The IPSec protocol suite supports secure IP communications that are authenticated and encrypted on private or public address, all machines that reside on the network represented by this object. Confirm the user can view log details by double-clicking one of the displayed logs: Figure 231 — Log Details Close the Log Details window. In the Objects pane, select New > More > User created through SmartConsole will use one of the following authentication schemes: • Check Point Password — Each user defined on the management server will have a corresponding password stored on the internal database. It also supports: • • • • IPv4 and IPv6 network protocols. Figure 238 — Security Policies - Access Control Policy 280 Check Point Security Administration 11. You will configure both Static and Hide NAT for your environment. Disable HTTPS inspection, if it is still enabled. The Security Gateway lets you control access privileges for authenticated users, based on the administrator's assignment of users to RADIUS groups IP tells the packet where to go and how to get there. 470 Check Point Security Administration Verifying the Status of Existing Licenses in SmartConsole Use SmartConsole to access SmartUpdate and verify license status. 96 Check Point Security Administration 9. Time should be military time in hours, minutes, seconds. Define the new rule according to the following table: 1. Consult your instructor if you are using a different configuration. 222 NAT - Global Properties . The Cluster Control Protocol (CCP) connects and binds the cluster members to each other. Ta sks : • From Gaia Portal, download and install SmartConsole. Many organizations amend policy regularly but only publish policy during a change window. The system displays the following window: 3. 67 Check Point Security Administration 5. 17 Related Certification . Authentication is how the VPN gateways are completely certain that they can trust the 448 Check Point Security Administration Offline Activation The Offline Activation method is available for all Check Point installations. As long as responses to the packets are received, the VPN tunnel is considered up. There are other networks and share data. Figure 386 — First Time Configuration Wizard four policy types available for each policy package: • • • • Access Control QoS Desktop Security Threat Prevention Figure 87 — New Policy Window — General Tab 127 Check Point Security Administration Access Control The Access Control policy package consists of these types of rules: • • • • Firewall Application Control and URL Filtering NAT Content (Data) Awareness Quality of Service (QoS) is Check Point's policy-based bandwidth management solution which allows for prioritizing critical traffic, such as ERP, Voiceover IP (VoIP), database and Web services traffic over less time critical traffic. The question mark matches a single character whereas the asterisk matches a character string. 455 Attaching and Detaching Licenses. A pop-up window will appear. User Directory user management requires a special license. readwritefeatures comma separated list of Gaia features that have Read/Write permissions in the specified role. . In the Content Awareness policy, add a new rule to the top of the Rule Base. Assign the following permissions to the rtrRole role: Route: Read Only Route Map: Read Only Static Multicast Routes: Read / Write Figure 24 — Add Role - Privileges Assigned 55 Check Point Security Administration 7. 617 Check Point Security Administration 18. Figure 363 — Policy In the Access Control section, click the + icon. 468
END OF LAB 4.1 469 Lab 4.2: Working with Licenses and Contracts . 15 Check Point CheckMates . After the drive is formatted and the installation is complete, the system displays the following screen: Figure 262 — Installation Complete 301 Check Point Security Administration 18. User Directory eliminates the risks associated with manually maintaining and synchronizing redundant data stores and enables centralized user management throughout an organization. Navigate to the Licenses & Contracts tab. 448 8 Check Point Automation Specialist Hardware Licenses . Permission profiles allow for granular control over who can perform certain tasks, such as backups, scripts, policy installations and logging. To store logs on a dedicated computer instead of the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the management server, install one of more standalone Log Servers In SmartConsole, enable logging on the m on the standalone Log Servers, or on all of them Configure the Security Gateways to send logs to the Log Server or the domain Log Server. In the Objects pane, click the New button. (This column is not shown in the figure below.) Figure 80 — Default Rule 114 Check Point Security Administration Objects In SmartConsole, objects are used to represent physical and virtual network components, such as gateways, servers and users, as well as logical components. 686 Check Point Security Administration Viewing Historical Data in CPView Use CPView to see historic data from a specific date. 541 Access Control for . The Security Gateway will process packets destined for the HR Server even though that IP address is not bound to its interface. It continually provides log information on real-time traffic, making it easy to monitor what is going on in the network. If ClusterXL is VPN Connections installed on Open Servers, then it must be installed in a distributed configuration, in which the cluster members and the management server are installation. If a VPN tunnel needs to be created with a VPN gateway that is management server (externally managed) then it is often necessary to use pre-shared secrets for authentication. The most effective way to secure the Internet link is to put a Firewall system between the local network and the Internet. Type and confirm the following password: Chkp!234 Figure 325 — set expert-password Enter Expert mode. Click New Profile. In the Navigation pane, select 591 Check Point Security Administration Retrieving Information from a User Directory Server When a gateway requires user information for authentication, it goes through the following process: 1. • Apply useful commands. Figure 397 — Check Point Host - General Properties Location. 468 Check Point Security Administration Click OK. These regulations include financial privacy guidelines and safeguards related to information security. The gateway searches for the user in the internal users database. Each layer corresponds to one or more layers of the OSI Model. • Place the most restrictive rules at the top of the policy, then proceed with the generalized rules further down the Rule Base. From the A-Host virtual machine, launch a web browser. Figure 331 — Inline Mode versus Ordered Mode Traffic Inspection Access Control policy layers are inspected in the order in which they are defined. Esc: Returns to the Menu Mode. Verify that the MyIntranet object appears as follows: Figure 455 — New Meshed Community - Encryption 7. In the Certificate Store page, select the following option: Place all certificates in the following store 18. 108 Check Point Security Administration Standalone In a Standalone deployment, the Security Management Server and Security Gateway are installed on the same computer or appliance. The default rate is 2 seconds. • Allow images to be uploaded to Facebook but not documents or financial information. Depending on the traffic flow and service, inspection may transcend multiple layers. halt Turn the computer off. 231 Check Point Security Administration 24. 575 Check Point Security Administration Methods for Acquiring Identity Identity Awareness obtains identities using the following acquisition methods. Once HTTPS Inspections have been created, the Access Control Policy must be installed. This is an example of how the date and time parameter should be entered: 31.12.2015 07:15:00 2. 501 Check Point Security Administration Viewing Logs and Log Search Results View live logs and run a series of searches to examine historic data. External, Internal, and DMZ security zones are always available on the gateway by default. Packets sent by a satellite gateway pass through the VPN tunnel to the central gateway before being routed to the destination address. Install a Terminal/Citrix services after you enable the Terminal Servers identity Agent — Install policy. Attempt to add a new rule to the Rule Base: Figure 228 — Security Policies - Access Control NOTE Most action buttons and menu items are unavailable to this user based on the assigned role of Read Only. 701 Check Point Security Administration Chapter 9 Administrato r Task Impl em enta ti on 1. S ite -to- Si te V P N D e p loyme n t A Site-to-Site VPN deployment handles secure communication between offices that are connected by the Internet. Identity Awareness removes this notion of anonymity by using source and/or destination IP addresses of network traffic to identify users and computers. Click the right arrow and the system displays the following: Figure 70 -Gateways & Servers 13. 266 Check Point Security Administration Configuring IPS Enable the IPS software blade to illustrate administrator privileges. Stateful Inspection differs from Packet Filtering in that it deeply examines a packet not only in its header, but also the content of the packet up through the Application layer to determine more about the packet than just information is translated on the post-in side of the interface, 'I', before it is routed. Hover over the A-GUI object, and the system displays the object summary: Figure 93 — A-GUI Object Summary 4. Add a new rule below the Management rule and configure it as follows: Name: Stealth Source: Any Destination: B-GW VPN: Any Services & Applications: Any Action: Drop Track: Log Install On: Policy Targets 11. The Header section displays the time at which the statistics shown were gathered, which is updated every time the statistics are refreshed. 458 Export a License . This setting persists after restart of Check Point applications. Chapter 6: Basic Concepts of VPN • Understand Site-to-Site and Remote Access VPN deployments and communities. Licenses for subscription blades can expire. 441 Endpoint Software Blades . 267 Testing Profile Assignments .. Use the information below to log into SmartConsole: Username: auditor Password: Chkp!234 Server: 10.1.1.101 Figure 227 — SmartConsole - Login 2. All other layers may be ordered according to organizational need. Click Publish. Each rule can be assigned with a profile. Using TACACS, the gateway forwards authentication requests by remote users to a TACACS server. This layer formats and encrypts data to be sent across the network. • Translate Destination on client side — For packets from an external host that are to be translated according to Static NAT rules, select this option to translate destination IP addresses in the kernel nearest the client. Packets are inspected to ensure the validity of the content and to prevent embedded exploits. • Dependency — Dependency on other best practices. Additional Information section — View a summary of the selected rule along with details, logs, and history. Select Object Explorer. NOTE Expert mode is root BASH. From Expert mode, run the following command and press Enter: tcpdump -ni eth1 NOTE This runs a packet sniff on eth1. The payload helps the clients to understand if their peer is behind NAT. The AH protocol authenticates the IP header and datagrams, provides connectionless integrity, and ensures that the header and pavload have not been changed since transmission. Issues may also be resolved using the command line. Figure 546 - CPView - Overview 2. When a connection matches rules in more than one layer, the gateway enforces the strictest action and settings. The packet arrives at the TCP/IP stack of the gateway and is routed to the Outbound interface,
'o'. NOTE Security zones will not work in Manual NAT rules. Close the Session Details window, and the system displays the newly configured Session Name. 412 Adding an Ordered Policy Layer . .. The following is an example of a rule that redirects the user to the 132 Check Point Security Administration Updates The Update tool is used by both Access Control 493 Check Point Security Administration Log Details Double-click a log to view the details of that log. Captive Portal. Command Line — Run API commands and scripts. and Threat Prevention policies. • Understand how to manage user access for internal and external users. Figure 345 — AppWiki URL Filtering Software Blade protects companies and users by utilizing cloud-based categorization of over 200 million websites. 592 Check Point Security Administration Authenticating Users Security Gateways authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users using credentials and manage them using different authenticate individual users user

273 Check Point Security Administration 10. From there, the administrator can search and filter Check Point's Malware before it enters their environment and respond appropriately when malware does intrude the environment. It is located between the Check Point kernel and the network interface. ESC ESC Display possible command completion options. The intuitive WebUI delivers a seamless user experience for Security Administrators by integrating all management functions into a Web-based dashboard accessible via most popular Web browsers. 491 Tracking Rules . Confirm that there are two concurrent administrator sessions active at this time: 1.77 SmartConsole . Type the following command and press Enter: set expert-password 6. Users not identified will be redirected to the Captive Portal. Use SmartConsole to create VPN deployments and topologies for a network to easily share internal resources with authenticated users. Negotiation Elements Standard Options Encryption Algorithm AES, 3DES Hash Algorithm SHA1, MD5, SHA-256 Authentication Method Certificate, Pre-shared Key Diffie-Hellman Group for IKE Group 1, (768 bit), Group 2 (1024 bit), Group 5 (1536 bit), Group 14 (2048 bit) Table 16: Negotiation Requirements 530 Check Point Security Administration • Phase 2 — This phase is called Quick mode. Once the management server has been successfully upgraded and contains a contract file is transferred to a gateway when the gateway is upgraded or the contract file is retrieved from the management. • OS Password Each user defined on the management server will have a corresponding password stored on the operating system. It operates in extreme temperatures and complies with industrial specifications for heat, vibration, and immunity to Electromagnetic Interference (EMI). This is referred to as an Active/Standby cluster. Now, the gateway can safely 559 Check Point Security Administration Navigate to the NAT policy. The alerts are defined by specified scripts. Like a physical server, the Software Blade would equate to a communicate with other Check Point gateways and management servers that have a security certificate signed by the same ICA. physical blade server. Security Gateway Software Blades are licensed per gateway, whereas Security Management Software Blades require one management software Blades require one management software Blades are licensed per gateway, whereas Security Management software Blades are broken down into the following tabs: Gateways — Provisioning and Scripts permissions Access Control — Access Control policy permissions Threat Prevention — Threat Prevention policy permissions for Common Objects, user databases, HTTPS Inspection features, and Client Certificates • Monitoring and Logging — Permissions to generate and see logs and to use monitoring features, and Reports — Permissions for SmartEvent features • Management — Permissions for managing sessions and administrators • • • • NOTE A Super User is an administrator with full access to all system resources. 695 Chapter 3: Policy Layers 384 Network Policy Laver. Once the trust state has been reset, it is updated with the serial number of the revoked certificate. In the policy Rule Base, an alert can be configured to be issued if traffic matched the rule. Verify that the Global Properties 5. Figure 116 — Global Properties 5. Figure 116 WebUI. Through this client, an administrator can add licenses to the central license repository and assign those licenses to components as necessary. Navigate to the Alpha Standard AppCtrl policy. The System Administrators combine multiple VPN domains into a VPN community, 390 Creating a Content Awareness Policy. Delete a value from the system. The root becomes the relative DN. Referred to as Primary Up, this option is recommended if one member is better equipped for handling connections. Figure 59 — Downloads 90 Check Point Security Administration 5. An LDAP server holds one or more Account Units (AU). Tabs — Navigate between different policy packages. CCP is used specifically for clustered environments to allow gateways to report their own states and learn about the states of other members in the cluster. Navigate to the AppCtrl policy layer in the Alpha_Standard policy. Endpoint Identity Agent from the Captive Portal. In the Topology section of the General page, click Modify. • Keep it simple. The figure below represents how inbound connections are inspected. The following sample rule allows all connections. Log into B-GW with the following credentials: 3. • Auditor (Read Only All) — Administrators can see the configuration, but cannot change it. Layers can also be shared and used in multiple policies. Traffic is not logged. CLI can be used via SSH or a web browser. In the Tops pane, select Top Services > http: Figure 424 — Logs & Monitor - Logs 14. For example, a company has corporate offices in two countries, London and New York. to group similar rules according to their function. The management server must be able to send information to the remote gateway, such as during policy installation, and receive data, such as logs and alerts from the remote gateway. 625 Overview of ClusterXL. Figure 399 326 Check Point Security Administration 24. Table 10: Policy Layer Conflicts and Resolutions NOTE For pre-R80 gateways, the IPS Software Blade is - Gateways & Servers 3. Click OK, and the system displays the interface information retrieved from the new gateway: Figure 290 - Get Topology Results inactivated by default in the Threat Prevention policy. Translating the connection (typically the "client" of the connection) is called Source NAT. • Static NAT — a one-to-one relationship where each host is translated to a unique address; this allows connections to be initiated internally. For example, if you have a certified OPSEC User Directory server, apply the OPSEC-DS profile to get enhanced OPSEC-specific attributes. 510 Check Point Security Administration M o n i to r i n g S u s p i c i o u s Ac t i v i t y Ru l e s Suspicious Activity Monitoring (SAM) is a utility that is integrated in SmartView Monitor. Policy cannot be installed if the changes are not published. If you have a large user count, Check Point recommends using an external user management database, such as LDAP, for enhanced management server performance. Figure 533 — CPView User Interface 669 Check Point Security Administration U s ing CPV i ew The CPView utility is a useful tool for troubleshooting live performance issues and investigating history of a machine's behavior. In the toolbar, click the following: HTTP Post Figure 374 — HTTP Post 3. 46 Check Point Security Administration 11. For routing to work properly, Translate to IP Address configuration must be on the same subnet as the Security Gateway's IP address. • Test user role assignments. Mail and Web Servers Allows incoming traffic to the mail and web servers that are located in the DMZ. 552 Check Point Security Administration Creating the VPN Community Define the 144 Check Point Security Administration 15. In addition, there is no requirement to purchase all software solutions, only the necessary Software Blades. In this window alert attributes can be set and VPN community that specifies how encryption takes place. The CRL is a database of revoked certificates. displayed alerts can be deleted. 17. Identity Source Organizational Requirement AD Query For logging and auditing or basic enforcement. There are five statuses: Secure, Good, Medium, Poor, and Not Applicable. • Create a rule to block specific applications. During this phase, the IPSec peers authenticate and establish a secure channel for communicating. Figure 9 — WebUI Users Page There are two default users that cannot be deleted. In doing so, it lowers the load on the gateway and minimizes the vPN communities. • Destination — Displays the Object Manager screen, where you can select resource objects to add to the rule; the default is Any. 7. Close the log. • Hits — Tracks the number of connections each rule matches on this gateway. QoS policy rules are similar to Firewall rules, however its primary purpose is to enforce bandwidth and traffic control rules. Configure the Servers Configuration page as follows: Web Server: Selected Mail Server: Selected DNS Server: Deselected Figure 121 — New Host - Servers 6. It is not actually necessary to do so. 505 Check Point Security Administration 12. 635 SmartView Monitor . No part of this product or related documentation may be reproduced in any form or by any means without 105 Check Point Security Administration Data Center Security Systems Check Point Data Center Security appliances prior written authorization of Check Point. Select System Backup. A failover takes place when one of the following situations occurs on the active cluster member: • Hardware or software fails. provide unmatched scalability and serviceability in a compact two rack unit to secure even the most demanding enterprise and data center environments. • Gateway version is updated in the database. Ta sks : • Review High Availability settings. show Show a value or values from the system. These exception groups can be assigned to one or more rules in the Threat Prevention policy Rule Base. To activate the system alerts mechanism, select Tools and Start System Alert Daemon. This publication and features described herein are subject to change without notice. From this tool, an administrator also has the ability to revert to a specific version of the policy, allowing for a quick recovery without losing all the changes made in the database. • IPS Protections — In this tool, an administrator can edit IPS protections and configure exceptions to those protections. 10. Table 15: Gateway Status Icons 513 Check Point Security Administration U s e r s V i ew The Users view of SmartView Monitor shows users that have a current VPN connection to the Security Gateways. Figure 8 — WebUI 33 Check Point Security Administration System Overview Page
The System Overview page displays an overview of the system in various widgets. To add a new role or change an existing role: 1. The User Database does not contain information about users defined outside of the management server, however, it does contain information backup method is used for saving Gaia operating system configuration settings as a ready-to-run CLI script. 458 Check Point Security Administration Export a License To export a license to a file: 1. Use the information below to configure the NAT page: 6. NOTE Updates require Internet connectivity and name resolution from the Security Management Server. Click the lock icon to view information about the connection. Edit the B-GW object. For example, all the cluster members must use the same platform and software version. L a b 9 .1 Verifying Network Compliance 656 Verifying Network Compliance L A B 9.1 During this lab, you will verify that your network is monitoring compliance parameters. It provides the largest application coverage in the industry and in-depth 360 visibility into user activities. Inline and Ordered Mode Layers enhance security by structuring and organizational structure and need. From the License Management window, it is possible to see whether a particular license is associated with one or more contracts. Name: Marketing Access Source: Any Destination: Accept Track: Log Install On: A-GW-Cluster 3. Click the Install Certificate button. • Guaranteed Performance — Enables provisioning of resources that guarantee improved service levels. The gateway will then query the domain controller for user/machine groups to determine if access is allowed. Power on the A-Guest virtual machine: Figure 499 — Windows Tablet 19. Firewall Implied rules are placed first, last or before last in the Rule Base and can be logged. Delete all objects in the Source field by right-clicking each object and selecting Remove. Often this will occur when adding or consolidating rules in an existing Rule Base or when creating a new set of rules on a Security Gateway. The Central license is the preferred and recommended method of licensing. Check Point supports these user authentication schemes: • Check Point Password — The Security Gateway can store a static password in the local user database for each user configured in the Security Management Server. If there is no connectivity, an error message is generated. Next, use the information below to configure an administrator who only has permissions to modify IPS settings: Name: ips admin Comment: IPS Only Administrator Authentication Method: Check Point Password Set New Password: Chkp!234 User must change password on next login: Deselected Expiration: Never Figure 211 — New Administrator - General 255 Check Point Security Administration 15. To add a license 382 Check Point Security Administration END OF LAB 3.1 383 Check Point Security Administration Access Control Policy Layers An Access Control policy can have one or more layers. Identity Awareness The Check Point Identity Awareness Software Blade provides granular visibility of users, groups, and machines. It identifies individual users whose source originates from one IP address. Profiles control most of the LDAP server-specific knowledge. To provide data privacy and integrity, HTTPS connects and encrypts data sent and received with the SSL/TLS protocol. Before creating a snapshot image make sure there is enough free space on the backup partition. Figure 56 — Security Policies Tab 1. A unified Security Policy provides Rule Base unification of policies for both access control and threat prevention Software Blades. 22 Check Point Security Administration Controlling Network Traffic Managing Firewalls and monitoring network traffic is the key role of a network Security Administrators: 1. Whereas the OSI Model conceptualizes and standardizes how networks should work, TCP/IP actually serves as the industry-standard networking method that a computer uses to access the Internet. Use Identity Awareness to define a policy rule for specified computers or from any computer and to create a policy rule for any user on specified computers. Type the following into the search field: smtp 13. 63 Applying Useful Commands Specifies the time period for the rule; the default is Any. To start CPView, run cpview in Clish or Expert mode in Gaia. Identify the following: • Blade • Data Type • Source • Action • Layer name • Access Rule Name 12. In the Navigation pane, select Events and Reports. To view the permission options, click the down arrow next to the Route item Figure 23 — Add Role - Search Results - Assignment Options NOTE If no privilege is specifically selected for the command or feature, it is not assigned to the role. Special features include desktop or DIN mount and AC/DC power. Comments ease troubleshooting and explain why rules exist. Figure 335 — Action - Inline Layer - URL Filter NOTE It is possible for a layer to function as an ordered layer in one policy package and as an inline layer in another policy package. Choosing a fixed public IP address is a good option if you want to hide the address of the Security Gateway. gateway, and Security Management products. In the Navigation pane, select Additional Info. During the phase, SAs are negotiated on behalf of services such as IPSec, the shared-secret key material is determined, and an additional DH occurs. In addition, custom queries can be easily created using pre-defined search filters. Clear the search criteria To check for expired licenses, in SmartUpdate, select Licenses & Contracts > Show Expired. An Access Control policy can have one or more ordered layers. Click on the Import Licenses & Contracts > Add Licenses & Contracts > Add Licenses From File. Each destination has a unique IP address assigned. Verify the status of A-GW-Cluster: 1. Execute the following command: 1. Figure 505 — Cluster XL Deployment 628 Check Point Security Administration ClusterXL Deployments Check Point ClusterXL provides both High Availability and Load Sharing solutions. Authentication rules are defined for user groups, not individual users. 638 Configuring FTP Access Describe policy layers. For NAT to function properly, a gateway must accept packets whose destination addresses differ from the addresses configured on its interfaces. The Security Management Server enforces two types of Implicit rules that enable Control Connections and Outgoing Packets. Next Generation SmartEvent The Check Point Next Generation SmartEvent to provide comprehensive, easy-to-understand threat visibility. Central licenses require an administrator to designate a gateway for attachment while Local licenses are automatically attached to their respective Security Gateways. 321 Check Point Security Administration 5. This means that the Security Gateway with the highest priority will regain control from the lower priority member once it recovers. Install policy on the gateways to deploy the updated CRL to all gateways. 176 Check Point Security Administration The outbound CA certificate is saved with a P12 file extension and uses a password to encrypt the private key of the file. Recall how to implement Check Point backup techniques. 421 Check Point Security Administration Edit the A-GW-Cluster object. NOTE When accessing Internet sites from A-Host, ensure that you are not attempting to visit sites specified in the Marketing Access rule to avoid being prompted for authentication by Captive Portal. NOTE CCP is a Check Point proprietary protocol. In the following steps, you will create user Sam with password Chkp!234. • The Security Policy is not installed. 358 Check Point Security Administration 4. Learning Objectives • Describe the essential elements of a Security Policy. The Mobile Access Software Blade automatically includes the User Directory license The pre-shared secret can be a mixture of letters and numbers, such as #Sample123. 566 Check Point Security Administration 8. Figure 315 — Command Line Window Use the following commands to create and save the system's configuration: add backup local add backup [ftp|scp] ip username password plain Parameter Description local Saves the backup locally to /var/CPbackup/backup/ ip IP address of the remote FTP or SCP server password plain Parameters 355 Check Point Security Administration To monitor the creation of a backup: show backup status To view the status of the previous backup: show backups Lab 2.6 Managing Backups 356 L A B Managing Backups 2.6 Use the Gaia Portal to perform and schedule backups for the Security Gateway. Next, click the Install Policy button. The object or item being edited will be locked and made unavailable until the session is published or discarded. Figure 332 — Ordered Mode 372 Check Point Security Administration The order of layers within the policy can easily be changed using the drop-down menu to the right of each layer. Figure 141 — Inspecting Outbound Connections If an HTTPS request does not match a rule, the packet is not inspected and the connection is allowed. In addition, Packet Filtering requires creating two rules for each user or computer that needs to access resources. The following example details the concept of concurrent administration. Detect and monitor suspicious activity such as blocked traffic, alerts, rejected connections, and failed authentication attempts. 502 Check Point Security Administration 6 533 Check Point Security Administration Authentication between VPN Gateways in a Community Before the VPN gateways can create VPN tunnels, they first need to authenticate to each other. Figure 281 — System Management - Messages 15. While a scan is running, you cannot work within the Compliance tab. 343 Check Point Security Administration 18. 492 Examining Logs . Network performance is not degraded because the Logs view only displays the first set of results. • Summarize how administration roles and permissions assist in managing policy. In the Threat Prevention section, select
Policy. 235 Check Point Security Administration 11. Check Point Security Administration To turn on the Automatic Licensing feature: 1. Per ma n ent VP N Tu nn e ls Permanent VPN tunnels are constantly kept active and, as a result, it is easier for administrators to recognize connectivity problems. Verification of the package dependencies. Use the information below to reconfigure the Cleanup rule: Name: Cleanup Source: Any Destination: Any VPN: Any Services & Applications: Any Action: Drop Track: Log Install On: Policy Targets 13. To view License Status: 1. Log into each cluster member gateway and run the following command: cphaprob stat NOTE This command: allows you to see the current state of every Security Gateway in the cluster. 586 Check Point Security Administration Managing Users Centrally managing user information ensures that only authorized users securely access the corporate network. The gateway starts matching the packet against the rules in the Network policy layer, and matches rule 2. An administrator's changes to the policy will be locked for his view only until the changes are published and made available to the other administrators. One VPN gateway can maintain more than one VPN tunnel at the same time. Figure 360 - Sample Company Topology 408 Check Point Security Administration Item Security Gateway Installed Software Blades Policy Types in the Package 1 Texas Sales Office Firewall, VPN, IPS, DLP Access Control (includes Network and Application Control rules) and IPS (configured as a Threat Prevention policy laver) 3 California Executive Management Office Firewall, VPN, QoS, Mobile Access Control (includes Network and Application Control rules), QoS and Desktop Security policies 4 Georgia Server Farm Firewall Access Control (includes Network and Application Control rules), The end of th created. 545 Permanent VPN Tunnels . 31. Open servers provide the benefit of bringing your own hardware, which provides the ability to increase RAM, CPU, and disk space. 27 Obtaining a Configuration Lock . In SmartConsole, select Logs & Monitor from the Navigation bar. Select Content Awareness to add the Ordered Layer to the Alpha Standard Security Policy: Figure 371 — Policy Layer Added 6. The Admin has full Read/Write access for all Gaia features. • Change the refresh rate of CPView. Objects are the building blocks of Security Policy rules and are stored in the Objects database on the management server. NOTE If the Security Management Server is renamed, trust will need to be reestablished as the certificate is reissued. There are three sub-views which provides additional traffic information broken down by network interface: • Interfaces • Top-Protocols • Top-Connections Figure 536 — CPView Network 673 Check Point Security Administration CPU View The CPU view displays an overview of the current status of each CPU. Switch to the B-Host machine and verify that the FTP session continues. Review the output and identify the output changes: Figure 467 — cpstat vpn-f traffic -o 1 16. 511 Monitoring Gateway Status . 484 END OF LAB 4.2 485 Review Questions . The cluster is one object in SmartConsole. When a packet arrives at the gateway, it is checked against the rules in the top policy layer starting with the first rule and sequentially moving down through the policy layer. The License Repository window in SmartUpdate displays contracts as well as licenses. 584 How to Choose an Identity Source . In the Action column of the rule, select Accept: Figure 350 — Implicit Cleanup Rule Edited 18. Security zones objects automatically enforce changes in the topology and allow administrators to efficiently add internal networks without updating the Security Policy. Figure 446 - VPN Rules in Access Policy Allow All Connections (Clear or Encrypted and nonVPN traffic that matches the rule is allowed. ThreatCloudTM Emulation Service is also included. User Directory Profiles to make sure that the user management attributes of a management server are correct for its associated LDAP server. Click the Install Policy button. Configure 145 - Check Point Gateway - Network Management - VPN Domain 11. 442 Software Blade Packages . Add the following service to the Outgoing rule: https Figure 145 - Check Point Gateway - Network Management - VPN Domain 11. 442 Software Blade Packages . gateways, tunnels, remote users, traffic flow patterns and other security activities. start & transaction. Monitor, manage, educate, and enforce policy from SmartConsole down to user and machine details. Verify that the newly configured rule appears as follows: Figure 132 — DMZ Rule 169 Check Point Security Administration Publishing and Managing Revisions Name the session to help identify the changes you have made. Under the Access Control - NAT 17. In the Engine Status section, click Export: Figure 527 — Save As NOTE If the Export button is greyed out, click the Rescan button and wait for the Export button to become available. It is recommended to run a manual scan after objects are added to the Check Point environment or when a best practice test is activated. Figure 530 — Logs & 190 Check Point Security Administration 8. In the Monitor - Compliance View 664 Check Point Security Administration 11. Navigate to the Bravo Standard Network policy layer. Save the certificate file to the desktop as: r80.cer Figure 151 — Save Certificate Network Security tab, select the following option: URL Filtering Figure 98 — URL Filtering Configured 142 Check Point Security Administration 12. history stat Displays the current status of the CPView history daemon. In the address field, type the following: 1. These details are covered in the CCSE course To hide the Navigation tree, click the Hide icon. Verify that the following option is deselected: Hide internal networks behind the Security Gateway. Shared Policies are installed with the Access Control policy and can be referenced in multiple policy packages. 648 Compliance Software Blade Those changes can be published, saved or discarded. Firewall Rules include Implied, Explicit, and Implicit Cleanup rules. 405 Layers and Policy Packages rules with access roles objects, you can add an Accept option in the Action field to enable Captive Portal. To configure Hide NAT with Automatic Address translation rules option. In the list of interfaces, double-click eth0: Figure 100 — Network - General 14. NOTE Verify that NumLock is on. NOTE If the default policy is in place on the gateway, trust cannot be reset because communication from the management server will be dropped along with traffic from any other source. 295 Check Point Security Administration 2. 25. The packet is transmitted to its final destination. SmartEvent is capable of managing millions of logs per day per correlation unit in large networks. The Identity Server receives that information. 459 Check Point Security Administration L i c ense St atus SmartConsole allows you to quickly reference the license status for each Software Blade per gateway. 51 Working in Expert Mode SmartConsole must be used to manually configure each gateway to send its logs to the server. When should new licenses be generated and installed? Select the Security Policies tab. M — Turns the mouse on or off. These licenses provide unlimited client full functionalit for 30 days. Check Point authentication features allow you to verify the identity of users logging in to the Security Gateway and control security by allowing access for others. In the Recent Policies section, click the Manage Policies and Layers link: Figure 300 — Manage Policies 336 Check Point Security Administration 3. 134 Check Point Security Administration The second installation mode installs the policy on all target gateways. In an Active/Standby High Availability deployment, the status of the existing connections depends on whether or not the cluster is synchronized. If a user with an undefined authentication scheme is matched to a rule with some form of authentication, access is always denied. It also defines what application and site usage is recorded in the logs. If you haven't already turned it on, do so now and re-enter and confirm your password. Exception groups can be manually attached to a rule, automatically attached to each rule with a particular profile, or automatically attached to all rules. 387 Creating an Application Control Policy. 457 Check Point Security Administration Att ac hi ng a nd D et a c h i ng L i c e n s e s When imported into SmartUpdate, Central licenses will need to be attached to the Security Gateway. Mobile Access The Check Point Mobile Access Software Blade provides simple and secure remote access to corporate applications over the Internet using smartphones, tablets, or laptops. SmartUpdate is discussed in greater detail in a later chapter. 24. More than one Log Server can be installed. The Object Explore window appears: Figure 432 — Object Explorer 522 Check Point Security Administration Double-click the A-SMS object, and the system displays the General Properties window: 3. 79 The SmartConsole If the action is drop the gateway discontinues matching the packet against any more rules and drops the packet. For each of the four gateways displayed, right-click and select Get Gateway Data: Figure 403 — Package Management NOTE This is for informational purposes only and is not necessary for licensing. NOTE Read/write access is required to configure parameters for a settings group. In the Log Details window, select the Matched Rules tab. S e c u r i t y M a n a g e m e n t S e r ve r When a Security Management Server. Click the New Layer button. Check Point offers two methods for activation and Offline Activation. To change the view mode, click View Mode and select a mode from the list. In the Navigation pane, under System Configuration tasks can be done through the WebUI. It is important to understand that usually, the Application layer is a part of the operating system and not necessarily a part of the
application in use. You are now logged into SmartConsole: Figure 75 — Gateways & Servers NOTE Actual status of machines in your classroom environment may vary from what is displayed in this example. If they have Read-Only access to a feature, they can see the settings pages but cannot change the settings. Add a new rule to the top of the NAT Rule Base and configure it as follows: 7. Status Bar The Status bar displays the result of the last configuration operation. Figure 313 — System Restore Window Backup via WebUI To perform a backup via WebUI, expand Maintenance in the tree view, select System 274 Check Point Security Administration 11. The VPN column in the Access Control policy is used to configure how VPN connections Backup and Add Backup. Use the information below to log into SmartConsole: Username: ips admin Password: Chkp!234 Server: 10.1.1.101 Figure 232 — SmartConsole Login are matched to the rules. L a b 3 .1 Defining Access Control Policy Layers 375 L A B Defining Access Control Policy Layers 3.1 In SmartConsole, assign layers to the Access Control policy in the Alpha Standard policy. Assume the client is outside the gateway and the server is inside the gateway with automatic Static NAT configured. 109 Bridge Mode . Managing Users on a User Directory Server Using SmartConsole, you can manage information about users and OUs that are stored on the LDAP server. Enterprises employ NAT for a variety of reasons, including: • For private IP addresses used in internal networks • To limit external network access • For ease and flexibility of network administration, it displays the Welcome screen: Figure 256 - screen: Welcome 5. 529 VPN Components . Generate HTTP traffic from A-Host (192.168.11.201) and A-GUI (10.1.1.201) to the Internet. It is possible to install only the Access Control policy, only the Threat Prevention policy, or both policies. 486 C H A P T E R Traffic Visibility 5 SmartConsole lets you transform log data into security intelligence by tightly integrating logging, monitoring and event management. 570 Chapter 7: Managing User Access . Pages are arranged in logical feature groups. The foundation of IPS, Antibot, Anti-virus and Threat Emulation protections. The system displays the Products page. 377 7 Check Point Automation Specialist Confirming the Installation Target Gateway . To act, click the Enforce button and for the next hour, while this traffic is dropped and logged, contact the user. 19 Transmission Control Protocol/Internet Protocol Model . 542 Allow All Connections . 27 Command Line Interface . The method of backup used is determined by what needs to be backed up. Without an authentication method, the administrator cannot log in to SmartConsole. • Merge manual proxy ARP — Select this option to merge automatic and manual ARP configurations. Navigate to SysInfo View and review the statistics: Figure 541 — CPView - SysInfo In View Mode, press the Space bar to refresh the statistics. 109 Distributed . Those that are not enabled are grayed out. 20. 698 Check Point Security Administration Chapter 6 Basic Concepts of VPN 1. Type the following command and press Enter, to display running services and down ports: netstat -an 10. Click OK, and the system adds the new layer to the Access Control policy: Figure 340 – Policy - Layer Added 9. 28. • Manageability – Enables fast deployment of security services. Check Point Security Administration In some advanced deployments, there are specific routing settings in the VPN gateway operating system, such as dynamic routing. If you are not sure which flags are available for a command, simply type the basic command and then press the Tab key. Select the Manage & Settings tab. 14 Course Layout. To do this, tracking options must be configured for each rule. 546 10 Check Point Automation Specialist Lab 6.1: Configuring a Site-to-Site VPN Between Alpha and Bravo . Now, select Firebrick from the Color drop-down menu. Threat Prevention profiles determine which protections are activated, and which Software Blades are enabled for the specified rule or policy. Return to the admin user session. Figure 320 — System Backup Click OK. To perform a backup, select the gateway to be backed up from the Gateways & Servers tab and then select System Backup from the Actions menu. 261 Check Point Security Administration 27 629 Check Point Security Administration Configuring Member Priority The Cluster Members tab displays each Security Gateway that is a member of this cluster. Figure 78 — Distributed Deployment 109 Check Point Security Administration Bridge Mode A Bridge Mode deployment adds a to an existing environment without changing IP routing. Figure 5 — Stateful Inspection 24 Check Point Security Administration Check Point's INSPECT Engine, which is installed on a Security Gateway, is used to extract state related information from the packets and store that information The second rule translates the source address of packets not destined for the object for which Hide NAT is configured. • Comments — Allows administrators to add notes about this rule; the default is a blank comment field. Exit in state tables. 26 Introduction to the Gaia Operating System the Certificate Import Wizard window. In the Navigation bar, select Gateways & Servers. Figure 286 - Add Color 10. Confirm that web traffic can now be generated from the following two virtual machines: • A-GUI • A-Host 2. Since Application-aware, they can look into individual sessions and decide to drop a packet based on information in the application protocol. expert Press Enter, and the system prompts you for the newly configured Expert mode password. TRADEMARKS: Refer to the Copyright page (for a list of our trademarks. URL Filtering also provides an array of superior filtering options, including the option to scan and secure SSL encrypted traffic passing through the gateway or filtering HTTPS traffic without SSL inspection. The system displays the Management Port screen. The Security Gateway will use the data to query user information, retrieve CRLs and for authentication. The User Directory profile is a configurable LDAP policy that lets you define more exact User Directory requests and enhances communication. Download VCE exam simulator 156-215.80 Exam: Check Point Certified Security Administrator (CCSA) R80) Includes 536 Questions & Answers \$69.99 CCSA R80 Bundle gives you unlimited access to "CCSA R80" certification premium .vce files. Remote Access identity source must be set to identify Mobile Access and IPSec VPN clients in Office Mode. Close the Web browser. Configure Roles in the CLI To add role definitions: add rba role domain-type System readonly-features readwrite-features To add users to or from existing roles: add rba user roles To add access 40 Check Point Security Administration To remove access mechanism (WebUI or CLI) permissions for a specified user: delete rba user access-mechanisms [Web-UI | CLI] Parameter Description Role mechanism, WebUI or CLI, permissions for a specified user: add rba user access-mechanisms [Web-UI | CLI] Role name as a character string that contains letters, numbers, or the underscore (_) character. 702 When enabled, an IPS layer is created. NOTE You are exporting the certificate here to install it on the client. Figure 84 — Global Properties Window 124 Check Point Security Administration Sections When managing a large network, it can be helpful to divide the policy into smaller sections. A permission profile may be assigned to multiple administrators. 22. 456 Check Point Security Administration Add License From File To add a license from a file: 1. 529 IPSec VPN . Select the following option: Use User Directory for Security Gateways (license required) Figure 484 — Global Properties - User Directory 17. Figure 83 — Cleanup and Stealth Rules 119 Check Point Security Administration Explicit and Implicit Rules The Security Management Server creates Explicit rules and Implicit rules. In SmartConsole, search for and double-click the A-GW-Cluster object. An a la carte blade can be detached and moved to a different server. In the search field, enter the following address: 192.168.11.201 Figure 420 - Logs & Monitor - Logs 7. Open a view of the Operation Status pane. Check Point licensing is designed to be both scalable and modular to accommodate all-inclusive software packages and custom solutions tailored to meet the needs of the organization. • VPN community — Includes VPN domains that securely share network resources. Figure 390 — Add License Add License From User Center To add a license from the User Center: 1. To establish a new trust state for a gateway: 1. • Security Rules — Shows the current status of the most frequently used Firewall rules. 202 Bypassing HTTPS Inspection 119 Global Properties 200 Check Point Security Administration 36. Click OK, to add the 693 Check Point Security Administration Chapter 1 Introduction to Check Point Technology 1. It all quickly leads to ineffective, costly, and unsustainable security strategies. Click on the rule located in the Policy section of the Details new access role to the Source field of the Guest Access Rule tab. In the Management Interface section of the page, notice that the current Management Interface is set to eth3. If desired, select the don't show again checkbook to eliminate this step when publishing policy. This includes network objects, groups, zones, access roles, and more. It provides real-time monitoring and alerts. Wait for Check Point processes to stop and automatically restart. SmartEvent views can be customized to monitor patterns and events that are most important to a Security Administrator. If authentication fails, the unidentified user must enter credentials in the Captive Portal. • Blades — Displays a list of installed Software Blades. Note the name of the issuer that signed the certificate: Figure 147 — Certificate NOTE At this point, the issuer should be www.google.com. END OF LAB 4.1 469
Working with Licenses and Contracts L A B 4.2 Use SmartConsole and Gaia Portal to verify license status. How do Access Roles work within a Rule Base? Figure 478 — Rule Base Redirect to Captive Portal Ca pti ve Portal (Browser-Based Authentication) is a simple method that authenticates users through a web interface before granting them access to the Internet and other corporate resources. 408 Lab 3.3: Defining and Sharing Security Policy Layers. The shared secret must be eight characters in length and contain at least 1 number, 1 lowercase character, and no more than three consecutive digits. Click OK, to add the auditor to the list of administrators. Custom Application/Site, Resource, Time Object, UserCheck Interactions, and Limit are additional categories. Policy layers allow administrators to separate the Security Policy into multiple segments to provide better security and segregation of duties. The query runs automatically and as more criteria is added, results are updated dynamically. An effective Content Awareness policy requires: • Selecting data types and user groups • Selecting different keywords or patterns • Monitoring logs and 390 Check Point Security Administration The following are examples of data types that may be used in a Content Awareness policy: • • • • PCI - credit card numbers HIPAA - Medical Records Number - MRN Viewer file - PDF Executable file Figure 347 — Content Awareness - Data For event correlation example, a Content Awareness policy rule can be configured to: • Allow files to be downloaded from Dropbox but not allow files to be uploaded. What are the two hardware options for deploying Check Point technology? Any sub-rule will only affect traffic that matches the parent rule, not the entire Access Control Rule Base. Copy the license string from your email to the clipboard. • Configure Static NAT on the DMZ server and the Security Management Server. In SmartConsole, click the object you desire to view. There are three types of Control Connections defined by Implicit rules: • Gateway specific traffic that facilitates functionality, such as logging, management and key exchange • Acceptance of Internet Key Exchange (IKE) and Reliable Datagram Protocol (RDP) traffic for communication and encryption purposes • Communication and encryption purpos 671 Check Point Security Administration SysInfo View The SysInfo view shows general information about the system such as system uptime, version, and hardware information. What rules are generated in the Rule Base as a part of the Global Properties and cannot be edited. Figure 534 — CPView Overview are the three mechanisms for controlling network traffic? Double-click a log, to view the details: 15. The Compliance Software Blade compares policy and configuration changes are installed. • CPU - Provides a graphical display of CPU usage. Using Check Point appliances also means a single support contract for hardware and licensing and a lower support rate as appliance troubleshooting reduces complexity. Next, define an administrator that functions as an auditor. Press Enter, and your browser should warn you that the site's Security Certificate is from an untrusted source. Because we do not have any permission profiles defined, we are not going to do this step. Figure 538 — CPView Software-blades 675 Check Point Security Administration Advanced View The Advanced View provides detailed utilization and counter statistics for advanced diagnosis. The main view displays CPU Profiler information. • The License & Contract Repository pane shows all attached and unattached licenses. Company XYZ has two administrators, Dan and Mike. Navigate to the Logs & Monitor tab. ClusterXL High Availability New mode designates one of the cluster members as the Active machine. while the rest of the members are in a Standby mode. 595 Rule Base . From A-GUI, log into the A-SMS through the Gaia Portal. The following process occurs: • More key material is exchanged and IPSec authentication and encryption parameters are agreed on. Attempt to navigate to www.cnn.com, and the browser displays the Certificate Warning page: Figure 500 — Security Certificate Warning Page 21. From the Summary tab, click Device & License Information. Per for mance Object ives: • Configure and deploy a site-to-site VPN. They can be re-imaged simply by plugging in a pre-imaged USB. When there are several policy layers, administrators can move the layers up and down the policy list according to security needs. Add A-WIFI-NET to the Alpha-Nets group: Figure 491 — Network Group 25. While scrolling, SmartConsole extracts more records from the log index on the management server or Log Server, and adds them to the results set. Use the information below to verify that the Security Gateway's network connection is a content of the results set. configured properly: Interface: eth3 Configure IPv4: Manually Configure IPv4: 203.0.113.100 Subnet Mask: 255.255.255.0 Default Gateway: 203.0.113.254 Configure IPv6: Off 305 Check Point Security Administration 11. 357 Scheduling a Security Management System Backup NOTE In this lab environment, you can safely ignore any license or contract related messages that may appear, and proceed with policy installation. Use your UserCenter account to sign in and get started: C o u r s e C hap te r s and L ear ning O b j e c t i ve s Chapter 1: Introduction to Check Point • Interpret the concept of a Firewall and understand the mechanisms used for controlling network traffic. The method of authentication is determined once the user is located. 612 Controlling Tablet Access Through Captive Portal (Optional). Chapter 4: Check Point Security Solutions and Licensing • Recognize Check Point security solutions and products and how they work to protect your network. • Before Last — The rule is applied before the last explicit rule, if no other rules in the policy layer matched. 585 Managing Users the DNS rule and drag the DNS rule beneath the Stealth rule: Figure 114 — DNS Rule 156 Check Point Security Administration Reviewing Existing Security Policy Settings Verify the correct configuration of basic settings in Global Properties. Leverage the Check Point Appliance Sizing Tool to select the right appliance based on your specific environment and security needs. From the Object to add it as a source: Alpha-Nets Figure 113 — LDAP Rule 14. Policy Decision Point (PDP) is the process on the Security apply the same rule to multiple gateways and manage traffic between network segments. The packets are decrypted and inspected according to the Security policy. Double-click the expiration date of the license. Click the expert shell, run the expert command Security zones also support Acceleration solutions. For example, if all the Software Blade statuses are OK except for the SmartEvent Blade, which has a Problem. Press Enter, to reboot your system. SmartConsole is also used to monitor traffic through logs and manage Software Blades, licenses, and updates. 597 Check Point Security Administration Configuring the Security Policy for Identity Awareness Enable Identify Awareness to work with User Directory. Gateway is rebooted if the Allow Reboot option was In SmartConsole, it is possible to automatically generate a shared secret that matches these conditions. selected and the package requires it. Lab 5.2 Maintaining Check Point Logs 519 L A B Maintaining Check Point Logs 5.2 To maintain the large amount of logs collected on the Security Management Server, you will configure the system to create a new log file at midnight each day and create a new file when 83 Check Point Security Administration S e c u r i t y Policies tab, you are able to manipulate the various Security Policies and layers. To view historical data with a timestamp, use the following command: cpview -t CPView presents the current file exceeds a set file size. statistical data in six primary views. The Topology tab of the Interface Properties window allows you to configure Anti-Spoofing properties of a gateway. 434 Chapter 4: Check Point Security Solutions and Licensing . A user created from a template inherits all the properties of the previously defined user, such as authentication scheme, encryption methods, access time and others. If no timestamp is given, CPView will display the oldest available data in the database. 668 Check Point Security Administration U s e r I n ter f a c e The CPView user interface has three sections: View, Navigation, and Header. 429Check Point Security Administration 11. Exit the Certificate window. In the Navigation pane, select Management. • Installed packages are updated in SmartUpdate. Publishing changes is not the same as saving changes. There two central VPN gateways in the Star VPN communities are the London and New York VPN gateways. END OF LAB 2.2 215 Check Point Security Administration Network Address Translation Network Address Translation (NAT) allows Security Administrators to overcome IP address allocation and unregistered internaladdressing schemes. Close SmartUpdate. Use the information below to configure the Layer Editor window: Name: URL Filtering Comment: URL Filtering Policy Blades: Applications and URL Filtering Tag: Alpha Figure 378 — Layer Editor 428 Check Point Security Administration 6. The source port does not change. 551 Check 36 Check Point Security Administration New users have Read-Only privileges to the WebUI and CLI by default. Check Point supports client-based and clientless VPN solutions for the remote users. 79 Secure Internal Communication . Identify that the following two rules Point Security Administration 12. matched this traffic: • Outgoing (Network - Layer) • Job Search (URL Filtering - Inline Layer) Figure 384 — Log Details - Matched Rules 18. In the Welcome screen, select the following option: I have read and agree to the Check Point End User License Agreement NOTE In this lab environment, you should accept the default installation path. The system should tell you
that your test failed and that the information was allowed to be transmitted. There are a few important factors to consider when creating policy layers. For example, if free disk space is less than 10% or if a Security Policy has been changed, a system alert will be sent. 339 Check Point Security Administration 8. RADIUS servers and server group objects are defined in SmartConsole. It unifies the Firewall, NAT, Application Control & URL Filtering, Content Awareness and Mobile Access Software Blade policies, controlling access to computers, clients and servers. This is very important if you have objects that are set to Static NAT. 467 Check Point Security Administration Activating the For security reasons, do not use the internal management CA. The highest priority member is the active cluster member by default. Query search bar — Define custom queries in this field using the GUI tools or manually entering query criteria. Compliance Software Blade Enable the Compliance software blade. • User data from other applications gathered in the LDAP users database can be shared by different applications. Figure 186 — Outgoing Rule Edit the A-GW-Cluster object. Check Point User Directory integrates the management server and an LDAP server as an external user management database solution. The packet is typically initiated from a host outside the Firewall. 565 Check Point Security Administration 6. Click the + tab, to launch a new tab: Figure 529 — Logs & Monitor - New Tab 663 Check Point Security Administration 10. Click OK, to close the Color Manager. The Software Blade enables a specific feature or functionality. 533 Site-to-Site VPN Deployment . This allows you to search historic data for log records more quickly. If AdminA logs in and AdminB already has the configuration lock, AdminA has the option to override AdminB's lock. It is also possible to create a new user template and use it to create new users. Installing licenses via SmartUpdate is recommended, however it is also possible to install a license through the CLI. In addition, SmartConsole and the preferred means of authentication. Figure 122 — Security Policies - Access Control 164 Check Point Security Administration 3. 490 Check Point Security Administration S m a r t C o n s o l e L o g s V i ew The SmartConsole Logs view allows administrators to monitor traffic and query for information. The password is also used by other Security Management Servers that import the CA certificate to decrypt the file. The web server replies and hits the Inbound interface, 'i', of the gateway. When an inbound HTTPS connection arrives from an external client and connects to an internal server, the Security Gateway intercepts and inspects the inbound traffic. • Automatic authentication using Single Sign-On (SSO) — Endpoint Identity Agents installed on endpoint computers authenticate users automatically when they log in to the domain using SSO. Figure 86 — Publish Policy 126 Check Point Security Administration Policy Packages A policy package is a group of different types of policies that are installed together on the same installation targets. Under the Authentication section, enter and confirm the one-time password. The following Software Blades are included: Firewall, IPS, Application Control, URL Filtering, Anti-Bot, Antivirus, and Anti-Spam and Email Security. Advanced Networking and Clustering The Check Point Advanced Networks, while maximizing network security deployment and management within complex and highly utilized networks, while maximizing network performance and security in multi-Gbps environments. How can you monitor the state of the cluster members? Snapshot Before performing an upgrade, you can use the Command line to create a snapshot image of the operating system or of the distributed packages. To change permissions for an existing role, double-click the role. Rule Description Critical Subnet Traffic from the internal network to the specified resources is logged. ClusterXL provides an infrastructure that does not lose data in case of a system failure. Always use this IP address: Selected address from topology table: 203.0.113.1 When initiating a tunnel: Operating system routing table Figure 451 — Gateway Cluster - IPSec VPN - Link Selection Click OK. The system displays the following information window: Figure 253 292 Check Point Security Administration Managing Remote Gateways Many organizations may include remote gateways as a part of their overall network topology. In the Network Security tab, select the following: 5. In the Security Best Practices Compliance section, click - SmartConsole END OF LAB 2.4 the See All link. • Double-click a user in the Users with Role list to remove that user from the role. For example, to find logs that were dropped, rejected, or blocked, use the following query: Action: (drop OR reject OR block) 499 Check Point Security Administration If more than one criteria is entered without a Boolean operator, the AND operator is implied. Remote Access VPN The Check Point Remote Access VPN Software Blade provides users with secure, seamless access to corporate networks and resources when traveling or working remotely. Click on the Application Menu 2. -t Opens CPView in Database Viewing mode, which displays the contents of the history daemon database. Click OK, and the system adds the new color to the color list. Log into A-GW-01. Chapter 3: Policy Layers • Understand the Check Point policy layer concept. The client supplies secure remote access to most types of corporate resources according to the access privileges of the user. In the Compliance section, click Settings: Figure 526 — Settings 660 Check Point Security Administration 2. In the Navigation pane, select IPSec VPN > Link Selection. 435 Check Point Security Administration Check Point Software Blade Architecture Organizations and IT teams all over the world face the daily challenge of protecting their networks against a rapidly growing landscape of threats targeted at the operational efficiency of their security solutions. Verify the user permissions are set to never expire. and tools for managing Check Point accounts and products. Manual NAT is discussed in greater detail in the CCSE course. There are different VPN deployment options available to meet the specific needs of the network. Click Initialize, and the system verifies the one-time password. Select Network Group: Figure 108 — New Network Group 4. Define a new rule in the Rule Base that allows access to the DMZ. To navigate to the list of sessions, click the Manage & Settings tab and then select Sessions from the navigation tree. 700 Chapter 8: Working with ClusterXL. .. The pencil icon, which indicates Read/Write access is enabled, will replace the lock icon. The management server uses web services to retrieve the list of protections, thereby requiring connectivity. Left/Right arrows Edit the command. A password for export mode must be set prior to running the shell. 555 Check Point Security Administration 8. In addition, this Comment 122 Check Point Security Administration Understanding Rule Base Order Before you can define Security Policy properties, you must consider Rule Base order. 178 Lab 2.2: HTTPS Inspection . Clear the following option: User must change password on next option is available when saving database versions. login Enter and confirm Chkp!234 as the password. Click Install, and the Security Policy is installed on the Security Gateways: Figure 136 — Policy Installation 9. Service blades, such as IPS, URL Filtering, and Application Control are considered subscription blades. For the Identity Server to trust the other end, a shared secret is used. With multi-core and acceleration technologies, redundant components, and superior performance and flexible I/O options. Figure 149 — Gateway Properties 3. SmartConsole is a unified graphical user interface which is used to manage the objects that represent network elements, servers, and gateways. The Check Point Configuration Tool and the First Time Configuration Wizard use a username and password: set user sam newpass Chkp!234 Figure 45 — set user sam newpass NOTE When adding users in Clish, you must assign a permissions profile in addition to the password. The user initiates a connection to the Internet. 42. 441 Management Software Blades for Operations and Workflow . 451 SmartUpdate Architecture . The packet is passed by the policy since it is found in the Connections table and arrives at the post-in side of the kernel, 'I'. Learning Objectives • Understand how to perform periodic administrator job descriptions. Figure 440 — Remote Access VPN Topology Check Point VPN solutions for remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure
connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections between the remote access use IPSec and SSL encryption protocols to create secure connections to create sec the user Sam. type the following command and press Enter: delete user sam Figure 47 — delete user sam 6. 112 Check Point Security Administration Introduction to the Security Policy The Security Policy is a key component in securing and managing any corporate network no matter how large or small. In this case, if the policy fails to install on one of the gateways, the policy is not installed on any of the other target gateways. 661 Check Point Security Administration 6. Key Benefits of the Check Point Software Blade Architecture • Flexibility — Provides the appropriate level of protection at the right level of investment. Roles and Role-based Administration Role-based administration enables Gaia administrators to create different roles. Alternately, AdminB who has Read/Write access can run unlock database to release the configuration lock. Use SmartView Monitor to stop ClusterXL on a Security Gateway and cause a failover. os kernel Display the Gaia kernel build number. From the menu, select License & Contracts > Update Contracts > From User Center. 631 Check Point Security Administration If State Synchronization is enabled, any open connections are recognized by the new Active machine, and are handled according to their last known state. 417 Check Point Security Administration Edit the B-GW object. When installation is complete, the system displays the Finish screen: Figure 62 — Finish 10. • The Terminal Server Identity Agent installs a TDI driver that intercepts all requests from any process that requests a new connection. They are designed to be flexible in order to meet throughput requirements. From the desktop of A-GUI, launch PuTTY. Figure 508 — Initiating a Failover in SmartView Monitor 633 Check Point Security Administration Synchronizing Cluster Connections Cluster members can be configured to synchronize the active connections for the Security Gateway. For routing to work properly, the address selected to hide internal networks should be on the same subnet as the IP address of the interface where packets will arrive. What role does SmartConsole play in Check Point's Security Management Architecture? Verify that Sam is no longer in the list of configured users. 370 Lab 3.1: Defining Access Control Policy Layers . Figure 353 — Drop 7. • Server discovery and trust — Before the Endpoint Identity Agent must discover and trust the server it is connecting to. This decreases the use of resources on the gateway. VPN gateways authenticate to each other by presenting one of the following types of credentials: • Certificates • Pre-shared secret Each VPN gateway itself and the credentials used to create the VPN tunnel. What are two different ways to configure rules in the Access policy to allow VPN connections? 14. Configure the Integration With Active Directory page as follows: Select an Active Directory: Create new domain Domain Name: Administrator Password: Chkp!234 Domain Controller: 192.168.11.101 Figure 480 — Integration With Active Directory 599 Check Point Security Administration 6. In the Summary section, identify the license status of the participating members. Smar tUpdate Arc h itectu re SmartUpdate installs the following repositories on the management server: • License & Contract - Stored on all platforms in the directory \$CPDIR\conf\ • Package Repository - Stored on Windows machines 451 Check Point Security Administration Packages and licenses are loaded into these repositories from several sources, such as: • • • • Download Center Web site (packages) Check Point DVD (packages) in C:\SUroot and UNIX machines in /var/log/cpupgrade/suroot Figure 388 — SmartUpdate Architecture User Center (licenses) Running cplic from the command line Of the many processes that run on Security Gateways distributed across the corporate network, two in particular are used for SmartUpdate. Type the following command and press Enter, to display interface information: fw getifs Figure 43 — fw getifs 70 Check Point Security Administration Adding and Deleting Administrators via the CLI Clish supports multiple administrators on the regular shell. 455 Add and Install Licenses . In a later lab, you will define application level users. • Block — Blocks the regular shell. 455 Add and Install Licenses . In a later lab, you will define application level users. is configured. As the admin user, double-click the A-GW-Cluster object. 121 Check Point Security Administration As you formulate the Rule Base for your Security Policy, these tips are useful to consider: • The policy is enforced from top to bottom. Click OK, to specify the store: Figure 172 — Certificate Store Configured 209 Check Point Security Administration 21. These rules use services, protocols, applications, URLs, file types or data types to filter traffic entering and leaving the network. Some Implied rules are enabled by default. Describe Check Point ClusterXL High Availability. Main menu — Manage

policies and layers, explore and create objects, manage sessions, install policy, manage licenses and packages, and configure global properties page of the Security Gateway. Select Monitor, and the system displays the Device & License Information window: Figure 543 — Device & License Information - Device Status 9. To revoke an administrator's certificate, click the Revoke button in the Authentication section under the General tab. DMZ and Internet Allows traffic from the internal network to the DMZ and Internet. Pe r for ma n c e Ob j ec t ive s: • Understand how to deploy and test HTTPS inspection in an environment, Figure 336 — Security Policies - Access Control 377 Check Point Security Administration 3. Backups are saved as what type of file? Use the following information to configure the Device Information page: Host Name: B-GW Domain Name: Leave Blank Primary DNS Server: Leave Blank Secondary DNS Server: Leave Blank Tertiary DNS Server: Leave Blank Figure 268 — Device Information 307 Check Point Security Administration 14. AdminA receives an exclusive configuration lock with Read/Write access. • Space bar — Refreshes statistics. View the log showing details of the blocked traffic: 9. Log into the system using the following credentials so that you have two concurrent administrator sessions open: 3. 240 Permission Profile 3. 1n the Inspection Settings Profile 20. Use SmartView Monitor or run the cphaprob state command from the CLI to monitor the state of the cluster members. To view license properties, double-click on the licenses & Contracts tab. In SmartConsole, navigate to the Security Policies view. The Check Point Next Generation Threat Prevention (NGTP) Software Blade package provides a multi-layered threat prevention strategy to defend against multi-vector attacks. First Implied — This rule cannot be modified, moved or overwritten in the Rule Base. • Review a compliance scan report. 295 Configuring the Branch Office Security Gateway with the First Time Configuration Wizard Role-based administration can be used with extended commands by assigning those commands to roles and then assigning those roles to users or user groups. 137 Editing and Creating Rules for the Rule Base . In the navigation pane, select NAT. - Figure 433 — Check Point Host - General Properties 523 Check Point Security Administration 4. To show all users, type the following and press Enter: show users 5. A server certificate object is created after the server certificate object is c or use. Select Classic Mode, and the system displays the new gateway's General Properties window. Each blade is an application or modular, and centrally managed. Configure the Firewall or Intrusion Prevention System (IPS), that is independent, modular, and centrally managed. control connections: First Accept SmartUpdate connections: First Accept IPS-1 management connections: First Accept ICMP requests: First Accept Domain name over UDP (Queries): Deselected Accept IDP (Web and SSH connections for Gateway's First administration (Small Office Appliance): Accept Incoming traffic to DHCP and DNS services of First gateways (Small Office Appliance): Accept Identity Awareness control connections: First Log Implied Rules: Selected 158 Check Point Security Administration 4. Tracking Options and Settings • Log — This option shows all the information used by the Security Gateway to match the connection, and rule matches. Network traffic can be processed by one cluster member or shared between the Security Gateways in the cluster. Publish the database changes. 587 LDAP and User Directory . The Security Gateways via the processes that are running on these components to execute the operations initiated by the System Administrator, such as attach a license Security Servers Traffic To use SmartView Monitor, enable the Monitoring Software Blade on the Security Gateways to be monitored and on the Security Gateways to be monitored and on the Security Gateways to be monitored and on the Security Management Server. Remove Hide NAT by clearing the following option: 5. Configure the page as follows: Save logs locally, on this machine (A-GW-Cluster): Deselected Send gateway logs and alerts to server (A-SMS): Selected Figure 105 — Gateway Cluster - Logs 149 Check Point Security Administration 24. It is necessary to import the contract data from the User Center for proper entitlement. Figure 408 — Licenses & Contracts 480 Check Point 211 Check Point Security Administration 4. Security Administration 3. Gateway cluster members are listed in SmartConsole by priority. Figure 174 – HTTPS Inspection 287 Check Point Security Administration Defining WiFi Access Create a network for WiFi users and then define a generic WiFi user account. The automatic licensing feature performs the following operations: • Checks periodically to verify licenses. Make sure the Security Gateway is configured as a RADIUS Accounting client and give it access permissions and a shared secret. Press Enter, and your browser should warn you that the site's Security Certificate is from an untrusted source. Click the + icon in the Security Gateway CLI and run cphaprob state to show the details of that cluster member. • User Defined Alert — Send one of three possible customized 399 Check Point Security Administration 8. Close the window. A tag is a keyword or label assigned to an object or group of objects. 211 END OF LAB 2.2 215 Network Address Translation From the Application menu, select Instal alerts. 192 Check Point Security Administration 12. Configure the following Monitoring and Logging options: Database: 7. For the layer to work, the Firewall, and Application and URL Filtering Software Blades must be enabled. Select Shared Policies > HTTPS Inspection: Figure 153 — HTTPS Inspection Monitoring: Read Management Logs: Read Track Logs: Read Application and URL Filtering Logs: Deselected HTTPS Inspection logs: Deselected Figure 219 406 Check Point Security Administration Threat Prevention Policy Layer Conflicts Threat Prevention policy layers can be organized in many ways, such as by specific blades (Anti-Malware, Anti-Virus) or by scope (Data Center to DMZ). Rul es A Security New Profile - Monitoring and Logging 28. Policy consists of a set of rules that defines network security using a Rule Base. 42 Lab 1.1: Working with Gaia Portal . Exit the Object Explorer window. Secure Internal Communication Status between the management server and the gateway. 278 Disconnecting an Administrator Session . . Yes Yes Yes No Does it back up Hotfixes? These settings apply to a variety of Check Point products, services and functions, such as the Firewall, VPN and Reporting Tools. Point Security Administration 13. In the Object picker, click the new button: Figure 494 — Object Picker - New Menu Select Access to the Users feature can change the password of another user or an Admin user. 652 Continuous Compliance Monitoring . 697 Chapter 5: Traffic Visibility . Click the Communication button, and the system displays the following window: Figure 288 — Trusted Communication 21. 337 Check Point Security Administration 5. The QoS policy type is only available when at least one of the gateways has OoS enabled. Install the Bravo Standard policy, 544 Tunnel Management and Monitoring 72 Check Point Security Administration Testing User Role Assignments Log into A-SMS as different users to confirm that user privileges are properly assigned. These carrier-grade systems offers high reliability and unparalleled security performance with a 6RU to 15RU form factor that supports the dynamic needs of growing networks. To enable Inbound HTTPS Inspection, server certificates for servers behind the gateway must be imported and assigned. 597 Configuring the Security performance with a The setting used will be from the first policy layer. Content Awareness can be combined with Firewall and Application Control policies to control enforcement actions Policy for Identity Awareness . 604 Testing Identity Awareness Connection . per rule, which will protect the company from malicious and suspicious files attempting to enter the network and prevent sensitive data from leaving the network. Privacy and integrity of sensitive data. Click OK, to assign the default template. • Encrypted and non-encrypted connections, where connections between the clients (i.e., Security Management Server, are conducted using SSL or in the clear. Enable the Compliance software blade: 1. • Create the VPN rule and modify the Rule Base. To add a new role click Add and enter a Role Name. In the Navigation pane, select User Directory. An Endpoint Identities to the Security Gateways for enforcement. 18 Check Point Security Administration Concept of a Firewall Firewalls are the core of a strong network Security Policy. Figure 58 — Manage & Settings Tab 1. To make the two policy layers available in all policy packages, enable the Multiple policies can use this layer option. Per for man c e Ob j ect ive s: • Create and configure network, host, and gateway objects. The following steps detail the workflow for deploying logging: 1. The ICA signs and issues a certificate to the gateway. 83 Security Policies Tab . Configure the following options: According to the Threat Prevention policy: Select Figure 226 — IPS First Time Activation Window NOTE This window may appear differently than what is shown here, depending on the build of R80.xx you are using in your environment. Using an Explicit Drop Rule is recommended for logging purposes. • Understand Check Point deployment options. When you install policy, the management server installs the updated policy and the entire database on the selected gateways, even if network objects were not modified. 678 Reviewing Statistics in CPView This is, however, important. Clear the following option: Launch SmartConsole 11. 162 Check Point Security Administration 5. UDP also manages the flow of data; however, data verification is not as
reliable as TCP. 30. The following is a sample rule that allows all FTP connections between the branch office VPN gateway and any VPN All GwToGw Service FTP Action Accept Table 18: Allow All Site-to-Site VPN connections A l l ow S p ec i fi c V P N C o m m unities option. SAM rules and allows traffic to VPN gateways in specific VPN communities, select the Specific VPN communities, select the Specific VPN communities, select the Specific VPN communities option. action and settings of the first layer matched. 227 Configuring Static Network Address Translation ... Figure 428 — Tunnels View 516 Check Point Security Administration Coopera ti ve Enforcem ent Vi ew Cooperative Enforcement works with Check Point Endpoint Security Management Servers. Click on the menu for the Application Control policy layer. Right-click in the Action field and select Drop > Blocked Message - Access Control: Figure 351 — Block Bad Stuff Rule 3 218 Check Point Security Administration Object Configuration - Hide NAT Hide NAT can be configured to hide networks using a Security Gateway IP address or another, externally accessible IP address. To view logs from a particular log server or Security Gateway, filter the logs to display the information desired. Figure 445 — Combination Star and Meshed VPN Community Rem o te A c c e s s V P N C o m m u n i t y O b j e c t The Remote Access VPN community object contains the settings that allow users to connect to the internal corporate resources. When enabled, the user's Internet browser will display the following menu: 1. 626 Check Point Security Administration The CCP maintains a heartbeat between cluster members to broadcast that the cluster members are active and processing network traffic. Type the following command and press Enter, to display route information: show route 8. Click Next and the system displays the Summary page: Figure 274 — Summary 24. Configure Custom Permissions For each feature, determine if the administrator should be able to configure the feature or only view it. Examples: • • • • • richard 192.0.2.1 10.0.0.0/24 2001:0db8::61:1/32 mahler.ts.example.com Text strings with more than one word must be 240 Check Point Security Administration Permission profile is a customizable set of management server and SmartConsole permissions that are assigned to administrators. • Install On surrounded by apostrophes or quotation marks. Figure 196 — New Administrator Window Specifies which Firewalled objects will enforce the rule; the default is Policy Targets, which means all internal Firewalled objects. It enables the server or gateway. Figure 111 - LDAP Rule 11. This license ties the package license to the IP address of the management server and has no dependency on the gateway IP. An administrator can also activate or deactivate protections based on their tagging. To make it a true cleanup rule, it should be edited to drop all traffic. The Service Contract file is also installed via SmartUpdate. • User Groups — User groups consist of users and of user sub-groups to be used in the Rule Base. Yes No No No Size of output file on Security Gateway 5 - 100 GB Depends on configuration Few KB Does it support No automatic scheduling? Yes No No Can you restore from different versions? Preface Outline • Course Layout • Prerequisites • Certificate title • Course Chapters and Learning Objectives • Lab Topology • Related Certification 14 Check Point Security Administration C o u r s e L ayo u t This course is designed for Security Administrators, Check Point resellers, and those who are working towards their Check Point Certified Cyber Security Administrator (CCSA) certification. • Test Identify Awareness connection. Gateways & Servers toolbar - Create and edit gateways and restores, and search and filter gateways. NIST 800-53 USA National Institute of Standards and Technology recommend security controls for federal government information systems and organizations. A multidimensional approach protects the email infrastructure, provides highly accurate spam protection, and defends organizations from a wide variety of virus and malware threats delivered within email. These Firewalls may have proxy servers or specialized application software added. • Attach licenses. From A-Host, use HTTPS to visit www.chase.com. Backup via SmartConsole Performing a backup in SmartConsole is simple. Figure 243 — Manage & Settings - Sessions - View Sessions 285 Check Point Security Administration 3. In the Action Settings window, select the following option: Enable Identity Captive Portal Figure 497 — Action Settings Configured 14. Click OK, and the system adds the new policy package to the database: Figure 303 — Manage Policies 7. If using certificates, which CA will be trusted? Use the information below to configure eth1: Enable: Selected Comment: Internal IPv4 Address: 192.168.21.1 Subnet Mask: 255.255.255.0 314 Check Point Security Administration 4. With an increase in auditing and compliance requirements and stakeholders demanding that monitoring be performed continuously, administrators need to be able to analyze and provide reports on their network efficiently and in a timely manner that does not compromise their other day-to-day tasks. In the search results, select Hosts and DNS. In the Access Control policy, the Updates to the Application Control and URL Filtering database. While logged into SmartConsole as admin, create your own administrator with Super User privileges. Select Negate Cell. Review the existing Rule Base. Threat Prevention Policy layers differ in that the traffic is matched against all layers at the same time. It provides optimized web security with full integration in the gateway, preventing bypass through external proxies; integration of policy enforcement with Application Control for full Web and Web 2.0 protection; and leveraging UserCheck technology, empowering and educating users on web usage policy in real time. System Backup (and System Backup (and System Backup and Restore) The System Backup and Restore information, which can be restored to a different machine. The Firewall, or the Security Gateway with a Firewall enabled, will deny or 25 Check Point Security Administration A p p l i c a t i o n L ayer F i r ewal l Many attacks are aimed at exploiting a network through network applications, rather than directly targeting the Firewall. 679 Changing the Refresh permit traffic based on rules defined in the Security Policy. Select Edit Layer: 13. 573 Check Point Security Administration Identity Awareness Firewalls typically use IP addresses to monitor traffic and are unaware of the user and machine identities behind those IP addresses. Rate of CPView 430 Check Point Security Administration 13. The Security Gateway has a sophisticated AntiSpoofing feature that detects such packets by requiring that the interface on which a packet enters a gateway corresponds to its IP address. 426 Check Point Security Administration Configuring an Inline Layer Define an in-line Application & URL Filtering layer that appears in the Network Layer for Alpha. SmartConsole shows the logs from all Security Gateways and all Log Servers. Placing the Stealth rule at the top of the Rule Base protects the gateway from port scanning, spoofing, and other types of direct attacks. 94 END OF LAB 1.2 104 .. In the Access Control section, click the + icon: Figure 370 — Edit Layers 420 Check Point Security Administration 5. • Virtual Link — Shows the current traffic status between two gateways, such as Deployment Platforms bandwidth, bandwidth loss, and round trip time. Here are a few commonly used Firewall commands. 1. Identity Awareness uses the information received from the client to apply access permissions to the connection. CPView functionality is provided via the /bin/ cpview_start.sh shell script, which calls the main daemon cpviewd. To view a history of the configuration operations during the current session, click the Expand icon. • The management server can use the LDAP data to authenticate users. For maximum data protection, multi-factor pre-boot authenticate users. For maximum data protection, multi-factor pre-boot authenticate users. your desktop and double-click the compliance file. A Local license can only be used with a gateway or a management server with the same address. 543 Site-to-Site Communities — Allow All Encrypted Traffic . This makes it easier to locate rules and modify the Rule Base. Right-click AppCtrl. Publish changes and examine revisions. 85 Check Point Security Administration M a n a g e & S et t i n g s Tab The Manage & Settings tab allows you to manipulate various general settings. In the Track column, select Log: Figure 366 — Implicit Cleanup Rule Edited 416 Check Point Security Administration Configuring the Content Awareness Policy Layer Now that you have created a new policy layer for Bravo, define a rule that will prevent misuse of customer information by prohibiting employees from emailing credit card numbers outside of the company. The system displays Check Point SmartUpdate 8. Enter the following and press Enter: 4. In the General Properties page of B-GW, verify that IPSec VPN is selected. If the action item will detail corrective actions that need to be taken in order to restore the compliance status. The individuals who have passed the rules in the next policy layer. An action item will detail corrective actions that need to be taken in order to restore the compliance status. certification exam themselves provide the most recent questions for Checkpoint CCSA R80 Exam Dumps. HTTPS Inspection allows the database. This is done when the VPN gateway verifies the user's identity and the remote client verifies the identity of the VPN gateway. Alert — Generate a log and run a command, such as send an email alert, or run a userdefined script. This SmartConsole application is used to deliver automated software and license updates to hundreds of distributed Security Gateways. Navigate to the
NAT policy. 574 Active Directory (AD) Query. This is particularly important when the Security Policy is managed by multiple administrators. Checkpoint CCSA R80 Certification Practice Test Questions enable the learners to get the excellent preparation for exam. The satellite VPN gateways can access all the resources in the Meshed hub community. The following example shows how AD Query works: 1. For example, if you wish to add the SmartProvisioning feature to your existing Security Management solution, you would purchase an a la carte SmartProvisioning Blade. 508 Monitoring and Handling Alerts . • No Endpoint Security client. 549 Creating the VPN Community . O p e n Sy s te m s Inte rconnect Mod e l To understand the concept of a basic Firewall, it is beneficial to examine the aspects of the Open Systems Interconnect (OSI) Model. • Distribute the certificate. Edit the default shell for a user. It also verifies that once a packet is routed, it is going through the proper interface. Use the information below to configure the new object: Name: B-INT-NET Comment: Bravo Internal Network Address: 192.168.21.0 Net Mask: 255.255.0 Broadcast Address: 192.168.21.0 Net Mask: 255.255.0 Net Ma different between lavers. Figure 329 — Access Control and Threat Prevention Policies and Layers 369 Check Point Security Administration M a n a g i n g L aye r s The Manage Layers tool is used to create, manage, edit, and view all layers. • An endpoint computer or mobile device and the VPN gateway. The ICA signs the updated CRL and issues it to all gateways during the next SIC connection. Click on the Add License manually icon, or from the Launch menu, choose Licenses & Contracts > Add License manually. Once the two computers reach an agreement, two SAs are established, one for outbound communication and the other for inbound communication. Click the right arrow and the system displays the following: Figure 71 — Security Policies 15. Terminal Servers and Citrix environments. C o n t i n u o u s C o m p l i a n c e M o n i tor i n g Continuous Compliance Monitoring is a technology that monitors compliance parameters through scans. At the prompt, type the following command and press Enter: add backup local 3. You may manually enter the license details or click Paste License. This is to remove the possibility that a user may use this ability to claim they are running a Terminal Server and indicate a false user. The Check Point VPN solution guarantees authenticity by using standard authentication methods to transfer information and data. Using the Logs view, administrators can also examine audit logs from administrator activities. Publish and Install the Alpha Security Policy. 78 Network Communication example, a user who continually tries to gain unauthorized access to a network or Internet resource can be blocked. It defines the protocols that are used to exchange data between networks and how host programs interact with the Transport layer. For example, System Administrators can be delegated to different layers, each one created for a particular Software Blade. Next Generation Threat Extraction The new face of malware is fast and stealthy thanks to obfuscation tools that help attacks slip past the most sophisticated anti-malware solutions. From this list of best practices, it is easy to activate or deactivate a particular best practice test and view details, such as: Software Blade Related Software Blade ID — Assigned Check Point Compliance blade ID Name — Description of the regulatory requirement Status — Low, Medium, High, Compliance. Learning Objectives • Recognize how to define users and user groups. Lab 2.4 248 Managing Administrator Access L A B 2.4 Create multiple administrator access based on their assigned permission profile. M a n a g e m e n t S o f twar e B l a d e s fo r Po l i c y M a n a g e m e n Managing Administrator Access t Network Policy Management The Check Point Network Policy Management Software Blade provides comprehensive, centralized network Security Policy management for Check Point gateways and Software Blades via a single, unified console which provides comprehensive, centralized network Security Policy Management for Check Point gateways and Software Blades via a single, unified console which provides comprehensive, centralized network Security Policy Management for Check Point gateways and Software Blades via a single, unified console which provides comprehensive, centralized network Security Policy Management for Check Point gateways and Software Blades via a single, unified console which provides comprehensive, centralized network Security Policy Management for Check Point gateways and Software Blades via a single, unified console which provides comprehensive, centralized network Security Policy Management for Check Point gateways and Software Blades via a single, unified console which provides comprehensive, centralized network Security Policy Management for Check Policy Managemen VPN communities, view updates, create and manage UserCheck messages, manage client certificates, navigate to the Application Wiki or ThreatWiki, and view installation history. A Content Awareness policy layer may be added if the organization prefers to keep it separate from the Application Control and Firewall policies. Click OK, and the system modifies the Action field of the Marketing Access rule: Figure 489 — Marketing Access rule: Figure 489 — Marketing Interface (API) to query events instead of WMI, which also helps reduce the load on the 61 Check Point Security Administration 16. Last Explicit – A Cleanup rule should be used as the last Explicit rule. Built upon Check Point's award-winning FireWall-1 solution introduced in 1994, Check Point FireWalls are trusted by 100% of Fortune 100 companies. 651 Check Point Security Administration B e s t P r a c t i c e Tes t s A best practice test details compliance status and recommends corrective action. • Ask — Asks a user if they want to continue to the application or cancel the request. Search Result blade: "application control" AND action: block Displays log records from the Application Control and URL Filtering Software Blade where traffic was blocked. • Track — Defines logging or alerting for this rule; the default is None. The following chapter provides a basic understanding of these features and enhancements. 606 Check Point Security Administration 17. If you enter this password without turning NumLock on, you will not be able to log into the system. The CLI can be used to manage administrator roles. 111 Chapter 2: Security Policy Management . Review the information presented in the Security Best Practices Compliance pane. This means there is only one 168 Check Point Security Administration 18. Security Management and Security Gateway Software IP address for all licenses and the license remains valid even if the IP address of the gateway is changed. Right-click the Track column, and the system displays the following menu: Figure 131 — Track Menu Blades must be attached to a Software Container to be licensed. The rule is currently locked for editing by another administrator: Figure 239 — Security Policies - Access Control 12. The Rule Base must be configured, the user is automatically 360 Check Point Security Administration Managing Scheduled Security Gateway connected. Using Monitoring Views To open the monitoring views in SmartConsole, from the Gateways & Servers view, select a gateway and click Monitor. The number of remaining days will also be displayed in the status bar. Backups Use SmartConsole to backup the Alpha Security Gateway cluster members. The SAM rule is set up automatically with the user IP address and the P2P File Sharing Applications service. 15. Check the output of the watch fw tab -t connections -s command on each gateway to see the changes in the Connections table count. 19 Open Systems Interconnect Model . Figure 195 — Logs & Monitor Double-click a log to view the log details. It creates a new HTTPS connection from the gateway to the internal server. 564 Check Point Security Administration 4. The first rule instructs the Security Gateway not to translate traffic whose source and destination is the object for which Hide NAT is configured. Access Role objects allow administrators to configure network access according to networks, user and user groups, computers and computer groups, and remote access clients. 237 Check Point Security Administration Testing Network Address Translation Generate HTTP and HTTPS traffic from two internal Alpha networks to confirm the correct configuration of NAT. Log Servers make an index of the logs so that log gueries are very fast. Search for and add the Odd group: Figure 486 — New Access Role - Users NOTE You must select a user group. The system adds a new rule above the Outgoing rule: Figure 123 — New Rule Double-click the Name column of the new rule. • View historical data. Figure 346 — Sample Application Control policy layer is set to Accept all traffic that is not matched by any rule in the layer. Per for man c e Ob j ect ive s: • Demonstrate how to share a layer between Security Policies. With the Check Point Upgrade Service Engine (CPUSE), you can automatically update Check Point products for the Gaia operating system and the Gaia operating system itself. Click Next, and the system displays the Management Connection page: Figure 266 — Management Connection 10. Learning Objectives • Understand the Check Point policy layer concept. An action item is then automatically generated when this degradation is detected. compliance requirements. ISO 27002 International Supplemental controls and best practices for implementation of Information Security Management Systems (ISMS). DMZ Figure 102 — Network - General 615 Check Point Security Administration 9. Right-click Policy: 1. 533 Remote Access VPN Deployment . NOTE For Endpoint, the Remote 17. • Add and delete administrators via the CLI. Click Next, and the system displays
the Device Information page. It is also possible to restore a previously saved backup. Access blade is installed on the Network Management server instead of the Endpoint Management Server. In the Navigation pane, select Network Management > VPN Domain. If Transparent Kerberos Authentication is configured, the browser will attempt to identify users that are logged into the domain using SSO before it shows the Captive Portal. 570 Managing User Access C H A P T E R 7 An integral part of configuring the optimal network centers around defining users and user groups. Yes Yes No Yes Does it back up Products configuration? Security Gateways constantly reference this database. Status Icon OK Attention Problem Waiting Disconnected Untrusted Description The gateway and all its Software Blades are working properly. When publishing a session, it is recommended to name the session and provide a description. Figure 442 — Meshed VPN Community 538 Check Point Security Administration Star VP N Comm unity A VPN star community consists of one or more central VPN gateways and satellite VPN gateways. Figure 107 – New Object Menu 151 Check Point Security Administration 3. • Blocked — The hosts cannot access the Internet. Examples: • 65000-66000 • port: 80-660 IPv4 addresses can be entered using dotted decimal or CIDR notation. • None — Does not generate a log. • Authentication occurs and a secure tunnel is established to negotiate IKE Phase 2 parameters. 537 Meshed VPN Community . You should be successful. 191 Check Point Security Administration 11. Per for mance Objectives: • Configure Network Address Translation for server and network objects. Close all web browsers on A-Host and A-GUI. W — Switches between wide and normal Display mode. A VPN gateway provides privacy and security by encrypting connections and data. 15 Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select the Logs & Monitor tab: Figure 230 — Course Chapters and Learning Objectives . In the Navigation bar, select tab end tab e 272 Check Point Security Administration 7. From the Launch menu, choose Licenses & Contracts > Add License. 242 Check Point Security Administration Expirations An administrator account may be configured to expire on a certain date. 134 Install Logs & Monitor a Policy Package . All cluster member interfaces facing the same direction must be in the same network. The Internet layer corresponds to the Network layer of the OSI Model. add Add a value from the system save Save the configuration changes made since the last save operation. The Tunnels view also allows administrators to monitor tunnel status, (installed on the Endpoint) Terminal Servers Agent RADIUS Remote Access Figure 470 — Methods for Acquiring Identity Identity sources are different in terms of security and deployment considerations. Migrate method, which is also referred to as upgrade_export/migrate export method, backs up all Check Point configurations, independent of hardware, operating system or Check Point version. In the License Expiration window, search for licenses expiring within the specified amount of days. Then, publish the changes and look at the list of Security Policy revisions. 59 Check Point Security Administration 11. If none of the rules in the policy package apply to a Security Gateway, the Security Management Server does not install the policy package on the Security Gateway. 353 Lab 2.6: Managing Backups . Configure the new layer as follows: Name: Content Awareness Blades: Content Awareness Blades: Content Awareness Blades: Content Awareness Multiple policies and rules can use this layer: 414 Check Point Security Administration 7. On Day 2 of this course, verify that the following machines have backups on A-GUI: • A-SMS • A-GW-01 • A-GW-02 6. Selected Tag: Alpha/Bravo Figure 364 — Layer Editor - General 386 Check Point Security Administration A p p l i c a t i o n C o n t ro l Pol i c y L ayer In the Application Control policy layer, URL Filtering and Application Control rules are used to drop unsafe traffic by identifying objectionable URLs, URL categories, web application control rules are used to drop unsafe traffic by identifying objectionable URLs, URL steps and Application Control rules are used to drop unsafe traffic by identifying objectionable URLs, URL categories, web application control rules are used to drop unsafe traffic by identifying objectionable URLs, URL categories, web application control rules are used to drop unsafe traffic by identifying objectionable URLs, URL categories, web application control rules are used to drop unsafe traffic by identifying objectionable URLs, URL categories, web application control rules are used to drop unsafe traffic by identifying objectionable URLs, URL categories, web application control rules are used to drop unsafe traffic by identifying objectionable URLs, URL categories, web application control rules are used to drop unsafe traffic by identifying objectionable URLs, URL categories, web application control rules are used to drop unsafe traffic by identifying objectionable URLs, URL categories, web application control rules are used to drop unsafe traffic by identifying objectionable URLs, URL categories, web application control rules are used to drop unsafe traffic by identifying objectionable URLs, URL categories, web application control rules are used to drop unsafe traffic by identifying objectionable URLs, use are used to drop unsafe traffic by identifying objectionable URLs, use are used to drop unsafe traffic by identifying objectionable URLs, use are used to drop unsafe traffic by identifying objectionable URLs, use are used to drop unsafe traffic by identifying objectionable URLs, use are used to drop unsafe traffic by identifying objectionable URLs, use are used to drop unsafe traffic by identifying objectionable URLs, use are used to drop unsafe traffic by identifying objectionable U and another scan has been performed. Open an Internet browser. In the reply packet: 1. ClusterXL supplies an infrastructure that ensures no data is lost in case of a system failure. The system displays the Hosts and DNS page. A Software Blade is a security solution based on a specific business need. An object in the Security Policy can also be replaced by another object. NOTE Make sure the clocks of the gateway and management server are synchronized before initializing trust between them. To view this pane, select Operations > View Status. The Certificate Import Wizard 16. They are not case sensitive. Click the View certificates link. The Security Gateway sends a page to the user that shows the Captive Portal. Upgrading Contracts Before upgrade and major releases registered to your Check Point User Center account. The OSI Model demonstrates network communication between computer systems and network devices, such as Security Gateways. Commands have the following syntax: operation feature parameter Operation Security Policies to identify, allow, block, or limit usage regardless of the port or protocol used, including SSL encrypted traffic. Answers within practice tests are regularly updated and 100% original. Use both options when most users are desktop users and easy deployment is necessary. 32 Check Point Security Administration Web U I The WebUI is an advanced, web-based 482 Check Point Security Administration 6. Table 21: Standards and Descriptions To activate or deactivate a regulation: 1. In addition, you will upgrade and configure a interface used to configure Gaia platforms. Notice the license was successfully attached to B-GW: Figure 410 — Licenses & Contracts Security Gateway to implement a Virtual Private Network (VPN) for both internal and external remote users. The packet translates on post-outbound, O, as it leaves the gateway. If a rule is added that conflicts with another rule, the conflicting rule remains hidden. • Describe the basic functions of the Gaia operating system. The IPS software blade is now enabled on the Security Gateway. At the prompt, type the following and press Enter. Examples: • 'John Doe' • 'log out' • "VPN-1 Embedded Connector" Numbers and IP addresses cannot be placed in quotation marks. Each component that accesses the Security Gateway most likely needs to be defined. Identify the departments and users that generate the most traffic and the times of peak activity. With Endpoint Identity Agents, users are required to download the agent from the Captive Portal and
authenticate using Kerberos SSO. • LDAP Groups — An LDAP group is a user group whose members are defined in a LDAP directory server. Point Security Administration 10. 252 Check Point Security Administration 11. 131 Install Policy ... Close SmartConsole. If there is an existing LDAP User Database, integration with the Security Gateway is relatively 299 Check Point Security Administration 14. You may also need to verify that the LANs in VMware are configured properly before you simple. Load Sharing is discussed in more detail in the CCSE course. • Tunnels — Displays the current status of tunnels associated with the selected gateway and their usage are able to connect. Navigate to the Security Policies tab. What is the difference between Explicit and Implicit rules? Power on the B-GW virtual machine, and the Welcome to Check Point Gaia R80.xx 3. They control the traffic between internal and external networks. The Threat Prevention policy inspects traffic to and from all objects specified in the protected scope regardless of which object initiates the connection. The Log Server is usually on the Security Management Server. NOTE You can also find the SmartConsole download in the Maintenance section of the Gaia Portal. Click Next, and the system displays the Secure Internal Communications (SIC) page: Figure 273 — Secure Internal Communications (SIC) 22. Select Manage Policies and Layers, and the system displays the following window: Figure 295 — Manage Policies 331 Check Point Security Administration 35. Figure 472 — AD Query Example 578 Check Point Security Administration Identity Collector The Identity Collector is a query option to ADQ. They reserve a set of TCP/UDP ports for each user. When prompted to enter a new password for Expert mode, type and confirm the following: Chkp!234 4. These rules must be placed at the top of the HTTPS Inspection Rul Base. 32 WebUI . Table 20: Choosing Identity Sources NOTE The Identity Awareness Configuration Wizard cannot be used to configure multiple Security Gateways at the same time or to configure Endpoint Identity Agent and Remote Access acquisitions. 590 Check Point Security Administration Authenticating with Certificates The Security Management Server and Security Gateways can use certificates to secure communication with LDAP servers. 392 Configuring the Application Control & URL Filtering Rule Base Permanent VPN Tunnels can be set: • On all tunnels in the community • On all tunnels for specific gateways • On specific tunnels in the community Figure 448 — Configuring Permanent Tunnels for a VPN Community 545 Check Point Security Administration Tu nn e l Te sti n g Tunnel Testing is a proprietary Check Point protocol used to test if VPN tunnels are active. In this lab environment, we manually configured Hide NAT on specific internal networks. 33 Users . Automatic ARP configuration adds the ARP entries needed to accomplish this task. Add a new rule to the top of the Rule Base and configure it as follows: 1. Click Assign Members. 357 Check Point Security Administration Scheduling a Security Management System Backup Schedule the Security Management System to be backed up at midnight and for it to send the backup to the A-GUI machine upon completion. This rule translates packets from private addresses to the IP addresses to t SIC is required for policy installation on gateways and to send logs between gateways and management servers. 581 RADIUS . Click Next, and the system displays the Deployment Options page: Figure 265 — Deployment Options 304 Check Point Security Administration 8. Notice that all editable objects are graved out and unavailable for selection: Figure 233 — Gateway Cluster - General Properties 12. Review the scores, identifying which might be relevant to your organization's regulatory obligations. Use SmartView Monitor only for the features that are not integrated into SmartConsole, such as the ability to create customized monitoring views. NOTE Publishing writes changes to the database but does not install the Security Policy. Figure 254 — Apply for Security Gateway Control Connections Lab 2.5 Installing and Managing Remote Security Gateways 293 L A B Installing and Managing a Remote Security Gateway 2.5 You are implementing the Check 512 Check Point Security Administration Gateway Status The Gateway Status view in SmartConsole shows the overall status of Security Gateways and Software Blades. There are three default profiles which provide a balance Point Security Gateway at a branch office. Figure 425 — Gateway Status View between security and performance: Basic, Optimized and Strict. Power off the A-Guest virtual machine. Because the logs are indexed using the indexing engine, the search results are very quick. • HTTPS Inspection — The HTTPS Inspection — The HTTPS Inspection and Strict. to exit the Layer Editor window. 84 Logs & Monitor Tab . Publish the session using the following session details: Session Name: New Administrator. The following Software Blades are included: Firewall, IPS, Identity Awareness, and Application Control. To delete expired licenses from the License Expiration window, select the detached license(s) and click Delete. From the personal administrator session, confirm that the A-GW-Cluster object color is still Firebrick. • RADIUS — An external authentication function from the access server. Clock synchronization can be done manually or through a network protocol, such as NTP. It also includes numerous settings which are primarily configured as Global Properties. Navigate to the Access Control policy: Figure 237 — Security Policies - Access Control policy: Figure 237 — Security Policies 197 Check Point Security Administration 26. Best practice is to keep only the SAM rules needed. Under Step 2, click the Export Certificate button. Clock Synchronization 26. Best practice is to keep only the SAM rules needed. the screen. Typically, this is about 50 results. Click the Certificate Error message: Figure 159 make sure to synchronize the clocks of all of the cluster members. These rules allow control connections such as management, auditing and tracking as well as communication with servers, like LDAP and RADIUS. Including users in groups is required for performing a variety of operations, such as defining user access rules or remote access communities. In the toolbar search field, type the following: dns Figure 16 - DNS Search Results Displayed 12. Figure 2 - OSI Model 19 Check Point Security Administration The OSI Model layers are described as follows: • Layer 1 — Represents physical-communication links or media required hardware such as Ethernet cards, DSL modems, cables, and hubs. Using the Gaia First Time Configuration Wizard, the appliance connects to the Check Point User Center and downloads all necessary licenses and contracts. Determine the: •••• Number of policy layers in a policy. 157 Organizing the Rule Base To define a list of Security Gateways between which identities are shared, go to Gateway properties and select Get identities from other gateways in the Identity Awareness tab, and then select the Security Gateways to obtain identities from. It displays a summary of the main performance components in the system, such as memory and network bits per second. Objects menu — Create and manage objects. The Translated Packet elements define how the Security Gateway should modify the packet. troubleshooting. The LDAP server maintains all user information, including login name and password. • Add a comment to each rule. 470 Verifying the Status of Existing Licenses in SmartConsole 230 Check Point Security Administration 20. When an administrator attempts to close SmartConsole without publishing or discarding changes, the changes are saved as a draft on the server. Figure 521 — Compliance Regulatory Compliance 650 Check Point Security Administration Best practices are used to examine compliance with the following standards: Standard Location Description ISO 27001 International Standards for the implementation of Information Security Management Systems (ISMS). UserCheck is a communication tool used by the Security Gateway to inform a user about a website or application
they are trying to access. In this type of community, a satellite can create a VPN tunnel only with other VPN domains where the VPN gateway is defined as a central VPN gateway. If not selected, a host route is required on the Security Gateway to route to the destination server. NOTE The license file name options may vary slightly between versions. 578 Browser-Based Authentication . If the rule is not matched, the sub-policy is skipped Close all web browser windows on both A-GUI and A-Host. 696 Chapter 4: Check Point Security Solutions and Licensing Navigate to and double-click the A-GW-Cluster object: Figure 225 — Gateway Cluster - General Properties 2. 560 Check Point Security Administration Publish the changes. Explicit — These are the administrator defined rules, which may be located between the first and the before last rules. In what instance should you install a Log Server on a dedicated computer? It also helps protect an enterprise against regulation violations. In SmartConsole, navigate to the Logs & Monitor tab. To do so, use the following procedure: • To enable VMAC mode, set the global kernel parameter to 1: fwha vmac global param enabled 0 • To enable on-the-fly mode, run the following command on all cluster members: # fw ctl set int fwha vmac global param enabled 1 6. 517 Traffic View . Publish the changes. The system displays the following window: Figure 155 — Inspection Settings - General 194 Check Point Security Administration 17. HTTPS Inspection is a feature which is included with the following Check Point Software Blades: • • • • • • Application Control URL Filtering Content Awareness DLP IPS Antivirus Anti-Bot Threat Emulation Enabling HTTPS Inspection - protects against malicious traffic sent from an internal client to an external site or server • Inbound HTTPS Inspection - protects internal servers from malicious requests that arrive from the Internet or an external network CA Certificates The Security Gateway uses certificates to act as an intermediary between the client computer and the secured website. A unified Threat Prevention Profiles er Security Gateway. In other words, when adding VPN gateways to a VPN community, the Firewalls are configured to use encrypted communication with each other with allowed connections. • Test administrator access based on assigned profiles. At the prompt, type the following command but do NOT press Enter: clusterXL admin down 644 Check Point Security Administration 14. Verify that the interfaces appear as follows: Figure 156 — Inspection Settings - Gateways 18. 402 END OF LAB 3.2 404 Threat Prevention Policy Layers .. This method allows you to back up the configuration of the Gaia operating system and the Check Point configuration. This option is enabled by default. If it is selected, the administrator is able to see the feature. Figure 441 — VPN Communities Window When planning a VPN topology, it is important to consider the following questions: 1. 662 Check Point Security Administration 8. Connections between satellite gateways and gateways that do not belong to the community are routed in the normal way. DNS Server Allows UDP traffic to the external DNS server. Type the following command and press Enter, to set the user's role: add rba user sam roles adminRole 71 Check Point Security Administration 4. The Action Items and Messages section displays helpful remediation for each action item, providing suggestions to correct the related configuration. Within 60 seconds, highlight the following option and press Enter to launch this installation: Install Gaia on this system 296 Check Point Security Administration 4. Use the information below to configure the new user: 5. C h e c k Poi n t A p p l i a n c es Check Point appliances are built with flexibility and expansion capability to meet the diverse requirements for today's enterprise networks. The view can be based on a review of things such as, specific services, Firewall rules, or network objects that may be known to impede the flow of Internet traffic. 477 Check Point Security Administration 6. The system displays the Gaia Portal login screen: 3. Open a record that shows the recently generated HTTPS traffic as Bypass, rather than Accept: Figure 178 — Log Details Window 16. This is the management interface. 79 Check Point Security Administration Initializing Trust A gateway and management server use a one-time password to initially establish trust. Click the License & Contract Repository button at the top of the screen (third from the right): Figure 411 - Licenses & Contracts 7. Select the Outgoing rule (#5). Per for man c e Ob j ect ive s: • Enable Identity Awareness. This list provides details such as the name of the administrator that made the revision, the time when the revision was made and the description the administrator wrote before publishing the change. For example, if there is a Permanent Tunnel between a VPN gateways in those was made and the description the administrator wrote before publishing the change. offices. This Software Blade provides enterprise-grade remote access via SSL VPN for simple, safe, and secure mobile connectivity to email, calendars, contacts, and corporate applications. • Advanced — Shows all configuration options. Ta sks : • Assign layers to an existing Security Policy. Log details include log information and policy and traffic flow 503 Check Point Security Administration 8. • Application Wiki — The Application Wiki tool is a link to the Check Point AppWiki. 576 Check Point Security Administration Account Units If you are implementing User Directory user management for your details Security Gateways, you will need to know which entities to define and how to manage the users defined. Click Login, and the system displays the Gaia Portal Overview 7. Increases productivity and efficiency through centralized blade management, logging, and event analysis. Individual users must be added to user groups that are defined in the Security Gateway's internal user database or on an LDAP server prior to defining authentication rules for those groups. Figure 205 — Manage & Settings - Permissions & Administrators 250 Check Point Security Administration 3. Although there are many aspects of the network to monitor, there are some tasks that may only require occasional implementation. The cluster member at the top of the list has the highest priority. On A-GW-01, execute the following command, and the system displays the Connections table for the various software blades: Figure 401 — Device & License Information - License Status NOTE Use the drop-down menu to navigate between cluster members. To accomplish this, Check Point Firewall. Application and Internet site details are stored in the Application and URL Filtering database, which is regularly updated with the newest applications and Internet sites. Defining users and managing internal and external user access is easily achieved through SmartConsole. 229 Check Point Security Administration 16. 595 Check Point Security Administration Rul e B ase Using Identity Awareness, you can define a policy rule for specified users who send traffic from specified computers or from any computer. Enter and confirm Chkp!234 as the Activation Key. The Device & License Information window will appear. 458 View License Properties. 609 Check Point Security Administration 24. The Security Policies tab appears, displaying the Access Control policy with the selected rule highlighted. 247 Lab 2.4: Managing Administrator Access . Publish all changes to the Security Policy. 16. 614 END OF LAB 7.1 623 Review Questions ... These objects are used throughout SmartConsole for many tasks including creating Security Policies. Describe concurrent administration. Centralized management and monitoring allows for policies to be managed from a single, unified console. Attempt to display the configuration for A-SMS. products. An administrator can use Captive Portal to allow Internet access to quests of the company. • Each entry has a unique Distinguished Name (DN). 438 Check Point Security Administration Antivirus The enhanced Check Point Antivirus Software Blade stops incoming malicious files. Using the correct zone for a given connection is based on the network topology and determined according to where the interface is lead. 284 Check Point Security Administration Disconnecting an Administrator Session As an administrator with the permission to manage other administrators, disconnect an administrator session, 124 Sections. Understand how traffic inspection takes place in a unified Security Policy, 38. 504 Check Point Security Administration 10. To help manage the network Security Policy, it is important to know the components of a Security Policy and how they impact traffic inspection. 186 Check Point Security Administration 12. The Firewalls deeply inspect traffic content and apply allow or block access rules per session or connections per port like Packet Filtering. When the system prompts you for confirmation, type y and press Enter to begin transfer. To use this feature, the management server must be able to connect to the Internet. Configure the window as follows: Forward log files to Log Server: Deselected Create a new log file on scheduled times: Midnight When disk space is below: Deselected Accept Syslog messages: Deselected SmartEvent Intro Correlation Unit: Selected Figure 435 — Check Point Host - Logs - Additional Logging Configuration 525 Check Point Security Administration Click OK. User authentication through the Terminal Server Identity Agent is issued differently from the Endpoint Identity Agent. Only those users who match the defined criteria will be included as members of the LDAP group. Users are created for use as network objects in Security Policies. 136 Check Point Security Administration Reviewing and Modifying Objects in the Check Point Security Management Architecture Review the threetiered architecture of your Check Point deployment. This
password is used to secure the establish trust between them. It can be installed individually for each user on the target computer. Layers also enable flexible control over policy behavior. A cluster member that is processing traffic has an Active status. When the guest browses to the Internet, Captive Portal will open. SmartUpdate provides a global view of all available and installed licenses, and upgrading licenses to Check Point Security Gateways. • Network Configuration — Displays interfaces, their statuses, and IP addresses. 413 Check Point Security Administration 6. • Configure the Alpha Security Policy to manage the Security Gateway. The free-text search engine is extremely effective in quickly running data analysis and identifying critical security events. Review the path displayed. The action taken will be the most liberal, or least restrictive. 538 Star VPN Community. 181 Verifying the HTTPS Server Certificate .. 368 Managing Layers . The first installation mode installs the policy on each target gateway independently. However, companies may create their own set of best practices. Figure 436 — Install Database Window 11. Snapshot System Backup Migrate Save/Show Configuration Does it back up the Gaia operating system configuration? 687 Saving Statistics to a File . . Check Point Security Gateways support NAT-T for IPSec VPN and Site-to-Site VPN clients. For example Jo* N* shows Joe North, John Nat, Joshua Norway, and so on. From a remote location, an administrator logged into the management server initiates operations using the SmartUpdate application. 367 Policy Layer Concept Select None, Read-Only, or Read/Write from the options menu to the left of the feature or command. The HTTPS Inspection Policy is managed in SmartDashboard. Figure 338 — Access Control Layers 6. They are also used in this policy layer to allow or block applications and Internet sites, such as Facebook, YouTube, and Twitter. At the bottom of the window, next to the certificate status, click the Reset button. Enter a unique name for the profile. Table 5: User and Role Parameters and Descriptions For example: add rba user Paul access-mechanisms CLI, WebUI add rba user Daly roles NewRole, adminRole delete rba user 41 Check Point Security Administration U p d a tes Gaia provides the ability to directly receive updates for licensed Check Point Identity Agents may be added for mobile users. Views menu — Navigate between various pre-defined views. Per for ma n c e Ob j ec t ive Dalv roles adminRole s: • Create multiple administrators and apply different roles and permissions for concurrent administration. ClusterXL uses State Synchronization to keep active connections alive and prevent data loss when a member fails. The user is authenticated according to the defined according to the define specify files that the Threat Prevention blade does not scan or analyze for malware, viruses or bots. They also help organizations reduce risk, ensure compliance, and improve operational efficiency. The rules that accompany these Software Blade policies make up the Access Control policy Rule Base. • Whitelist Files — The Whitelist Files tool provides a list of trusted files. 685 Viewing Historical Data in CPView . . With multiple LDAP servers, you achieve compartmentalization by allowing a large number of users to be distributed across several servers, gain High Availability by replicating the same information on several servers and you also achieve a faster access time by placing LDAP servers containing the database at remote sites. Select the following Installation Targets option: Specific Gateways 332 Check Point Security Administration 39. 226 Check Point Security Administration Configuring Hide Network Address Translation Configure Hide NAT on the management and internal Alpha networks. Figure 439 — Site-to-Site VPN deployment, a computer in the Main office needs to download a file from the Branch office. 359 Check Point Security Administration 5. After reboot, the system displays the following prompt: Figure 263 – Login Prompt 302 Check Point Security Administration Configuring the Branch Office Security Gateway with the First Time Configuration Wizard Follow these steps to configure the bravo gateway and activate its default trial license. Click the Download Now button, Click the Install button, to continue the installation of SmartConsole: Figure 61 – Installation 92 Check Point Security Administration 9. Figure 376 — Log Details 11. The Active Directory Domain Controller sends the Security Event log to the Security Gateway. 483 Check Point Security Administration Verifying the Status of Existing Licenses in the Gaia Portal Use SmartConsole to access SmartUpdate and verify license status. Each Software Blade must be attached to a Software Container just as the blade server must be attached to the chassis. For example, traffic to Facebook may be over HTTP or HTTPS. The system displays the Gaia Portal Overview page. • Create the VPN community. Next to many features is a drop down menu with the following two options: • Read — The administrator can see the feature but cannot change its configuration. 87 SmartView Monitor (Tunnel & User Monitoring). In the Rule 222 Check Point Security Administration Object Configuration - Static NAT Configuring a Security Gateway to perform Static NAT for a host is similar to configuring a Security Gateway to perform Hide NAT Base, confirm that https is included in the Services & Applications column of the Outgoing rule: 1. using another externally accessible IP address. It communicates messages about the company's Security Policy or a change in the company's Security Policy to the person trying to access the application or Internet site. When done, enter the number for Exit. **179 Check Point Security Administration** Inspecting Inbound Connections Inbound HTTPS connections arrive from an external client and connect to a server in the DMZ or the internal network. The Security Gateway communication and creates Implicit rules for those scenarios. CPView's history daemon will store statistics to a local database for 30 days. When resetting SIC, the management server revokes the certificate from the Security Gateway and stores the certificate information in the Certificate Revocation List (CRL). 589 Check Point Security Administration Using Multiple LDAP Servers There are several advantages to using more than one LDAP server. Click the View certificates link: Figure 160 — Certificate NOTE In your lab environment, the certificate should show as being issued by alpha.cp. The communication status may show: • Communication is established. Event Statistics pane — Shows top results of the most recent query. In the section title, type the following and press Enter: Management Rules 5. C r e a t i n g a C o n te n t Awa r e n e s s Pol i c y A Content Awareness policy provides better control over traffic coming into the network. help Retrieve help on navigating the CLI and some useful commands. Figure 419 — Log Details 5. Close the browser on A-Host. Management-only servers do not have an IPSec VPN option included in the Network Object Properties window. International Headquarters 5 Ha'Solelim Street U.S. Headqua

Professional Services 6330 Commerce Drive, Suite 120 Irving, TX 75063 Tel: 972-444-6612 E-mail comments or questions about our courseware to: Document # DOC-Manual-CCSA-R80.20 v1 Content Vanessa Johnson Matthew Frey Graphics Vanessa Johnson, Chunming Jia Contributors Beta Testing, Content Contribution, or Technical Review Michael Adjei - Wickhill - England Eric Anderson - Netanium - USA Mario Angelastro - ITway - Italy Eli Faskha - Soluciones Seguras - Panama Michael Curtin - Red Education - Australia Kishin Fatnani - K-Secure - India Patrick Felsner - Arrow ECS - Austria Omar Gonzalez - Soluciones Seguras - Panama Tim Hall - Shadow Peak - USA Eli Har-Even - Check Point Software Technologies - Israel Anthony Joubaire - Arrow ECS - France Yasushi Kono - Arrow ECS - Germany Fabrizio Lamanna - Check Point Software Technologies - USA Jani Linder - S&T - Slovenia Valeri Loukine - Dimension Data - Switzerland Dries Mertens - Westcon - Belgium Piotr Misiowiec - CLICO - Poland Richard Parkin - Arrow ECS - England Jigarkumar Patel - Check Point Software Technologies - USA Yaakov Simon - Check Point Software Technologies Israel Dan Valluvassery - Arrow ECS - England Erik Wagemans - Proximus ICT Academy - Belgium Kim Winfield - Check Point Software Technologies - USA Fabrizio Lamanna - Check Point Software Technologies - USA Ashley McDowell - Arrow ECS-UK (London Event Host) Certification Exam Development: Jason Tugwell Check Point Technical Publications Team: Uri Lewitus, Aliza Holon, Daly Yam, Daniel Epstein, Eli Har-Even, Luba Tuchin, Paul Grigg, Rachel Teitz, Ronit Segal, Sergei Shir Table of Contents Preface: Security Administration . 629 Failovers . Each time you obtain a new contract, you can use this option to make sure the new contract is displayed in the license repository. Chapter 7: Managing User Access • Recognize how to define users and user groups 173 Check Point Security Administration 10. For example, an administration can use a sub-policy to manage a network segment or branch office. 53 Check Point Security Administration 5. The Application layer allows the end user to access the targeted network application or service. These widgets can be added or removed from the page, moved around the page, and minimized or expanded. A Suspicious Activity rule can only be created for Traffic views with data about the source or destination, such as Top Sources and Top P2P Users. On A-GUI, click Proceed to continue to SmartConsole. Assign a password to a user. If the Traffic view indicates that users are aggressively using such services or network objects (for example, Peer to Peer application or HTTP), the cause of the slow Internet access has been determined. components and their respective IP information make up the network topology. They can monitor the two sides of a Permanent VPN tunnel and identify problems with minimum delay. NOTE Ensure your time and date settings on your gateways and Security Management Server are synchronized. administrator and are configured to allow or block traffic based on a specified criteria. Application's type. Click OK, to specify the store: Figure 168 — Certificate Store Configured 205 Check Point Security Administration 8. 108 Standalone . Each method backs up certain parameters and has relative advantages and disadvantages (i.e. file size, speed and portability). Cannot make SIC between the Security Management Server and the Security Gateway. • VPN — Displays the Add VPN Communities screen, where you can select a VPN Community to add 489 Check Point Security Administration C o n fi g u r e L o g g i n g To configure logging, from to the rule; the default is Any. If not managed properly, Rule Base order can affect Security Gateway performance and negatively impact traffic on the protected networks. Figure 414 — General Properties Window a Security Gateway to a Security Management Server, define one or more Log Servers, if using them, and enable logging on the Security Management Servers, if using them, and enable logging on the Security Management Servers. Use the information below to configure the NAT page: Add Automatic Address Translation rules: Selected Translation method: Static IPv4 Address: 203.0.113.151 Install on Gateway: A-GW-Cluster Apply for Security Gateway control connections: Selected Figure 191 — Check Point Host - NAT 5. NIST 800-41 USA National Institute of Standards and Technology guidelines for Firewalls and Firew to return fields that are not null 257 Check Point Security Administration 19. Notice this user does not have permissions to edit the Access Control 14. Chapter 8: Working with ClusterXL • Understand the basic concepts of ClusterXL technology and its advantages. Type the following command, and press Enter to view the saved file: cat [file name] Figure 554 — cat [file name] END OF LAB 9.2 691 Check Point Security Administration Review Questions 1. You can only specify one access mechanism at a time with this command. 553 Creating the VPN If the matched rule specifies a Data Type, the session log shows information about the files, and the contents of the files. View Security Policies, the status of al Rule and Modifying the Rule Base 303 Using the Gaia Portal to Configure the Branch Office Security Gateway 594 Check Point Security Administration Managing User Access Managing internal and external user network access is easily achieved in SmartConsole. Ta sks : • Review statistics in CPView. Security Policies Check Point products, and administrator activity as well as edit, create, and modify internal users. toolbar — Add or delete rules, expand and collapse sections, install policy, view the history, and search, filter, and export the Rule Base. Search for all records related to HTTPS. Gateway status information includes device status, license status, system status, and traffic information. 182 Enabling and Testing HTTPS Inspection . Per for m i n g a M a n u a l Fai l ove r In some circumstances, it may be necessary to manually cause a cluster member to failover. 698 Chapter 6: Basic Concepts of VPN Check Point Security Administration 3. In the Navigation pane, select Network Management: Figure 513 — Gateway Cluster Network Management In the list of configured interfaces, review the comments to identify which one functions as the synchronization network. Navigate to the following location: 7. Figure 139 — List of Trusted CAs 177 Check Point Security Administration I n s p e c t i n g HT T P S Tra f fic To inspect HTTPS traffic, HTTPS Inspection rules must be created and installed in the Access Control policy. END OF LAB 2.1 175 Check Point Security Administration HTTPS Inspection 181 Check Point Security Administration Verifying the HTTPS Server Certificate Review the HTTPS server certificate your browser retrieves from the remote sites prior to the HTTPS is a communications protocol used throughout the world to secure access to websites and applications via the Internet. installation of the local certificate. • Connections — Shows the current status of current connections initiated through the selected gateway. Ignore this warning and continue to the Login screen. The Object Explorer window in SmartConsole allows you to create new objects and edit existing objects. However, the Security Gateway will then enforce a default drop rule, which is the default policy for all Security Gateways. Select eth1, and click Edit: Figure 276 — Edit eth1 3. Alerts are sent in order to draw the administrator's attention to problematic gateways and potential threats to the security of their systems. Pe r for ma n c e Ob j ec t ive s: • Identify important operating system level settings configured through the WebUI. It also contains other information, such as the maximum number of users, devices, and IP addresses allotted for the product as well as a signature key, certification key, and Service Contract data. Under the Trusted Communication Initialization section, click the Initialization section, click the Initialization key, and Service Contract data. connected to a number of branch offices. 127 Unified Policies . • Understand how traffic inspection takes place in a unified Security Policy. If a suspicious result is seen while monitoring traffic, a SAM rule can be created immediately from the results. Figure 537 — CPView CPU 674 Check Point Security Administration Software-blades View The Software-blades view shows statistics related to specific blades, including VPN, IDA (Identity Awareness), DLP, Threat Extraction, and Data Awareness, DLP, Threat Extraction, and Data Awareness), DLP, Threat Extraction, and Data Awareness, and the Aware 334 Check Point Security Administration Creating a New Security Policy Create a new Security Policy that includes the additional Access policy layers of Data Awareness and Application Control and URL Filtering. Toolbar The toolbar displays whether the user has Security Policies - Access Control Read/Write access or is in Read-Only mode. A list of revisions may be viewed under the Manage & Settings tab. In the Role Name field, enter the following: rtrRole 52 Check Point Security Administration 4. Publishing the session will update the policy. Figure 392 — License Status 460 Check Point Security Administration You may also save the status information as a PDF report or export the information to a file. 73 END OF LAB 1.1 76 The Check Point Security Management Architecture . . The view displays open sessions, overlapping sessions, route traffic connection time, and more. Table 1: CLI Operations and Descriptions To view all commands feature show commands feature VALUE 28 Check Point Security Administration To show all possible operations: show commands per operation, per feature: show commands [op VALUE] To show the full system version information: show version all To show version information for operating system components show version os build show version os edition show version os kernel To show
the name of the installed product: show version product Parameter Description all Show all system information. 185 Check Point Security Administration 11. Navigate to SmartConsole. • License is upgraded. For example, the User Database does not contain information about users in external User Directory groups but it does contain information on which Account Unit the external group is defined. 583 Remote Access 610 Check Point Security Administration 28. Endpoint Policy Management The Check Point Endpoint Policy Management Software Blade simplifies endpoint security management by unifying all endpoint security capabilities for PC & Mac in a single console. Username: admin Password: Chkp!234 NOTE Log into the Virtual Machine either directly or from A-GUI through a Putty session. In the Users page, click Add and the system displays the following 58 Check Point Security Administration 10. Select the following option: Specific Gateways Figure 27 — Add User 347 Check Point Security Administration 31. NOTE If you continue to receive a site warning when attempting to access , close all browser windows and try again. In the Navigation pane, select System Management > Time and Date • Time IKEv2 for IPv6 only IKE Security Association (Phase 1): Encryption Algorithm: AES-128 Data Integrity: SHA1 Diffie-Hellman group: Group 14 (2048 bit) (Phase 2): Encryption Algorithm: AES-128 Data Integrity: SHA1 Diffie-Hellman group: Group 14 (2048 bit) Support IP Compression: Deselected 554 Check Point Security Administration 6. Keyboard Button Description TAB Complete or fetch the keyword. Figure 140 — HTTPS Inspection Policy 178 Check Point Security Administration Inspecting Outbound Connections 220 Check Point Security Administration Hide NAT Using Interface IP Address Using another externally accessible IP address for Hide NAT is considered best practice. Configure a shared secret — Configure HTTPS requests are compared to the rules in the HTTPS Inspection Policy by the Security Gateway. the same password on the Terminal Servers Identity Agent and the Identity Agent and the Identity Agent and the Identity Agent and the Identity Server (the Security Gateway enabled with Identity is useful for 392 Check Point Security Administration Configuring the Application Control & URL Filtering Rule Base Configure a rule that will block Skype and display a UserCheck message. Exit the Services & Applications picker, and the system adds the monitoring dynamic routing and VRRP cluster performance. selected services to the Services & Applications column: Figure 128 - Rule - Service Added 167 Check Point Security Administration 15. Media Access Control (MAC) addresses are assigned to network interfaces by the manufacturers. The layers concept provides the ability to set different view and edit 485 Check Point Security Administration Review Questions 1. It enables engine granularity permissions per layer for different administrator roles and the ability to reuse a layer in different policy packages. 484 Check Point Security Administration END OF LAB 4.2 by providing specific protections against malicious and unusual activity engines. The inbound rules use a different certificate for each internal server. Click the link to open HTTPS Inspection in SmartDashboard. Double-click the A-GW-Cluster object, and the system displays the object's General Properties window. Figure 95 - A-SMS Object Summary 139 Check Point Security Administration 7. Use the information below to configure the System Backup window: Server: A-GUI Protocol: FTP Username: anonymous Password: Chkp!234 Path: /share/ Comment: Leave blank. 265 Check Point Security Administration 37. It is also used to open the Terminal (Console) accessory for CLI commands and open the Scratch Pad accessory, which is used for writing notes. 419 Testing the Content Awareness Layer ... Configure the Security Gateway with the First Time Configuration Wizard. 379 Check Point Security Administration 8. Use the following information to configure the New Network 5. To show all users, type the following and press Enter: show users Figure 48 — show users 7. These log options are only available if one or more Application & URL Filtering, Content Awareness, or Mobile Access Software Blades are enabled on the layer. 443 Check Point Security Administration Additional Check Point Security Solutions Check Point Software Blades can be deployed on Check Point appliances and open servers. If the user does not want to use Kerberos SSO, they must enter their credentials manually. In the personal administrator session, notice the lock icon next to the Stealth rule. Choosing to hide behind the address of the gateway is a good option for administrative purposes. Alert Options Available Alert options include: • None — Do not generate an alert. SmartUpdate can also be used to upgrade packages and install contract files. The system displays the Add Role window: Figure 21 — Add Role 3. Changes that are applied to a User Directory template are reflected immediately for all users who are using that template. To check for licenses nearing their dates of expiration: 1. 125 Policy Packages Ta sks : • Configure Hide NAT on the management and internal networks. 611 Check Point Security Administration Testing Identity Awareness Connection Test the Identity Awareness connection from the internal and WiF 276 Check Point Security Administration 15. 293 Lab 2.5: Installing and Managing a Remote Security Gateway . Enforcement policies are compiled for the new version. In the SmartView Monitor Gateway Status view, choose to start or stop a selected cluster member. networks 508 Check Point Security Administration • If employees who are working remotely cannot connect to the network, a Counter view can be created to determine what may be prohibiting network connections. 693 Chapter 1: Introduction to Check Point Technology This type of NAT is also referred to as Dynamic NAT. Navigate to the following address: 8. When integrated with the Security Gateway, QoS optimizes performance for VPN and unencrypted traffic. • Which user permissions and authentication schemes are needed? Figure 520 — Compliance Overview 649 Check Point Security Administration Best Practices A library of best practices is used to optimally configure Software Blades and management settings, allowing companies to monitor and security recommendations. Then, select one or more communities to add to the rule. Query results can be exported to a Comma Separated Value (CSV) file. In this instance, the configuration lock can be obtained by AdminA. 564 END OF LAB 6.1 569 Review Questions . Check for Expired Licenses After a license has expired, the functionality of the Check Point package will be impaired. 362 Check Point Security Administration Performing Backup via CLI Use the CLI to create a backup of the B-GW, save it locally, and restore it. Add licenses manually. The schema does not have Security Management Server or Security Gateway specific data, such as IKE-related attributes, authentication 294 Check Point Security Administration Installing Gaia on a Remote Security Gateway In this section you will install and configure the Bravo Security Gateway, which will be managed by the Alpha Security Management Server. Configure the window as follows: Always schemes or values for remote users. use this IP address: Selected address from topology table: 203.0.113.100 When initiating a tunnel: Operating system routing table Figure 453 — Check Point Gateway - IPSec VPN - Link Selection 13. Click Yes to clear the message. 333 Check Point Security Administration 42. Administrators can also select to generate logs per connection or per session in the Track Settings window. From A-Host, navigate to Figure 355 — PrivateInternetAccess.com 12. 20 Check Point Security Administration The more layers a Firewall is capable of covering, the more thorough and effective the Firewall. 43 Reviewing and The policy packages on all four gateways include the same Access Control This lock icon is a visible indication to Mike that he cannot work on this rule. 44 Defining Roles and Creating Check Point Users Configuring Basic Settings in the Gaia Portal policy with Network and Application and URL Filtering policy layers. It is possible to hide behind either the interface of the gateway or a specified IP address. If so, will it allow remote users? Packet tagging prevents spoofing from connection and passing through the Security Gateway. embedded Check Point appliances. Parameter Description command Name of the extended command. This activity should succeed. Figure 535 — CPView SysInfo 672 Check Point Security Administration Network View The Network view displays detailed network traffic information. Figure 509 - Cluster 635 Check Point Security Administration Running cphaprob state command is used to monitor cluster members and define critical devices and processes that can trigger a failover. CobiT 4.1 USA Information technology governance framework that Member Status in SmartView Monitor includes control requirements, technical issues and business risks. For example, if a rule is defined to drop HTTP traffic, only the drop rule shows. Use the following keys to save statistics: • C — Saves the current page to a file. Application Layer Firewalls are often referred to as Next-Generation Firewalls because they include the traditional functions of Packet Filtering and Stateful Inspection. The role name can be a combination of letters, numbers, and the underscore () character, but must start with a letter. Figure 438 — VPN Domain 532 Check Point Security Administration VPN Deployments VPN communications are securely sent over the Internet between: • VPN gateways in the same VPN community. How are best practice scores determined and displayed? An Account Unit represents branches of user information on one or more LDAP servers. Their policy packages would be configured as seen below Operations that relate to licenses can
only be performed here. The tabs are divided into a tree structure that displays the packages installed and the licenses attached to each managed Security Gateway. 2. 244 Database Revisions . In the navigation pane, click the Inspection Settings link. 330 Check Point Security Administration 34. Note the name of the identifier of the certificate: Figure 146 — www.google.com NOTE To obtain the Lock icon, you may need to refresh the web page. They are essential tools for monitoring network activity and the performance of Check Point Security Gateways and Software Blades. These all-inclusive Software Blades. packages are available on Check Point appliances and open servers. In the Source field of the Marketing Access rule, click the + icon. The Security Gateway extracts the user and IP address). Open a view of the Licenses & Contract Repository. Execute the following command: cpconfig Type the number for SIC, press Enter and confirm. Compare the data displayed in SmartConsole to what is displayed in CPView. But you still need a .vce exam simulator. If Dan is in the process of making changes to an existing rule in the Rule Base, the DMZ rule, a pencil icon appears next to the rule to show that the rule is currently being edited. Monitoring network activity and analyzing threat data is key to protecting an organization's network. The Session layer allows devices to establish and manage sessions. • Monitor Only — The Endpoint Security client can access the Internet whether or not it is authorized. PCI DSS 2.0 USA Industry standards for transmission, processing and storage of credit card data. If a rule has lots of hits, it should be moved higher up in the Rule Base. No rules can be placed before it. Click the Device & License Information hyperlink: Figure 400 — Device & License Information - Device Status 472 Check Point Security Administration 5. An administrator with the permission to manage other administrators can perform the following actions on other administrator sessions: • Publish and disconnect • Disconne 198 Check Point Security Administration 28. They also have the ability to divide into multiple, virtualized gateways and are equipped to handle advanced Check Point Software Blades. A VPN gateway provides virtual connectivity and security for a wide range of situations. Make any corrections locked necessary for this information to display correctly for your environment. Firewalls can be hardware, or a combination of both and are configured to meet an organization's security needs. In this lab, this also represents the external network. The Service Contract file contains all relevant support data for the subscriptions purchased for a specific device such as IPS, DLP, and URL Filtering. Tab to OK, and press Enter. Upon successful authentication, the identified user is redirected to its original destination. 170 Check Point Security Administration 4. NAT makes it possible to address multiple physical systems by a single layer 3 IP address. • Test the Static and Hide NAT. Figure 11 — WebUI Add Role Window 39 Check Point Security Administration To assign users to a role: 1. The packet is then forwarded through the Administration 11. 136 Reviewing and Modifying Objects in the Check Point Security Management Architecture kernel, 'O', and routed to the web server. With the Checkpoint CCSA R80 Dumps you will ace your certification exam in one go. They are configured to allow connecting to RADIUS authentication servers and sending logs from the Security Gateway to the Security Management Server. For example, there must not be a router between cluster members. Each component has a corresponding object that represents it. What key is used to save the current CPView page to a file? Figure 507 — Configure High Availability Settings in the ClusterXL 632 Check Point Security Administration Failovers If there is a problem with a cluster member and it can no longer process network traffic, all traffic fails-over to the next priority cluster member. SmartUpdate is used to manage licenses and packages for multi-domain servers, domain servers, gateways, and software blades. N av i g a t i o n Pan e O ver v i ew Figure 54 — SmartConsole 1. Click the publish button to make the changes visible to all and update the policy. • Suspicious Action Rules — In SmartView Monitor, suspicious Action Rules — In SmartView Mo protocols and a host of applications. It identifies configuration weaknesses and errors, making them available for remediation. Figure 180 — NAT Configured Object 219 Check Point Security Administration Configuring the network object as described above creates two rules in the Address Translation policy Both items are signed by the trusted Certificate Authority (CA). The system displays the following: Figure 544 — Device & License Information - Device Status 683 Check Point Security Administration 11. 113 Rules . Review the system-generated NAT rules for both static and hide NAT. Click Attach. 670 Lab 9.2: Working with CPView . Enable the following Gateway Security options: Application Control URL Filtering 182 Check Point Security Administration In the navigation pane, select NAT. With this unprecedented capability, Software Blades deliver lower cost of ownership and cost-efficient protection that meets any network security need, today and in the future. Confirm that A-GW-Cluster is specified as the installation target: 1. When a remote user connects to the corporate network, the VPN-enabled Security Gateway verifies whether the latest desktop Security Policy has been installed on the remote client. Figure 418 — Pre-defined Log Queries Query Results Queries can return tens of thousands of results. Otherwise, a double reboot is needed after the restore to activate the machine. The information of Read/Write access to some features, Read-Only access to other features, and no access to other features. While the backup is in progress, the status of the backup will be displayed in the Task session at the bottom of the GUI. The criteria in the parentheses are applied before the AND NOT criteria. Click Next, and the system displays the Date and Time Settings page: Figure 269 — Date and Time Settings 15. 91 Check Point Security Administration 8. Click Cancel. (blade:Firewall OR blade:IPS OR blade:VPN) AND NOT action:drop Includes all log entries from the Firewall 368 Check Point Security Administration A sub-policy is a set of rules which can be created and attached to specific rules. .. Figure 437 — Check Point VPN Deployment IPSec VPN The Check Point VPN solution uses the IPSec suite of protocols to manage encrypted communication IPS, or VPN blades that are not dropped. In SmartConsole, click the Application menu. 417 Sharing a Policy Layer 146 Check Point Security Administration 19. In the Navigation pane, select System Management > Messages: Figure 18 — System Management - Messages 16. In the Track column, select Log: 396 Check Point Security Administration Creating a Rule to Block an Application Create the Block Bad Stuff rule to block the following applications: • Anonymizer • Botnets • P2P File Sharing • Facebook-chat • Skype • WhatsApp Messenger-file transfer 1. Configure the values for address translation as follows: Add automatic address translation rules: Selected Translation Method: Hide Behind the gateway Selected Install on gateway: A-GW-Cluster Figure 188 — Network - NAT 15. To use the same expiration settings for multiple accounts, configure a default expiration date. Layer 4 is responsible for flow control of data transferring between end systems. Log into A-Host using the following credentials: Username: ALPHA\User1 Password: Chkp!234 NOTE Check with your instructor if you are unable to authenticate. Close all open browsers on A-GUI and A-Host. 358 Managing Scheduled Security Gateway Backups Use the information below to configure eth3: Enable: Selected Comment: External IPv4 Address: 203.0.113.100 Subne 395 Check Point Security Administration 17. Up/Down arrows Browse the command history. 516 Cooperative Enforcement View . Figure 77 - Standalone Deployment D i s t r i b u te d In a Distributed deployment, the Security Gateway and the Security Mask: 255.255.255.0 Figure 278 — Edit eth3 8. Management Server are installed on different computers or appliances. In the Rule Base, select the Source field of the LDAP rule: 9. NOTE You must use HTTPS to access the Gaia Portal or the connection will fail. The AppWiki is continuously updated to support the dynamic nature of Internet applications. inspection. Though optional, the appliance should be configured to have Internet connectivity during completion of the configuration wizard in order to connect to the User Center. Monitor by right-clicking the Security Gateway and selecting Gateway Details. When enabling the Identity Awareness and Mobile Access Software Blades in SmartConsole, the Active Directory Integration window of the Configuration Wizard lets you create a new AD Account Unit. The Alerts in this window are for Security Gateways. Type the following command and press Enter, to display the gateway version: fw ver Figure 37 — fw ver NOTE For more information about each command from the prompt, type the command name followed by --help. The protected scope includes the objects or locations to be protected. Section titles are not sent to the gateway side. This layer will only appear when there is at least one pre-R80 gateway with IPS enabled. 137 Check Point Security Administration 3. Add a new rule to the top of the Rule Base and configure it as follows: Name: Noise Source: Any Destination: Any VPN: Any Services & Applications: bootp NBT Action: Drop Track: None Install On: Policy Targets 9. Once the configuration Security Administration 11. process is complete, the system prompts you with a restart message. When the Security Policy has a large number of rules, enforcing the policy becomes a difficult task. It allows Security
Administrators to configure and managing the rules becomes resource intensive and managing the rules becomes a difficult task. such as installing updates, adding new devices, and managing license through a single console. In the Allowed Locations section, add A-WIFI-NET to the Sources field: Figure 252 — New User - Location 12. Type the following and press Enter: 8. It provides unmatched application and access control through the creation of accurate, identitybased policies. • SecurID — SecurID method security to an existing configuration on the same security hardware infrastructure. Implicit rules are not visible in the Rule Base. Backups and restores can be accomplished through SmartConsole, WebUI, or CLI. In the Navigation pane, under Network Management, click IPv4 Static Routes: Figure 280 — Network Management, connections over the public Internet. Exit the window. Under the Action column of the parent rule, select Inline Layer and then select or create a new layer to be added to the policy. Changes are not updated to the policy when viewed in SmartConsole. Figure 208 - New Administrator - General 10. Figure 475 - Distinguished Name For example, if searching for the name John Brown, the search path would start with John Brown's CN. In most cases, the Stealth rule should be placed above all other rules. 34. Additional Blade Licenses Additional licenses include Plug-and-Play (Trial) licenses and Evaluation licenses. monitoring can help: • If a company's Internet access is slow, a Traffic view can be created to determine what may be impeding the company's gateway interface. This user has a User ID of 0 and therefore has all of the privileges of a root user. Click OK, and the system displays the following message: Figure 106 - Check Point SmartConsole 25. There are three deployment options available: Standalone, Distributed, and Bridge Mode. Click OK, and the system adds the administrator to the database: Figure 209 - Manage & Settings - Permissions & Administrators 253 Check Point Security Administration 12. A VPN tunnel is monitored by periodically sending tunnel test packets. Token authenticators generate one-time passwords that are synchronized to a RSA ACE/server and may come in the form of hardware or software. 389 Content Awareness . Ta sks : • Review the configuration of basic Check Point Security Management Architecture objects: A-GUI, • • • • • • A-SMS, A-GW-Cluster, and A-INT-NET. Ta sks : • Identify inactive objects. exit Exit the shell. Both the GUI client machine (B-GUI) and the Security Gateway (B-GW) reside on LAN 4, if you are following the recommended classroom topology. • Bypass HTTPS inspection. 319 Check Point Security Administration Configuring the Alpha Security Policy to Manage the Remote Security Gateway Define the remote Security Gateway object and incorporate it into the Security Policy into multiple components such as the Access Control policy and the Threat Prevention policy, to provide more options for policy management The Check Point Software Blade architecture is the first and only security architecture that delivers total, flexible, and manageable security to companies of any size. Some features, such as VPN, only function properly when the clocks of all of the cluster members are synchronized. NOTE There are several restrictions when using State Synchronization in a network. Ta sks : • Activate the Compliance software blade. Click OK, to exit the Meshed Community properties. 627 Check Point Security Administration ClusterXL Topology ClusterXL uses unique physical IP and MAC addresses for the cluster members and virtual IP addresses to represent the cluster itself. If that cluster member fails, control is passed to the next highest priority member, and so on. 26. There are two viewing modes: • Basic — Shows some standard pages. 78 Check Point Security Administration Network Communication S e c u r e I n ter n a l C o m m u n i c a t i o n Secure Internal Communication (SIC) is a means by which platforms and products authenticate with each other. os edition Display the Gaia edition (32-bit or 64-bit). A Star VPN community can be used when a company must share information with external partners or companies. Click Apply, to save the message: Figure 19 — System Management -50 Check Point Security Administration Defining Roles and Creating Check Point Users All Check Point users and administrators are role-based, with each role defining what privileges are assigned. END OF LAB 3.2 Administration Threat Prevention Policy Layers The Threat Prevention Policy includes IPS, Antivirus, and Threat Emulation protections. Figure 404 — Licenses & Contracts NOTE The Operation Status panel at the bottom of the screen displays the details of all actions performed in SmartUpdate. Double-click the A-SMS object. Click Next, and the system displays the Installation Type page: Figure 270 — Installation Type 309 Check Point Security Administration 17. It is also possible to detach and delete licenses using SmartUpdate. NOTE In Internet Explorer, the site will display but the browser indicates a problem to the user by displaying the address bar in red, with a Certificate Error message. Ac c e s s Ro l e s Access roles are objects that allow you to configure network access according to: • • • • Networks User and user groups Computers and computer groups Remote access has been activated, you can create access role objects and use them in the Source and Destination columns of Access Control policy rules. • H — Shows a tooltip about the CPView options. Implied and Explicit Firewall Rules As mentioned before, Implied rules are default rules that are available as part of the Global Properties configuration. Point Security Administration 15. 493 Pre-defined Log Queries . With Stateful Inspection, the state of the connection is monitored and state tables are created to compile the information. For convenience, the Check Point product suite installs its own Internal CA that automatically issues certificates for all internally managed Security Gateways. In 163 Check Point Security Administration Defining a New Rule Define a new rule in the Site Traffic section of the Rule Base that allows specific types of traffic to the newly configured DMZ server. 587 SmartConsole and User Database . AD Query: SmartConsole, navigate to the Gateways & Servers tab. Selected Browser-Based Authentication: Selected Terminal Servers: Deselected Figure 479 — Methods for Acquiring Identity 4. Software Blades to enable in each policy layer. Remember, an administrator with the correct permissions can act on the active sessions of other administrators. The system displays the Management Interface screen. In this example, any source traffic that has a destination of something other than Alpha-Nets or B-INT-NET would be dropped and logged if it contains Credit Card numbers. Policy Enforcement Point (PEP) is the process responsible for enforcing network access restrictions. and enforces policies in the most widely used TCP protocols including SMTP, FTP, HTTPS (if HTTPS Inspection is enabled), and webmail. Management Portal Software Blade allows browserbased security management access to outside groups such as support staff or auditors, while maintaining centralized control of policy enforcement. The revert command restores the system from the snapshot file back to the same machine. Once unified, it becomes the Application Lock To override a configuration lock in the WebUI, click the small lock icon in the toolbar. 84 Check Point Security Administration L o g s & M o n i to r Tab The Logs & Monitor tab allows you to view graphs and pivot tables in an organized dashboard, search through logs, schedule customizable reports, and monitor gateways. The Policy window appears: 7. Review the output: Figure 466 — cpstat 329 Check Point Security Administration 31. In the same way, only one administrator can work on a network object at a time. In the Confirmation screen, tab to OK, and press Enter. To learn which 568 Check Point Security Administration 12. vpn-f traffic -o applications and
categories have a high risk and discover applications and categories that may need to be included in your policy, look through the AppWiki in the Access Tools part of the Securities Policies view. Use the information below to configure the DNS settings for A-SMS: Host Name: A-SMS Domain Name: alpha.cp DNS Suffix: alpha.cp Primary DNS Server: 192.168.11.101 Secondary DNS Server: 8.8.8.8 Tertiary DNS Server: Blank Figure 17 — Network Management - Hosts and DNS 14. 148 Check Point Security Administration 23. To view Trusted CAs and Server Certificates for HTTPS Inspection: 1. Next, log into A-GW-01 with the following credentials: Login: admin Password: Chkp!234 Figure 465 — A-GW-01 NOTE This lab assumes that A-GW-01 is the Active gateway. 626 ClusterXL Deployments ? In instances like these, there are three conflict resolution rules: Rule Issue Resolution Conflict or action The action for a specified scope is different between layers. • Advanced (Default) - Shows all pages. A Log Server stores log files for export and import and helps to reduce the load on the Security Management Server. 595 Access Roles . In the search results pane, click the + icon next to http to add it to the Services and Applications column. 38 Check Point Security Administration Configure Roles in the WebUI Roles are defined on the Roles page of the WebUI. Next, modify and configure the Topology settings for eth3 as follows: Leads To: Internet (External) According to topology: ExternalZone: Enabled Perform Anti-Select Edit Policy: 1. Spoofing based on interface topology: Enabled Anti-Spoofing action is set to: Prevent Spoof Tracking: Log Figure 103 – Topology Settings 147 Check Point Security Administration 20. The Check Point Compliance software blade continuously scans the Security Policy to identify configuration weaknesses and . 656 Lab 9.1: Verifying Network Compliance . Use the information below to configure the Layer Editor window: errors and compare policy and configuration changes against Best Practice Regulatory Compliance Standards. 660 END OF LAB 9.1 666 CPView Name: AppCtrl Comment: Application Control Layer Blades: Applications & URL Filtering Tag: Alpha Figure 339 - Layer Editor NOTE In this example we clear the Firewall option for this layer, even though it is selected by default. VPN will be discussed in greater detail in a later chapter. Security Administration Chapter 3 Po li c y Laye r s 1. 60 Check Point Security Administration 13. Verify that the cphaprob stat output for A-GW-01 is similar to the following: Figure 515 — cphaprob stat Verify that the cphaprob stat output for A-GW-02 shows the same cluster member status results. Figure 142 — Inspecting Inbound Connections If an HTTPS request does not match a rule, the packet is not inspected and the connection is allowed. Dynamic and Multicast routing. The communication may be logged and/or an alert may be issued, depending on what has been entered in the Track field. More advanced features, such as customized views and detailed queries will require a license. An LDAP group can be used in the Security Policy in the same way as a VPN user group. Understand Check Point deployment options. 21 Controlling Network Traffic Select the location of the backup file from the list of backup types provided in the New Backup window. The options are: • Maintain current active Cluster Member - Select this option if the lower priority active gateway. During this course, you will configure a Security Policy and learn about managing and monitoring a secure network. Saving changes made during a session in SmartConsole creates a draft of the edited policy on the management server. 670 Check Point Security Administration Overview View The Overview view is the main view of CPView. 206 Check Point Security Administration 14. Additional appliances designed to meet even more specialized security functions are also available, such as DDoS Protector appliances, management appliances, management appliances, management appliances, and virtual systems. In order to retrieve the most useful results, there are a few guidelines that should be followed when using Boolean operators. Figure 458 — Rule Base 558 Check Point Security Administration 5. A best practice cannot run because it is dependent on another best practice with a noncompliant status. 39. View the details of an encrypted traffic log: Figure 463 — Log Details 5. 553 Check Point Security Administration 5. • Q — Quits CPView. It creates trusted connections between gateways, management servers, and other Check Point components. Local User Management versus User Directory It is important to understand how managing users internally differs when incorporating LDAP users with User Directory. Port control enables management of all endpoint ports, plus centralized logging of port activity for auditing and compliance. Use the information below to configure the new policy: Name: Bravo Standard Comment: Bravo Security Policy Tag: Bravo Figure 302 — New Policy 338 Check Point Security Administration 6. When a VPN Tunnel is Down, there is a tunnel failure. Edit the Site-to-Site VPN community object to configure the Permanent VPN Tunnel settings. Packets are individually transmitted to their destination through various routes. The "C" key is used to save the current CPView page to a file. Whether they are allowed or blocked is based on the individual application or site, categories, or risk levels To define scripts for all Alert options, launch SmartConsole and select Global Properties from the Application menu. Figure 429 — Cooperative Enforcement View 517 Check Point Security Administration Tr af fi c V iew SmartConsole Traffic Monitoring provides in-depth details on network traffic and activity and allows network administrators to: Determine which services demand the most network resources. 645 Check Point Security Administration 18. Generate FTP traffic between A-Host (192.168.11.201) and B-Host (192.168.21.201). If field names are not used, the query result shows records that match the criteria in all fields. Open the Command Line Interface (CLI) on the gateway. Add a new rule above the Cleanup rule in the Inline layer. SA provides the set of algorithms and data that establish the parameters to use AH and ESP. When using multiple criteria without parentheses, the OR operator is applied before the AND operator. 405 Check Point Security Administration How Access Control and Threat Prevention Policy Layers are treated differently by the Security Gateway. • Test the VPN connection and analyze the tunnel traffic. 32. 546 Monitoring VPN Tunnel . When a packet arrives at the gateway, it is checked against the rules in the top policy layer starting with the first rule and sequentially moving down through each of the policy layers. It involves exchanging numbers and performing calculations to get to a common number that serves as the secret key. 71 Testing User Role Assignments . Figure 179 — Hide NAT Choosing the Hide Address in Hide NAT The Hide Address is the address is the address range or node is hidden. Boolean Operators are used to refine search results. To add a timestamp in order to view the content of the database from a certain time: format [Jan..Dec] [01..31] [4-digit year] [h:mm:ss] If no timestamp is given, the parameter shows the entire contents of the database. • Understand how to analyze and interpret VPN tunnel traffic. If the guery against all LDAP servers fails, the gateway matches the user against the generic external user profile. Figure 342 — Policy 3. Double-click the A-SMS object, and the system displays the General Properties window: Figure 96 — Check Point Host - General Properties 140 Check Point Security Administration 8. 584 Check Point Security Administration H ow to C h o o s e a n I d e n t i t y S o u r c e The following table presents some examples of how to choose identity sources when Identity Awareness is enabled for different organizational requirements. 217 Static NAT . In the Administrators section, click the New icon. Retrieve help on a feature or keyword. Edit the home directory of the user. First, user management in User Directory is handled externally and not locally. • Write — The administrator can see and change the configuration of the feature. Use the following keys to navigate inside CPView: Arrow Keys: Moves between menus and views and scrolls in a view. Log into Expert mode on the machine listed as the active machine from the previous steps, and 643 Check Point Security Administration 7. issue the following command to force it to a down state: clusterXL admin down Figure 517 — clusterXL admin down 563 Check Point Security Administration Testing the VPN Using FTP, connect from the internal protected network of Alpha to the internal network of Bravo. They must be enabled on the gateway, from the Identity Awareness page of the gateway object. Click OK, and verify that the new B-GW object appears in the Gateways and Servers section of the Objects pane: Figure 293 - Security Policies - Access Control 29. Save the SmartConsole.exe file in the Downloads folder of A-GUI: 3. Inline and ordered mode simplify Rule Base management and create visual segmentation for System Administrators, description of the extended command. Under the Predefined Rule, change the Track option to Log. Click the Network Activity link. 322 Check Poin Security Administration 7. The elements of the Original Packet section inform a Security Gateway which packets match the rule. In the Navigation pane, select Logs. This option can only be applied to Check Point appliances. At least one Software Blade has a minor issue, but the gateway works. The blade would then be attached to your Security Management container, Figure 88 — Shared Policies 130 Check Point Security Administration Ad dition al Policy Management Tools section in the Security Policies Access Control view and the Threat Tools section in the Security Policies Threat
Prevention view provide additional management and data collection tools. Figure 477 - Sample Access Policy Rule with Access Role Objects Before you add Active Directory users, machines or groups to an access role, make sure there is LDAP connectivity between the management server and the AD Server that holds the management directory. Next, select the Stealth rule. Refer to the Third Party copyright notices (http:// www.checkpoint.com/ 3rd party_copyright.html) for a list of relevant copyrights and third-party licenses. They differ from Terminal Server Identity agents in that the agent is configured, not the user. NOTE This step may be skipped, depending on your LDAP configuration. • Layer 4 — Represents where specific network applications and communication sessions are identified; multiple layer 4 sessions may occur simultaneously on any given system with other systems on the same network. Package is installed on the gateway. If unidentified users try to connect to resources in the network that are restricted to identified users, they are automatically sent to the Captive Portal. Figure 369 — Policy 419 Check Point Security Administration 4. The VPN Routing options available in Star VPN communities are: • To center only — Only connections between the satellite gateways and central gateway go through the VPN tunnel. Under Access Control, right-click Policy. Ta sks : • Schedule a Security Management Server backup to take place every day at midnight. security risk level, resource usage and productivity implications. The rules are based on source and destination IP addresses, or service protocol, and do not examine packet pay load. Anti-Spoofing verifies that the source IP address of a packet received on a certain interface is a part of the defined interface's topology. Browser-Based Authentication is necessary to include all non-Windows domain users and will act as a catch all option to the AD Query. The Security Gateway does not support the examined feature. • Deploy user access roles for more granular control of the Security Policy. The Users view of SmartView Monitor shows real-time statistics about open remote access sessions. • The status of the operation being performed (i.e. operation started or a warning). 289 Check Point Security Administration 9. By verifying a Security Policy, you check that rules are consistent and there are no redundant rules before Security Policy installation. Each revision contains only the changes from the previous revision. In the Users page, select the following option: All identified users Figure 495 — New Access Role - Users - Configured 10. Name: VPN Traffic Source: A-INT-NET B-INT-NET B-I 624 Working with ClusterXL C H A P T E R 8 Ensuring that Security Gateways and VPN connections are kept alive in a corporate network are critical to maintaining a smoothly running network. Click the Install Policy button located directly across multiple servers. Log in with a user name and password. above the Bravo Standard Rule Base. Publish and install the Alpha Standard Security Policy. The default tracking option is Log. NOTE Be sure that you are using HTTPS. The Software Container. To further illustrate, AdminA can run the lock database override command to obtain the configuration lock from AdminB and gain Read/Write access. Configuring Alerts Configure the Alert commands in the SmartConsole > Global Properties > Log and Alert > Alerts page. Navigate to the Certification Path tab: Figure 148 — Certificate 13. The Transport layer corresponds to the Transport layer of the OSI Model. HIPAA Security USA Health Insurance Portability and Accountability Act of 1996. In the Network Security section, enable the Identity Awareness configuration wizard. 15 Prerequisites . In the Navigation pane, select NAT. It is not possible to detach blades included in a package. Figure 203 — If two gateways have different CRLs, they cannot Administrator Dan's View In Mike's view of SmartConsole, a lock icon appears next to the DMZ rule to indicate that this rule is currently locked for editing by another administrator. 520 Scheduling Log Maintenance ... 625 Check Point Security Administration Overview of ClusterXL ClusterXL is a Check Point software-based cluster solution that provides Security Gateway redundancy and Load Sharing. Return to A-GW-01 and navigate to Network > Traffic: Figure 545 — CPView - Network - Traffic 12. The authenticate 21 Check Point Security Administration The TCP/IP Model layers are described as follows: • Network Interface layer — Corresponds to the Physical and Data Link Access Control policy defines which users can access specified applications and websites from within the organization. Figure 3 — TCP/IP Model layers of the OSI Model. The following operations are performed when installing a package: cprid connects to the Check Point gateway. 117 The Rule Base . On the Welcome to SmartConsole page, review the features highlighted for this software version: Figure 68 – Welcome to SmartConsole 97 Check Point 129 Check Point Security Administration Shar ed Polici es SmartConsole's Shared Policies feature allows administrators to share a policy with other policy packages. The first rule prevents the translation of packets Security Administration 10. These core layers support many protocols and applications. traveling from the translated object to itself. The system displays the Install Policy window: Figure 135 - Install Policy 172 Check Point Security Administration 8. The branch offices are now able to transmit encrypted communications with the corporate office in their country. The Certificate Import Wizard opens: Figure 165 — Certificate Import Wizard 3. Right-click the Action column of the DMZ rule, and the system displays the following menu: Figure 129 — Action Menu 16. Next Generation Firewall Software Blade package includes advanced technologies, such as IPS, identity awareness and application control, and stateful Firewall to ensure only the traffic and applications you allow can access your network. SPACE + TAB Show the arguments that the command for that feature accepts. In the Navigation pane, select User Management > Users: Figure 26 - User Management - Users 57 Check Point Security Administration 9. Click OK, and the system attaches a new Cleanup rule in-line, below the Outgoing rule: Figure 379 - Inline Layer Added Select the Cleanup rule in the Inline layer. In the Access Control section, click the + icon. The first rule that matches a packet is applied, and the specified Action is taken. Once installation is complete, tour the new GUI client application to see how to configure and manage your security environment. Notice that the prompt now displays :0, indicating the current mode. Generally, rules with application, data, or mobile access elements should be placed at the bottom of the Rule Base because they force the gateway to examine the packet's payload, which requires activation of streaming and is very resource intensive. In the Action menu, select More. A unified Threat Prevention policies by allowing multiple profiles for each Security Gateway. Select the Accept option: Figure 130 — Action Defined 17. 288 Check Point Security Administration 4. Internal Certificate Authority The Internal Certificate Authority (ICA) is created during the primary Security Management Server installation process. The VPN gateways that are defined as the hubs share the network resources as a Meshed Press a. to guit CPView. community. NOTE To exit to the login prompt, you would type exit again. In the Navigation pane, select Advanced. Rules are comprised of network, networks, routers, and domains and specifies the source, destination, service, and action to be taken for each session. The Endpoint Identity Agent client connects to the Security Gateway. In a synchronized cluster, the standby cluster members are updated with the state of the connections of the active cluster member. 648 Check Point Security Administration Compliance Software Blade One important task of a System Administrator is determining if their network is compliant with widely accepted best practices and identifying policy and configuration weaknesses in order to prevent security breaches. • Laver 2 - Represents where identification of a single specific machine takes place. Double-click the A-GW-Cluster object: Figure 143 -Gateway Properties 2. If the policy cannot be installed on one of the members, policy installation fails for all of them. Each package includes a combination of policy types that correspond to the Software Blades installed on the site's gateway. In SmartConsole, select the Logs & Monitor tab: 1. High connection and virtual systems capacity (64 bits). In 342 Check Point Security Administration 14. Captive Portal is recommended for: • Identity based enforcement for non-AD users, non-Windows operating system and guest users • Deployment of Endpoint the Source column of the Outbound rule, click the + icon: Figure 304 — Security Policies - Access Control Identity Agents When users try to access a resource, they are directed to a web page requiring them to enter login credentials for verification. 314 Configuring the Alpha Security Policy to Manage the Remote Security Gateway os build Display the Gaia build number. There are two Identity Awareness CLI commands which support identity sharing; PDP and PEP. This is useful in cases where a specific user needs to be instantly blocked. Per for man c e Ob j ec t ive s: • Assign the Application Control layer to an existing Security Policy. 23 Stateful Inspection . 494 Query Language Overview . A Security Gateway with the VPN Software Blade enabled is also called the VPN gateway. 496 Lab 5.1: Working with Check Point Logs . Explicit rules are configured to allow or block traffic based on specified criteria. Figure 396 — Hide NAT Configured Object - Hide Behind IP Address For Automatic NAT rule creation, the Security Gateway makes all
necessary route and ARP table entries on the Security Gateway. 465 Check Point Security Administration Managing Contracts Once you have successfully upgraded the management server, you can use SmartUpdate to display and manage your contracts. The View section simply displays the retrieved statistics. • Share the new Data Awareness layer in Updating Contracts the Alpha Standard policy. The unlocked padlock icon represents decryption of received encrypted traffic. Navigate to and double-click the A-GW-Cluster object. 3. 528 Check Point Security Administration Introduction to VPN A VPN securely connects networks and protects the data that passes between them. Security gateways are deployed at network access points, or points where the organization's network is exposed to external traffic. Application layer. Describe the Command Line Interface. Domain-type System Reserved for future use. No further steps are required to license the appliance. Then, add the appropriate branch offices to the London and New York Star VPN community. The filename format is cpview "cpview process ID".cap"number of captures". In the FTP session on the B-Host, set the session for binary (bin), turn on hashing (hash), and use the following 16 Check Point Security Administration Chapter 9: Administrator Task Implementation • Understand how to perform periodic administrator tasks as specified in administrator job descriptions. Anti-Spam and Email Security The command to retrieve the installer for SmartConsole: mget Check Point*.* 15. Check Point Anti-Spam and Email Security Software Blade provides comprehensive protection for an organization's messaging infrastructure. Click the Connect button, and the system connects to the LDAP server: Figure 481 — Integration with Active Directory 600 Check Point Security Administration 7. Check Point State Synchronization is the tool responsible for passing information and data about connections and other Security Gateway states between the cluster members. There are times when verifying a Security Policy is useful to System Administrators. Navigate to the Certification Path tab: Figure 161 — Certificate 29, 285 Defining WiFi .. At the prompt, type the following and press Enter: cpstat vpn -f traffic -o 1 10. Right-click the A-GW-01 object, and the system displays a menu: Figure 542 — Gateways & Servers 681 Check Point Security Administration 8. Access An outbound Certification Authority (CA) certificate must be created or imported for the gateway to inspect outbound HTTPS traffic when the feature is enabled for the first time. Figure 443 — Star VPN Community Star community objects can be configured to Mesh Center Security Gateways. 361 Performing Backup via CLI . 113 Objects . Legacy mode is not Gaia supported, therefore it will not be covered in this course. ClusterXL in High Availability New mode combined with State Synchronization can maintain connections through failover events, in a user-transparent manner, allowing a seamless connectivity experience. • Backup the Security Gateway cluster members from SmartConsole. 501 Viewing Logs and Log Search Results The cluster is a group of identical and connected Security Gateways. Click OK. All backups are saved to a .tgz file under /var/CPbackup/ backups/ on open servers or /var/log/CPbackup/backups/ on Check Point appliances. Click the graphic of a score that is less than 40% compliance Score Details 16. In the Session Details bar, click Session: Figure 133 — Session Details 2. Hide internal networks behind the Gateway's external IP Publish the change. Next, update the Topology settings for all other interfaces, except eth3 in the gateway cluster, configuring each with a packaged solution will include the specified software licenses and the associated software container. NOTE The A-SMS 82 Check Point Security Administration The SmartConsole is organized into the following tabs: • • • • Gateways & Servers Security Policies Logs & Monitor Manage & Settings G a teway s & S e r ve r s Tab In the Gateway & Servers tab, backup was scheduled in an earlier lab to begin at 23:59. 36 Updates you can manage gateways, configure blade activation, view gateway status, and perform actions on the gateways. The solution for this scenario is to define a combination VPN community using two Star VPN communities and one Meshed VPN community. filter criterion has not been specified, the query will search all fields in all log records. Control Connections The Security defined Rule Base. Content Awareness Figure 372 — Gateway Cluster Properties - General Properties Click OK. This must be done

carefully to ensure a general accept rule is not placed before a specific drop rule. • Update Contracts — Installs contract information on the management server. Table 2: System Information Parameters and Descriptions 29 Check Point Security Administration Command Completion In order to save time, Gaia offers the ability to automatically complete a command using a few keyboard buttons. Right-click the A-INT-NET object and select Edit. • Layer 6 — Represents where data is converted into a standard format that the other layers can understand. Verify that the default gateway is 203.0.113.254. Type the following command and press Enter, to display the routing table: netstat -rn Figure 41 — netstat -rn 69 Check Point Security Administration 9. Chapter 5: Traffic Visibility • Identify tools designed to monitor data, determine threats, and recognize opportunities for performance improvements. Like Hide NAT behind a Security Gateway's IP address, configuration for Hide NAT using another externally accessible IP address also creates two rules. Using the Manage Layers tool, administrators can gather more details about access control rules in a layer, such as which layers are shared. Name: A-DMZ Comment: Alpha DMZ Server IP Address: 192.168.12.101 Tag: DMZ Figure 120 — New Host -655 Check Point Security Administration To run a manual scan: 1. The syntax for using a Boolean operator is: [:] AND/OR/NOT [:] Multiple Boolean expressions should be entered in parentheses. Basically, messages are broken down into packets that include the following elements: ••••• Source General 4 address Destination address Source port Destination port Protocol Figure 4 — Packet Filtering 23 Check Point Security Administration Packet Filtering is the most basic form of a Firewall. U s i n g S m a r t U p d a te SmartUpdate contains two tabs, the Package Management tab and the License & Contracts tab. ClusterXL operation relies on internal timeouts. Before Last Implied – These are more specific Implied – These are more specific Implied - These are more specific Implied rules enforced before the last rule is applied. 82 Gateways & Servers Tab . • Specify an installation target gateway. Pa c ka ge Rep o si to r y The Package Repository stores package information for software 264 Check Point Security Administration 35. No additional software is required. These corporate offices need to share network resources and require a Meshed VPN community. 238 END OF LAB 2.3 239 Administration version upgrades and hot fixes 541 Check Point Security Administration Access Control for VPN Connections When creating a VPN community, configure the source and target Firewalls to use VPN tunnels to Revisions are opened in Read-Only mode. 270 Check Point Security Administration 4. Configuration Tab Under the Configuration tab, a user may view and configure parameters for Gaia features and settings groups. Identity Awareness is enabled as network security feature on the Security Gateway. This securely share data and information automation minimizes the amount of data that needs to be reviewed, thereby reducing the use of resources. The administrator can right-click the result bar and select Block Source. If suspicious activity is detected, a Firewall rule can be immediately applied to the appropriate Security Gateway to block that activity. 129 Shared Policies . • The DH key is combined with the key material to produce the symmetrical IPSec key. The lower priority gateway will return to Standby mode. Are the internal resources shared by all offices? • Define WiFi access. 407 Check Point Security Administration Layers and Policy Packages An organization consists of one sales office in Texas, one sales office in New York, one executive management office in California and one server farm site in Georgia. 376 Assigning Layers to an Existing Security Policy 376 Check Point Security Administration Assigning Layers to an Existing Security Policy Add the Application Control & URL Filtering layer to the Standard Security Policy. 208 Check Point Security Administration 17. As a result, filtering includes content that has been established by previous packets passed through the Firewall. NOTE The administrator whose Read/Write access is revoked does not receive notification. 467 Activating the Compliance Software Blade. . From A-GUI launch a Web browser. 12. It is important to remember that applications and websites can also be used in the creation of objects, which makes it easy to manage the Security Policy. What is a policy package? Open a view of the Package Repository 45 Check Point Security Administration 8. From the Color drop-down menu, select the dark red option (Firebrick): 8. • Cleanup Rule — A Cleanup rule is recommended to determine how to handle connections not matched by the rules above it in the Rule Base. The license can be easily taken from one Security Gateway and given to another. In the Banner Message field add the following text: B-GW Unauthorized access of this server is prohibited and punishable by law. Check Point products and security solutions are designed to address specific industry needs and adapt to infrastructure changes. and dynamic networks. 40. This license cannot be transferred to a gateway with a different IP address. • Disconnect clients from the SmartView Monitor toolbar. This automatically creates the necessary NAT rules for the object. The system displays the Account Configuration screen. In SmartConsole, install the Security Policy. 41. Using custom or pre-defined views, administrators can drill down on the status of a specific gateway and/or a segment of IPSec is IKE. Use the information below to log into A-SMS as the admin user: 3. Make sure to track all rules you wish to study. Manually defined: A-INT-NET Figure 450 — Gateway Cluster - Network Management - VPN Domain 549 Check Point Security Administration In the Navigation pane, select IPSec VPN > Link Selection. Select Gateway, and the system displays the following window: Figure 283 — Check Point Security Gateway Creation NOTE The option "Don't show this again" may not appear. This is referred to as Active/Active clusters. • Configure network messages. Load Sharing. Click Login, and the system displays the site you requested: Figure 502 – 621 Check Point Security Administration 24. In the application menu, select Install Database. While every precaution has been taken in the preparation of this book, Check Point assumes no responsibility for errors or omissions. Enter Expert mode 679 www.cnn.com Check Point Security Administration 3. The following is a sample rule that allows remote clients and hosts to access the company's SMTP server, called SMTP SRV. Click the + icon to add a new tab. Press the Home button, or navigate to the Overview. 271 Check Point Security Administration 6. Remote users can then send traffic as if they are in the office and do not have VPN routing problems. • Allow credit card information to be uploaded over HTTPS only (and not over clear HTTP). Check Point unifies Application Control and URL Filtering to deliver one common Rule Base that will simplify policy creation with joint categories for both websites and 111 Security Policy Management C H A P T E R 2 Managing the Security Policy for a large network can quickly become a resource-intensive task. In SmartConsole, go to Manage & Settings > Permissions and Administrators > Permission Profiles. Right-click the B-GW. V iew Licens e Proper ti es The License & Contract Repository displays general information on each license, such as the name of the license and the IP address of the machine to which it is attached. It is also necessary for logging this traffic. Click the plus icon. The technology protects against vulnerabilities and malware variants in email attachments and file downloads by discovering malicious activity using advanced behavioral analysis of threats in virtual environments. • Automatically adds new blades to SmartConsole. When the client initiates traffic to the Static NAT address, the destination of the packet is translated. Organize the Rule Base. 234 Check Point Security Administration Navigate to the A-LDAP object. The outbound rules use the certificate that was generated for the Security Gateway. Click the Permission Profile Drop-Down Menu 16. Use the information below to log into SmartConsole: 1. There is a redundant standby cluster member and only one cluster member is active at a time. Under Step 3, select Enable HTTPS Inspection: Figure 69 — Welcome to R80.xx 11. As the personal administrator, navigate to the Manage & Settings tab. Information can be displayed from a high level view down to a detailed forensics analysis view. 515 Tunnels View . LDAP is used by many different operating systems and servers. 93 Check Point Security Administration Touring SmartConsole Launch SmartConsole for the first time and tour features of the software version. Per for mance Ob j ec t ive s: • Generate network traffic and use traffic visibility tools to monitor the data. Therefore, the Security Policy should be set to track all rules that may need to be monitored. However, this does not replace the need for a .vce reader. In the Navigation pane, select Monitoring and Logging. Open the log from 192.168.11.201 that was blocked by the Block Bad Stuff rule: Figure 356 - Log Details - Details 403 Check Point Security Administration 5. Open the A-GW-Cluster object. An example would be a rule that allows file sharing between the IT department and the Sales Department access roles. Use the following information to configure the new object: 1. Before creating access role objects, you must first activate Identity Awareness. The Security Event logs from the Active Directory Domain Controllers. Figure 359 — Threat Prevention Policy Layer Traffic Matching Layers in the Threat Prevention Rule Base will allow administrators to build and enforce more granular policies. Return to the down gateway, and issue the
following command to return it to an active state: clusterXL admin up Figure 519 — clusterXL admi changes in SmartConsole, such as editing or creating a rule. It allows you to review your current setup and then quickly restore the configuration. This Security Gateway is remotely management interface must be the external interface. RADIUS For environments that use a RADIUS server for authentication. The user logs in to their computer using their credentials and wants to access the internal Data Center. Verify that only the following option is selected 14. Verify that all Permissions options are selected and set to Write: Figure 217 — New Profile - Threat Prevention 24. Using real-time virus signatures and anomaly-based protections from ThreatCloud[™], the Antivirus Software Blade detects and blocks malware at the gateway before the user is affected. Log into SmartConsole as the admin user. Identify where in the Gateways & Servers tab the following items are located: • Server status • Module version • Active software blades • CPU 99 Check Point Security Administration 14. Online Activation The Online Activation method is available for Check Point manufactured appliances. The Security Gateway supports two types of NAT where the source and/or the destination are translated: • Hide NAT — a many-to-one usage • Object summary relationship where multiple computers on the internal network are represented by a single unique address. Use the information below to configure a new user: Login Name: Rtradmin Home Directory: /home/rtradmin Shell: /etc/cli.sh User must change password at next logon: Deselected UID: 0 Assigned Roles: rtrRole Access Mechanisms: Web Clish Access Figure 30 — Add User Configured 14. All changes made using commands in transaction mode is terminated. This is referred to as Route-based VPN. • Save CPView statistics to a file. To revert changes on the Security Gateway, you can restore the Rule Base to an earlier version. When the external server must distinguish between clients based on their IP addresses, Hide NAT. For a complete back up of the system and maximum confidence, Check Point recommends combining methods as part of your overall backup plan. Select Edit Policy, and the system displays the Policy window: Figure 337 — Policy Clear the Threat Prevention option, if it is selected. 494 Check Point Security Administration Custom queries can also be created and saved for future use. Global tests examine configuration settings for the entire organization. They protect the network using the Security Policy pushed to them by the Security Management Server. 246 Concurrent Administration, such as CPU, memory, disk space, and individual Software Blade data. The gateway matches the packet against the rules in the Network policy layer and matches rule 2, which accepts the traffic. There are two standard wildcard characters, the asterisk and the guestion mark. Double-click the Alpha-Nets object. Advanced applications and protocols can be accommodated more efficiently with additional layer coverage. Object-based tests examine the configuration settings for particular objects, such as gateways and profiles. • Get all Licenses — Collects licenses of all gateways managed by the management server and updates the contract file on the gateway is newer. ver Show the version of the active Gaia image. In the admin user session, navigate to the Access Control policy. L a b 2 .1 Modifying an Existing Security Policy 135 L A B Modifying an Existing Security Policy 2.1 First, you will review the objects that make up the Check Point Security Management Architecture. M a n a g e m e n t S o f twar e B l a d e s fo r O p e r a t i o n s a n d Wor k fl ow Compliance The Check Point Compliance monitoring solution. If Dan logs into the management server as an administrator and Mike logs into the same management server right after, they can both work on policy at the same time. View the log showing the accepted HTTP traffic from B-Host to A-DMZ: 43. Then, you will modify the existing Security Policy by defining a DMZ server, editing rules, and verifying Global Properties settings. Enter and confirm the activation key. Users remain identified automatically when they move between networks, as the client detects the movement and reconnects. At the prompt, type a sample date and time using the following format with the four digit year. Many of these commands will be introduced throughout this course. Up - Init is used for Permanent Tunnels, Up - Phase 1 is used for regular VPN tunnels. Auditing and compliance reporting requirements are easily accomplished with pre-defined reports. Attempt to visit the following website: www.monster.com Figure 382 — Monster Access Blocked 431 Check Point Security Administration 15, 23 Packet . The VTIs of VPN gateways in a VPN community connect and can support dynamic routing protocols. 88 Lab 1.2: Installing and Touring SmartConsole, administrators can select a rule to view the logs generated by packets that matched the rule. Learning Objectives • Interpret the Filtering concept of a Firewall and understand the mechanisms used for controlling network • • • traffic. Click Submit, and this time you should get an error: Figure 375 - HTTP Error 8. Administrators configure the agent, not the user. • Add a Stealth rule and Cleanup rule first. S m a r t V i ew M o n i tor (Tu n n e l & U s e r M o n i tor i n g) SmartView Monitor displays a complete picture of network and security performance, allowing you to monitor changes to gateways, tunnels, remote users, and security activities. For example, a company has multiple offices throughout the world that communicate over the Internet. • • • • • • NOTE The selected Best Practice is not performed unless the other Best Practice test is compliant, watch fw tab -t connections -s 11 445 Check Point Security Administration Perpetual, which means they have no expiration date. Select a file and click Open: Figure 407 — Licenses & Contracts 8. Navigation Tree The Navigation tree is used to select a page within the WebUI. For example, an Application Layer Firewall may block access to certain website content or software containing viruses. 490 SmartConsole Logs View . However, it means you have to use an extra publicly routable IP address. Figure 334 — Inline Mode 374 Check Point Security Administration To add an inline policy layer, select the parent rule in the Rule Base. How many policy layers can be included in an Access Control policy and how should they be ordered? Administrators can use Check Point's comprehensive AppWiki tool to search and find out more information regarding these types of applications, such as what they are used for and their risk levels. State tables are key components of the Stateful Inspection technology because they are vital in maintaining state information needed to correctly inspect packets. Implied rule parameters cannot be changed in the Rule Base, but the location of some of the rules can be modified. Rules are processed in the following order: 1.151 Reviewing Existing Security Policy Settings Once SIC has been established, it must be reset on both the management server and the gateway. 127 Policy Types . Create users and define settings that will appear in later labs. This does present an issue if an administrator saved changes to objects or rules, as those objects or rules, as those objects or rules are now locked and other administrator saved changes to object or rules. Software Blade architecture quickly and flexibly expands services as needed without the addition of new hardware. What access privileges do you need to assign to users? A Local license is tied to the IP address of a specific Security Gateway. To see alerts, click the Alerts icon in the SmartView Monitor toolbar and the Alerts window will open. Strong and proven, Check Point security appliances provide reliable services for thousands of businesses worldwide. After installation, the Security Gateway. Add a new rule below the Stealth rule and configure the rule using the following information: 1. Couple these challenges with the increased pressure of managing network performance requirements and expenses associated with maintaining a weakened infrastructure. Figure 1 - CCSA Lab Topology Rel a te d C er ti fi c a t i o n The current Check Point Certified Cyber Security Administrator (CCSA) certification is designed for partners and customers seeking to validate their knowledge of Check Point's Software Blade products. Ta sks : • View live logs and perform searches to gather historic data. Add a new rule to the top of the Rule Base. Ta sks : • View live logs and perform searches to gather historic data. 546 Check Point Security Administration There are three tunnel statuses: • Up • Up - Init or Up - Phase 1 • Down When the VPN tunnel is functioning and data can be transmitted with no problems. The system displays the Install Policy VPN Tunnel Status in SmartView Monitor GUI window: Figure 308 — Install Policy 23. NAT configuration is important to allow correct Internet connectivity. After Identity Awareness has been activated, Access Roles objects can be created and used in the Source and Destination columns of Access Roles and Less Roles objects can be created and used in the Source and Destination columns of Access Roles and Less Roles objects can be created and used in the Source and Destination columns of Access Roles and Less Roles objects can be created and used in the Source and Destination columns of Access Roles and Less Roles objects can be created and used in the Source and Destination columns of Access Roles and Less Roles and Les used as alternatives. Integrating LDAP with Check Point User Directory allows the following: • Users can be managed externally by a User Directory (LDAP) server. Clientless Remote Access Users authenticate with an Internet browser and use secure HTTPS connections. Click the Publish button, and the system displays the
following: Figure 134 — SmartConsole 6. The Firewall modifies the source port and adds the port information to a state table. Before creating a Rule Base, answer the following questions: • Which objects are in the network? In addition, Threat Prevention logs track additional fields of information which may be used for forensic purposes such as, DNS query, HTTP referrer, SMTP Subject, and FTP User. Name: Guest Access Source: Any Destination: Any VPN: Any Services & Applications: News / Media Action: Accept Track: Log 3. Verify that the time and date is correct for your area. The Add License window will appear. Dedicated Threat Prevention administrators can be permitted to access and manage specific layers 233 Check Point Security Administration 4. 394 Check Point Security Administration 12. Trusted Root Certification Authorities Figure 167 — Selected Certificate of the policy 306 Check Point Security Administration 13. 204 Check Point Security Administration 7. Click Install. The Navigation section shows the navigation menus and their sub-menus. Press R, and the system displays the following: Figure 547 — Set refresh rate 3. The Endpoint Identity Agent uses SSO to authenticate users when they enter their login Store credentials (AD or other authentication server). You can add Read-Only and Read/Write feature lists in the same command. Right-click A-GW-Cluster. 657 Identifying Inactive Objects The bottom four layers govern the establishment of a connection and how the packet will be transmitted. Right-click on the admin user session: Figure 244 — Manage & Sessions - View Sessions - View Sessions 4. The IPS protection is a link to the IPS protection is a link topinal link to the IPS protection is a lin settings for a High Availability cluster: Cluster Members and ClusterXL 696 Check Point Security Administration Chapter 4 C h e c k Point S e c u r i t y S o l u t i o n s a n d L i c e n s i n g 1. Hyper Text Transfer Protocol (HTTP) and Simple Mail Transfer Protocol (SMTP) are examples of application protocols. At least one Software Blade reported a malfunction or an enabled Software Blade is not installed. For Static NAT, both rules are translating rules. It also shows real-time statistics about open remote access sessions. This course provides an understanding of basic concepts and skills necessary to configure Check Point Security Gateway and Management Software Blades. A global exception is an exception applied to the entire Threat Prevention policy. • IPs/Network Objects - Displays the current status of active IPs and network objects through the selected gateway. 659 Check Point Security Administration Reviewing a Compliance Scan Report Review the results of a compliance scan. Figure 85 — Policy Sections P u b l i s h Pol i c y Newly created Security Policies and changes made to an existing Rule Base must be published on the Point Security Administration 6 management server before the policy can be installed and enforced on the Security Gateway. In the Threat Tools section of the Navigation pane, select IPS Protections: Figure 235 — IPS Protections 16. • Will VPN be used? 462 Check Point Security Administration To import the Service Contract file: 1. You cannot use the wizard to configure multiple Security Gateways at the same time. URL Filtering provides optimized web security through full integration in the gateway to prevent bypass through external proxies. NOTE Only traffic matching the parent rule (in this case, rule 2) will reach and be matched against the sub-rules (in this case, rules 2.1 and 2.2). It is used to control the data types that users can upload or download. From this window, you can browse objects by categories or search for a particular object using keywords or tags. Figure 385 — Central License 447 Check Point Security Administration L i c ense Ac t iva ti on Once the necessary 115 Check Point Security Administration When creating objects, the System Administrator must consider the needs of the organization: • What are the blades are attached, either by Check Point or the organization's Account Administrator, the license for the management server is ready to be activated. physical and logical components that make up the organization? If more than 50 rules are used, the Security Policy becomes hard to manage and Security Administrators may have difficulty determining how rules interact. Click the Settings button under the Compliance section. cpview Figure 540 — CPView - Overview NOTE If running CPView on Blades. 649 Best Practices . Keep in mind that tracking multiple rules results in a large log file, which requires more disk space and management operations. They can be seen in SmartView Monitor. 224 Lab 2.3: Configuring Hide and Static Network Address Translation 249 Check Point Security Administration Creating Administrators and Assigning Profiles Define a new administrator for yourself. Last Implied – This rule is applied after all other Explicit and Implied rules in the Rule Base, except the Implicit Cleanup Rule. The following window appears: Figure 457 – Specific VPN Communities Window 557 Check Point Security Administration 4. Press q, to exit CPView. 624 Chapter 8: Working with ClusterXL . C o r r e c t i ve Ac t i o n To resolve compliance issues, review and configure the settings for Security Gateways, Software Blades, policies and rules, users and user groups, computers and computer groups, and other SmartConsole objects. Type the following command and press Enter: set backup restore local backup [backup file name] NOTE The Security Gateway will reboot after completing the restore procedure. An optional timestamp parameter is available to have CPView show the data from that time if it exists in the database. This entire process is SICbased and completely secure. Users and user groups are added to the database manually through LDAP and User Directory or with the help of Active Directory. Name: Data Protection Source: Any Destination: Alpha-Nets B-INT-NET VPN: Any Services & Applications: Any Content: PCI - Credit Card Numbers Action: Drop Track: Log Install On: Policy Targets Right-click in the Destination column of the Data Protection rule. Select Host, and the system displays the New Host window. What types of network resources will be available to remote users? Put the CLI into transaction mode. SmartView Monitor is discussed in greater detail in a later chapter. For example, an administrator can activate all IPS protections tagged with the vendor Microsoft or deactivate all protections tagged with the protocol Modbus. If the permission for the feature is not selected, the administrator cannot see the feature is not selected. 260 Check Point Security Administration 25. L DA P and U s er D i r e c to r y LDAP is the most widely accepted directory-access method. In the toolbar, identify the name of the user currently logged into the system. 87 SmartDashboard . Multiple defined system events if a pre-defined threshold is crossed. layers in a policy are often referred to as Ordered layers. Select Log and Alert > Alerts. The parameters are organized into functional settings groups in the navigation tree. The VPN traffic can be configured to be routed according to these settings. Objects are divided into the following categories: Category Objects Network Object Gateways, hosts, networks, address ranges, dynamic objects, security zones, inter-operable devices, domains, and logical servers Service Protocols, protocol groups Custom Applications, user categories, URL categorizations VPN Community Site-to-Site or Remote Access VPNs User Users, user groups, user templates Server Trusted Certificate Authorities, RADIUS, TACACS, OPSEC servers Resource URI, SMTP, FTP, TCP, CIFS Time Object Time, time group, bandwidth limit on upload and download rates UserCheck Interactions Message windows (Ask, Cancel, Certificate template, Inform and Drop) Limit Download and upload bandwidth Table 6: Object Categories Creating Objects Objects Objects are created by the System Administrator to represent actual hosts, devices, and intangible components such as services (HTTP and TELNET) and resources (URI and FTP). 268 Check Point Security Administration Testing Profile Assignments Log into SmartConsole as different administrators to verify permission settings. Select Logs & Monitor from the Navigation bar. How users are authenticated. save config Figure 32 — save config 63 Check Point Security Administration 5. Chassis Systems Check Point's Chassis-based security systems are designed to excel in demanding data center, Telco, and cloud service network environments. Enabling HTTPS Inspection lets the gateway create new SSL/TLS connections with an external site or server. Click the Open HTTPS Inspection Policy in SmartDashboard link: Figure 154 — HTTPS Inspection
Policy in SmartDashboard link: Figure 154 — HTTPS Inspection Policy in SmartDashboard link: Figure 154 — HTTPS Inspection Policy in SmartDashboard link: Figure 154 — HTTPS Inspection Policy in SmartDashboard link: Figure 154 — HTTPS Inspection Policy in SmartDashboard link: Figure 154 — HTTPS Inspection Policy in SmartDashboard link: Figure 154 — HTTPS Inspection Policy in SmartDashboard link: Figure 154 — HTTPS Inspection Policy in SmartDashboard link: Figure 154 — HTTPS Inspection Policy in SmartDashboard link: Figure 154 — HTTPS Inspection Policy in SmartDashboard link: Figure 154 — HTTPS Inspection Policy in SmartDashboard link: Figure 154 — HTT object. The newly created certificate must be exported so that it can be deployed on the clients, otherwise users will receive SSL error messages when accessing HTTPS sites. DSD Australia Military data security regulations and standards. Use the following information to configure the window: Name: Marketing Group Access Role Specific Networks: A-INT-NET 10. • The Operation Status pane shows past and current SmartUpdate operations. High Availability. 226 Configuring Hide Network Address Translation 324 Check Point Security Administration 19. Each packet passing 189 Check Point Security Administration 7. It can be used to block activities that are displayed in the SmartView Monitor from one satellite gateway to another satellite gateway is routed through the central gateway. The virtual IP addresses do not belong to a physical interface on a server or appliance. results and appear to be suspicious. • Relevant Regulatory Requirements — List of regulatory standards that include the Best Practice test that generated the selected action item. Figure 125 — DMZ Rule - Destination Defined 165 Check Point Security Administration 8. S m a r t V i ew M o n i to r a n d S m a rt C on s ol e SmartConsole and SmartConsole, the changes are automatically saved into the Management Database. View the details of a decrypted traffic log: Figure 464 — Log Details 7. By verifying your status with the User Center, the contract file enables you to easily remain compliant with current Check Point licensing standards. 29. Type the following and press Enter: ls -lh Figure 327 - ls - lh 10. user User to which access mechanism permissions and roles are assigned. 217 Check Point Security Administration The default method for destination NAT is "client side", where NAT occurs on the Inbound interface closest to the client. Select More, and the system displays the Action Settings window. Subviews include: ••••••• Memory Network SecureXL ClusterXL CoreXL PrioQ Streaming RAD UP HTTP-Parser Figure 539 - CPView Advanced 677 L A B Working with CPView 9.2 In this lab, you will use the CPView utility to retrieve and review basic gateway status information. Different VPN gateways in the same VPN community can securely share 676 Check Point Security Administration Lab 9.2 Working with CPView network resources with each other through VPN tunnels. 655 Corrective Action . The VPN column shows Any when the All Connections (Clear or Encrypted) option is enabled. • System events, also called system alerts, are configured to trigger an alert when various pre-defined thresholds are surpassed. In the Application menu, select Global Properties. Select Blades from the Navigation pane. Automatic Licensing Check Point's Automatic Licensing feature provides the option to have all licenses activated automatically. Use the information below to configure the Products page: Security Gateway: Selected Security Management: Deselected Unit is a part of cluster type: Deselected Automatically download Blade Contracts and other important data (highly recommended): Selected Figure 271 — Products Configured NOTE Before proceeding to the next step, verify that the Security Management option is NOT selected, as shown above. 86 SmartConsole Applications . Figure 204 — Concurrent Administrator Mike's View 247 Check Point Security Administration In order for any changes made by one administrator to be made visible to all other administrators and to unlock any objects or rules that have been worked on, the administrator must publish their session. To publish policy, simply click the Publish button located at the top of the SmartConsole window. The authentication data for the remote users are stored in an LDAP database or in SmartConsole. 496 Check Point Security Administration Field Keywords Use pre-defined fields, followed by a colon, as keywords in filter criteria. Hardware compatibility must be approved for the device to work and be supported by Check Point. In the Regulatory Compliance pane, click the See All link. Under the Shared Policies section, select HTTPS Inspection 464 Check Point Security Administration Update, use the Licenses & Contracts To update contracts option provided under the Licenses & Contract tab menu. Edit the A-DMZ object. Alerts and Action Items When a best practice test detects a degradation to the compliance status, such as when a rule is changed, an alert is displayed with details of the issue. Use the information below to schedule a backup of the Security Management Server: Backup NOTE This anonymous Password: Chkp!234 Upload Path: /share/ Backup Schedule: Daily Time: 23:59 Figure 317 — New Scheduled Backup NOTE This will fail if an FTP server is not configured on A-GUI or if it's configuration differs from this lab. The system displays the Partitions Configuration screen. Figure 426 — Users View 514 Check Point Security Administration S y s te m C o u n te r s V i ew System counters in SmartConsole collect information on the status and activities of Check Point products. The system displays a list of the Security Gateways and clusters that send logs to this Security Management Server: Figure 97 - Check Point Host - Logs 9. NOTE The objects and rules being edited are locked by this session. In the Navigation pane, select Gateways. Once these objects are created, they can be used in the rules of the Security Policy. 105 Open Servers. 323 Check Point Security Administration 15. Click OK, and the system saves the new eth1 configuration: Figure 277 — Network Interfaces Double-click eth3, and the system displays a warning. Edit and create rules for the Rule Base. • ThreatWiki — The ThreatWiki is a tool that links an administrator to the Check Point ThreatWiki. Log into the active member of the cluster. When you click the search bar, a drop-down menu appears, allowing you to choose a recent query or a single search filter such as Time, Source, Destination, and Blade. A Cleanup rule which makes the final determination for unmatched traffic automatically appears in the Rule Base for each layer. They are usually implemented through software running on a host or stand-alone network hardware and are used in conjunction with Packet Filtering. Figure 57 — Logs & Monitor Tab 1. path Path of the extended command. From the Application menu, select Global Properties and then Security Management Access. Logical components include IP address ranges and dynamic objects. The Firewalls in both networks perform IKE negotiation and create a VPN tunnel. 582 Check Point Security Administration The following steps detail how a user downloads the 212 Check Point Security Administration 6. It is best to create a new custom query using an existing query and then modifying it to fit your needs. Change the Action field to Accept 9. Attempt to access the Internet. • Application layer - Encompasses the Endpoint Identity Agent from the Captive Portal: 1. responsibilities of the Session, Presentation, and Application layers of the OSI Model. In the Navigation pane, select Logs: Figure 434 — Check Point Host - Logs NOTE Log Indexing is enabled by default. 446 Check Point Security Administration Central and Local Licenses Check Point licenses come in two 54 Check Point Security Administration 6. Changes made to a user template do not affect existing users created from the modified or deleted template. Users who get forms: Central and Local. Per for mance Objectives: • Enable the Compliance software blade. Navigate to the Manage & Settings tab. access using IPSec VPN can authenticate seamlessly. 512 Users View . 579 Terminal Server Identity Agents . The validation of both the source and destination of the packet and allow the translation of services. The failure of a Security Gateway or VPN connection can result in the loss of active connections and access to critical data. Additional Information section — View a summary of the original object with a different name. This SmartConsole application can be used in its most basic form without a license. Anti-Spoofing is an object setting that when configured, affects the Security Policy. A VPN gateway allows the employees to log in to the company network and gives them all the necessary connectivity and security. below shows the default Global Properties for NAT. Sub-policy layers can be used by several parent rules in all layers. Click the Edit button, and the system displays the Accessibility window. 412 Check Point Security Administration Adding an Ordered Policy Layer Add a Data Awareness layer to the 26 Check Point Security Administration Introduction to the Gaia Operating System Gaia is Check Point's operating system for all Check Point appliances and open servers. 17 Chapter 1: Introduction to Check Point Technology . In Siteto-Site VPN Bravo Standard policy. Figure 6 — Protocol Examples deployments, all Security Gateways are VPN gateways. NOTE Again, at this step, you are configuring the password for the admin user, the default OS level administrator. A packet arrives at the gateway. Pe r for ma n c e Ob j ec t ive s: • Review the results of a compliance scan. The figure below represents how outbound connections are inspected. 690 Check Point Security Administration 6. 325 Check Point Security Administration 22. 424 Check Point Security Administration 7. SMTP Allows outgoing SMTP
connections to the mail server. Figure 553 — ls 227 Check Point Security Administration 10. 49 Check Point Security Administration 17. To run a pre-defined query, click the Favorites icon to open the Favorites list and Pre-defined Log Queries list. The time frame during which users are allowed to access your network. It uses data types based on content, file types, and direction. S m a r t V i ew M o n i to r SmartView Monitor shows information and details for all Security Gateways in the network, including the cluster members. Installing policy is not required. where you can select services and applications to add to the rule; the default is Any. This product and related documentation are protected by copyright and distributed under licensing restricting their use, copying, distribution, and de-compilation. 601 Check Point Security Administration 11. On the NAT page, select the following option: Apply for Security Gateway control connections Figure 294 — Check Point Host - NAT Configured 32. Cluster member interfaces facing in each direction are connected via a switch, router, or VLAN switch. Click the Install Policy button located in the SmartConsole toolbar, and the system displays the Install Policy window. Creating a Suspicious Activity Rule SAM rules require CPU resources, therefore an expiration needs to be set that allows time to investigate without affecting network performance. The Check Point Software Blade architecture supports a complete and increasing selection of Software Blades, each delivering a modular security function. 434 Check Point Security Solutions and Licensing C H A P T E R 4 Whether designing a solution for corporate headquarters, a data center, or a branch office, creating a system based on Check Point's Select the following folder: Trusted Root Certification Authorities 20. 384 Application Control Policy Layer . Software Blade architecture is the key to implementing an effective security solution. To view the details of a revision, double-click the revision. 162 Defining a New Rule . 210 Check Point Security Administration Bypassing HTTPS Inspection Navigate to SmartConsole. 641 Testing High Availability 488 Collecting Information . For example, use domain based routing to allow satellite VPN gateways to send traffic to each other. Note the backup file name. Manage & Settings menu — Navigate between the various menu options, create, edit, and manage permission profiles and administrators, manage Software Blade global settings, view sessions and revisions, manage tags, and edit preferences. The policy cannot be installed if the included changes are not published. performance and organizational security. • Layer 5 — Represents where connections between applications are established, maintained, and terminated. Figure 412 — Maintained, and terminated. Figure 412 — Maintained, and terminated. CLI, are available to the user. • Create a basic Rule Base with site specific rules. L a b 4 .1 Activating the Compliance Software Blade Lab 4.2 Working with Licenses and Contracts 466 Activating the Compliance Software Blade L A B 4.1 Enable the Compliance software blade on the A-SMS object. 213 Check Point Security Administration 10. 653 Check Point Security Administration The following statuses are assigned in the due date column of a pending action item: • • • • Overdue — Action item is overdue. Click Yes. Security event logging must be enabled on the AD server. The TACACS server, which stores useraccount information, authenticates users. It also allows an administrator to revert back to an earlier IPS package version. If there is a problem with the active cluster member, the redundant standby cluster member is activated. 117 Check Point Security Administration Configuring Anti-Spoofing, networks that are reachable from an interface need to be defined appropriately. Execute the following command: tcpdump -ni eth1 Press Enter, and the system displays an error. Close the Search window, and the system adds the selected networks to the new group . There are three essential components of the Check Point Security Management Architecture: SmartConsole, Security Management Server, and the Security Gateway. Figure 110 — New Network Group Click OK. 160 Creating a New Host Object 550 Check Point Security Administration 10. If ClusterXL is installed on Check Point appliances, it can be installed on the management server are installed on the 667 Check Point Security Administration Use the following keys to change interface options: • • • • R - Opens a window to change the refresh rate. To display the version of Check Point software installed on a gateway, enter the following command in the Clish shell: fw ver To display the 31 Check Point Security Administration O b t a i n i n g a C o n fi g u r a t i o n L o c k Only one user can have Read/Write access to Gaia configuration settings at a time. These blades are licensed and name of the Security Policy installed on a gateway: fw stat To display interface information: fw getifs renewed for a specified period of time, which is typically 1, 2, or 3 years. The contract file is stored on the Security Management Server and downloaded to Check Point Security Management Server and Security Management Server and Security Management Securit VPN Any Service Any Action Accept Table 17: Allow All Connections 542 Check Point Security Administration Allow AllS i te- to - S i te V P N C on n e c t i on s When the rule uses the All Site-to-Site VPN Communities option, all matching encrypted VPN traffic between VPN gateways in any Site-to-Site VPN community is allowed. In the Navigation pane, select Servers. 518 Lab 5.2: Maintaining Check Point Logs . For example, a company's corporate policy does not allow Peer2Peer file sharing in the Traffic sees Peer2Peer file sharing in the and Remote Access. Chkp!234 NOTE Once in Expert mode, you are in BASH. Under Step 1, click the Create link. Click the Show Users Group icon. Figure 474 — Endpoint Identity Agent Example RADIUS In environments where authentication is handled by a Radius server, configure a Security Gateway with Identity Awareness to use RADIUS (Remote Authentication Dial-in User Service) Accounting to get user and computer identities directly from the RADIUS Accounting client, which is a host with RADIUS client software installed. Click the right arrow and the system displays the following: Figure 72 - Logs & Monitor 17. The Shared Policies section in a policy package provides access to these granular Software Blades and features: • Mobile Access — Configure how remote users access internal resources, such as their email accounts, when they are mobile. Add License Manually Upon generating a license, an email containing the license file and manual installation instructions for adding the license & Contract Repository will be sent to the Account Administrator. When the packet matches the conditions set forth in a rule, the action specified for that rule is executed on the packet. In SmartView Monitor, right-click the cluster member, and select Cluster Member > Stop Member. Using RADIUS, the Security Gateway forwards authentication requests by 509 Check Point Security Administration M o n i to r i n g a n d H a n d l i n g A l e r t s Alerts provide real-time information about vulnerabilities to computing systems and how they can be eliminated. Select Super User for the permission remote users to the server, which stores user account information profile: 7. Check Point's Security Power[™] provides an effective metric for selecting the appliance that can best meet your network security needs for today and provide room for growth. To allow connections from the external network, only Static NAT can be used. Use the information below to configure the NAT page: Add automatic address translation rules: Selected Translation Method: Hide behind the gateway: Selected Install on gateway: B-GW Figure 306 — Network - NAT 19. To explain the traffic flow of a packet going through an inline layer, take the following example: 1. Figure 183 — Static NAT In the example above, the Security Gateway changes the source address from a private address to the public address. Layers allow administrators to separate the Security Policy into multiple components. Close the Log Details window. Navigate to the Alpha Standard policy. management server details, and additional management activity, such as policy installation tasks. Select the list of certificates you desire to view from the navigation pane of the HTTPS Inspection tab. • Test High Availability. Service Blades must be attached to a Security Gateway Container. 315 Check Poin Security Administration 7. Anti-Spoofing Spoofing is a technique where an intruder attempts to gain unauthorized access by altering a packet's IP address. In the Network Security Security section, select IPS. Each Security Gateway in a ClusterXL cluster is identical and connected in such a way that if one fails, another immediately takes its place. Content Awareness Figure 368 — Check Point Gateway - General Properties Configured Click OK. Confirm that the Guest Access Rule is configured 16. The offices have connectivity but the communications are not secured or encrypted. 633 Synchronizing Cluster Connections This chapter provides a brief overall of features that help administrators to see if their security environments are compliant with industry policy and regulations and to quickly view general system information. • Esc — Returns to Menu mode. Type exit and press Enter, so that you are 520 Check Point Security Administration Scheduling Log Maintenance Configure the system to create a new log file gets too large or at midnight everyday. Click Next, and the system displays the Dynamically Assigned IP page: Figure at the Clish prompt. Exit the Log Details window 272 — Dynamically Assigned IP 20. It passes synchronization and other information between the cluster members. Search for FTP traffic to review the new
encryption logs. Exit Clish. Figure 523 — Compliance Action Items 654 Check Point Security Administration Scoring and Status Each best practice is 243 Check Point Security Administration Sessions Every time an administrator logs into the management server through SmartConsole, a new session begins. Use scored on a scale of 0-100 by averaging the results for each object examined according to the best practice. Figure 198 — Administrator window the Accept all encrypted traffic option to configure the Firewall to allow all VPN traffic to the internal networks for the VPN communities. ARP can be configured through the Gaia portal or Clish. The gateway will use the first matches found and apply both rules concurrently. Hover over Blocked Message - Access Control: Figure 352 — Block Bad Stuffer and Stuffer a Rule 398 Check Point Security Administration Click the Edit icon. If the query against an LDAP server with the highest priority. Comment: Alpha-Bravo-Mesh Tags: Alpha Bravo 3. Policy Package menu — Navigate between various policies 641 Check Point Security Administration Testing High Availability Verify that each machine is running ClusterXL and is taking within a policy package and view and manage shared policies. This one-time password must be on both the gateway and the management server. 486 Chapter 5: Traffic Visibility either the active or standby role in the High Availability cluster. Figure 358 — Default Threat Prevention Profiles Each Software Blade provide unique protected scope. Integrating the Security Gateway and User Directory allows you to query user information, enable CRL retrieval, enable user management and authenticate users. It is also possible to create a High Availability cluster for the management server which is called Management High Availability and is covered in the CCSE course. Add a new rule below the Stealth rule and configure it as follows: Name: Outbound Source: Any Destination: Any VPN: Any Services & Applications: https h 341 Check Point Security Administration 12. In the Network Security tab, select the following option: 7. Import licenses from a file. Rules in the Access policy can be configured to Allow All Connections or to Allow All Siteto-Site VPN Connections. Action: Accept Track: Log Install On: Policy Targets Monitoring The Check Point Monitoring Software Blade presents a complete picture of network and security performance, enabling fast responses to changement in the Navigation pane: Figure 292 — Check Point Gateway - Network Management 27. Users are divided among the branches of one Account Unit, or between different Account Units. Close the report. If one of the gateways use 3DES. The user experience is the same whether a file is downloaded within a VPN deployment or a wired network. 543 Allow Specific VPN Communities . Next, initiate a search with the following criteria: 192.168.11.201, http Figure 422 — Logs & Monitor - Logs NOTE The space after the comma and before http is required syntax for a successful search. Figure 361 — Layer Editor Window 410 Check Point Security Administration According to the table, the New York sales office requires a set of IPS rules and the California executive management office requires a separate set of Threat Prevention rules. Double-click a log, to view the details: Figure 421 — Log Details 9. The main protocol of this layer is the IP, which handles IP addressing, routing, and packaging functions. 214 Check Point Security Administration 15. 77 Security Gateway. The basic syntax is: cpview [-c] [history {on|off|stat}] [-t] Parameter Description -c Uses a custom configuration file. When the client starts a connection to access the server's NAT IP address, the following happens to the original packet: 1. This may not be the case in your environment. The License Status view provides information about each blade generated for an individual gateway and summarizes what products or services are available in the system displays the following: Figure 73 — Logs & Monitor 19. NOTE The Scratch Pad accessories are available in Read/Write mode only. Select User Management > Roles in the WebUI navigation tree. SmartEvent is a licensed Software Blade and can be installed on a single server or across multiple correlation units to reduce the network load. • Layer 7 - Represents end user applications and systems. One of the reasons that it is the obvious choice for so many vendors is because of its cross-platform compliance. 452 Check Point Security Administration The tree has the following three levels: • Root — Shows the name of the management server to which the GUI is connected • Second — Shows the names of the Check Point Security Gateways and devices configured in SmartConsole • Third — Shows the Check Point packages or installed licenses on the Check Point Security Gateways and devices Figure 389 — SmartUpdate 453 Check Point Security Administration The following information can be displayed: • The Package Repository pane shows all the packages available for installation. To prevent packets from being IP spoofed, set IP Spoofing protection. For clusters that have three or more cluster members, use a hub or switch to secure the synchronization network. For example, AdminA logs in and no other user has Read/Write access. Click OK, and the system adds rtrRole to the list of configured roles: Figure 25 — User Management - Roles Configured 56 Check Point Security Administration 8. Shows the query definition for the most recent query. 634 Security Policy, view the Network layer. These sections are simple visual divisions of the Rule Base and do not hinder the order of rule enforcement. Click the "+" tab, and in the External Apps section, click Users & Tunnel Monitoring. 346 Check Point Security Administration 26. Tech Support Allows the Technical Support server to access the Remote-1 web server, which is behind the Remote-1 Security Gateway, Table 3: Keyboard Buttons and Descriptions User-Defined and Extended Commands User-defined and extended commands are managed in Clish. 402 Check Point Security Administration 4. This standard includes detailed control objectives that are applicable to certain industries. 613 Check Point Security Administration Controlling Tablet Access Through Captive Portal (Optional) Verify that tablets and other BYOD users have their Internet access managed by Captive Portal. A failure occurs when a hardware or software problem causes a machine to be unable to filter packets. From the Application Menu, select Get All Licenses: 1. Under Compliance, click the Settings button. Clicking the Purge button will permanently delete a database revision. From A-GUI, launch a web browser, such as Firefox or Chrome. 462 Service Contracts . The top three layers of the model determine how end user applications communicate and work. Use section titles to more easily navigate between large rule bases. Type the following command and press Enter, to displays information on the show available options for the show interfaces show interfaces is show interfaces. 491 Check Point Security Administration Tr acking Rules Logs should be used to view traffic patterns. Cannot reach the Security Gateway. Per for man c e Ob j ec t ive s: • Install the remote Security Gateway in a distributed environment using Mobile Access and IPSec VPN clients that work in Office Mode. the network detailed in the course topology. Secondly, User Directory server templates, unlike internal user templates, can be modified and applied to users dynamically. Notice that the admin user session has been disconnected: Figure 246 — Manage & Settings - Sessions - View Sessions 7. The rule is locked during the session. 581 Check Point Security Administration Before you configure Endpoint Identity Agents, consider these elements: • Installation through the Captive Portal or use other distribution methods currently used to deploy software in your organization. You would then narrow the search to the organization he works for and then to the country. 545 Tunnel Testing . Search for all HTTPS records by typing HTTPS in the search bar: Figure 162 — Logs & Monitor 35. It provides clientless access to the Gaia CLI directly from a browser. In either case, the Network layer is always applied first during inspection. In the Roles page, click Add. To enhance efficiency and organization, Check Point introduced the concept of inline and ordered mode for layers within the Access Control policy. (For additional information on agent configuration, refer to ACE/Server documentation.) 593 Check Point Security Administration • TACACS — Terminal Access Control lade must be enabled on the Access Control policy. Online Activation cannot be used for open servers and non-Check Point appliances, such as IP series appliances or IBM Integrated Appliance Solutions. The first one must contain the Firewall rules and is known as the Network policy layer. An example of a physical device performing in this layer would be a router. configured to route VPN traffic based on VPN domains or the routing settings of the operating system. The technologies combined in this package work together to protect your organization from bots, eavesdropping, vulnerabilities, phishing, malware, and spam. Select only A-GW for policy installation, clearing the option to install on B-GW. Name: VPN Traffic Source: A-INT-Net B-INT-Net B-INT-Net B-INT-Net B-INT-Net B-INT-Net VPN: Any Services & Application: Accept Track: Log 3. Once the packet has been inspected, it is encrypted again and sent to its destination. LDAP is an open industry standard application protocol used over an IP network for accessing and managing distributed 425 Check Point Security Administration From A-GUI, select the Logs & Monitoring tab. Add a new rule above the DNS rule and configure it as follows: 9. Select Manager, and the system displays the Color Manager window: Figure 285 — Color Manager Click the Add button. A TDI directory information. driver is an
interface used to communicate with network transport protocols. Once the request reaches the TDI driver, it queries the system to fetch the requesting user behind this new connection and chooses a source port from a pool of port ranges allocated for this specific user. 216 Check Point Security Administration H i d e N AT In Hide NAT, the source is translated, the source port is modified, and translation occurs on the server side. Click the Login button, and the system displays the Fingerprint 4. The Favorites list stores saved custom queries. The monitoring Software Blade is waiting for the Security Management Server to send data from Security Gateways. If the Access Control policy has a different structure, the policy will fail to install. • Verify SIC establishment between the Security Gateways. If the Access Control policy has a different structure, the policy will fail to install. Streaming rule in the AppCtrl Rule Base. Clear the search field. Enter the following information into the HTTP Post fields: Subject: DLP Test Message: 4580-0000-0000 Click the Submit button. Verify that only the Access Control option is selected. Log into Gaia on the first gateway in the Alpha cluster, A-GW-01. New Software Blades can be easily added to your existing hardware by simply enabling their functionality in SmartConsole. Depending on the settings, results of this command may vary. It allows organizations to tailor security solutions that meet business needs and effectively provide the right mix of protection. There are three types of UserCheck messages: • Inform — Informs the user of a possible violation of or a change in the company Security Policy and provides users the option to continue to the application or cancel the request. 537 Check Point Security Administration Meshed VPN Community A Meshed VPN community consists of VPN gateways that create VPN tunnels with all the other VPN gateways in the community. The system displays the Login window: Figure 63 - SmartConsole Login 2. Click OK to add the new user to the Users list. Ta sks : • Verify the HTTPS server certificate. Only managed objects are available for policy installation. 387 Check Point Security 531 Check Point Security Administration V Administration Check Point's AppWiki Application Classification Library enables applications and hundreds of thousands of widgets including messaging, social networking, video streaming, VoIP, games and more. PNC om p on ents The following components are used to construct VPN communication in the network: • VPN domain — Includes the computers and networks that are defined as the internal resources connected to the VPN tunnel. It is also used to configure the priority for each cluster member. 27. • Source — Displays the Object picker, where you can select network objects or a group of users to add to the Rule Base; the default is Any. Change the name of the rule to Stealth Protection: 9. Launch SmartUpdate. The time frame during which users are allowed to connect. For example, a complex data center environment with several gateways may use Endpoint Identity agent authentication on two different gateways to balance the load. After the outbound CA certificate has been created, a certificate object named Outbound CTPS traffic. In this case, if the installation fails on one target gateway, it does not affect the installation on the rest of the target gateways. Select New 65 Check Point Security Administration Applying Useful Commands There are many commands commonly used in troubleshooting on the gateway. Type the following command and press Enter: add user sam uid 200 homedir /home/sam Figure 44 — add user 2. In the Banner Message field, Rule > Above. replace the default text with the following: A-SMS Unauthorized access of this server is prohibited and punishable by law. CPView supports full monitoring of system resources and Security Gateway Software Blades. The server authenticates the user and Firewall rules apply permissions to users, computers and networks. 236 Check Point Security Administration 15. This information is later used when the traffic reaches the Identity Gateway. Figure 510 — Sample Output of cphaprob state To bring the cluster member up: # clusterXL admin up To bring the 636 Working with ClusterXL L A B 8.1 During this lab, you will review Check Point ClusterXL High Availability settings to ensure gateway and VPN connection redundancy for transparent fail-over between machines. Ensure cluster member down: # clusterXL admin down L a b 8 .1 Working with ClusterXL the following software blades are enabled: • IPSec VPN • Application Control • URL Filtering • IPS • ClusterXL 393 Check Point Security Administration Click OK. Some models combine these layers. 291 Check Point Security Administration 13. Log into A-SMS with 44 Check Point Security Administration 6. Notice it is not possible to enable a software blade: Figure 229 - Gateway Cluster - General Properties NOTE This user is not allowed to save any changes made to objects in the database or create new the following credentials: Username: admin Password: Chkp!234 313 Check Point Security Administration Using the Gaia Portal to Configure the Branch Office Security Gateway. To enable a regular check and update the Connections table output, open PuTTY on the A-GUI virtual machine and run the objects following command in Expert mode on each cluster member: 9. They are called user objects and are used to define the different terms under which users are allowed to use. Figure 202 — Revisions (Read-Only) Revisions can be used when connectivity issues occur after changes have been

performed on the policy and installed or when network problems occur after downloading and installing updates on the gateways. An Ethernet address belonging to an Ethernet card is a layer 2 MAC address. 385 Check Point Security Administration Network Policy Layer Cleanup Rules Inline and ordered layers may sometimes have different Cleanup rule settings. Press Ctrl + C to stop: Figure 33 — tcpdump Stopped NOTE More commands worth noting are shutdown and reboot. Click Next, and the system displays the following: Figure 483 — Identity Awareness Configuration 12. • Support is provided for multiple LDAP vendors using User Directory 245 Check Point Security Administration D at a b a s e Rev i s i o n s A database revision is created and automatically stored every time an administrator session is published. Enter Run a command string. Q u e r y L a n g u a g e O ve r v i ew When a query is created, the Profiles. Figure 201 — Sessions criteria is displayed in the Query Definition field at the top of the window. User authentication through the Terminal Server is different in that a shared secret is used to established between Check Point VPN gateways. NOTE If the Cleanup rule is the last Implied rule and Implicit Cleanup Rule are not enforced. Its shell-emulator pop-up window makes Gaia more intuitive to use. Figure 398 — Install Database Verify that A-SMS is the selected target. Status Score Secure 100 Good 76-99 Medium 51-75 Poor 0-50 N/A Not Applicable Table 22: Best Practice Scoring and Status A best practice can show an N/A status if: • • • • • The Software Blade is not installed on the management server. In this chapter, you will also learn about many SmartConsole features and capabilities that enhance the management of the Security Policy. It shows the users that have current VPN connections to the Security Folicy. It shows the user connects and authenticates. They must be assigned one or more roles before they can log in. In the Objects pane, select New > More > Network Object > Gateways & Servers: 1. Explicit rules are created in the Rule Base by the administrator. Clear all options: Figure 221 — New Profile - Management 263 Check Point Security Administration 32. There is no need to create and install a new license. 527 Chapter 6: Basic Concepts of VPN . 458 New Licenses . From A-Host, navigate to and attempt the HTTP Post test again with the information provided in step 3. 602 Check Point Security Administration 16. Enter: Switches to 699 Check Point Security Administration Chapter 7 Ma na ging User Access 1. For example: • Start/Stop cluster member — All cluster members of a gateway cluster can be seen. 571 Overview of User Management Components View Mode Central and Local Licenses. If the specified user is not defined in the internal users database, the gateway queries the LDAP server defined in the Account Unit with the highest priority. The appliance deploys Supervisory Control and Data Acquisition (SCADA) security in harsh environments and remote locations. 637 Check Point Security Administration Reviewing High Availability Settings, confirming ClusterXL usage and identifying the synchronization network. Figure 81 — Object Explorer Window 116 Check Point Security Administration Security Zones A security zone is a group of one or more network interfaces from different centrally managed gateways bound together and used directly in the Rule Base. In the Action column of the rule, select Accept. This means that identical Software Blades and features must be enabled on all cluster members. Depending on your organization requirements, you can choose to set them separately or as combinations that supplement each other. Many of these connections, such as financial transactions, can be mission critical and losing them results in the loss of critical data. displays the Confirmation screen: Figure 261 - Confirmation 16. Review the logs and confirm that the client does not trust the CA Certificate. To boost your professional career with Check Point, become a member of the CheckMates community and share your thoughts and experiences, follow technology trends, learn about the most recent products and features, and participant in your local CheckMates community. 188 Check Point Security Administration 4. 154 Check Point Security Administration 12. Identify where in the Security Policies tab the following items are located: • Access Control policy • Threat Prevention policy • Shared Policies • Install Policy Button 100 Check Point Security Administration 16. 459 License Status . Publish the changes made to the two policies. 34 Check Point Security Administration Search Tool The Search tool is used to find an applicable configuration page by entering a keyword, which can be a feature, a configuration page. If this member fails, control is passed to the next highest priority member. In the Tops pane, select Top Sources: Figure 423 — Logs & Monitor - Logs 506 Check Point Security Administration 13. 548 Defining the VPN Domain The gateway must be aware of the network topology in order to correctly enforce the Security Policy, ensure the validity of IP addresses for inbound and outbound traffic and configure a special domain for VPNs. It is important to take into consideration the existing network when deciding the best deployment strategy for a Security Gateway, as installing a new gateway in an existing network often requires reconfiguration of the routing scheme. 77 Check Point Security Administration S e c u r i t y G a teway A Security Gateway is a gateway on which the Firewall Software Blade is enabled 678 Check Point Security Administration Reviewing Statistics in CPView Use basic navigation to identify statistics presented in CPView. 536 Check Point Security Administration VPN Communities Recall that the VPN domain consists of the computers and networks that are defined as the internal resources connected to the VPN tunnel. With State Synchronization, each members. Ta sks : • Create new administrators with varying permission profiles. We recommend securing the interfaces used for synchronization with a dedicated sync network. 249 Creating Administrators and Assigning Profiles The Cleanup rule is a default Explicit rule. If time settings are not synchronized, Phase 1 of the encryption process can not take place. 89 Check Point Security Administration Installing SmartConsole Download the SmartConsole installer from the Gaia Portal of the Security Policy is a collection of objects, settings, and rules that controls network traffic and enforces organization guidelines for data protection and access to resources with packet inspection. Select Access Role, and the system displays the following: Figure 485 — New Access Role - Networks 9. Po li c y Ty p es SmartConsole uses tabs to make it easy and convenient to navigate between and work within multiple policy packages. For example, if the external IP address of the gateway changes, there is no need to change the NAT settings. This alteration makes it appear as though the packet originated in the part of a network with higher access privileges. If a new license is being attached to a remote gateway, information is retrieved from the License & Contract Repository. The Desktop Security policy type is available if at least one Security Gateway already enforces Desktop Security rules. Exit the web browser. • Total Security – Provides the right level of security at all enforcement points and at all layers of the network. From A-Host, launch a Web browser and navigate to the following site: Figure 373 – DLP Test Site 423 Check Point Security Administration 2. Log out of SmartConsole. 348 Check Point Security Administration 36. • Data Loss Prevention (DLP) — Configure advanced tools to automatically identify data that cannot go outside the network, block the data leak and educate users. Aut h e t i c a t i o n S c h e m e s The authentication process begins with a fetch or query to the user. The system securely gets authentication data one time without making users authenticate manually, as is necessary with Captive Portal. 157 Check Point Security Administration 3. Transmission Control Protocol (TCP) and User Datagram Protocol (UDP) are the core protocols of the Transport layer. 539 Check Point Security Administration VPN Routing A Star VPN community supports VPN Routing, a way of directing communication through a specific tunnel in order to enhance existing connectivity or security. 8. To allow, Inbound HTTPS Inspection, the gateway uses the original server certificate and private key for SSL connections. It provides greater control and efficiency while decreasing maintenance costs associated with managing global security installations. investigation of system performance prior to the onset of an issue. Jon Joe 192.168.2.0 192.168.2.0 192.168.2.255 192.168.2.255 Table 13: Wildcard Search Examples If the criteria value contains more than one word, use the wildcard in each word. Security Event logs are generated, by default, on the Domain Controllers when users perform login. Configure the window as follows: 4. • Enable and test HTTPS inspection. • Alerts — This option generates an alert or defined script in addition to the log. Enter and confirm Chkp!234 as the admin account password. • View concurrent administrator activities. This includes rules that simply validate connections. Click OK, to add the new Host object. • Operating System Password — The Security Gateway can authenticate using the user name and password that is stored on the operating system of the machine on which the Security Gateway is installed. 450 Check Point Security Administration SmartUpdate SmartUpdate extends an organization's ability to provide centralized package and license management across enterprise-wide deployments. For Anti-Spoofing to be most effective, it should be configured on all gateway interfaces. Click the + icon, to access the Object picker: Figure 112 - LDAP Rule 155 Check Point Security . In the Objects pane, navigate to the A-SMS object. You will also perform various Security Policy manipulations to see how the concurrent administration feature works. • Light Endpoint Identity Agent - This agent does not Administration 13. 423 Configuring an Inline Layer. include packet tagging and computer authentication nor does it require administrator permissions. Only one cluster member is active at a time. 694 Chapter 2: Security Policy Management . The extent of filtering is based on the rules defined in the network Security Policy. NOTE Permissions can be assigned to all Gaia features or a subset of the features without assigning a user ID of 0. 701 Chapter 9: Administrator Task Implementation . Review the traffic going to and from A-Host (192.168.11.201). From the menu bar, select Action and then License Report. 598 Check Point Security Administration 5. When this feature is enabled on a VPN community, it is not necessary to add rules to the Firewall Rule Base in order to allow the VPN traffic for the VPN community. In the Add or Edit Role window, click a feature (Features tab) or extended command (Extended Click OK, and the system adds the new layer to the Bravo Standard policy: Figure 365 — Policy - General Configured Click OK. NOTE The SmartConsole installer may be compressed. Select the desired report format to be generated. These VPN communities provide granular control over the permissions for internal networks. To stor the system alert monitoring mechanism, select Tools and Stop System Alert Daemon. Identify where in the Manage & Settings tab the following items are located: • Administrators • Permission profiles • Global software blade settings • Automatic Security Policy revision control 103 Check Point Security Administration 22. Once SIC is established, the management server and its components are identified by their SIC names rather than the IP address. • Create a new Security Policy. Identity Awareness lets you easily configure network access and auditing based on one or more of the following items: • Network location • The identity of a user • The identity of a machine This easy to deploy and scalable solution is applicable for both Active Directory and nonActive Directory based networks as well as for employees and guest users. 539 Combination VPN Communities . Threat Prevention profiles define read or write options for each permission and specifies actions that may be performed by the administrator. • Interfaces — Displays the current status of interfaces associated with the selected gateway. Expert mode allows advanced system and Linux function access to the system, including the file system. Lab 2.3 Configuring Hide and Static NAT 225 L A B Configuring Hide and Static Network Address Translation 2.3 This exercise focuses on understanding the behavior of Network Address Translation in network traffic. Select More > Network Object > Group: 1. In the Navigation pane, select Maintenance > System Backup: 1. Encoding and decoding capabilities allow for communication between dissimilar systems. 87 SmartUpdate Figure 394 — Action > License Report Service Contracts Following the activation of the license, a Service Contract file should be installed. Pre-defined Field Keyword Alias Action taken by a security rule action blade Description product Software Blade Level of confidence that an event is malicious confidence level destination dst Traffic destination IP address, DNS name, or Check Point network object origin orig Name of originating Security Gateway protection Name of the protection risk from the event service Service that generated the log entry severity Severity of the event source src user Traffic source IP address, DNS name or Check Point 497 Check Point Security Administration Filter Criterion Filter criterion values are written as one or more text strings. Find a string in the specified SmartUpdate view. network object name User name Table 12: Pre-defined Field Names 640 Check Point Security Administration Configuring FTP Access Modify the Alpha Standard policy to allow FTP access. The following widgets are available: • System Overview — Provides system information, including the installed, and computer serial number (if applicable). Click the plus icon to access the Object picker. 633 Performing a Manual Failover. To attach a Central license, select the Licenses & Contracts tab and right-click on the Security Gateway object you wish to attach the license to. 535 Check Point Security Administration Remote User Authentication The VPN gateway and remote client must establish trust to create a VPN tunnel. On the standby gateway, run the following command to verify that it has now become the active machine: cphaprob 8. 451 Using SmartUpdate . The Terminal Servers solution is based on reserving a set of TCP/UDP ports for each user. Click the Set New Password button, and the system displays the following: Figure 207 – Set Password 251 Check Point Security Administration 6. Verify that all R80 SmartConsole windows are closed on A-GUI. The LDAP server in your classroom may have differently configured users. Describe the basic functions of the Gaia operating system. 445 Components of a License . To illustrate, when deployed with a User Directory clients. Manual proxy ARP configuration is required for manual Static NAT rules. User Directory users can be viewed in the LDAP Groups folder. The guest will enter required credentials, such as their name, company, email address and phone number in the portal. 384 Check Point Security Administration Implied rules apply to each layer in the Access Control Policy. Setup requires that the IPSec packets first authenticate and 183 Check Point Security Administration 6. All Endpoint products are licensed independently of the Endpoint Security Container and the licenses are installed on the Endpoint management server. Figure 427 — System Counters View establish IKE shared keys 515 Check Point Security Administration Tu nn e ls V iew The SmartView Monitor Tunnels view shows the status of gateway-to-gateway VPN tunnels. Assign privileges to users. • Disconnect an administrator session. Figure 548 — Set refresh rate 685 Check Point Security Administration Confirm the refresh change. Press Ctrl + C. 572 User Directory 195 Check Point Security Administration 21. To manage a remote gateway, administrators must explicitly define Control Connection rules on their local gateways to ensure that the management server can interface with the remote gateway. 460 License Reports The cursor does not have to be at the end of the line. In Expert mode, run CPView on A-GW-01 to review statistics for this cluster member: Figure 551 - CPView - Overview 689 Check Point Security Administration 2. Use the information below to configure the gateway: Name: B-GW IPv4 Address: 203.0.113.100 Comment: Bravo Security Gateway Network Security: Firewall Figure 284 — Check Point Gateway - General Properties 6. The packets are transported as datagrams, which allow the data to travel along different routes to reach its destination. 657 Check Point Security Administration Identifying Inactive Objects Review the Inactive Objects results that occur after a daily compliance scan. • Undefined — Undefined — Undefined — Undefined means that either no authentication is used. Select Edit. In the Navigation pane, select Network Management > Network Interfaces. Figure 444 — VPN 540 Check Point Security Administration Combination VPN Communities There are more complex VPN deployment scenarios. C o m m a n d L i n e I n te r f a c e Gaia utilizes an easy-to-use Command Line Interface (CLI) for the execution of various commands that are structured using the same Routing 498 Check Point Security Administration Wildcard Characters Wildcard characters are used to expand search results. Use the information below to syntactic rules. Examples: • 192.0.2.1 • 192.168.0.0/24 Null values, or empty values, may be used with fields using one of the following syntax options: • "" • [] configure the NAT page: Add Automatic Address Translation rules: Selected Translation rules: Selected Translation Method: Static IP Address: 203.0.113.171 Install On: A-GW-Cluster Figure 193 — Host - NAT 14. Using these event logs, the Security Gateway can correlate Active Directory users and machines to IP address: 203.0.113.171 Install On: A-GW-Cluster Figure 193 — Host - NAT 14. Using these event logs, the Security Gateway can correlate Active Directory users and machines to IP address: 203.0.113.171 Install On: A-GW-Cluster Figure 193 — Host - NAT 14. Using these event logs, the Security Gateway can correlate Active Directory users and machines to IP address: 203.0.113.171 Install On: A-GW-Cluster Figure 193 — Host - NAT 14. Using these event logs, the Security Gateway can correlate Active Directory users and machines to IP address: 203.0.113.171 Install On: A-GW-Cluster Figure 193 — Host - NAT 14. Using these event logs, the Security Gateway can correlate Active Directory users and machines to IP address: 203.0.113.171 Install On: A-GW-Cluster Figure 193 — Host - NAT 14. Using these event logs, the Security Gateway can correlate Active Directory users and machines to IP address: 203.0.113.171 Install On: A-GW-Cluster Figure 193 — Host - NAT 14. Using these event logs, the Security Gateway can correlate Active Directory users and machines to IP address: 203.0.113.171 Install On: A-GW-Cluster Figure 193 — Host - NAT 14. Using these event logs, the Security Gateway can correlate Active Directory users and machines to IP address: 203.0.113.171 Install On: A-GW-Cluster Figure 193 — Host - NAT 14. Using these event logs, the Security Gateway can correlate Active Directory users and machines to IP address: 203.0.113.171 Install On: A-GW-Cluster Figure 193 — Host - NAT 14. Using these event logs, the Security Gateway can correlate Active Directory users and machines to IP address: 203.0.113.171 Install On: A-GW-Cluster Figure 193 — Host - NAT 14. Using the security of the Security OB 14. Using the security OB 14. 254 Check Point Security Administration 14. NOTE Do NOT install the Security Policy at this time. Free Backup section, click the Add Scheduled Backup button. For CLI-inclined users, a shell-emulator pop-up window makes Gaia CLI more intuitive to use. Figure 377 — Action Menu - Inline Layer Selected 4. course for 156-215.80 in PDF format also you can read online. Add and Install Licenses After a license has been generated, it must be installed on the gateway and registered with the management server. Tunnels are used to securely encrypt and decrypt the network communications. Security Administration C r e a t i n g a n A p p l i c a t i o n C o n t r o l Po l i c y The policy for Application Control and URL Filtering is created and managed in the Access Control policy. These appliances offer robust multi-layered protection with flexible network interfaces in a compact desktop form factor. Identify where in the Logs & Monitor tab the following items are located: • Gateway statistics • Infected hosts summary 101 Check Point Security Administration 18. Navigate to the Access Control Security Policy. 351 Check Point Security Administration The following chart provides a comparison of the backup methods. The CLI is used for the execution of various commands that are structured using the same syntactic rules. These rules are applied to all of the Software Blades that have HTTPS Inspection enabled. A text string may be a word, IP address, or URL 647 C H A P T E R Administrator Task Implementation 9 Basic network monitoring is part of an administrator's daily routine. Table 7: Additional Rules Rule Base Created to manage the network's traffic. Use HTTP to connect to A-DMZ (203.0.113.171). Terminal Server Identity Agents identify users in Terminal Server and Citrix environments. From A-Host, navigate to: www.privateinternetaccess.com 2. All authentication schemes require a username and password to identify valid users. 187 Check Point Security Administration Enabling and Testing HTTPS Inspection In SmartConsole, open the A-GW-Cluster object. NOTE Check Point recommends that you make a backup copy of the license prior to deleting the file in case the file is needed for future use. TCP/IP protocols support communications between any two different systems in the form of a clientserver architecture. S t a te f u l I n s p e c t i o n Stateful Inspection analyzes a packet's source and destination addresses, source and destination ports, protocol, and content. -p Prints all statistics to the screen. Browse to the location of the license file, select it, and click Open. Translating the IP address of the machine receiving the connection is called Destination NAT. You need to log into the Active member. To exit the expert shell and return to Clish, run thee connection is called Destination NAT. exit command. 117 5 Check Point Automation Specialist Anti-Spoofing . A separate pre-shared secret must be defined for each externally managed VPN gateway. You may assign a name to the license, if desired. As the personal administrator, notice the lock icon next to the A-GW-Cluster object: Figure 241 — Access Control Policy 283 Check Point Security Administration 16. 622 Check Point Security Administration 27. These entities are configured, managed, and monitored through a single management console which provides the flexibility needed for organizations of all shapes and sizes to manage and secure Action Item — Required steps to become compliant, which also includes alternative scenarios. 479 Check Point Security Administration Attaching Licenses Attach a license to the B-GW. • Test the VPN connection. Once a date is chosen, the administrator settings may be configured to display 488 Check Point Security Administration D e p l oy L o g g i n g The Security Gateways collect logs and send them to the Log Server. Add a new section title below the Stealth rule notifications about the approaching expiration date upon administrator log in. Figure 413 — SmartConsole Log Collection Process and call it Site Traffic Rules. All other users can only log in with Read-Only access to view configuration settings, as specified by their assigned roles. As a result, the gateway is then able to decrypt and inspect the HTTPS traffic that uses the new connections. Check Point platforms and products authenticate each other through one of these SIC methods: • Certificates • TLS for the creation of secure channels • 3DES or AES128 for encryption NOTE Gateways above R71 use AES128 for SIC. 669 Using CPView . • SecurID — A challenge response scheme that uses a token device or a software token. NOTE Your instructor will provide alternate directions if you use other licenses. Some circumstances require multiple versions of a Security Policy, yet the Objects database needs to stay the same. If there is more than one Security Gateway must be configured, each gateway must be configured, each gateway must be configured with Identity Awareness that share identities with each other and have Office Mode configured. Community Object . Identify the number of changes made to the Security Policy. The string will start with cplic put and end with the last SKU/feature. 658 Reviewing a Compliance Scan Report . . To activate a best practice test: 1. However, it does not include operating system information. L a b To p o l o g y Most lab exercises will require you to manipulate machines in your network and other labs will require interaction with the instructor's machines. A LDAP group can be defined in SmartConsole using the Object Explorer feature or through the Objects menu. 110 Review Questions • Configure the Application Control and URL Filtering Rule Base. Per for mance Object ives: • Understand how to enable the Application Control and URL Filtering software blades to block access to various applications. If the license is no longer needed, you may choose to delete it from the License & Contracts Repository as well. In SmartConsole, select the Security Policies tab. 532 VPN Deployments. Double-click the A-LDAP object. The following professionals benefit best from this course: • System Administrators Support Analysts • Network Engineers P r e r e g u i s i te s Before taking this course, we strongly suggest you have the following knowledge of Windows and/or UNIX Working knowledge of network technology Working knowledge of the Internet C h e c k Poi n t C h e c k M a te s CheckMates is a community of people passionate about cyber security! It is an interactive platform with a large crowd of users where they can discuss benefits of products and solutions, exchange ideas, ask questions related to all Check Point products and services, and interconnect through local CheckMates Live (local user group) events. Small Business and Branch Office Appliances provide a simple, affordable and easy to deploy all-in-one solution for delivering industry leading security. If an activity is confirmed as risky, edit the Security 17 Introduction to Check Point Technology C H A P T E R 1 Check Point technology addresses network deployments and security threats while providing administrative flexibility and Policy, educate users, or otherwise handle the risk. Click and drag the Alpha-Nets object to the Source field of the DNS rule. accessibility. Log into the A-SMS from the Gaia Portal. 258 Check Point Security Administration 21. Two VPN gateways negotiate a link and create a VPN tunnel and each tunnel can contain more than one VPN connection. Install Policy button — Install policy. Installing a policy package also distributes the User and Objects databases to the target installation Security Gateways. 47 Check Point Security Administration 13. guit Exit the CLI. To detach a license, select the Licenses & Contracts tab and right-click on the license to be detached. This layer introduces the concept of ports, or endpoints. Also, configure these options in the Logs page: • Save logs on this machine • Send logs and alerts to server (). Us er Directory software leverages LDAP servers to obtain identification and security information about network users. In the Alpha Standard policy, add ftp to the Services & Applications column of the DMZ rule: Figure 514 — DMZ Rule Updated Publish the changes. You will also need to select a profile to be applied to the new Account Unit. • Each gateway generates a DH private key and public keys and calculates the shared keys. In the Objects pane, click New > Network. 107 Check Point Security Administration Deployment Considerations Before delving into the various deployment options for a network, consider the following network topology: Figure 76 — Secure Network Each component in the network topology is distinguished by its IP address and netmask. Clientless solutions often provide access to web-based corporate resources. 694 Check Point Security Administration Chapter 2 Security measure against port scanning by closing all ports until the specific port is requested. From the toolbar, click the Sign Out icon. From the Permission Profile drop-down list, select the following: IPS Only Figure 222 — New Administrator - ips admin 34. Relaunch PuTTY. 112 Introduction to the Security Policy You can view other properties as well, such as the expiration date, SKU, license type, Certificate Key, and signature key. The package includes all NGTP Software Blades plus the Threat Extraction service. There are a couple of important Explicit rules to note. 43 Check Point Security Administration Reviewing and Configuring Basic Settings in the Gaia Portal Follow these steps to connect to the Gaia Portal on the Alpha Security Management Server. Search Jo* Result John Jon Joseph Joe Jo? • Switch to higher priority Cluster Member — Select this option if a higher priority member that failed should become the active cluster member. 400 Check Point Security Administration 11. In the search field, type the following and the system displays the related search results: http Figure 127 — Services - Search Results 10. This combination is ideal for high-end enterprise and data center environments where performance and availability are critical. Click Calculate and make sure the results match the validation code received from the User Center. To install a license, you must first add it to the License & Contract Repository. Side bar — Create and manage objects and view validation errors. Figure 468 — Object Explorer Window 572 Check Point Security Administration Use the Object Explorer window to create and manage the following user properties: • Users — These are individual local and remote entities who access your network and its resources. 5. The three mechanisms for controlling network traffic are Packet Filtering, Stateful Inspection, and Application Layer Firewalls. 573 Identity Awareness Once the Rule Base for the new layer is configured, share the layer, so that it can be used in the Alpha Standard policy. This network topology represents an internal network, consisting of both the Local Access Network (LAN) and the Demilitarized Zone (DMZ), that is protected by the gateway. If the request matches a rule, the Security Gateway uses the server certificate to create an HTTPS connection with the external client. expert Enter the expert shell. In the Navigation bar, select Manage & Settings. Figure 181 - NAT Rules Because Hide NAT also modifies source ports, there is no need to add another rule for reply packets. Remote Access VPN community objects are discussed in greater detail in the CCSE course. 680 Check Point Security Administration 7. Figure 117 — Do Not Log Rule 3. This attempt should fail: Figure 187 — Browser Message 228 Check Point Security Administration 11. In Domain-based VPN, the VPN traffic is routed according to the VPN domains that . For example, fw --help. The secured connection allows the gateway to proceed with the decryption and inspection. From the B-Host virtual machine, launch a web browser. In the Source field, click the + icon to are defined in SmartConsole. 587 Authenticating Users .. launch the Object picker. There is only one Remote Access VPN community object in SmartConsole, Click New, and the system displays the New Profile window: Figure 213 — New Profile - Overview 256 Check Point Security Administration 17. For instance, you can include all users defined in the selected Account Unit as part of the User Directory group, only members of a specified branch or only members of a specified group on the branch. NOTE Naming attributes such as o=organization name and c=country/region name are recognized by LDAP but are not used in Active Directory. 82 Navigation Pane Overview . Figure 391 — Export License(s) to File Window 4. • Internet layer — Manages the routing of data between networks. 366 Chapter 3: Policy Layers . In the URL Filter layer, the packet matches sub-rule 2.2, which accepts the traffic. A license contains the features and functionality deleted .. This course tests your knowledge of 156-215.80: Check Point Certified Security Administrator (CCSA R80). from SmartUpdate. 89 Installing SmartConsole . 381 Check Point Security Administration Confirming the Installation Target Gateway Edit the Alpha Standard policy and define a specific target for installation. history on Turns on the CPView history daemon. Each user that hosts the Terminal/Citrix services is dynamically assigned a set of port ranges. The Stealth rule is an Explicit rule that prevents unauthorized access to the Security Gateway. Consult your instructor for FTP server details. Evaluation licenses are generated for the purpose of evaluating products prior to purchasing. Double-click the setup file. In the Navigation bar of SmartConsole, select Manage & Settings > Blades: Figure 524 — Manage & Settings - Blades 658 Check Point Security Administration 2. This standard includes 133 control objectives that cover organizational security architecture. Many Check Point Identity Agent - This agent allows custom features to be configured for all computers that use it. Endpoint Identity Agents and Browser-Based Authentication For when a higher level of security is necessary. System Administrators must be placed above all other policy layers. 413 Configuring the Content Awareness Policy Layer

In the Track setting of the rule, select Alert, or one of the user-defined alerts.

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