

# Cyberoam Central Console User Guide

Version 1

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# Introduction

Cyberoam Central Console is an integrated management and monitoring tool allows to manage multiple, dispersed Cyberoam Installations centrally. It establishes a central point for monitoring and maintaining multiple Cyberoam Installations.

Cyberoam Central Console helps Managed Security Service Providers, Enterprises – multiple branch offices same city multiple locations or in different Cities and Universities – multiple departments same campus or multiple campuses to manage and monitor their multiple Cyberoam Installations centrally.

Cyberoam Central Console is an independent and a separate hardware from Cyberoam i.e. not the part of Cyberoam Appliance, is to be purchased, installed, and registered separately.

Cyberoam Central Console is to be registered before use.

Cyberoam Central Console supports role-based administration. Permissions for Cyberoam Appliances (devices) and Cyberoam Central Console configuration and management can be set individually for each administrative user added to Cyberoam Central Console.

Administrators with local permission can configure and manage Cyberoam Central Console as well as following functions of Cyberoam appliances:

- Firewall rule
- Internet Access policy
- · Bandwidth policy
- IDP policy
- Categories

Administrators without local permission can manage Cyberoam appliances only and not Cyberoam Central Console.

Prerequisite: Each Cyberoam Appliance should allow HTTPS access for Cyberoam Central Console

### Basics

Cyberoam Central Console can be accessed and administered from:

- 1. Web Admin Console
- 2. Telnet Console

#### **Web Admin Console**

Web Admin Console provides access to all the configuration and maintenance functions of Cyberoam Central Console.

It is mainly used for:

- 3. Adding Appliances which are to be managed by Cyberoam Central Console
- 4. Configuring and managing Cyberoam Internet Access, Bandwidth and IDP policies
- 5. Configuring and managing Cyberoam Firewall rules
- 6. Configuring and managing Cyberoam Categories
- 7. Creating and managing Cyberoam Custom IDP signature

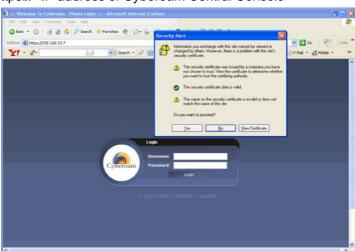
Only configuration required on Cyberoam Central Console is the registration of all the Cyberoam Appliances that are to be managed and monitored through Cyberoam Central Console. To register a Cyberoam Appliance with Cyberoam Central Console, one needs to add IP address, administrator Username and password of Cyberoam.

Web Admin Console can be accessed using HTTP or a secure HTTPS connection from any computer using web browser as:

1. HTTP login: http://<IP address of Cyberoam Central Console >



2. HTTPS login: https://<IP address of Cyberoam Central Console>





Microsoft Internet Explorer 5.5 or Mozilla Firefox 1.5+ and Display settings as True color (32 bits) is required to access Web Admin Console

Use the default username "admin" and password "admin" if you are logging to Web Admin Console for the first time after installation

When you log on to Web Admin Console, Dashboard is displayed.

Dashboard helps to watch all the registered Cyberoam Appliances for outages and events that requires attention. Cyberoam Central Console gets all the required information from Cyberoam Appliances which is displayed on Dashboard. This saves you from time consuming manual monitoring of multiple Cyberoam Appliances individually.

The button bar on the upper rightmost corner provides access to online help and license information about Cyberoam Central Console. Use Logout button to log out from the Web Admin Console.

#### **View License information**

Click CCC icon (on the rightmost corner of the screen) to view the license information.

It displays installed version of Cyberoam Central Console, appliance key and Model number. If Cyberoam Central Console is registered, it displays name under which Cyberoam Central Console is registered.



#### Use F2 key to return to home page

#### **Telnet Console**

It is mainly used for

- Configuring Network and System
- Managing Cyberoam Application

Telnet Console can be accessed via remote login utility – TELNET as:

TELNET login: TELNET IP Address of the Cyberoam Central Console

Refer to Console Guide on how to configure Cyberoam from Telnet Console.



#### Default password for Telnet Console is "admin"

#### Accessing Console using SSH client

Access Cyberoam Console using any of the SSH client. Cyberoam Central Console server IP Address is required.

Start SSH client and create new Connection with the following parameters:

Hostname - < Cyberoam Central Console server IP Address>

Username - admin

Password - admin



### Dashboard

As soon as you logon to the Web Admin Console, Group level Dashboard is displayed.

The goal of dashboard is to provide fast access to monitor and analyze all the registered Cyberoam Appliances for outages and events that requires attention. Cyberoam Central Console gets all the required information from Cyberoam Appliances which is displayed on Dashboard. This saves you from time consuming manual monitoring of multiple Cyberoam Appliances individually.

Dashboard displays live status / severity of following parameters of all the registered Cyberoam Appliances:

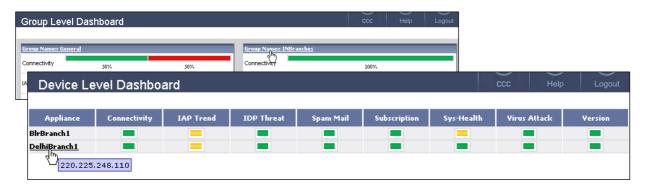
- Connectivity Connectivity of Cyberoam with Cyberoam Central Console and connectivity of Cyberoam with its gateway (Mostly in case of Multiple gateway in Cyberoam)
- IAP trends
- IDP Threats Severity depends on number of events generated in last 5 minutes
- Virus Attack Severity depends on % of Viruses detected with respect to total number of sites visited and mails received
- Spam Mails Severity depends on % of SPAM mails received with respect to the total mails received
- Version Compatibility Cyberoam Central Console will not be able to manage Cyberoam if not compatible, either Cyberoam Central Console/Cyberoam needs to be upgraded
- Subscription Severity depends on number of days left in expiration for any module

Status and severity are classified as Dangerous, Warning, OK which is based on the preconfigured threshold values in Cyberoam Central Console.

Group Level Dashboard displays the Group activity and not the individual Cyberoam activity, if Device Groups are created.



Device Level Dashboard displays status of individual Cyberoam Appliance in a respective group. Click Group Name on Group Level Dashboard to view Device Level Dashboard.



- Click Appliance link from Device Level Dashboard to view the Device Summary. Device summary includes
  - Cyberoam Appliance information Appliance key, model, Deployment mode, version, etc.
  - Connection date and time i.e. date and time when connection between Cyberoam and Cyberoam Central Console was established.
  - Internet access trends
  - IDP threats threats within last 5 minutes
  - Spam mails spam mails received as a percentage of the total mails received
  - Virus attack details
  - System Health CPU usage, memory and disk used as a percentage of the total amount of disk space available
  - Subscription/license information



# System

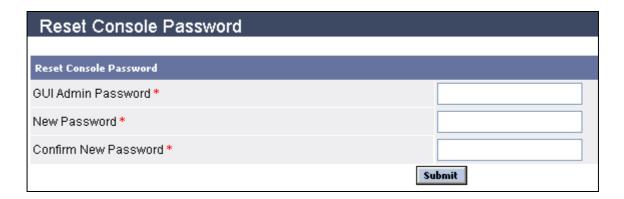
This section covers how to:

- Reset Console Password
- Configure DNS
- Manage Data

#### Reset Console Password

Telnet Console password can be changed from Web Admin or Telnet Console.

- 1. Select System → Reset Console Password
- 2. Enter Web based Console's administrator user password using which you have logged on.
- 3. Enter new password
- 4. Enter the new password for confirmation. Use the same spelling and case as you entered in password field.
- 5. Click Submit to save the new password.



To change password from Telnet Console:

- 1. Log on to Telnet Console
- 2. Go to Option 2 System Management > Option 1 Set Console Password and change the password. For more details refer to Console guide.

# Configure DNS

DNS service allows provide internal users with a secure and efficient name-server service. A Domain Name Server translates domain names to IP addresses.

DNS server is set at the time of installation. You can add additional IP addresses of the DNS servers to which Cyberoam Central Console can connect for name resolution. You can even redirect DNS traffic to local DNS server.

If multiple DNS are defined, they are queried in the order as they are entered.

#### To add DNS Server IP address

- 1. Select System → Configure DNS
- 2. Click Add.
- 3. Enter DNS server IP address
- 4. Click OK
- 5. Click Save to save the configuration



#### Do not forget to save after adding new IP address to the DNS list

To add multiple DNS repeat the above-described procedure. Use Move Up & Move Down buttons to change the order of DNS. If more than one Domain name server exists, query will be resolved according to the order specified.



#### To change the DNS order

- Select System → Configure DNS
- 2. Click the Server IP address whose order is to be changed
- 3. Click Move up or Move Down as per the requirement
- 4. Click Save to save the changes



#### Do not forget to save after changing the order

#### To remove DNS Server

- Select System → Configure DNS
- 2. Click the Server IP address you want to remove
- 3. Click Remove
- 4. Click Save to save the changes



Do not forget to save after removing IP address from the DNS list



Multiple DNS server can also be deleted. Select multiple servers using Ctrl key



## Manage Data

- Backup
- Restore Backup

#### Backup Data

- 1. Select System → Manage Data → Backup Data
- 2. Click Backup to take backup of System Data till date. A new window is opened automatically if backup is taken successfully to allow you to download the backup.
  - Click Download and follow the screen instructions to download the backup file.
- 3. Displays the date and time of the last backup if backup is already taken. Click Download if you want to download backup for uploading.

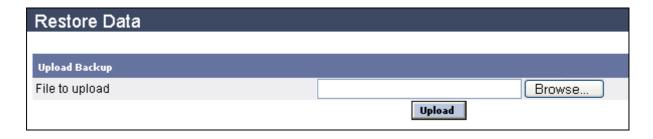
Restore backup taken from System>Manage Data>Restore Data and upload the backup file.



#### Restore Data

Once the backup is taken, you need to upload the file for restoring the backup. Restoring data older than the current data will lead to the loss of current data.

- 1. Select System → Manage Data → Restore Data
- 2. Enter the backup file name, which is to be uploaded.
- 3. Click Upload
- 4. Once the backup file is uploaded successfully, to restore data
- 5. Log on to Console based Administration (using TELNET).
- 6. Go to Option 5 CCC Management > Option 4 Restore Backup and follow screen steps to restore data. For more details, refer to Console Guide.



# **Device Group**

Cyberoam Central Console provides a quick way to configure a single device or a group of devices.

You can group the managed devices (Cyberoam Appliances) according to:

- Physical/geographic location e.g. devices in the same city
- Configurations e.g. devices which implements same policies
- Ownership e.g. devices under the single distributor, devices under a particular department in a university

Cyberoam Central Console allows configuring and managing following functions of Cyberoam appliances:

- Firewall rule
- Internet Access policy
- Bandwidth policy
- IDP policy
- Categories
- **Create Group**
- Manage Group

#### Create Group

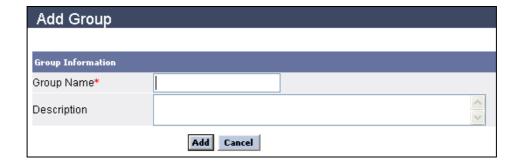
Creating Groups allows you to manage large number of devices efficiently. General group is the default group which cannot be deleted or updated

#### Use to:

- Create Group
- Update Group

#### To create Group

- 1. Select Device Group → Add Group
- 2. Enter group name
- 3. Enter group description
- 4. Click Add to create and save the group



#### To update Group

- Select Device Group → Manage Group to view the list of groups created and click the group to be updated
- 2. Displays group name, modify of required
- 3. Displays group description, modify of required
- 4. Click Update to save the group



#### Manage Group

#### Use to:

- Update Group
- View list of devices in a Group
- **Delete Group**

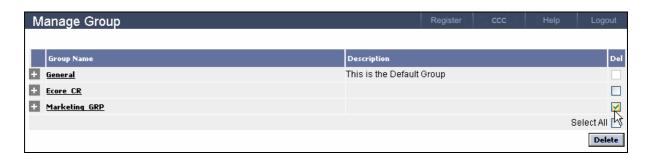
#### To view list of devices in a Group

- 1. Select **Device Group** → **Manage Group** to view the list of groups created
- 2. Click against the group to expand the tree
- 3. Displays device name, IP address and connectivity status of all the device in a group



#### To delete Group

- 1. Select **Device Group → Manage Group** to view the list of groups created
- 2. Click Del against the group to be deleted OR click Select All to delete all the groups
- 3. Click Delete



General Group is the default group which cannot be deleted.

# Device Management

Device Management allows to add devices i.e. Cyberoam Appliances that are to be managed through Cyberoam Central Console

#### Use to:

- Add Device i.e. register Device with Cyberoam Central Console
- Manage Device

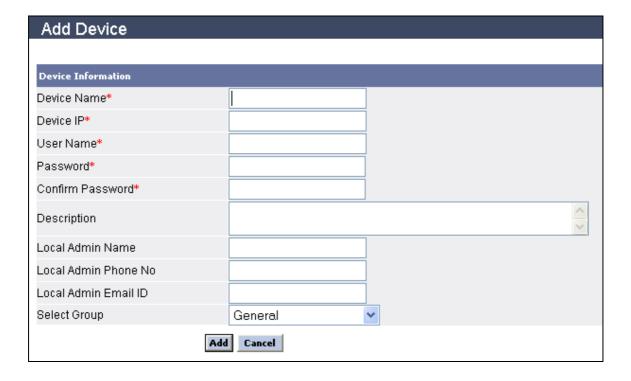
#### Add Device

#### Use to

- Add Device i.e. register Device with Cyberoam Central Console
- Update Device details

#### To add Device

- 1. Select Device Management → Add Device
- 2. Enter device name and IP address
- 3. Enter username and password using which user can logon to the Cyberoam Appliance
- 4. Enter device description, if required
- 5. Enter name, phone number and email id of Cyberoam Central Console administrator
- 6. Select device Group. If group is not selected then device is included in General group. You can change the group later on whenever required.
- 7. Click Add to register the device (Cyberoam Appliance) with Cyberoam Central Console



#### To update Device details

- Select Device Management → Manage Device to view the list of devices that are managed by Cyberoam Central Console and click the Device which is to be updated
- 2. Displays device name and IP address, modify if required
- 3. Displays username and password using which user can logon to the Cyberoam Appliance, modify if required
- 4. Displays device description, modify if required
- 5. Displays name, phone number and email id of Cyberoam Central Console administrator, modify if required
- 6. Displays device group, modify if required.
- 7. Click Update to save the details



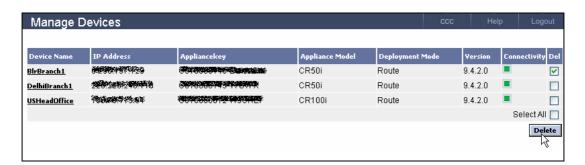
# Manage Device

#### Use to

- Update Device
- Remove Device from Cyberoam Central Console

#### To remove Device

- 1. Select **Device Management** → **Manage Device** to view the list of devices
- 2. Click Del against the device to be removed OR click Select All to remove all the devices
- 3. Click Delete



# User

User allows create and manage administrative user and role (permission).

#### Use to:

- Create User
- Manage User
- Create Role
- Manage Role

#### Create User

Create administrative users to manage Cyberoam Central Console and devices. User cmcadmin is the default user who can configure and manage Cyberoam Central Console and all the devices and cannot be deleted.

#### Use to:

- Create User
- Update administrator User details

#### To create administrative User

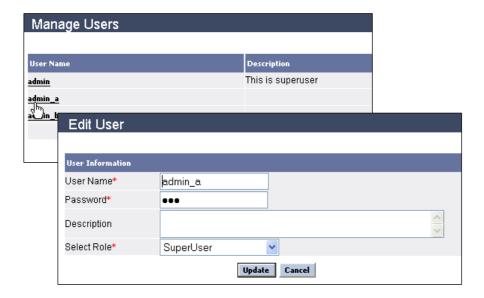
Prerequisite: Role created

- 1. Select User → Create User
- 2. Enter user name and password
- 3. Enter device description, if required
- 4. Select user role. Role defines the access level of the user. SuperUser is the default role which allows user to manage and configure Cyberoam Central Console as well as devices. Go to User>Create Role to define a new role.
- 5. Click Add to create user



#### To update administrative User details

- Select User → Manage User to view the list administrator user and click the username whose details is to be updated
- 2. Displays user name and password, modify if required
- 3. Displays user role, modify if required. Role defines the access level of the user. SuperUser is the default role which allows user to manage and configure Cyberoam Central Console as well as devices. Go to User>Create Role to define a new role.
- 4. Click Update to save the user details



# Manage User

#### Use to:

- Update administrative User
- Delete administrative User

#### To delete administrative User

- 1. Select **User** → **Manage User** to view the list of users created
- 2. Click Del against the user to be deleted OR click Select All to delete all the users
- 3. Click Delete

Default user admin cannot be deleted.



## Create Role

#### Use to:

- Create new role
- Update role

Roles define the access level of the user i.e. the administrator profile and local permission defines the role permission.

Role and local permission together determines the user's access to the various features of Cyberoam Central Console.

SuperUser is the default role which allows user to manage and configure Cyberoam Central Console as well as all the devices.

#### To create new Role

- 1. Select User → Create Role
- 2. Enter role name
- 3. Enter description
- 4. Click Select to against Select Devices and Groups. It displays group wise devices that can be managed from Cyberoam Central Console. Click against Group name or Device name to enable. User to whom this role is assigned will be able to manage the enabled group/devices.
- 5. Enable Local permission to allow the configuration and management of Cyberoam Central Console.
- 6. Group list and device list displays the list of groups and devices which the user with this role can manage.
- 7. Click Add to create role



#### To update Role

- 1. Select User → Manage Role
- 2. Displays role name, modify if required
- 3. Displays description, modify if required
- 4. Click Select to against Select Devices and Groups. It displays group wise devices that can be managed from Cyberoam Central Console. Click against Group name or Device name to enable. User to whom this role is assigned will be able to manage the enabled group/devices.



- Modify if required.
- 5. Enable Local permission to allow the configuration and management of Cyberoam Central Console. Modify if required.
- 6. Group list and device list displays the list of groups and devices which the user with this role can manage.
- 7. Click Update to save details.



# Manage Role

#### Use to:

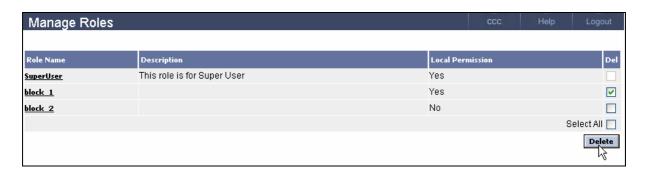
- Update role
- Delete role

#### To delete Role

- 1. Select User → Manage Role to view the different roles created
- 2. Click Del against the role to be deleted OR click Select All to role all the users
- 3. Click Delete

Default role SuperUser cannot be deleted.

Role which is assigned to a user cannot be deleted.



# **Firewall**

A firewall protects the network from unauthorized access and typically guards the LAN and DMZ networks against malicious access; however, firewalls may also be configured to limit the access to harmful sites for LAN users.

The responsibility of firewall is to grant access from Internet to DMZ or Service Network according to the Rules and Policies configured. It also keeps watch on state of connection and denies any traffic that is out of connection state.

Firewall rules control traffic passing through the Cyberoam. Depending on the instruction in the rule, Cyberoam decides on how to process the access request. When Cyberoam receives the request, it checks for the source address, destination address and the services and tries to match with the firewall rule. If Identity match is also specified then firewall will search in the Live Users Connections for the Identity check. If Identity (User) found in the Live User Connections and all other matching criteria fulfills then action specified in the rule will be applied. Action can be allow or deny.

If Action is 'Allow' then each rule can be further configured to apply source or destination NATting (Network Address Translation). You can also apply different protection settings to the traffic controlled by firewall:

- Enable load balancing between multiple links
- Configure antivirus protection and spam filtering for SMTP, IMAP, POP3, and HTTP traffic. To apply antivirus protection and spam filtering, you need to subscribe for Gateway Anti Virus and Gateway Anti Spam modules individually. Refer to Licensing section for details.
- Implement Intrusion detection and prevention. To apply IDP policy you need to subscribe for Intrusion Detection and Prevention module. Refer to Licensing section for details.
- Configure content filtering policies. To apply content filtering you need to subscribe for Web and Application Filter module. Refer to Licensing section for details.
- Apply bandwidth policy restriction

By default, Cyberoam blocks any traffic to LAN.

- **Default Firewall Rules**
- **Create Firewall Rule**
- Manage Firewall Rule
- **DoS Settings**
- DoS Bypass rule

#### **Default Firewall rules**

At the time of deployment, Cyberoam allows to define one of the following Internet Access policies using Network Configuration Wizard:

- Monitor only
- General Internet policy
- Strict Internet policy

Depending on the Internet Access policy set through Network Configuration Wizard, Cyberoam

defines the two default firewall rules as follows:

#### Monitor only (Cyberoam applies the firewall rules in the order as specified below)

1. Masquerade and Allow entire LAN to WAN traffic for all the authenticated users after applying following policies:

Internet Access policy - User specific

Bandwidth policy - User specific

Anti Virus & Anti Spam policy – Allows SMTP, POP3, IMAP and HTTP traffic without scanning

2. Masquerade and Allow entire LAN to WAN traffic for all the users without scanning SMTP, POP3, IMAP and HTTP traffic

#### General Internet policy (Cyberoam applies the firewall rules in the order as specified below)

1. Masquerade and Allow entire LAN to WAN traffic for all the authenticated users after applying following policies:

Internet Access policy – User specific

Bandwidth policy - User specific

Anti Virus & Anti Spam policy - Scan SMTP, POP3, IMAP and HTTP traffic

2. Masquerade and Allow entire LAN to WAN traffic for all the users after applying following policies:

Internet Access policy – Applies 'General Corporate Policy' to block Porn, Nudity, AdultContent, URL TranslationSites, Drugs, CrimeandSuicide, Gambling, MilitancyandExtremist, PhishingandFraud, Violence, Weapons categories

IDP – General policy

Anti Virus & Anti Spam policy - Scan SMTP, POP3, IMAP and HTTP traffic

#### Strict Internet policy (Cyberoam applies the firewall rules in the order as specified below)

1. Masquerade and Allow entire LAN to WAN traffic for all the authenticated users after applying following policies:

Internet Access policy - User specific

Bandwidth policy - User specific

IDP – General policy

Anti Virus & Anti Spam policy - Scan SMTP, POP3, IMAP and HTTP traffic

2. Drop entire LAN to WAN traffic for all the users



Default Firewall rules can be modified as per the requirement but cannot be deleted

IDP policy will not be effective until Intrusion Detection and Prevention (IDP) module is subscribed

Virus and Spam policy will not be effective until Gateway Anti Virus and Gateway Anti-spam modules are subscribed respectively

If Internet Access Policy is not set through Network Configuration Wizard at the time of deployment, the entire traffic is dropped

Additional firewall rules can be defined to extend or override the default rules. For example, rules can be created that block certain types of traffic such as FTP from the LAN to the WAN, or allow certain types of traffic from specific WAN hosts to specific LAN hosts, or restrict use of certain



protocols such as Telnet to authorized users on the LAN.

Custom rules evaluate network traffic source IP addresses, destination IP addresses, User, IP protocol types, and compare the information to access rules created on the Cyberoam appliance. Custom rules take precedence, and override the default Cyberoam firewall rules.

### Create Firewall Rule

#### Use to

- · Create firewall rule
- Update firewall rule

Previous versions allowed creating firewall rules based on source and destination IP addresses and services but now Cyberoam's Identity based firewall allows to create firewall rules embedding user identity into the firewall rule matching criteria.

Firewall rule matching criteria now includes:

- Source and Destination Zone and Host
- User
- Service

Following Unified Threat Control policies can be attached to the firewall rule as per the defined matching criteria:

- Intrusion Detection and Prevention (IDP)
- Internet Access
- Bandwidth Management

To create a firewall rule, you should:

- Define matching criteria
- Associate action to the matching criteria
- · Attach the threat management policies

For example, now you can:

- Restrict the bandwidth usage to 256kb for the user John every time he logs on from the IP 192.168.2.22
- Restrict the bandwidth usage to 1024kb for the user Mac if he logs on in working hours from the IP 192.168.2.22

Processing of firewall rules is top downwards and the first suitable rule found is applied.

Hence, while adding multiple rules, it is necessary to put specific rules before general rules. Otherwise, a general rule might allow a packet that you specifically have a rule written to deny later in the list. When a packet matches the rule, the packet is immediately dropped or forwarded without being tested by the rest of the rules in the list.

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#### To create firewall rule

- Select Firewall → Create Rule
- 2. Select Group ID. After successful creation, Firewall rule can be applied to any or all the devices in the selected group.
- 3. Specify source zone and host IP address/network address to which the rule applies.
- 4. To define host group based firewall rule you need to define host group.
- 5. Under Select Address, click Create Host Group to define host group from firewall rule itself or from Firewall → Host Group → Create

Under Select Address, click Add Host to define host group from firewall rule itself rule itself or from Firewall → Host → Add Host

6. Click Enable to check the user identity. (Only if source zone is LAN/DMZ)

Check identity allows you to check whether the specified user/user group from the selected zone is allowed the access of the selected service or not.

Enable check identity to limit access to available services and apply following policies per user:

- Internet Access policy for Content Filtering (User's Internet Access policy will be applied automatically but will not be effective till the Web and Content Filtering module is subscribed)
- Schedule Access
- IDP (User's IDP policy will be applied automatically but will not be effective till the IDP module is subscribed)
- Anti Virus scanning (User's anti virus policy will be applied automatically but it will not be effective till the Gateway Anti Virus module is subscribed)
- Anti Spam scanning (User's anti spam policy will be applied automatically but it will not be effective till the Gateway Anti Spam module is subscribed)
- Bandwidth policy User's bandwidth policy will be applied automatically
- The policy selected in Route through Gateway is the static routing policy that is applicable only if more than one gateway is defined and used for load balancing.
- 7. Specify destination zone and host IP address /network address to which the rule applies.
- 8. To define host group based firewall rule you need to define host group.

Under Select Address, click Create Host Group to define host group from firewall rule itself or from Firewall  $\rightarrow$  Host Group  $\rightarrow$  Create

Under Select Address, click Add Host to define host group from firewall rule itself rule itself or from Firewall → Host → Add Host

9. Select service/service group to which the rule applies.

Services represent types of Internet data transmitted via particular protocols or applications.

Protect by configuring rules to

- block services at specific zone
- limit some or all users from accessing certain services
- allow only specific user to communicate using specific service

Under Select Here, click Create Service Group to define service group from firewall rule itself rule itself or from Firewall → Service → Create Service

Cyberoam provides several standard services and allows creating the custom services also. Under Select Here, click Create Service to define service from firewall rule itself rule itself or from Firewall → Service → Create Service



- 10. Select Schedule for the rule
- 11. Select rule action

Accept - Allow access

Drop - Silently discard i.e. without sending 'ICMP port unreachable' message to the source

Reject – Deny access and send 'ICMP port unreachable' message to the source

12. Click Apply Source NAT and select the SNAT policy to be applied (Only if Action is 'ACCEPT') It allows access but after changing source IP address i.e. source IP address is substituted by the IP address specified in the SNAT policy.

You can create SNAT policy from firewall rule itself or from Firewall → SNAT Policy → Create

# This option is not available if Cyberoam is deployed as Bridge

- 13. Click Advanced Settings to apply different protection settings to the traffic controlled by firewall. You can:
  - Enable load balancing and failover when multiple links are configured
  - Configure antivirus protection and spam filtering for SMTP, IMAP, POP3, and HTTP policies.
  - Implement Intrusion detection and prevention.
  - Configure content filtering policies.
  - Apply bandwidth policy
- 14. Select DNAT policy to be applied

DNAT rule tells the firewall to forward the requests from the specified machine and port to the specified machine and port.

Under Select Here, click Create DNAT Policy to define dnat policy from firewall rule itself rule itself or from Firewall → DNAT Policy → Create



15. Select IDP policy for the rule. Refer to IDP, Policy for details on creating IDP policy.



16. Select Internet access policy for the rule. It can be applied to LAN to WAN rule only. Internet Access policy controls web access. Refer to Policies, Internet Access Policy for details on creating Internet Access policy.

Content filtering will be applicable only for those Cyberoam Appliances for whom Web and Application Filter add-on module is subscribed.

17. Select Bandwidth policy for the rule

Only Firewall rule based Bandwidth policy can be applied. Bandwidth policy allocates & limits the maximum bandwidth usage of the user. Refer to Policies, Bandwidth Policy for details on creating Bandwidth policy.



18. Click the protocol for which the virus and spam scanning is to be enabled By default, HTTP scanning is enabled.

If Check Identity is enabled, the policy will be applied to the specified user/user group only.

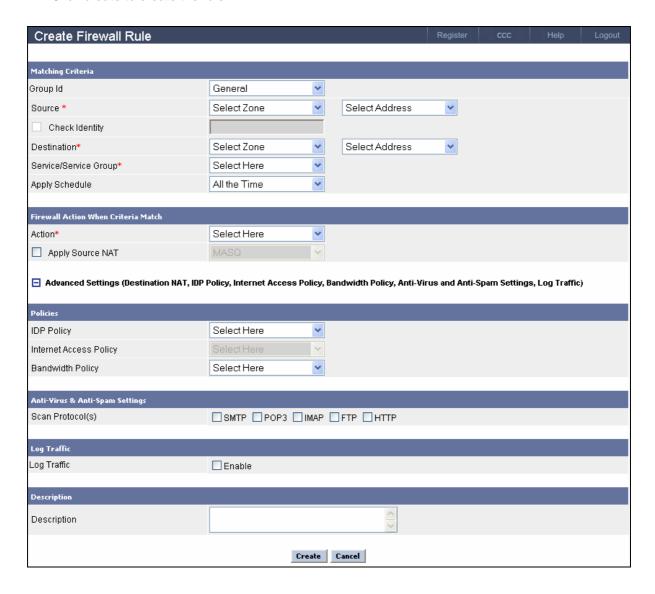


Antivirus protection and spam filtering will be applicable only for those Cyberoam Appliances for whom Gateway Anti Virus and Gateway Anti Spam modules are individually subscribed.

19. Click Log Traffic to enable/disable traffic logging for the rule. Make sure, firewall rule logging in ON/Enable from the Logging Management. Refer to Cyberoam Console Guide, Cyberoam Management for more details.

To log the traffic permitted and denied by the firewall rule, you need to ON/Enable the firewall rule logging from the Web Admin Console—Firewall rule and from the Telnet Console—Cyberoam Management.

- 20. Specify full description of the rule
- 21. Click create to create the rule



#### To update firewall rule

- Select Firewall → Manage Rule and select the Device Group. List of firewall rules created for the selected group will be displayed. click Edit icon gaainst the rule to be modified.
- Displays source zone and host IP address/network address to which the rule applies. Modify host IP address/network address, if required.
- 3. To define host group based firewall rule you need to define host group. Under Select Address, click Create Host Group to define host group from firewall rule itself or from Firewall → Host Group → Create

Under Select Address, click Add Host to define host group from firewall rule itself rule itself or from Firewall → Host → Add Host

4. Click Enable to check the user identity. (Only if source zone is LAN/DMZ)

Check identity allows you to check whether the specified user/user group from the selected zone is allowed the access of the selected service or not.

Enable check identity to limit access to available services and apply following policies per user:

- Internet Access policy for Content Filtering (User's Internet Access policy will be applied automatically but will not be effective till the Web and Content Filtering module is subscribed)
- Schedule Access
- IDP (User's IDP policy will be applied automatically but will not be effective till the IDP module is subscribed)
- Anti Virus scanning (User's anti virus policy will be applied automatically but it will not be effective till the Gateway Anti Virus module is subscribed)
- Anti Spam scanning (User's anti spam policy will be applied automatically but it will not be effective till the Gateway Anti Spam module is subscribed)
- Bandwidth policy User's bandwidth policy will be applied automatically
- The policy selected in Route through Gateway is the static routing policy that is applicable
  only if more than one gateway is defined and used for load balancing.
- 5. Displays destination zone and host IP address /network address to which the rule applies.
- 6. Modify host IP address/network address, if required.

To define host group based firewall rule you need to define host group.

Under Select Address, click Create Host Group to define host group from firewall rule itself or from Firewall → Host Group → Create

Under Select Address, click Add Host to define host group from firewall rule itself rule itself or from Firewall  $\rightarrow$  Host  $\rightarrow$  Add Host

7. Displays service/service group applied to the rule modify if required.

Services represent types of Internet data transmitted via particular protocols or applications.

Protect by configuring rules to

- block services at specific zone
- limit some or all users from accessing certain services
- allow only specific user to communicate using specific service

Under Select Here, click Create Service Group to define service group from firewall rule itself rule itself or from Firewall → Service → Create Service

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Cyberoam provides several standard services and allows creating the custom services also. Under Select Here, click Create Service to define service from firewall rule itself rule itself or from Firewall → Service → Create Service

- 8. Displays schedule applied to the rule, modify if required
- 9. Displays rule action, modify if required

Accept – Allow access

Drop - Silently discard i.e. without sending 'ICMP port unreachable' message to the source

Reject – Deny access and send 'ICMP port unreachable' message to the source

10. Click Apply Source NAT and select the SNAT policy to be applied (Only if Action is 'ACCEPT') It allows access but after changing source IP address i.e. source IP address is substituted by the IP address specified in the SNAT policy.

You can create SNAT policy from firewall rule itself or from Firewall → SNAT Policy → Create



#### This option is not available if Cyberoam is deployed as Bridge

- 11. Click Advanced Settings to apply different protection settings to the traffic controlled by firewall. You can:
  - Enable load balancing and failover when multiple links are configured
  - Configure antivirus protection and spam filtering for SMTP, IMAP, POP3, and HTTP policies.
  - Implement Intrusion detection and prevention.
  - · Configure content filtering policies.
  - Apply bandwidth policy
- 12. Displayed DNAT policy applied to the rule, modify if required

DNAT rule tells the firewall to forward the requests from the specified machine and port to the specified machine and port.

Under Select Here, click Create DNAT Policy to define dnat policy from firewall rule itself rule itself or from Firewall → DNAT Policy → Create



#### This option is not available if Cyberoam is deployed as Birdge

13. Displays IDP policy applied to the rule, modify if required. Refer to IDP, Policy for details on creating IDP policy.



IDP policy will be applicable only for those Cyberoam Appliances for whom Intrusion Detection and Prevention add-on module is subscribed.

14. Displays Internet access policy applied to the rule, modify if required. It can be applied to LAN to WAN rule only.

Internet Access policy controls web access. Refer to Policies, Internet Access Policy for details on creating Internet Access policy.



Content filtering will be applicable only for those Cyberoam Appliances for whom Web and Application Filter add-on module is subscribed.



15. Displays Bandwidth policy applied to the rule, modify if required.

Only Firewall rule based Bandwidth policy can be applied. Bandwidth policy allocates & limits the maximum bandwidth usage of the user. Refer to Policies, Bandwidth Policy for details on creating Bandwidth policy.

16. Click the protocol for which the virus and spam scanning is to be enabled

By default, HTTP scanning is enabled.

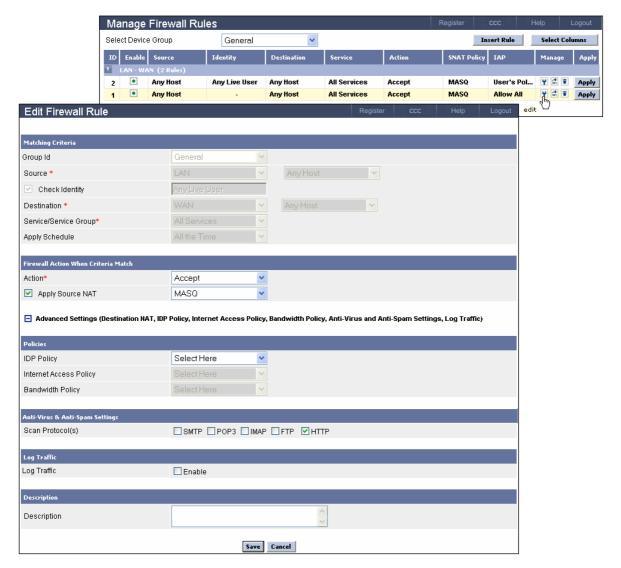


Antivirus protection and spam filtering will be applicable only for those Cyberoam Appliances for whom Gateway Anti Virus and Gateway Anti Spam modules are individually subscribed.

17. Click Log Traffic to enable/disable traffic logging for the rule. Make sure, firewall rule logging in ON/Enable from the Logging Management. Refer to Cyberoam Console Guide, Cyberoam Management for more details.

To log the traffic permitted and denied by the firewall rule, you need to ON/Enable the firewall rule logging from the Web Admin Console→Firewall rule and from the Telnet Console→Cyberoam Management. Specify full description of the rule

- 18. Displays full description of the rule, modify if required
- 19. Click Save to save the rule



# Manage Firewall Rules

#### Use to:

- Update rule
- Deactivate rule
- Delete rule. Deleting firewall rule will delete firewall rule from Cyberoam Central Console and not from the devices.
- Append rule
- Customize the screen display

#### Manage firewall rule screen components

Select Firewall → Manage Rule to view the list of rules

Append Rule button - Click to add zone to zone rule

Select Column button - Click to customize the number of columns to be displayed on the page

Enable/Disable rule icon <a> - Click to activate/deactive the rule. If you do not want to apply the firewall rule temporarily, disable rule instead of deleting.</a>

Green - Active Rule

Red - Deactive Rule

Edit icon To Click to edit the rule. Refer to Update Firewall rule for more details.

Insert icon <a> - Click to insert a new rule before the existing rule. Refer to Create Firewall Rule for more details.</a>

Delete icon - Click to delete the rule. Deleting firewall rule will delete firewall rule from Cyberoam Central Console and not from the devices. To delete firewall rule from the device, use Remove function.

Apply button - Click to apply firewall rule to all the selected devices in the selected Group.

Remove button - Click to remove firewall rule from all the selected devices in the selected Group.



#### To append rule

Append Rule adds the new rule above the default rules if zone-to-zone rule set exists else appends new rule as new zone-to-zone rule set in the end.

Select Firewall → Manage Firewall

Click Append rule to open the create firewall rule page.

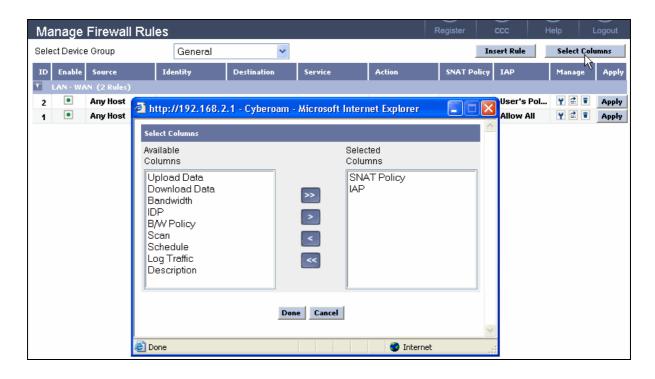
Refer to Define Firewall Rule for more details.

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#### To customize Screen Display

By default, Manage Firewall Rules page displays details of the rule in the following eight columns: ID, Enable, Source, Identity, Destination, Service, Action, and Manage. You can customize the number of columns to be displayed as per your requirement.

- Select Firewall → Manage Firewall to open the manage page
- 2. Click Select Columns
- 3. It opens the new window. 'Available Columns' list displays the columns that can be displayed on the page.
- Click the required column and use Right arrow button to move the selected column to the 'Selected Columns' list
- 5. Click Done



#### Host

#### Use to:

- Add Host
- Manage Host

Firewall rule can be created for the individual host or host groups. By default, the numbers of hosts equal to the ports in the appliance are already created.

#### Add Host

- 1. Select Firewall → Host → Add
- 2. Enter host name
- 3. Select host type i.e. single IP address with subnet or range of IP addresses
- 4. Select host group
- 5. Create to add a new host



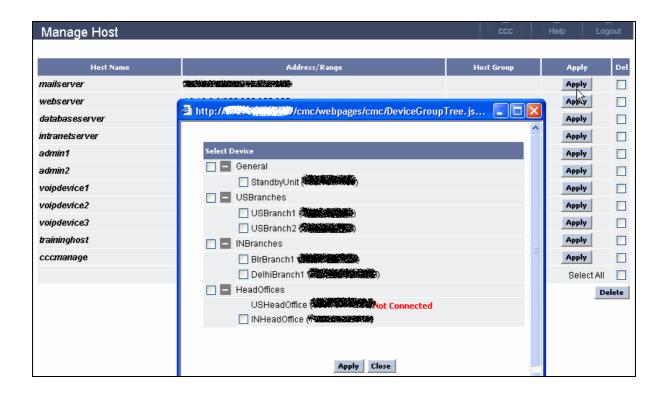
#### Manage Host

#### Use to:

- Assign host to Device (Cyberoam Appliance)
- Delete host. Deleting host will delete host from the Cyberoam Central Console and not from the devices.

#### To assign Host to a Device

- 1. Select Firewall → Host → Manage
- 2. Click Apply against the host name. It opens a new page and displays group wise devices. Enable the check box against the group or device to which the host is to be added.
- 3. Click Apply. Applied will be displayed against the group/device, if the host is added successfully.



#### To delete host

- Select Firewall → Host → Manage
- 2. Click Del against the host to be deleted OR click Select All to delete all the hosts
- 3. Click Delete



## Host Group

#### Use to:

- Create Host group
- · Manage Host group

Host group is the grouping on hosts.

#### Create Host Group

- Select Firewall → Host Group → Create
- 2. Enter host group name
- 3. Enter description for the group
- 4. Click Create to create the group. If the Group is successfully created, you can add the hosts to the group. Refer to Add Host to Host Group for details.



### Manage Host Group

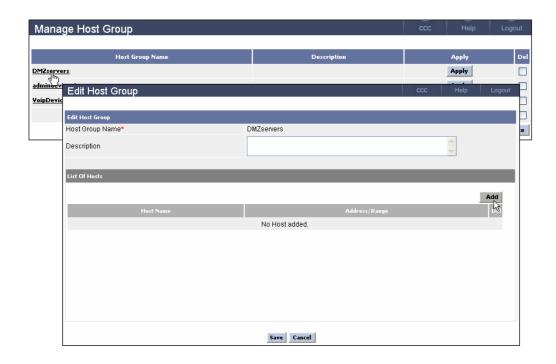
#### Use to:

- · View host group details
- · Assign Host group to a Device
- Add/Delete host from host group
- Delete host group. Deleting host group will delete host group from the Cyberoam Central Console and not from the devices.

#### To add Host to Host Group

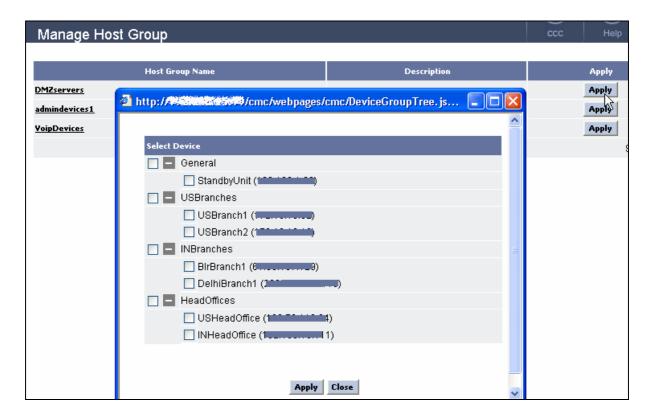
- Click Add if adding host at the time of creation of the Host Group OR Select Firewall →
   Host Group → Manage to view the list of groups created.
- 2. Click host group to which host is to be added. Host Group details is displayed.
- 3. Click Add. List of hosts that can be added to the group is displayed.
- 4. Click against the host to be added
- 5. Click Add

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#### To assign Host Group to a Device

- 1. Select Firewall → Host Group → Manage
- 2. Click Apply against the host name. It open as a new page and displays group wise devices. Enable the check box against the group or device to which the host group is to be added.
- 3. Click Apply. Applied will be displayed against the group/device, if the host group is added successfully.



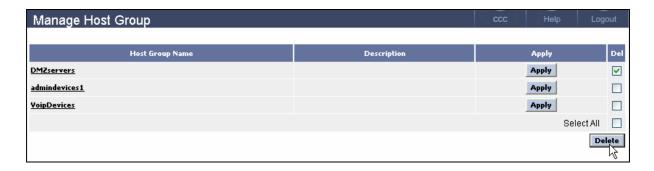
### To delete Host from Host Group

- 1. Select **Firewall** → **Host Group** → **Manage** to view the list of groups created.
- 2. Click host group from which the host is to be deleted.
- 3. Click Del against the hosts to be deleted when the list of hosts that can be added to the group is displayed.
- 4. Click Delete

### To delete Host Group

- Select Firewall → Host Group → Manage to view the list of groups created.
- 2. Click Del against the groups to be deleted
- 3. Click Delete

Deleting host group will delete host group from the Cyberoam Central Console and not from the devices.



### Services

Services represent types of Internet data transmitted via particular protocols or applications.

Protect your network by configuring firewall rules to

- · block services for specific zone
- limit some or all users from accessing certain services
- · allow only specific user to communicate using specific service

Cyberoam provides several standard services and allows creating:

- · Customized service definitions
- · Firewall rule for customized service definitions

### Create Service

#### Use to:

- Create Service
- <u>Update Service</u> .To edit service details, click the service name to be modified.

#### To create service

- Select Firewall → Services → Create
- 2. Enter service name
- 3. Select type of protocol

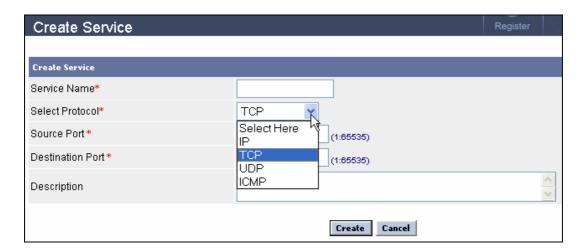
For IP - Select Protocol No.

For TCP - Enter Source and Destination port

For UDP - Enter Source and Destination port

For ICMP - Select ICMP Type and Code

- 4. Enter Description
- 5. Click Create to create and save the details. If service is created successfully, click Add to add protocol details. Refer to Add Protocol details for more details.



### To update service

- Select Firewall → Services → Manage
- 2. Enter service name
- 3. Select type of protocol
  - For IP Select Protocol No.
  - For TCP Enter Source and Destination port
  - For UDP Enter Source and Destination port
  - For ICMP Select ICMP Type and Code
- 4. Enter Description
- 5. Click Create to create and save the details. If service is created successfully, click Add to add protocol details. Refer to Add Protocol details for more details.



### Manage Service

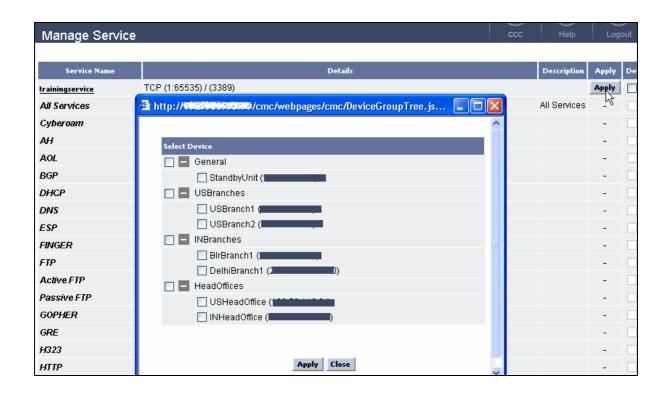
#### Use to:

- View Service details
- <u>Update Service</u>. To edit service details, click the service name to be modified.
- Assign Service to a Device
- Add Protocol details
- Delete Protocol details
- Delete Service. Deleting service will delete service from the Cyberoam Central Console and not from the devices.

### To assign Service to a Device

- 1. Select Firewall → Service → Manage
- 2. Click Apply against the Service name. It open as a new page and displays group wise devices. Enable the check box against the group or device to which the Service is to be added.
- 3. Click Apply. Applied will be displayed against the group/device, if the Service is added successfully.





### To add protocol details

- Click Add if adding details at the time of creation of the Service OR Select Firewall →
   Services → Manage to view the list of service and click the service to which details are to
   be added
- 2. Click Add
- 3. Select type of protocol
  - For IP Select Protocol No.
  - For TCP Enter Source and Destination port
  - For UDP Enter Source and Destination port
  - For ICMP Select ICMP Type and Code
- 4. Click Add



### To delete protocol details

- Select Firewall → Services → Manage to view the list of service and click the service from which the details are to be deleted
- 2. Click Del against the details to be deleted OR click Select All to select all the protocol details
- 3. Click Delete to delete the selected details

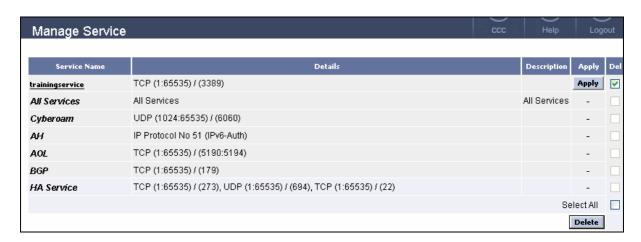
#### To delete Service

- 1. Select Firewall → Services → Manage to view the list of service
- 2. Click Dele against the services to be deleted or Select All to delete all the services
- 3. Click Delete to delete the selected services



### Default Services cannot be updated or deleted

Deleting service will delete service from the Cyberoam Central Console and not from the devices.



# Categories

Cyberoam's content filtering capabilities prevent Internet users from accessing non-productive or objectionable websites that take valuable system resources from your network at the same time prevents hackers and viruses that can gain access to your network through their Internet connections.

Cyberoam lets you prevent Internet users from accessing URLs that contain content the company finds objectionable. Cyberoam's Categories Database contains categories covering Web page subject matter as diverse as adult material, astrology, games, job search, and weapons. It is organized into general categories, many of which contain collections of related Internet sites with specific content focus. In other words, database is a collection of site/host names that are assigned a category based on the major theme or content of the site.

Categories Database consists of three types of categories: Web Category - Grouping of Domains & Keywords File Types – Grouping of File extensions Application Protocol – Grouping of protocols

Apart from the default Categories provided by Cyberoam, custom category can be created and edited at any time. Adding category gives you increased flexibility in managing Internet access for your organization. Once a new category is created, it must be added to a policy so that Cyberoam knows when to enforce it and for which groups/users.

- Web Category
- File Types Category
- **Application Protocol Category**

# Web Category

Web category is the grouping of Domains and Keywords used for Internet site filtering. Domains and any URL containing the keywords defined in the Web category will be blocked.

Each category is grouped according to the type of sites in the category. Categories are grouped in to four types and specifies whether the surfing those categories is considered as productive or not:

- Neutral
- Productive
- Non-working
- Un-healthy

For your convenience, Cyberoam provides a database of default Web categories. You can use these or even create new web categories to suit your needs. To use the default web categories, the add-on module Web and Application Filter should be registered.

Depending on the organization requirement, allow or deny access to the categories with the help of policies by groups, individual user, time of day, and many other criteria.

Custom web category is given priority over default category while allowing/restricting the access.

- Create Custom Web Category
- Manage Custom Web Category
- Manage Default Web Category

### Create Custom Web category

#### Use to:

- Create custom web category
- · Update custom web category

### To create custom web category

- 1. Select Categories → Web Category → Create Custom
- 2. Enter web category name

Custom category name cannot be same Default category name.

- 3. Enter relevant description
- 4. Select Category Type
- 5. Click Create/Update to save the details
- 6. Under Domain Management

Click Add to add domain. (See To add Domain)

To delete domain from category, see To delete Domain.

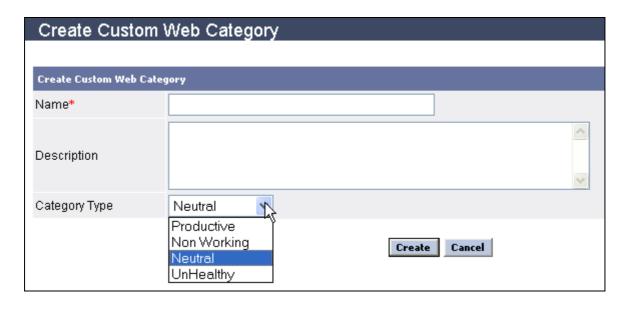
7. Under Keyword Management

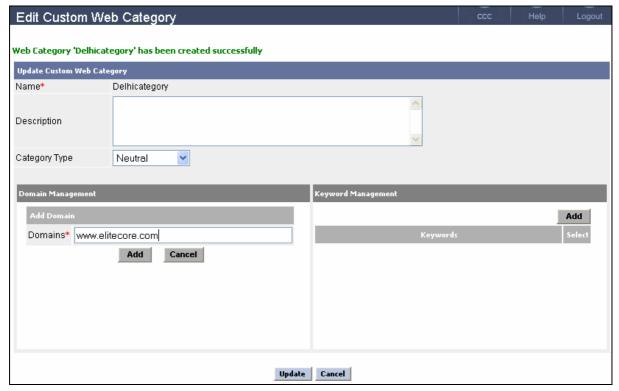
Click Add to add keyword. (See To add Keyword)

To delete keyword from category, see To delete Keyword.



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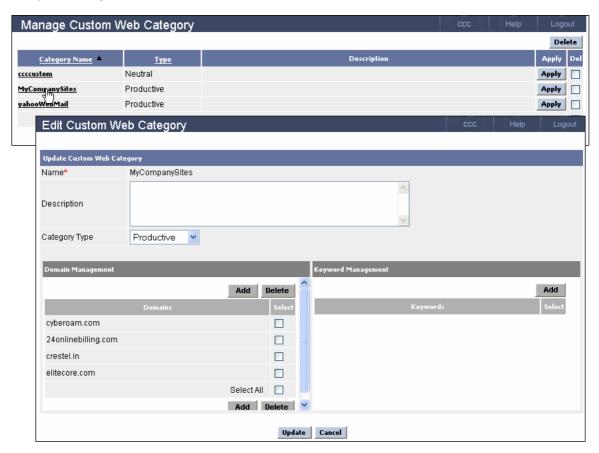




### To update Custom Web category

- 1. Select Categories → Web Category → Manage Custom to view the list of custom web categories and click web category to be modified
- 2. Displays web category name which cannot be modified
- 3. Change the description, if required.4. Under Domain Management
- - Click Add to add domain. (See To add Domain)
  - To delete domain from category, see To delete Domain.
- 5. Under Keyword Management
  - Click Add to add keyword. (See To add Keyword)
  - To delete keyword from category, see To delete Keyword.

6. Click Update if any modifications are done



### To add Domain

- 1. Click Add under Domain Management if adding details at the time of creation of the Web category OR Select Categories → Web Category → Manage Custom and click category name to which domain is to be added, if adding after the creation of category
- Enter domain names. Multiple domain names can be specified using comma e.g. www.hotmail.com, www.yahoo.com
- 3. Click Add to save



Domains can be added at the time of creation of category or later whenever required

### To add Keyword

- 1. Click Add under Keyword Management if adding details at the time of creation of the Web category OR Select Categories → Web Category → Manage Custom and click category name to which domain is to be added, if adding after the creation of category
- 2. Enter keywords. Multiple keywords can be specified using comma e.g. cricket, football, boxing
- 3. Click Add to save



Keywords can be added at the time of creation of category or later whenever required

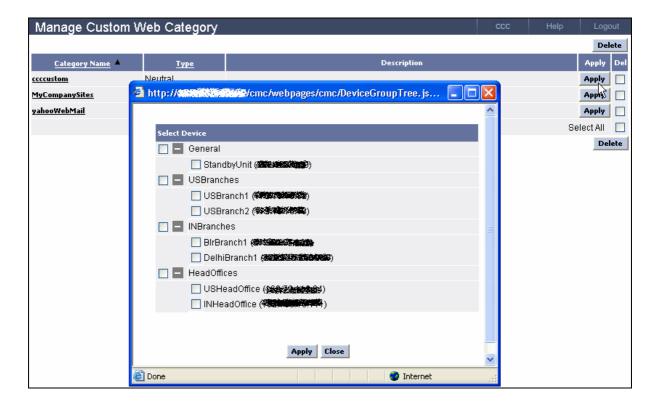
### Manage Custom Web category

#### Use to:

- Modify Description
- · Add Domains to web category
- · Delete Domains from web category
- Add Keywords to web category
- · Assign to a Device
- Delete Keywords from web category
- Delete custom web category. Deleting custom web category will delete from the Cyberoam Central Console and not from the devices.

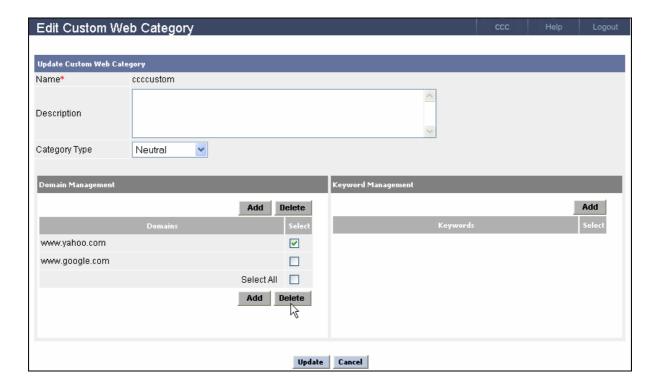
### To assign Web category to a Device

- 1. Select Categories → Web Category → Manage Custom
- 2. Click Apply against the Web category name. It opens a new page and displays group wise devices. Enable the check box against the group or device to which the Web category is to be added.
- 3. Click Apply. Applied will be displayed against the group/device, if the Web category is added successfully.



#### To delete Domain

- Select Categories → Web Category → Manage Custom to view the list of Web categories and click Web Category from which the domain is to be removed
- Click Select against the domain(s) to be removed OR Click Select All to remove all the domains
- 3. Click Delete



### To delete Keyword

- Select Categories → Web Category → Manage Custom to view the list of Web categories and click Web Category from which the keyword is to be removed
- 2. Click Select against the keyword(s) to be removed OR Click Select All to remove all the keywords
- 3. Click Delete

### To delete Web Category



#### Not attached to any policy

- Select Categories → Web Category → Manage Custom to view the list of Web categories
- 2. Click Select against the web category to be removed OR Click Select All to remove all the web categories
- 3. Click Delete

Deleting custom web category will delete from the Cyberoam Central Console and not from the devices.





### Manage Default Web category

Default Web categories are available for use only if 'Web and Application Filter' add-on module is registered. Database of web categories is constantly updated by Cyberoam.

Each category is grouped according to the type of sites in the category. Categories are grouped in to four types and specifies whether the surfing those categories is considered as productive or not:

- Neutral
- Productive
- Non-working
- Un-healthy



Default web categories cannot be modified or deleted.

Custom web category is given priority over default category while allowing/restricting access.

To view the list of default web categories, go to Categories → Web Category → Manage Default

Category Name	Туре	Description
ActiveX	Non Working	Includes all ActiveX applications
AdultContent	UnHealthy	Adult sites not falling in "Porn, Nudity, Swimwear & Lingerie, Sex Education, and Sexual Health & Medicines" will be included in "Adult Content" and which may contain material not suitable to be viewed for audience under 18
Advertisements	Non Working	Sites providing advertising graphics or other pop ad content files
AlcoholandTobacco	Non Working	Sites providing information about, promote, or support the sale of alcoholic beverages or tobacco products or associated paraphernalia
ALLWebTraffic	Neutral	Any HTTP Traffic
Applets	Non Working	All web pages contains Applets
ArtsAndHistory	Non Working	Sites primarily exhibiting artistic techniques like creative painting, sculpture, poetry, dance, crafts, Literature, and Drama. Sites that narrate historical details about countries/places; events that changed the course of history forever; sites providing details and events of all wars i.e. World Wars, Civil Wars, and important persons of

		world historical importance
Astrology	Non Working	Sites showing predictions about Sun signs and into various subjects like Education & Career, Love Relationships, etc.
BusinessAndEconomy	Neutral	Sites sponsored by or devoted to business firms, business associations, sites providing details for all types of industrial sector like Chemicals, Machinery, Factory Automation, Cable and Wire, sites providing information about couriers and logistics, and Non-Alcoholic Soft drinks and Beverages
Chat	Non Working	Sites hosting Web Chat services or providing support or information about chat via HTTP or IRC
CommercialBanks	Neutral	Commercial Banks Category includes all Banking Sites i.e. International / National Public or Private Sector Banks providing a wide range of services such as all types of Accounts and Cards, Fixed Deposits, and Loans
Communication	Neutral	Sites offering telephone, wireless, long distance, and paging services. It also includes sites providing details about Mobile communications / cellular communications
ComputerSecurityAndHacking	Productive	Sites providing information about hacking, computer security, sites providing Anti-Virus solutions, including sites providing information about or promote illegal or questionable access to or use of computer or communication equipment, software, or databases
Cookies	Non Working	Includes all cookie based web pages
Cricket	Non Working	Sites providing Live Scores of cricket matches, Debates on Cricketers, Top 10 Cricketers, Cricket News, and forthcoming Cricket matches. Cricket Category is differentiated from Sports Category and solely devoted to Cricket activities
CrimeAndSuicide	UnHealthy	Advocating, instructing, or giving advice on performing illegal acts such as phone, service theft, evading law enforcement, lockpicking, burglary techniques and suicide
CulturalInstitutions	Neutral	Sites sponsored by museums, galleries, theatres, libraries, and similar institutions; also, sites whose purpose is the display of artworks
DatingAndMatrimonials	Non Working	Sites assisting users in establishing interpersonal relationships, friendship, excluding those of exclusively gay, or lesbian or bisexual interest and Matrimonial Sites providing photos and details of individuals seeking life partners
DownloadFreewareAndShareware	UnHealthy	Sites whose primary purpose is providing freeware and shareware downloads of application, software, tools, screensavers, wallpapers, and drivers
Drugs	UnHealthy	Sites providing information about the

		cultivation, preparation, or use of prohibited drugs
EducationalInstitions	Productive	Sites sponsored by schools, colleges, institutes, online education and other educational facilities, by non-academic research institutions or that relate to educational events and activities
EducationAndReferenceMaterial	Productive	Sites offering books, reference-shelf content such as atlases, dictionaries, encyclopedias, formularies, white and yellow pages, and public statistical data
Electronics	Neutral	Sites providing information on manufacturing of electronics and electrical equipments, gadgets, instruments like air conditioners, Semi conductors, Television, Storage Devices, LCD Projectors, Home Appliances, and Power Systems etc.
Entertainment	Non Working	Sites providing entertainment sources for Movies, Celebrities, Theatres, about or promote motion pictures, non-news radio and television, humor, Comics, Kids and Teen amusement, Jokes, and magazines
Finance	Non Working	Sites providing information on Money matters, investment, a wide range of financial services, economics and accounting related sites and sites of National & International Insurance companies providing details for all types of Insurances & Policies
Gambling	UnHealthy	Sites providing information about or promote gambling or support online gambling, involving a risk of losing money
Games	Non Working	Sites providing information about or promote electronic games, video games, computer games, role-playing games, or online games
Government	Neutral	Sites sponsored by countries, government, branches, bureaus, or agencies of any level of government including defence. Government associated Sites providing comprehensive details on Tax related issues excluding Government sites providing Visa and Immigration services
HealthAndMedicines	Productive	Sites providing information or advice on personal health and fitness. Sites of pharmaceutical companies and sites providing information about Medicines
HobbiesAndRecreation	Non Working	Sites providing information about or promote private and largely sedentary pastimes, but not electronic, video, or online games. Homelife and family-related topics, including parenting tips, gay/lesbian/bisexual (non-pornographic sites), weddings, births, and funerals Foreign cultures, socio-cultural information
HTTPUpload	Non Working	HTTP Upload Restriction
HumanRightsandLiberty	Neutral	Sites advocating sand protecting Human Rights and Liberty to prevent discrimination

		and protect people from inhumane
ImageBanks	Non Working	Image Banks
InformationTechnology	Productive	Sites sponsoring or providing information about computers, software applications, database, operating system. Including sites providing information of hardware, peripherals, and services. Sites offering design, flash, graphics, multimedia, and web site designing tutorials, tools, advice and services
InstantMessages	Non Working	Sites enabling instant messaging
IPAddress	Neutral	
ISPWebHosting	Neutral	Sites enabling users to make telephone, lease line, ISDN, Cable, V-SAT connections via Internet or obtaining information for that purpose. Sites providing hosting services, or top-level domain pages of Web communities
JobsSearch	UnHealthy	Sites offering information about or support the seeking of employment or employees
Kids	Neutral	Sites designed specifically for kids
MilitancyAndExtremist	UnHealthy	Sites offering information about groups advocating antigovernment beliefs or action
Music	Non Working	Sites providing songs and music and supporting downloads of MP3 or other sound files or that serve as directories of such sites
NatureAndWildLife	Non Working	Sites providing information about Nature, explorations, discoveries, wild life, animals, birds, protecting endangered species, habitats, Animal sanctuaries, etc.
NewsAndMedia	Neutral	Sites offering current news and opinions, including those sponsored by newspapers, general-circulation magazines or other media. It also includes sites of advertising agencies and sites providing details of weather forecast
None	Neutral	Uncategorized Traffic
Nudity	UnHealthy	Sites depicting nude or seminude human forms, singly or in groups, not overtly sexual in intent or effect. It includes Nude images of film stars, models, nude art and photography
PersonalAndBisographySites	Non Working	Includes personal sites of individuals and biographical sites of ordinary or famous personalities
PhishingAndFraud	UnHealthy	Sites gathering personal information (such as name, address, credit card number, school, or personal schedules) that may be used for malicious intent
PhotGallaries	Non Working	Sites providing photos of celebrities, models, and well-known personalities Such sites may also contain profiles or additional elements as long as the primary focus is on multicelebrity photographs
PoliticalOrganizations	Neutral	Sites sponsored by or providing information about political parties and interest groups focused on elections or legislation

Porn	UnHealthy	Sites depicting or graphically describing
FUIII	Officealthy	sexual acts or activity, including exhibitionism and sites offering direct links to such sites. Sites providing information or catering Gay, Lesbian, or Bisexual images and lifestyles are also included in this category
Portals	Non Working	Portals include web sites or online services providing a broad array of resources and services such as search engines, free email, shopping, news, and other features
PropertyAndRealEstate	Neutral	Sites providing information about renting, buying, selling, or financing residential, real estate, plots, etc.
Science	Productive	Sites providing news, research projects, ideas, information of topics pertaining to physics, chemistry, biology, cosmology, archeology, geography, and astronomy
SearchEngines	Neutral	Sites supporting searching the Web, groups, or indices or directories thereof
SeXHealthAndEducation	Neutral	Sites providing information regarding Sexual Education and Sexual Health and sites providing Medicines to cure and overcome Sex related problems and difficulties, with no pornographic intent
SharesAndStockMarket	Non Working	Sites providing charting, market commentary, forums, prices, and discussion of Shares and Stock Market. It also includes sites dealing in online share trading and sites of stockbrokers
Shopping	Non Working	Sites supporting Online purchases of consumer goods and services except: sexual materials, lingerie, swimwear, investments, medications, educational materials, computer software or hardware. Also Sites of Showrooms, Stores providing shopping of consumer products
Spirituality	Non Working	Sites featuring articles on healing solutions in wellness, personal growth, relationship, workplace, prayer, articles on God, Society, Religion, and ethics
Sports	Non Working	Sites providing any information about or promoting sports, active games, and recreation. All types of Sites providing information about Sports except Cricket
SpywareAndP2P	UnHealthy	Sites or pages that download software that, without the user's knowledge, generates http traffic (other than simple user identification and validation) and Sites providing client software to enable peer-to-peer file sharing and transfer
SwimwareAndLingerie	Non Working	Sites showing images of models and magazines offering lingerie/swimwear but not Nude or sexual images. It also includes Arts pertaining Adult images and shopping of lingerie
TravelFoodAndImmigration	Non Working	Sites providing information about traveling

		i.e. Airlines and Railway sites. Sites providing details about Hotels, Restaurants, Resorts, and information about worth seeing places. Sites that list, review, advertise, or promote food, dining, or catering services. Sites providing Visa, Immigration, Work Permit and Holiday & Work Visa details, procedures and services
URLTranslationSites	UnHealthy	Sites offering Online translation of URLs. These sites access the URL to be translated in a way that bypasses the proxy server, potentially allowing unauthorized access
Vehicles	Non Working	Sites providing information regarding manufacturing and shopping of vehicles and their parts
Violence	UnHealthy	Sites featuring or promoting violence or bodily harm, including self-inflicted harm; or that gratuitously displaying images of death, gore, or injury; or featuring images or descriptions that are grotesque or frightening and of no redeeming value. These do not include news, historical, or press incidents that may include the above criteria
Weapons	UnHealthy	Sites providing information about, promote, or support the sale of weapons and related items
WebBasedEmail	Non Working	Sites providing Web based E-mail services or information regarding email services

# File Types Category

File type is a grouping of file extensions. Cyberoam allows filtering Internet content based on file extension. For example, you can restrict access to particular types of files from sites within an otherwise-permitted category.

For your convenience, Cyberoam provides several default File Types categories. You can use these or even create new categories to suit your needs.

Depending on the organization requirement, allow or deny access to the categories with the help of policies by groups, individual user, time of day, and many other criteria.

- Create Custom File Type category
- Manage Custom File Type category
- Manage Default File Type category

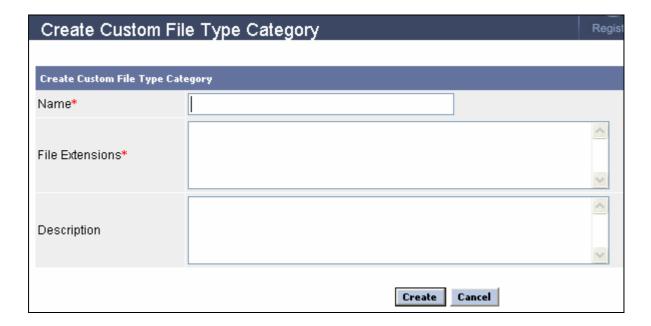
### Create Custom File Type category

#### Use to:

- Create custom file type category
- · Update custom file type category

### To create custom file type category

- 1. Select Categories → File Type Category → Create Custom
- 2. Enter name for the file type category
- Enter the file extensions to be included in the category.
   Multiple extensions can be entered using comma e.g. bmp,,jpeg
- 4. Enter relevant description
- 5. Click Create/Update to save the details



### To update Custom File Type category

- Select Categories → File Type Category → Manage Custom to view the list of custom categories and click category to be modified
- 2. Displays category name which cannot be modified
- 3. Change the extension as per the requirement
- 4. Change the description, if required.
- 5. Click Update if any modifications are done

### Manage Custom File Type category

#### Use to:

- Modify Description
- · Add/Remove file extensions from custom category
- · Assign File type category to a Device
- Delete custom category. Deleting custom file type category will delete from the Cyberoam Central Console and not from the devices.

### To assign File Type Category to a Device

- 1. Select Categories → File Type Category → Manage Custom
- 2. Click Apply against the File type category name. It opens a new page and displays group wise devices. Enable the check box against the group or device to which the File type category is to be added.
- 3. Click Apply. Applied will be displayed against the group/device, if the File type category is added successfully.

#### To delete File Type Category



### Not attached to any policy

- Select Categories → File Type Category → Manage Custom to view the list of categories
- 2. Click Select against the category to be removed OR Click Select All to remove all the categories
- 3. Click Delete

Deleting custom file type category will delete from the Cyberoam Central Console and not from the devices.

### Manage Default File Type category

Cyberoam provides five default File Type categories which cannot be modified or deleted.

To view the list of default file type categories and extensions included in them, go to Categories → File Type Category → Manage Default

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# **Application Protocol Category**

Application Protocol Category is the grouping of Application Protocols used for filtering Internet content.

You can also filter Internet requests based on protocols or applications other than HTTP, HTTPS or FTP, for example those used for instant messaging, file sharing, file transfer, mail, and various other network operations.

For your convenience, Cyberoam provides a database of default Application Protocol categories. To use the default Application Protocol categories, the add-on module 'Web and Application Filter' should be registered.

- Create Custom Application Protocol category
- Manage Custom Application Protocol category
- Manage Default Application Protocol category

### Create Custom Application Protocol category

#### Use to

- Create custom application protocol category
- Update custom application protocol category

#### To create custom application protocol category

- Select Categories → Application Protocol Category → Create Custom
- 2. Enter category name

:×



Custom category name and Default category name cannot be same

- 3. Enter relevant description
- 4. Click Create to save the details
- 5. Click Add to enter the application protocol details. (See To add Application Protocol category details)





### To update Custom of Application protocol category

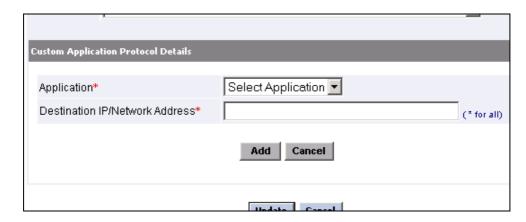
- Select Categories → Application Protocol Category → Manage Custom to view the list of custom categories and click category to be modified
- 2. Displays category name which cannot be modified
- 3. Change the description, if required.
- Under Custom Application protocol details
   Click Add to add protocol details. (See To add Application Protocol category details)
   To delete details see To delete application protocol details.
- 5. Click Update if any modifications are done



### To add Application Protocol category details

- Click Add if adding details at the time of creation of the Category OR Select Policy Settings
   → Application protocol → Manage Custom and click protocol name to which details
   is to be added, if adding details after the creation of protocol
- 2. Select Application
  - Both Custom and Standard application protocol can be grouped in a single Application Protocol Category
  - To create custom application protocol, see Define Custom Application Protocol
- 3. Enter destination IP/Network address for the protocol.
- 4. Click Add to save





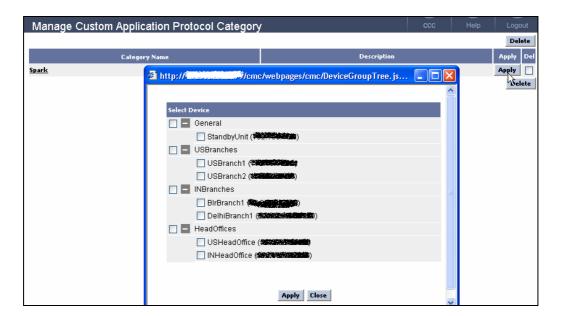
### Manage Custom Application Protocol category

#### Use to:

- Modify Description
- Add details to Application protocol category
- · Assign to a Device
- Delete details to Application protocol category
- Delete custom category. Deleting custom application protocol category will delete from the Cyberoam Central Console and not from the devices.

### To assign Application protocol category to a Device

- 1. Select Categories → Application Protocol Category → Manage Custom
- 2. Click Apply against the Application protocol category name. It opens a new page and displays group wise devices. Enable the check box against the group or device to which the Application protocol category is to be added.
- 3. Click Apply. Applied will be displayed against the group/device, if the Application protocol category is added successfully.



### To delete Application Protocol Category



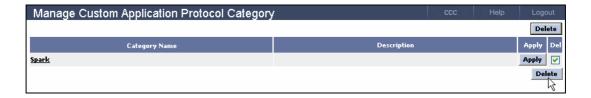
#### Not attached to any policy

- Select Categories → Application Protocol Category → Manage Custom to view the list of custom categories
- 2. Click Select against the category to be removed OR Click Select All to remove all the categories
- 3. Click Delete



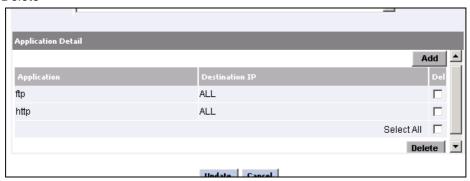
#### Only customized Application protocol category can be modified or deleted

Deleting custom application protocol category will delete from the Cyberoam Central Console and not from the devices.



### To delete application protocol details

- Select Categories → Application Protocol Category → Manage Custom to view the list of categories and click Category from which the details is to be removed
- Click Select against the details(s) to be removed OR Click Select All to remove all
- 3. Click Delete



### Manage Default Application protocol category

Default Application protocol categories are available for use only if 'Web and Application Filter' add-on module is registered. Check Licensing for details. Database of protocol category is constantly updated by Cyberoam.

Default Application protocol category cannot be modified or deleted.

To view the list of default Application protocols, go to Categories → Application protocol category → Manage Default

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# **Policies**

Cyberoam allows controlling access to various resources with the help of Policy. These policies can be created and applied to Cyberoam from Cyberoam Central Control.

#### Types of policies:

- 1. Control web access by defining Internet Access policy. (See Internet Access policy for more
- 2. Allocate and restrict the bandwidth usage by defining Bandwidth policy. (See Bandwidth policy for more details)

Cyberoam comes with several predefined policies. These predefined policies are immediately available for use until configured otherwise.

Cyberoam also lets you define following customized policies to define different levels of access for different users to meet your organization's requirements:

- Internet Access policy
- Bandwidth policy

### Schedule

Schedule defines a time schedule for applying firewall rule or Internet Access policy i.e. used to control when firewall rules or Internet Access policies are active or inactive.

#### Types of Schedules:

- Recurring use to create policies that are effective only at specified times of the day or on specified days of the week.
- One-time use to create firewall rules/policies that are effective once for the period of time specified in the schedule.
- **Define Schedule**
- Manage Schedule

### Define Schedule

### Use to:

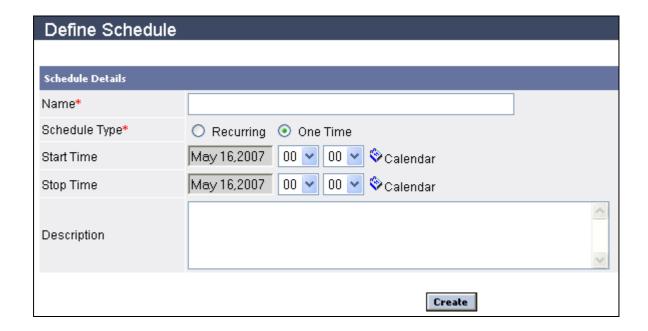
- Create Schedule
- Update Schedule

### To create schedule

- Select Policies → Schedule → Create
- 2. Enter Schedule name that best describes the schedule
- Select Schedule Type
  - Recurring use to create policies that are effective only at specified times of the day or on specified days of the week.



- One-time use to create firewall rules/policies that are effective once for the period of time specified in the schedule
- 4. Enter relevant description for the schedule
- 5. Click Create
- 6. On successful creation, Click Add to add a new schedule entry details. (See <u>To add a Schedule Entry detail</u>)



### To add Schedule Entry details

- 1. Click Add if adding details at the time of creation of the Schedule OR
- 2. Select **Policies** → **Schedule** → **Manage** and click schedule name to which details is to be added, if adding details after the creation of Schedule
- 3. Select the schedule occurrence i.e. on which weekdays and at what time schedule will be applicable

In Weekdays, select any one option

- Weekdays Schedule will be applied from Monday to Friday
- Weekdays including Saturday Schedule will be applied from Monday to Saturday
- All Days of Week Schedule will be applied from Monday to Sunday
- Selected Weekday(s) Schedule will be applied on selected days only
- 4. Enter Start and Stop time. Stop time cannot be greater than start time
- 5. Click Add Schedule Details to save the details

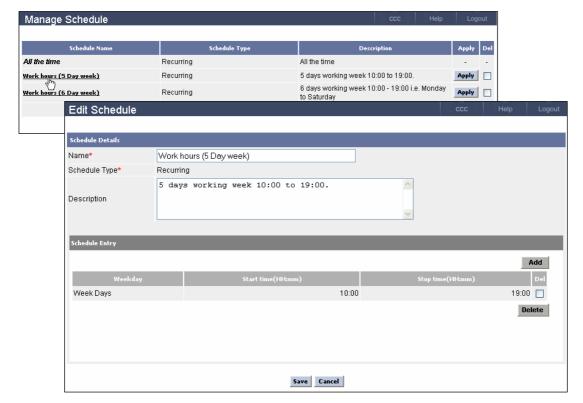
### Manage Schedule

#### Use to:

- Update Schedule name and description
- Assign Schedule to Device
- Delete Schedule. Deleting schedule will delete schedule from the Cyberoam Central Console and not from the devices.
- · Add Schedule Entry details
- Delete Schedule Entry details

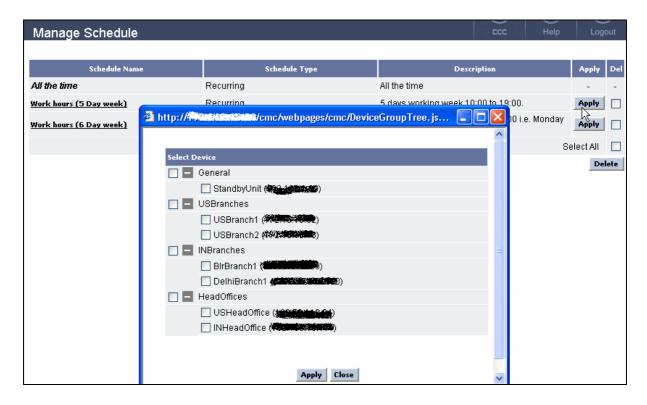
### To update Schedule

- 1. Select **Policies** → **Schedule** → **Manage** and click Schedule name to be updated
- 2. Change the schedule name, if required.
- 3. Change the schedule description, if required.
- 4. Click Add to add a new schedule entry details. (See To add a Schedule Entry detail)
- 5. Click Delete to delete the selected schedule entry details. (See To delete a Schedule Entry detail)
- 6. Click Save if any modifications are done.



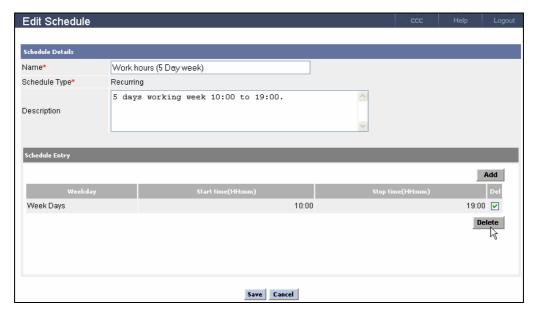
### To assign Schedule to a Device

- 1. Select Policies → Schedule → Manage
- 2. Click Apply against the Schedule name. It opens a new page and displays group wise devices. Enable the check box against the group or device to which the Schedule is to be added.
- 3. Click Apply. Applied will be displayed against the group/device, if the Schedule is added successfully.



### To delete Schedule Entry details

- Select **Policies > Schedule > Manage** and click schedule name from which details is to
- Click Select against the entry detail(s) to be deleted OR Click Select All to delete all entry details
- 3. Click Delete



#### To delete Schedule



- 1. Select **Policies** → **Schedule** → **Manage** to view the list of Schedules
- 2. Click Select against the schedule(s) to be deleted OR Click Select All to delete all the schedules
- 3. Click Delete



Deleting schedule will delete schedule from the Cyberoam Central Console and not from the devices.





# Internet Access Policy

Internet Access policy controls user's web access. It specifies which user has access to which sites or applications and allows defining powerful security policies based on almost limitless policy parameters like:

- Individual users
- Groups of users
- Time of day
- Location/Port/Protocol type
- · Content type
- Bandwidth usage (for audio, video and streaming content)

Allow/deny access to an entire application category, or individual file extensions within a category with the help of policy. For example, you can define a policy that blocks access to all audio files with .mp3 extensions.

Two strategies based on which Internet Access policy can be defined:

Allow By default, allows access to all the categories except the specified categories. Access to the specified categories depends on the strategy defined for each category.

Deny By default, denies access to all the categories except the specified categories. Access to the specified categories depends on the strategy defined for each category.

- Create Internet Access policy
- Manage Internet Access policy
- Default Internet policy

### Create Policy

#### Use to:

- Create Internet Access policy
- Update Internet Access policy

#### To create Internet Access policy

- 1. Select Policies → Internet Access Policy → Create Policy
- 2. Enter policy name



#### Policies with the same name cannot be created

Select Template based on which you want to create new policy
 Select a template if you want to create a new policy based on an existing policy and want to inherit all the categories restrictions from the existing policy

Select 'Blank' template, if you want to create a fresh policy without any restrictions. After creation you can always customize the category restrictions according to the requirement.

4. Specify strategy to be applied for the policy.

Allow – Allows access to all the categories except the specified categories.

Deny – Allows denies access to all the categories except the specified categories.



### This option is available only if you are creating policy using 'Blank' template

- 5. Enter policy description.
- 6. Click Create/Update to save the policy
- 7. Under Internet Access Policy Rules

Click Add to add protocol details. (See To add policy rules)

To delete policy rule, see To delete policy rule

To change rule order, see To change the order

In Category Name column,

W represents Web Category

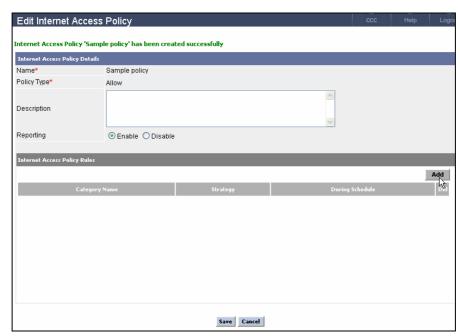
F represents File Type Category

A represents Application Protocol Category

**D** represents Default Category

C represents Customized i.e. User defined Category





### To update Internet Access policy

- Select Policies -> Internet Access Policy -> Manage Policy to view the list of policies and click policy to be modified
- Displays policy name which cannot be modified
- 3. Displays policy type which cannot be modified
- 4. Change the description, if required.
- 5. Under Internet Access Policy Rules

Click Add to add protocol details. (See To add policy rules)

To delete policy rule, see To delete policy rule

To change rule order, see To change the order

In Category Name column,

W represents Web Category

F represents File Type Category

A represents Application Protocol Category

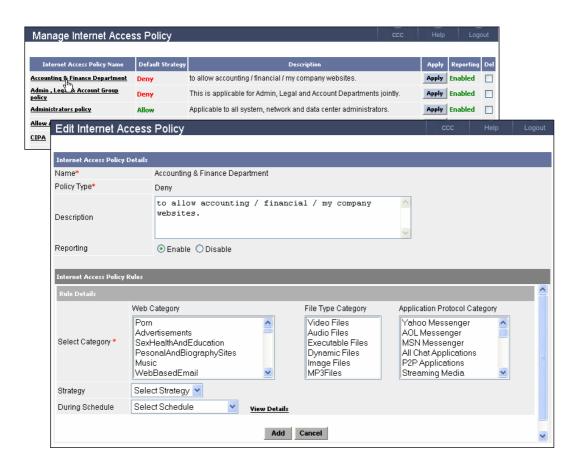
**D** represents Default Category

C represents Customized i.e. User defined Category

- 6. Click Save if any modifications are done
- 7. Click Show Policy Members to view the list of users to whom the policy is assigned



The changes made in the policy become effective immediately on saving the changes



### To add Policy rule

1. Click Add if adding rules at the time of creation of the policy OR

Select Policies -> Internet Access Policy -> Manage Policy and click policy name to which rule is to be added, if adding after the creation of policy

2. Under the Category option

Select Web Category to be assigned to the policy. Use Ctrl/Shift and click to select the multiple categories.



If 'Web and Application Filter' add-on module is registered, all the default Categories will also be listed and can be used for restriction

Select File Type Category to be assigned to the policy. Use Ctrl/Shift and click to select the multiple categories.

Select Application Protocol Category to be assigned to the policy. Use Ctrl/Shift and click to select the multiple categories.



If 'Web and Application Filter' add-on module is registered, all the default Categories will also be listed and can be used for restriction

3. Specify rule strategy to be applied during the scheduled time interval.

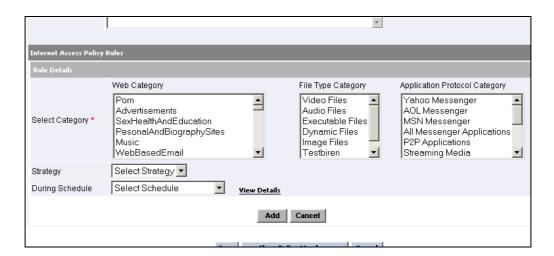
Allow – Allows the Internet access during the scheduled time interval

Deny – Does not allow the Internet access during the scheduled time interval

Select Schedule

Depending on the rule strategy, access to the selected categories will be allowed/denied for the scheduled time interval. If you are not sure about the schedule details, select schedule and click View details link to view the schedule details.

5. Click Add to create and save the rule



### Manage Policy

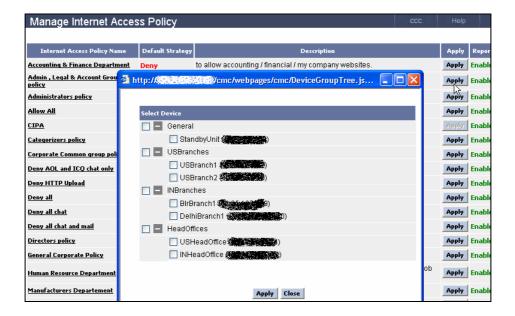
Manage policy page displays list of predefined as well as customized policies created. Predefined policies can also be modified as per the requirement.

Use Internet Access Policy > Manage Policy to:

- · Assign Internet Access policy to a Device
- Delete policy rule
- Delete Policy. Deleting policy will delete from the Cyberoam Central Console and not from the devices.

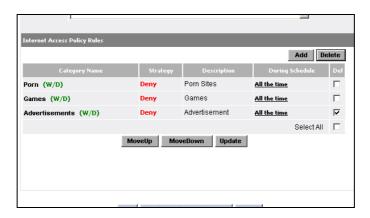
### To assign Internet Access policy to a Device

- Select Policies → Internet Access policy → Manage
- 2. Click Apply against the Internet Access policy name. It open as a new page and displays group wise devices. Enable the check box against the group or device to which the Internet Access policy is to be added.
- 3. Click Apply. Applied will be displayed against the group/device, if the Internet Access policy is added successfully.



#### To delete Internet Access policy rule

- 1. Select Policies → Internet Access Policy → Manage policy to view the list of policies and click the policy from which the rule is to be deleted
- 2. Click Del against the rule to be deleted OR Click Select All to delete all the rules
- 3. Click Delete



### To delete Internet Access policy



#### Not assigned to any Group

- Select Policies → Internet Access Policy → Manage policy to view the list of policies
- 2. Click Del against the policy to be deleted OR Click Select All to delete all the policies
- 3. Click Delete

Deleting policy will delete from the Cyberoam Central Console and not from the devices.



## Bandwidth Policy

Bandwidth is the amount of data passing through a media over a period of time and is measured in terms of kilobytes per second (kbps) or kilobits per second (kbits) (1 Byte = 8 bits).

The primary objective of bandwidth policy is to manage and distribute total bandwidth on certain parameters and user attributes. Bandwidth policy allocates & limits the maximum bandwidth usage of the user and controls web and network traffic.

#### To configure Bandwidth policy:

- Define for whom you want to create policy
- Define Type of policy
- Define the Implementation strategy of the policy
- Define Bandwidth Usage

#### Policy can be defined/created for:

- Logon Pool It restricts the bandwidth of a Logon Pool i.e. all the users defined under the Logon Pool share the allocated bandwidth.
- User It restricts the bandwidth of a particular user.
- Firewall Rule It restricts the bandwidth of any entity to which the firewall rule is applied.

#### Types of Policy

(Only for when policy is based on/created for User or IP address)

Two types of bandwidth restriction can be placed:

1. Strict

In this type of bandwidth restriction, user cannot exceed the defined bandwidth limit.

2. Committed

In this type of bandwidth restriction, user is allocated the guaranteed amount of bandwidth and can draw bandwidth up to the defined burstable limit, if available.

It enables to assign fixed minimum and maximum amounts of bandwidth to the users. By borrowing excess bandwidth when available, users are able to burst above guaranteed minimum limits, up to the burstable rate. Guaranteed rates also assure minimum bandwidth to critical users to receive constant levels of bandwidth during peak and non-peak traffic periods.

Guaranteed represents the minimum guaranteed bandwidth and burstable represents the maximum bandwidth that the user can use, if available.

#### Implementation strategy

(Only for when policy is based on/created for User or IP address)

Policy can be implemented in two ways depending on policy Type:

- Total (Upstream + Downstream)
- Individual Upstream and Individual Downstream

### Strict policy

Implementation on	Bandwidth specified	Example
Total (Upstream + Downstream)	Total bandwidth	Total bandwidth is 20 kbps upstream and downstream combined cannot cross 20 kbps
Individual Upstream and Individual Downstream	Individual bandwidth i.e. separate for both	Upstream and Downstream bandwidth is 20 kbps then either cannot cross 20 kbps

### **Committed policy**

Implementation on	Bandwidth specified	Example
Total (Upstream + Downstream)	Guaranteed bandwidth	Guaranteed bandwidth is 20 kbps upstream and downstream combined will get 20 kbps guaranteed (minimum) bandwidth
	Burstable bandwidth	Burstable bandwidth is 50 kbps upstream and downstream combined can get up to 50 kbps of bandwidth (maximum), if available
Individual Upstream and Individual Downstream	Individual Guaranteed and Brustable bandwidth i.e. separate for both	Individual guaranteed bandwidth is 20 kbps Individually get 20 kbps guaranteed (minimum) bandwidth
		Individual brustable bandwidth is 50 kbps Individually get maximum bandwidth up to 50 kbps, if available

### **Bandwidth Usage**

(Only for when policy is based on/created for User or IP address)

Policy can be configured for two types of bandwidth usage:

Individual – Allocated bandwidth is for the particular user only

Shared – Allocated bandwidth is shared among all the users who have been assigned this policy

- Create Bandwidth policy
- Manage Bandwidth policy

### **Create Policy**

#### Use to:

- Create Bandwidth policy
- Update Bandwidth policy

### To create Bandwidth policy

- 1. Select Policies → Bandwidth Policy → Create Policy
- 2. Enter policy name



#### Policies with the same name cannot be created

3. Select any one option to specify for whom the policy is to be created.

Logon Pool based policy restricts the bandwidth of a Logon Pool i.e. all the users defined under the Logon Pool share the allocated bandwidth.

User based policy restricts the bandwidth of a particular user.

IP address based restricts the bandwidth for a particular IP address.

4. Select any one option to specify policy type

Strict

In this type of policy, user cannot exceed the defined bandwidth limit.

#### Committed

In this type of policy, user is allocated the guaranteed amount of bandwidth and can draw bandwidth up to the defined burstable limit, if available.

It enables to assign fixed minimum and maximum amounts of bandwidth to the users. By borrowing excess bandwidth when available, users are able to burst above guaranteed minimum limits, up to the burstable rate. Guaranteed rates also assure minimum bandwidth to critical users to receive constant levels of bandwidth during peak and non-peak traffic periods.

Guaranteed represents the minimum guaranteed bandwidth and burstable represents the maximum bandwidth that the user can use, if available.

# This option is available only for User or IP address based policy

5. Select any one option to specify implementation strategy of policy. See Implementation strategy for more details

# This option is available only for User or IP address based policy

6. Enter allowed Total or Individual and Guaranteed/Burstable bandwidth depending on Policy Type and Implementation strategy. See Implementation strategy for more details.

# This option is available only for User or IP address based policy

7. Set the bandwidth priority

Priority can be set from 0 (highest) to 7 (lowest)

Set the priority for SSH/Voice/Telnet traffic to be highest as this traffic is more of the interaction

8. Select any one to specify the bandwidth usage

Individual – Allocated bandwidth is for the particular user only

Shared – Allocated bandwidth is shared among all the users who have been assigned this policy

# This option is available only for User or IP address based policy

9. Enter policy description.



- 10. Click Create/Update to save the policy
- 11. Click Add Details to add schedule details to the policy. (See To add schedule details)



# To update Bandwidth policy

- Select Policies → Bandwidth Policy → Manage Policy to view the list of policies and click the policy to be modified
- 2. Displays policy name, modify if required
- 3. Displays whether policy is created for Host group, user or IP address
- 4. Change the description, if required.
- 5. Displays Implementation strategy
- 6. Displays allocated Total or Individual and Guaranteed/Burstable bandwidth depending on Policy Type and Implementation strategy. Modify if required
- 7. Displays Policy Type
- 8. Set the bandwidth priority
  - Priority can be set from 0 (highest) to 7 (lowest)
  - Set priority for SSH/Voice/Telnet traffic to be highest as this traffic is more of the interaction
- 9. Click Update if any modifications are done
- Click Add Details to add schedule details to the policy. (See To add schedule details)
   To remove details, see To remove schedule details
- The changes made in the policy become effective immediately on saving the changes

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# To add schedule details (Only for User and IP address based Bandwidth policy)

- Click Add Details if adding schedule at the time of creation of the policy OR
   Select Policies → Bandwidth Policy → Manage Policy and click policy name to which schedule is to be added, if adding after the creation of policy
- 2. Displays policy name
- 3. Displays default Policy Type set at the time of creation of policy, modify if required
- If you modify Policy Type, new policy type will override the default policy type and will be applicable only for the selected scheduled time interval.
  - 4. Displays default Implementation strategy set at the time of creation of policy, modify if required
- If you modify Implementation strategy, the new strategy will override the default strategy and will be applicable only for the selected scheduled time interval.
  - 5. Displays allocated Total or Individual and Guaranteed/Burstable bandwidth depending on Policy Type and Implementation strategy. Modify if required
- The modified bandwidth restriction will be applicable only for the selected scheduled time interval.
  - Select Schedule during which the default policy.
     If you are not sure about the schedule details, select schedule and click View details link to view the schedule details.
  - 7. Click Create to save the details

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# Manage Policy

Manage policy page displays list of predefined as well as customized policies created. Predefined policies can also be modified as per the requirement.

Use Bandwidth Policy > Manage Policy to:

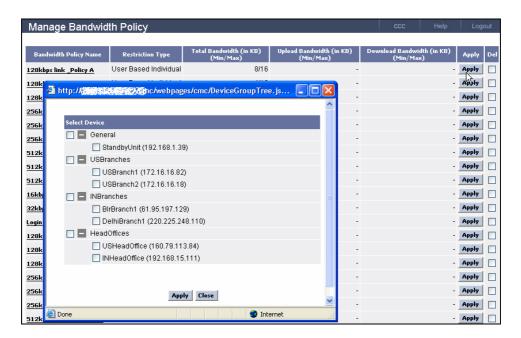
- Add Schedule to User and IP address based policy
- Assign Bandwidth policy to a Device
- Remove Schedule to User and IP address based policy
- Update allocated bandwidth
- Delete policy. Deleting policy will delete from the Cyberoam Central Console and not from the devices.

# To remove schedule details (Only for User and IP address based Bandwidth policy)

- 1. Select Polices → Bandwidth Policy → Manage policy to view the list of policies and click the policy from which the schedule is to be removed
- Click Select against the schedule details to be removed OR Click Select All to remove all the details
- 3. Click Remove Details

# To assign Bandwidth policy to a Device

- 1. Select Policies → Bandwidth policy → Manage policy
- 2. Click Apply against the Bandwidth policy name. It opens a new page and displays group wise devices. Enable the check box against the group or device to which the Bandwidth policy is to be added.
- 3. Click Apply. Applied will be displayed against the group/device, if the Bandwidth policy is added successfully.



# To delete Bandwidth policy



# Not assigned to any Group/User

- 1. Select Polices → Bandwidth Policy → Manage policy to view the list of policies
- 2. Click Del against the policy to be deleted OR Click Select All to delete all the policies
- 3. Click Delete

Deleting policy will delete from the Cyberoam Central Console and not from the devices.

Manage Bandwid	th Policy			CCC Help	Logout
Bandwidth Policy Name	Restriction Type	Total Bandwidth (in KB) (Min/Max)	Upload Bandwidth (in KB) (Min/Max)	Download Bandwidth (in KB) (Min/Max)	Apply Del
128kbps link _Policy A	User Based Individual	8/16	-	-	Apply
128kbps link _Policy B	User Based Individual	4/16	-	-	Apply
128kbps link _Policy C	User Based Individual	2/16	-	-	Apply
256kbps link _Policy A	User Based Individual	16/32	-	-	Apply
256kbps link _Policy B	User Based Individual	8/32	-	-	Apply
256kbps link _Policy C	User Based Individual	2/32	-	-	Apply
64kbps _Restricted FW	Firewall Rule Based	2/8	-	-	Apply
newhobw	Firewall Rule Based	2/1024	-	-	Apply
				S	elect All
					Delete

# IDP

Cyberoam is a real time Intrusion Detection and Prevention (IDP) system that protects your network from known and unknown attacks by worms and viruses, hackers and other internet risks.

Cyberoam appliance at the perimeter of your network analyzes all traffic and prevents attacks from reaching your network. Whether it is a worm, a suspicious web request, a hacker targeting your mail server or any other attack - it simply does not get through.

Cyberoam IDP consists of a signature engine with a predefined database of signatures and uses signatures to identify the malicious activity on the network. The signatures included with the Cyberoam cannot be modified.

As per your network requirements, Cyberoam allows you to define multiple policies instead of one global policy, to decrease packet latency and reduce false positives.

IDP policy allows you to view Cyberoam predefined signatures and customize the intrusion prevention configuration at the category as well as individual signature level. Categories are signatures grouped together based on the application and protocol vulnerabilities.

Cyberoam instead of providing only one policy (global) for managing multiple networks/hosts, allows to tailor the policy per network/host i.e. allows to define multiple policies for managing multiple networks/hosts. Defining multiple policies instead of one global policy helps in decreasing packet latency and reducing false positives.

To enable the intrusion detection and prevention functionality, apply the policy using firewall rule. You can create rule to apply:

- · single policy for all the user/networks
- · different policies for different users/networks or hosts

As firewall rules control all traffic passing through the Cyberoam and decide whether to allow or drop the connection, IDP rule will be applied to only that traffic/packet which firewall passes.

IDP Policy

# Policy

IDP consists of a signature engine with a predefined set of signatures. Signatures are the patterns that are known to be harmful. IDP compares traffic to these signatures and responds at a high rate of speed if it finds a match. Signatures included with the Cyberoam are not modifiable.

#### Category

IDP organizes signatures in categories such as DNS, Finger, P2P, DDOS, and others. These signature categories are listed in the policies. You configure these categories to change the prevention and/or detection settings. To perform Intrusion prevention and detection you need to enable IDP services for each category i.e. you will be able to configure for attack threats of individual signature only if an IDP service for the category is 'Enabled'.

Each IDP policy contains a set of signatures that the Cyberoam searches for, and log and block and allows to:

- Enable or disable category from IDP protection
- Enable or disable individual signature in a category to tailor IDP protection based on your network environment
- Define the action to be taken when the matching traffic pattern is found. Cyberoam can either detect or drop the connection. In either of the case, Cyberoam generates the log and alerts the Network Administrator.

IDP provides two modes for managing attack threats: (action if signature matches)

Drop mode - If IDP is enabled in Drop mode, Cyberoam-IDP automatically drops and resets the connection and prevents the traffic to reach its destination, if detects any traffic that matches the signature.

Detect mode - If IDP is enabled in Detect mode for a signature, Cyberoam-IDP detects and logs any traffic that matches the signature, but does not take any action against the traffic and the connection proceeds to its intended destination.

- Create IDP Policy
- Manage IDP Policy

# Create IDP Policy

#### Use to:

- Create IDP policy
- Enable/disable Category
- · Configure individual signature
- Update IDP policy

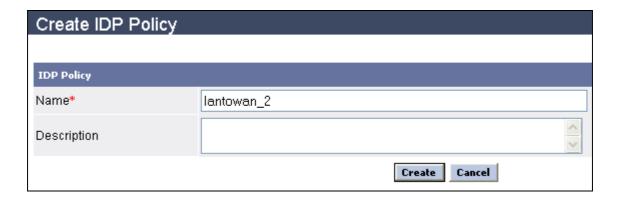
### To create IDP policy

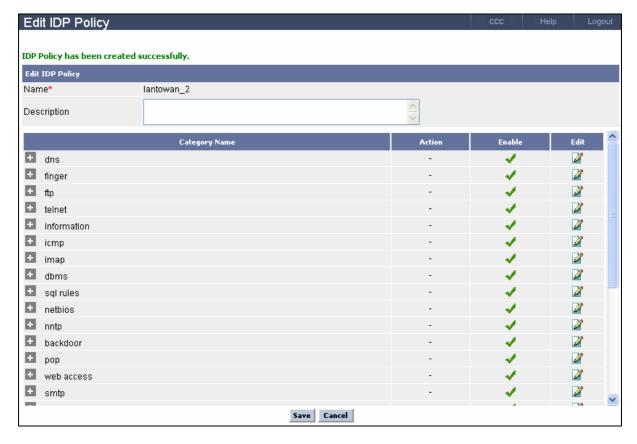
Create and deploy IDP policies to block malicious or suspicious traffic and increase security and productivity.

Policy allows you to view IDP signatures and configure the handling of signatures by category or on a signature-by-signature basis.

- 1. Select IDP → Policy → Create
- 2. Enter IDP policy name that best describes the policy
- 3. Enter relevant description for the policy
- 4. Click Create. On successful creation of policy, define what action is to be taken when the traffic matches any of the signatures.

Once you create a policy, all the signature categories are enabled but individual signatures within the category are set to 'Detect' or 'Drop' mode. You can enable/disable Category or configure individual signature for intrusion prevention and detection as and when needed.





# To Enable/Disable Category

- Select IDP → Policy → Manage and click the policy for which you want to enable/disable category
- 2. Click Edit mark against the Category to enabled/disabled.
  - Green check mark indicates that the Category is enabled
  - Red Cross \* indicates that the category is disabled
- 3. Displays Category name and Policy name
- 4. In Enabled field

Select 'ON' to include the category for detection and/or prevention. If the Category is enabled for detection and/or prevention, Cyberoam provides maximum granularity by allowing you to change the prevention and detection settings of individual signature in the category.

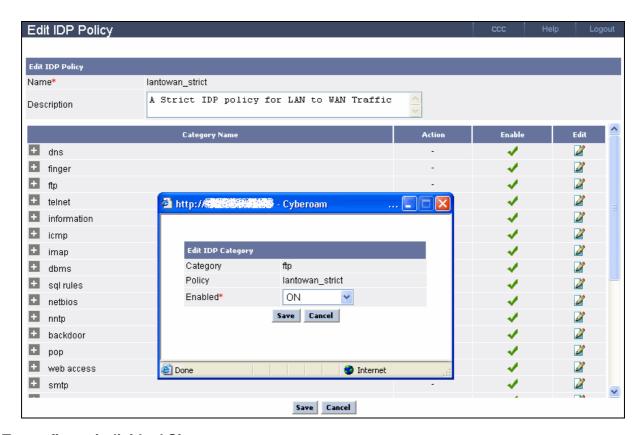
Select 'OFF' to exclude the category from detection and/or prevention. Excluding the category is same as not implementing IDP for the particular category.

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To enable/disable detection and/or prevention for the individual signatures, refer To configure individual Signature

5. Click Save to save the configuration



# To configure individual Signature



#### Category 'ON 'for the respective Signature

- Select IDP → Policy → Manage to view the list of policies created. Click the policy for which you want to configure signature
- 2. Click next to the Category name for which the Signature is to be configured. It displays the list of signatures included in the category and what action will be taken if signature is identified.

Click Signature Name to view the details of the Signature Green check mark indicates that the Signature is enabled Red Cross indicates that the Signature is disabled

Click Edit mark against the Signature to be configured

- 3. Displays Policy name
- 4. In Enabled field,

Select 'ON' to use signature in detection and/or prevention

In IDP mode, select Drop or Detect

Mode decides what action to take if the pattern matching to the Signature is found.



#### Drop mode

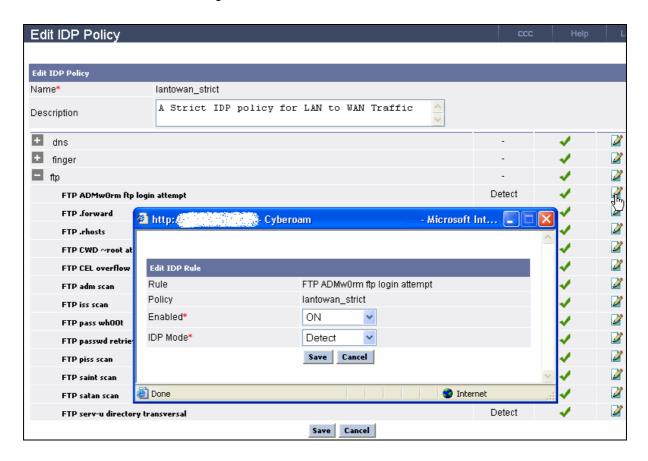
If any traffic that matches the signature is detected, Cyberoam logs the details, gives the alert to the Administrator, and automatically drops the packets that triggered IDP, resets the connection, and prevents the traffic to reach its destination.

#### Detect mode

If any traffic that matches the signature is detected, Cyberoam logs the details and gives alert to the Administrator, but does not take any action against the traffic and the connection proceeds to its intended destination.

Select 'OFF' to exclude signature from detection and/or prevention process

5. Click Save to save the settings



#### To update IDP policy

- 1. Select IDP → Policy → Manage and click the policy you want to edit
- 2. Displays policy name
- 3. Displays policy description, modify if required
- 4. Displays list of signature categories.

Green check mark against the Category indicates that the category is enabled Red Cross mark against the Category indicates that the category is disabled

Click Edit mark against the Category which you want to enable/disable. See '<u>To Enable/Disable Category</u>' for more details.

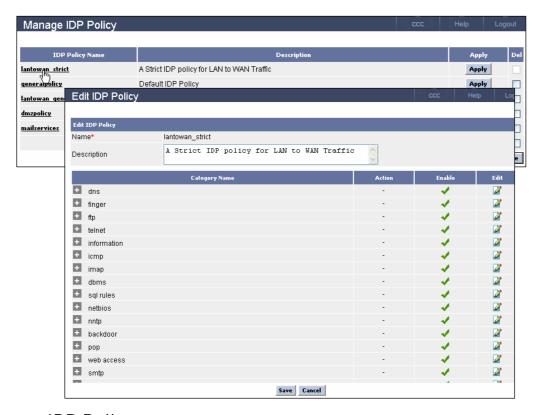
5. Click next to the Category name for which the Signature is to be configured. It displays the list of signatures included in the category and what action will be taken if signature is identified.



Click Signature Name to view the details of the Signature
Green check mark against the signature indicates that the signature is enabled for use
Red Cross mark against the signature indicates that the signature is disabled

Click Edit mark against the signature which you want to enable/disable. See '<u>To configure individual Signature</u>' for more details.

6. Click Save to save the updated details



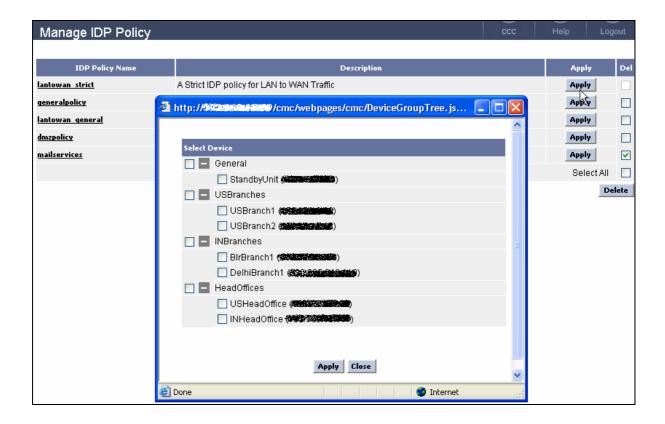
# Manage IDP Policy

#### Use

- Update IDP policy
- Enable/Disable Category
- Configure individual Signature
- <u>Delete Policy</u>. Deleting IDP policy will delete from the Cyberoam Central Console and not from the devices.
- · Assign IDP policy to a Device

# To assign IDP policy to a Device

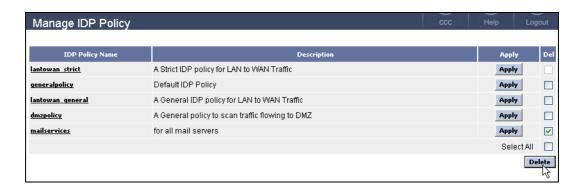
- Select IDP → IDP policy → Manage
- 2. Click Apply against the IDP policy name. It opens a new page and displays group wise devices. Enable the check box against the group or device to which the IDP policy is to be added.
- 3. Click Apply. Applied will be displayed against the group/device, if the IDP policy is added successfully.



# To delete IDP Policy

- 1. Select IDP → Policy → Manage IDP Policy to view the list of policies
- Click Del against the policy to be deleted OR
- 3. Click Select All to delete all the policies
- 4. Click Delete

Deleting IDP policy will delete from the Cyberoam Central Console and not from the devices.



# **Custom Signatures**

Custom signatures provide the flexibility to customize IDP for diverse network environments. Default signatures included in Cyberoam cover common attacks while custom signatures protect your network from uncommon attacks that are due to the use of proprietary server, custom protocol, or specialized applications used in the corporate network.

Create custom signature to define custom IDP signatures for your own network and use to allow or block specific traffic.

- Create Custom Signature
- Manage Custom Signature

# Create Custom Signature

#### Use to

- · Create custom signature
- Update custom signature

# To create custom signature

- 1. Select IDP → Custom Signature → Create
- 2. Enter custom signature name
- 3. Select Protocol
- 4. Enter Signature

Signature definition must begin with keyword followed by the value enclosed between the double quotes and must end with semicolon (;)

Format: Keyword:"value";

E.g. content:"USER JOHN";

If traffic with the content USER JOHN is detected, action defined in the policy will be taken.

- Select Severity level of the signature. Severity level can be Warning, Minor, Moderate, Major, or Critical.
- Select Default Mode. Mode decides what action to take if the pattern matching to the Signature is found.

### Drop mode

If any traffic that matches the signature is detected, Cyberoam logs the details, gives the alert to the Administrator, and automatically drops the packets that triggered IDP, resets the connection, and prevents the traffic to reach its destination.

#### Detect mode

If any traffic that matches the signature is detected, Cyberoam logs the details and gives alert to the Administrator, but does not take any action against the traffic and the connection proceeds to its intended destination.

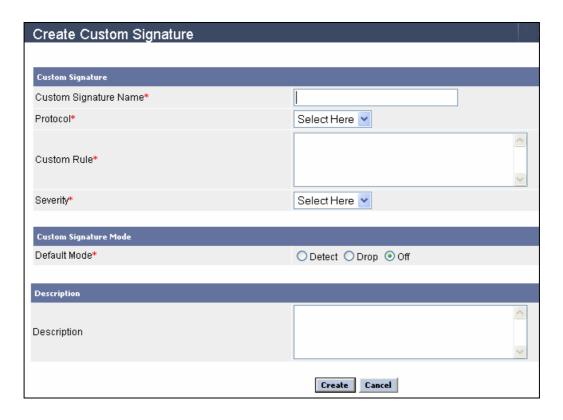
Select 'OFF' to exclude signature from detection and/or prevention process

The default mode selected will be applicable for all the IDP policies. You can override the default mode of the signature for the each IDP policy.

7. For each policy, set action to be taken if traffic matching to the signature is found.



- 8. Enter Description
- 9. Click create to create the signature



#### To update custom signature

- 1. Select IDP → Custom Signature → Manage to view list of signatures
- 2. Displays custom signature name, modify if required
- 3. Displays Protocol, modify if required
- 4. Displays Signature

Signature definition must begin with keyword followed by the value enclosed between the double quotes and must end with semicolon (;)

Format: Keyword:"value";

E.g. content:"USER JOHN";

If traffic with the content USER JOHN is detected, action defined in the policy will be taken.

Refer to Appendix C – IDP - Custom Signature Syntax for more details on creating signature

- 5. Displays Severity level of the signature. Severity level can be Warning, Minor, Moderate, Major, or Critical.
- 6. Displays Default Mode. Mode decides what action to take if the pattern matching to the Signature is found, modify if required

Drop mode

If any traffic that matches the signature is detected, Cyberoam logs the details, gives the alert to the Administrator, and automatically drops the packets that triggered IDP, resets the connection and prevents the traffic to reach its destination.

#### Detect mode

If any traffic that matches the signature is detected, Cyberoam logs the details and gives alert to the Administrator, but does not take any action against the traffic and the connection proceeds to its intended destination.

Select 'OFF' to exclude signature from detection and/or prevention process



The default mode selected will be applicable for all the IDP policies. You can override the default mode of the signature for the each IDP policy.

- 7. Displays the action for each policy, modify if required.
- 8. Displays Description, modify if required
- 9. Click Save



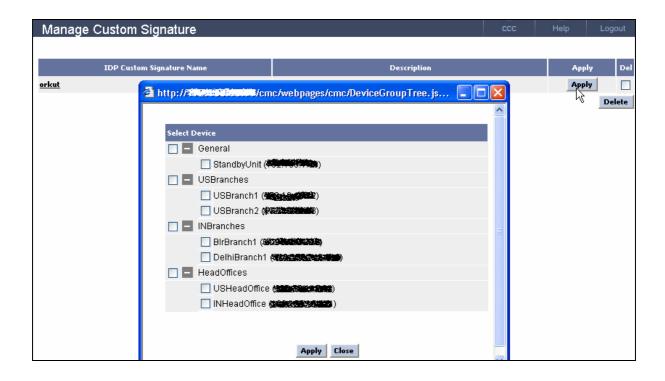
# Manage Custom Signature

#### Use to

- Update custom signature. Click the custom signature name to be update.
- · Assign Signature to a Device
- · Delete custom signature

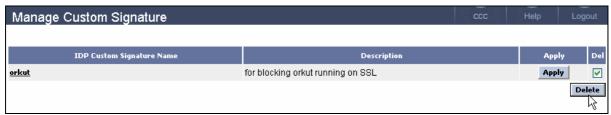
# To assign IDP signature to a Device

- 1. Select IDP → Custom Signature → Manage
- 2. Click Apply against the Custom Signature name. It opens a new page and displays group wise devices. Enable the check box against the group or device to which the Custom Signature is to be added.
- 3. Click Apply. Applied will be displayed against the group/device, if the Custom Signature is added successfully.



# To delete custom signature

- 1. Select IDP → Custom Signature → Manage to view the list of custom signatures
- 2. Click Del against the signature to be deleted OR
- 3. Click Select All to delete all the signatures
- 4. Click Delete



# Help

# Upload Upgrade

Once the upgraded version update file is obtained (CD or Downloaded), upload the new version file.

- 1. Select Help -> Upload Upgrade
- 2. Type the file name with full path or select using 'Browse'
- 3. Click Upload

Once the upgrade file is uploaded successfully, log on to Console to upgrade the version. Refer Console guide for details.



# Licensing

You need a customer account to:

- register your Cyberoam Central Console appliance
- avail 8 X 5 support
- subscribe for 24 X 7 support

Select Help  $\rightarrow$  Licensing to view the list of subscription modules. Screen shows licensing status of Appliances and subscription modules along with the subscription expiry date if subscribed.

Status - 'Registered' - Appliance registered

Status - 'Unregistered', - Appliance not registered

Status - 'Subscribed' - Module subscribed

Status - 'Unsubscribed' - Module not subscribed

Status - 'Trial' - Trial subscription

Status - 'Expired' - Subscription expired

#### To create customer account/register Appliance

You need to create a user account to register appliance.

- 1. Select Help → Licensing
- 2. Click Register against Appliance
- 3. Displays Appliance Key and Appliance Model number
- 4. If you have already created an account, type your username and password to register appliance and go to step 12
- 5. Enter Email id. Account will be created with this email id and you will be able to access your





- account using this id.
- Enter password for the account and confirm by re-typing.
- 7. Enter name of the company under whose name appliance is to be registered
- 8. Enter contact person name
- 9. Enter complete address, phone number, Email Id & Fax number of the Company
- 10. Enter secret question and answer related to your password. Question will be mailed in-case you forget password. If your answer matches, new password will be mailed.
- 11. Configure for proxy server if HTTP Proxy Server is used to connect to Web
  - Click External Proxy server information

Enter HTTP proxy server setting (name or IP address) to connect to Cyberoam registration server

Enter port number if proxy server is running on the port than other than the default port (80)

Enter Username with which to log on to proxy server (if configured)

Enter Password (if configured)

12. Click Register. This will create customer account and register the appliance.

### To subscribe add-on modules

- Customer has to procure a different license and subscribe for 24 X 7 Support
- 1. Select **Help →Licensing** to view the list of add-on modules
- 2. Click Subscribe or Trial against the Module name which you want to register
- 3. Displays Appliance key and model number
- 4. Displays module name which will be registered
- 5. Enter Émail and password of your registered account
- 6. Enter subscription key obtained from the sales person in-case you have purchased the license for the module
- 7. Configure for proxy server if HTTP Proxy Server is used to connect to Web
  - Click External Proxy server Information

Enter HTTP proxy server setting (name or IP address) to connect to Cyberoam registration server

Enter port number if proxy server is running on the port than other than the default port (80)

Enter Username with which to log on to proxy server (if configured)

Enter Password (if configured)

8. Click Subscribe or Trial depending on what you are registering

