



# Data transfer ManagementGuide

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## Guide Sets

<b>Guide</b>	<b>Describes</b>
User Guide	
Console Guide	Console Management
Windows Client Guide	Installation & configuration of Cyberoam Windows Client
Linux Client Guide	Installation & configuration of Cyberoam Linux Client
HTTP Client Guide	Installation & configuration of Cyberoam HTTP Client
Analytical Tool Guide	Using the Analytical tool for diagnosing and troubleshooting common problems
LDAP Integration Guide	Configuration for integrating LDAP with Cyberoam for external authentication
ADS Integration Guide	Configuration for integrating ADS with Cyberoam for external authentication
PDC Integration Guide	Configuration for integrating PDC with Cyberoam for authentication
RADIUS Integration Guide	Configuration for integrating RADIUS with Cyberoam for external authentication
High Availability Configuration Guide	Configuration of High Availability (HA)
Data transfer Management Guide	Configuration and Management of user based data transfer policy
Multi Link Manager User Guide	Configuration of Multiple Gateways, load balancing and failover
VPN Management	Implementing and managing VPN
Cyberoam IDP Implementation Guide	Configuring, implementing and managing Intrusion Detection and Prevention
Cyberoam Anti Virus Implementation Guide	Configuring and implementing anti virus solution
Cyberoam Anti Spam Implementation Guide	Configuring and implementing anti spam solution

## Technical Support

You may direct all questions, comments, or requests concerning the software you purchased, your registration status, or similar issues to Customer care/service department at the following address:

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## Typographic Conventions

Material in this manual is presented in text, screen displays, or command-line notation.

Item	Convention	Example
Server		Machine where Cyberoam Software - Server component is installed
Client		Machine where Cyberoam Software - Client component is installed
User		The end user
Username		Username uniquely identifies the user of the system
Part titles	Bold and shaded font typefaces	<b>Report</b>
Topic titles	Shaded font typefaces	Introduction
Subtitles	Bold & Black typefaces	Notation conventions
Navigation link	Bold typeface	<b>Group Management → Groups → Create</b> it means, to open the required page click on Group management then on Groups and finally click Create tab
Name of a particular parameter / field / command button text	Lowercase italic type	Enter policy name, replace policy name with the specific name of a policy Or Click Name to select where Name denotes command button text which is to be clicked
Cross references	Hyperlink in different color	refer to Customizing User database Clicking on the link will open the particular topic
Notes & points to remember	Bold typeface between the black borders	<b>Note</b>
Prerequisites	Bold typefaces between the black borders	Prerequisite Prerequisite details

## Overview

Welcome to Cyberoam's – Data transfer Management guide.

Cyberoam is an Identity-based UTM Appliance. Cyberoam's solution is purpose-built to meet the security needs of corporates, government organizations, and educational institutions.

Cyberoam's perfect blend of best-of-breed solutions includes Zone based Firewall, Content filtering, Anti Virus, Anti Spam, Intrusion Detection and Prevention (IDP), and VPN.

Cyberoam provides increased LAN security by providing separate port for connecting to the publicly accessible servers like Web server, Mail server, FTP server etc. hosted in DMZ which are visible the external world and still have firewall protection.

Cyberoam allows controlling access to various resources with the help of Policy and allows defining following policies:

1. Surfing Quota policy to control individual user surfing time
2. Access time policy to schedule Internet access for individual users
3. Internet Access policy to control web access
4. Bandwidth policy to allocate and restrict the bandwidth usage

Once the user logs on, bandwidth is available and the total available bandwidth is shared among all the active users at the particular time. Bandwidth being the limited resource, bandwidth shortage and congestion problems are common. Cyberoam allows limiting data transfer allowed to individual user according to the requirement. Bandwidth is limited using the Bandwidth policy while data transfer policy limits the total as well as individual upload and/or download data transfer.

Data transfer Management allows defining a policy to limit the data transfer carried out by the user.

## Data transfer policy

Data transfer policy:

- Limits data transfer on a cyclic or non-cyclic basis.
- Single policy can be applied to number of Groups or Users.

Data transfer restriction can be based on:

- Total Data transfer (Upload+Download)
- Individual Upload and/or Download

Cyberoam provides several predefined policies which are available for use until configured otherwise.

You can also define customized policies to define different limit for different users to meet your organization's requirements.

## Create Data transfer Policy

Select **Policies** → **Data Transfer Policy** → **Create Policy** to open the create policy page

Screen – Create Data transfer policy

Screen Elements	Description
<b>Create Data Transfer policy</b>	
Name	Specify policy name. Choose a name that best describes the policy  Allows maximum of 40 characters Can be any combination of A – Z, a – z, ‘ ’, 0 - 9
Cycle type	Specify cycle type  Available options Daily – restricts data transfer up to cycle hours defined on daily basis Weekly – restricts data transfer up to cycle hours defined on weekly basis Monthly – restricts data transfer up to cycle hours defined on monthly basis Yearly – restricts data transfer up to cycle hours defined on yearly basis Non-cyclic – data restriction is defined by the Total data transfer limit
Restriction based on	Specify whether the data transfer restriction is on total data transfer or on individual upload or download  Click <i>Total Data Transfer</i> to apply data transfer restriction on the

Screen Elements	Description
	Total (Upload + Download) data transfer  Click <i>Individual Data Transfer</i> to apply data transfer restriction on the Individual Upload and Individual Download data transfer
Shared allotted data transfer with group members <b>Only if Cycle Type is 'Non-cyclic'</b>	Specify whether the allotted data transfer will be shared among all the group members or not  Click to share
Policy Description	Specify full description of the policy  Allows maximum of 255 characters Can be any combination of A – Z, a – z, ' _', 0 - 9
<b>Restriction Details</b>	
Cycle Total Data Transfer Limit (MB)  <b>Only if Cycle Type is not 'Non-cyclic' and Restriction is based on 'Total Data Transfer'</b>	Specify Cycle Total Data transfer limit  It is the upper limit of total data transfer allowed to the user per cycle. User will be disconnected if limit is reached.
Cycle Upload Data Transfer Limit (MB)  <b>Only if Cycle Type is not 'Non-cyclic' and Restriction is based on 'Individual Data Transfer'</b>	Specify Cycle Upload Data transfer limit.  It is the upper limit of upload data transfer allowed to the user per cycle. User will be disconnected if limit is reached.  OR  If you do not want to restrict upload data transfer per cycle, click Unlimited Cycle Upload Data transfer
Cycle Download Data Transfer Limit (MB)  <b>Only if Cycle Type is not 'Non-cyclic' and Restriction is based on 'Individual Data Transfer'</b>	Enter Cycle Download Data transfer limit.  It is the upper limit of download data transfer allowed to the user per cycle. User will be disconnected if limit is reached.  OR  If you do not want to restrict download data transfer per cycle, click Unlimited Cycle Download Data transfer
Total Data Transfer Limit (MB)  <b>Only if Restriction is based on 'Total Data Transfer'</b>	Specify Total Data transfer limit.  It is the data transfer allowed to the user and if the limit is reached user will not be able to log on until the policy is renewed.  OR  If you do not want to restrict total data transfer, click Unlimited Total Data Transfer
Upload Data Transfer Limit (MB)  <b>Only if Restriction is based on 'Individual Data Transfer'</b>	Specify Upload Data transfer limit.  It is the total upload data transfer allowed to the user and if the limit is reached user will not be able to log on until the policy is renewed.  OR

Screen Elements	Description
	If you do not want to restrict total upload data transfer, click Unlimited Upload Data Transfer
Download Data Transfer Limit (MB)  <b>Only if Restriction is based on 'Individual Data Transfer'</b>	Specify Download Data transfer limit.  It is the upper download data transfer allowed to the user and if the limit is reached user will not be able to log on until the policy is renewed.  OR  If you do not want to restrict total download data transfer, click Unlimited Download Data Transfer
Create button	Creates policy
Cancel button	Cancels the current operation and returns to Manage Data transfer policy page

**Table – Create Data transfer policy screen elements**

## Update Data transfer policy

Select **Policies** → **Data transfer policy** → **Manage policy** and click *Policy name* to be modified

**Edit Data Transfer Policy** Logout

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**Edit Data Transfer Policy**

<b>Data Transfer Policy Name*</b>	<input type="text" value="Yearly Individual"/>
<b>Cycle Type</b>	Yearly
<b>Restriction based on*</b>	Individual Data Transfer(Upload & Download)
<b>Share allotted Data Transfer with group members</b>	No
<b>Policy Description</b>	<div style="border: 1px solid #ccc; height: 40px;"></div>

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**Restriction Details**

<b>Cycle Upload Data Transfer Limit (MB)*</b>	100
<b>Cycle Download Data Transfer Limit (MB)*</b>	Not Applicable
<b>Upload Data Transfer Limit (MB)*</b>	Not Applicable
<b>Download Data Transfer Limit (MB)*</b>	Not Applicable

**Screen – Update Data transfer policy screen**

Screen Elements	Description
<b>Edit Data Transfer policy</b>	
Name	Displays policy name, modify if required.
Cycle type	Displays cycle type
Restriction based on	Displays whether the data transfer restriction is on total data transfer or on individual upload or download
Shared allotted data transfer with group members	Displays whether the allotted data transfer is shared among all the group members or not
Policy Description	Displays full description of the policy, modify if required.
<b>Restriction Details</b>	
Cycle Total Data Transfer Limit (MB) <b>Only if Restriction is based on 'Total Data Transfer'</b>	Displays Cycle Total Data transfer limit  It is the upper limit of total data transfer allowed to the user per cycle. User will be disconnected if limit is reached.
Cycle Upload Data Transfer Limit (MB) <b>Only if Restriction is based on 'Individual Data Transfer'</b>	Displays Cycle Upload Data transfer limit.  It is the upper limit of upload data transfer allowed to the user per cycle. User will be disconnected if limit is reached.
Cycle Download Data	Displays Cycle Download Data transfer limit.

Screen Elements	Description
Transfer Limit (MB) <b>Only if Restriction is based on 'Individual Data Transfer'</b>	It is the upper limit of download data transfer allowed to the user per cycle. User will be disconnected if limit is reached.
Total Data Transfer Limit (MB) <b>Only if Restriction is based on 'Total Data Transfer'</b>	Displays Total Data transfer limit. It is the data transfer allowed to the user and if the limit is reached user will not be able to log on until the policy is renewed.
Upload Data Transfer Limit (MB) <b>Only if Restriction is based on 'Individual Data Transfer'</b>	Displays Upload Data transfer limit. It is the total upload data transfer allowed to the user and if the limit is reached user will not be able to log on until the policy is renewed.
Download Data Transfer Limit (MB) <b>Only if Restriction is based on 'Individual Data Transfer'</b>	Displays Download Data transfer limit. It is the upper download data transfer allowed to the user and if the limit is reached user will not be able to log on until the policy is renewed.
Update button	Updates policy
Cancel button	Cancels the current operation and returns to Manage Data transfer policy page

Table – Update Data transfer policy screen elements

## Delete Data transfer policy

**Prerequisite**

- Not assigned to any User or Group

Select **Policies** → **Data transfer policy** → **Manage policy** to view list of policies

Manage Data Transfer Policy								Logout	Help	Cyberoam
Policy Name	Cycle Type	Cycle Limit (MB)			Absolute limit (MB)			Del		
		Up	Dn	Total	Up	Dn	Total			
<b>Shared 10 Mb Policy</b>	Non-cyclic	-	-	-	-	-	10	<input type="checkbox"/>		
<b>Shared policy</b>	Non-cyclic	-	-	-	-	-	200	<input type="checkbox"/>		
<b>Daily policy</b>	Daily	-	-	12	-	-	-	<input type="checkbox"/>		
<b>Yearly Individual</b>	Yearly	100	-	-	-	-	-	<input type="checkbox"/>		
								Select All	<input type="checkbox"/>	
								<b>Delete Policy</b>		

Screen – Delete Data transfer policy screen

Screen Elements	Description
Del	Select policy for deletion Click <i>Del</i> to select More than one policy can also be selected
Select All	Select all the policies for deletion Click <i>Select All</i> to select all the policies
Delete button	Deletes all the selected policy/policies

Table - Delete Data transfer policy screen element

## Customize User Messages and Alert

When the allocated data transfer quota finishes, user is automatically logged out and is deactivated until the policy is not renewed. Customized user messages and alert helps Administrator in notifying users about their used data transfer quota and the remaining usage.

Select **System** → **Configure Client Settings** → **Customize Client Message**

Customize Client Messages	
<b>Message Key</b>	<b>Message</b>
<b>AlertMessageWithCycleData</b>	{u}, you have {up} upload, {dn} download and {t} total Cyclic Data Transfer available
<b>AlertMessageWithData</b>	{u}, you have {up} upload, {dn} download and {t} total data transfer available
<b>DeactiveUser</b>	You have been deactivated by the Administrator
<b>DisconnectByAdmin</b>	You have been disconnected by the Administrator
<b>InvalidMachine</b>	You are not allowed to login from this machine
<b>LoggedOffSuccessfulMsg</b>	You have successfully logged off
<b>LoggedOnSuccessfulMsg</b>	You have successfully logged in
<b>LoggedinFromSomeWhereElse</b>	You are already logged on from somewhere else
<b>MaxLoginLimit</b>	You have reached Maximum Login Limit.
<b>MultipleLoginNotAllowed</b>	Multiple login not allowed
<b>NotAuthenticate</b>	The system could not log you on. Make sure your password is correct
<b>NotCurrentlyAllowed</b>	You are not allowed to login at this time
<b>SomeoneLoggedin</b>	Someone else is logged in from this machine
<b>SurfingTimeExhausted</b>	You have used up your allotted surfing time, so you have been disconnected from the Internet.
<b>SurfingTimeExpired</b>	Surfing time expired, Please contact the administrator.
<b>liveipinuse</b>	Somebody else is using this IP address.
<b>nmoolexceedlimit</b>	Your Live IP address Host Groups limit has been exceeded
<b>Configure Usage To Alert User Before Expiration</b>	
Enter Remaining Usage In *	<input type="radio"/> Absolute Value <input checked="" type="radio"/> In Percentage
Data Transfer (MB)	<input type="text" value="99.0"/>
Cycle Data Transfer (MB)	<input type="text" value="99.0"/>
<input type="button" value="Save Details"/>	

Screen – Customized Client Messages screen

Screen Elements	Description
Message Key	Message code  Click <i>Message</i> link to customize the message which will be received by user  Click <i>Save</i> to save the changes Click <i>Cancel</i> to cancel the current operation
Message	Message description
<b>Configure Usage to Alert User before Expiration</b> <b>Only if 'Data Transfer Management' add-on module is registered</b>	
Enter Remaining Usage in	Alert will be displayed to all the users when the specified data transfer is remaining  Remaining usage can be entered in absolute value or in percentage
Data Transfer (MB)	Specify remaining data transfer usage when all the users should receive alert.

	<p>Eg. <b>Absolute Remaining data transfer usage: 20 MB</b>  User1: Total Data transfer limit (as defined in Data transfer policy): 150 MB  User2: Total Data transfer limit (as defined in Data transfer policy): 640 MB</p> <p>User1 will receive alert when he is left with 20 MB of data transfer i.e has done total data transfer of 130 MB</p> <p>User2 will receive alert when he is left with 20 MB of data transfer i.e has done total data transfer of 620 MB</p> <p><b>Percentage Remaining data transfer usage: 20%</b>  User1: Total Data transfer limit (as defined in Data transfer policy): 150 MB  User2: Total Data transfer limit (as defined in Data transfer policy): 640 MB</p> <p>User1 will receive alert when he is left with 30 MB (20% of 150 MB) of data transfer i.e. has done data transfer of 120 MB</p> <p>User2 will receive alert when he is left with 128 MB (20% of 640 MB) of data transfer i.e. has done data transfer of 512 MB</p>
Cycle Data Transfer (MB)	<p>Specify remaining cycle data transfer usage when all the users should receive alert.</p> <p>Cycle data transfer is the upper limit of total data transfer allowed to the user per cycle. User will be disconnected if the limit is reached. It is applicable the users to whom the cyclic data transfer policies are applied.</p> <p>Eg. <b>Absolute Remaining cycle data transfer usage: 20 MB</b>  User1: Cycle Total Data transfer limit (as defined in Data transfer policy): 150 MB  User2: Cycle Total Data transfer limit (as defined in Data transfer policy): 640 MB</p> <p>User1 will receive alert when he is left with 20 MB of data transfer per cycle i.e has done data transfer of 130 MB</p> <p>User2 will receive alert when he is left with 20 MB of data transfer per cycle i.e has done data transfer of 620 MB</p> <p><b>Percentage Remaining cycle data transfer usage: 20%</b>  User1: Cycle Total Data transfer limit (as defined in Data transfer policy): 150 MB  User2: Cycle Total Data transfer limit (as defined in Data transfer policy): 640 MB</p> <p>User1 will receive alert when he is left with 30 MB (20% of 150 MB) of data transfer per cycle i.e. has done data transfer of 120 MB</p> <p>User2 will receive alert when he is left with 128 MB (20% of 640 MB) of data transfer per cycle i.e. has done data transfer of 512 MB</p>
Save button	Saves the data transfer alert configuration

Table - Customized Client Message screen elements