



STORM Configuration Management

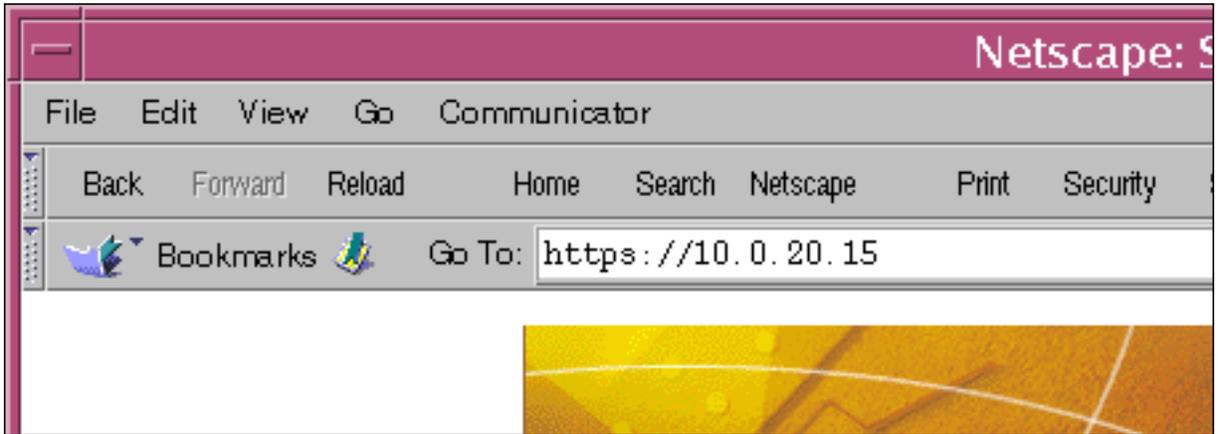
Refer to the documentation for instructions on how to execute the following configuration-related tasks that apply to the STORAge Management (STORM) unit:

- [Configure Internet Explorer preferences](#)

Note: Netscape Navigator requires no configuration

- [Configure a remote host monitor](#)
- [Deleting a remote host monitor](#)
- [Modifying a remote host monitor](#)
- [Creating a file system](#)
- [Removing a file system](#)
- [Increasing file system size](#)
- [Enable client access to a file system](#)
- [Remove client access to a file system](#)
- [Starting file system monitoring](#)
- [Stopping file system monitoring](#)
- [Editing file system monitoring thresholds](#)
- [Adding TFTP configuration information](#)
- [Deleting TFTP configuration information](#)
- [Reconfigure NTP server](#)
- [Configuring the Apache web server for HTTPS proxy for STORM](#)

The STORM web browser client is hosted within the Communication Server Local Area Network (CS LAN).



Configure Internet Explorer preferences

Use this procedure to enable Java applets in Microsoft Internet Explorer. This procedure enables display of the STORM Alarm Banner for STORM cPCI.

Note 1: This procedure is for the STORM cPCI. If the hardware platform is STORM SAM-XTS, do not perform this procedure. STORM SAM-XTS units are used in STORM Integrated Array (STORM-IA).

Note 2: The preferred client is Netscape Communicator 4.6 or newer.

Note 3: Only applets from the STORM components are enabled. Permissions for applets from other sites remain unchanged.

Note 4: Screen displays in this procedure may appear slightly different depending on the version of Internet Explorer being used.

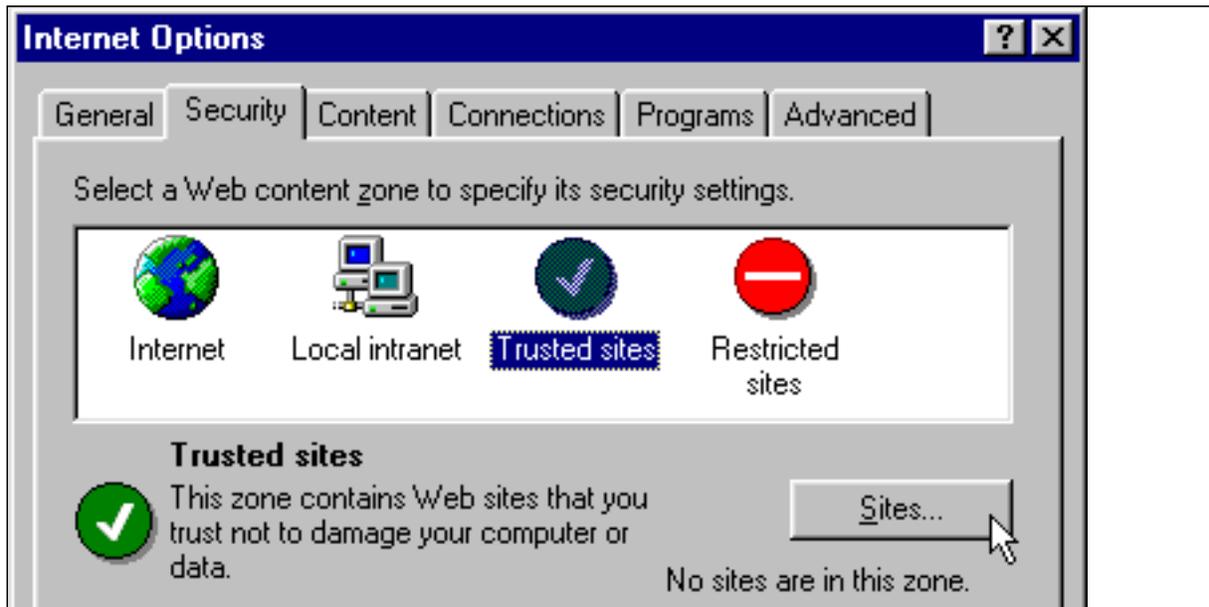
At the STORM Manager client workstation

- 1 Open Microsoft Internet Explorer.
- 2 Click on Tools and then Internet Options to open the Internet Options window.

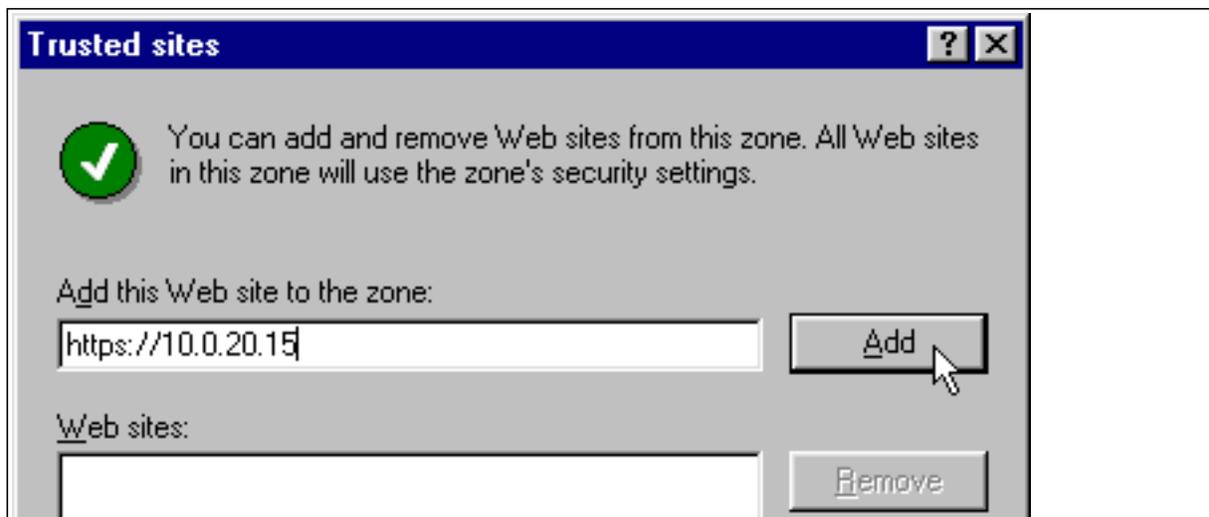


- 3 From the Internet Options window, click on the Security tab.
- 4 Click on the Trusted sites icon.

- 5 Click on the Sites button to open the Trusted sites window.

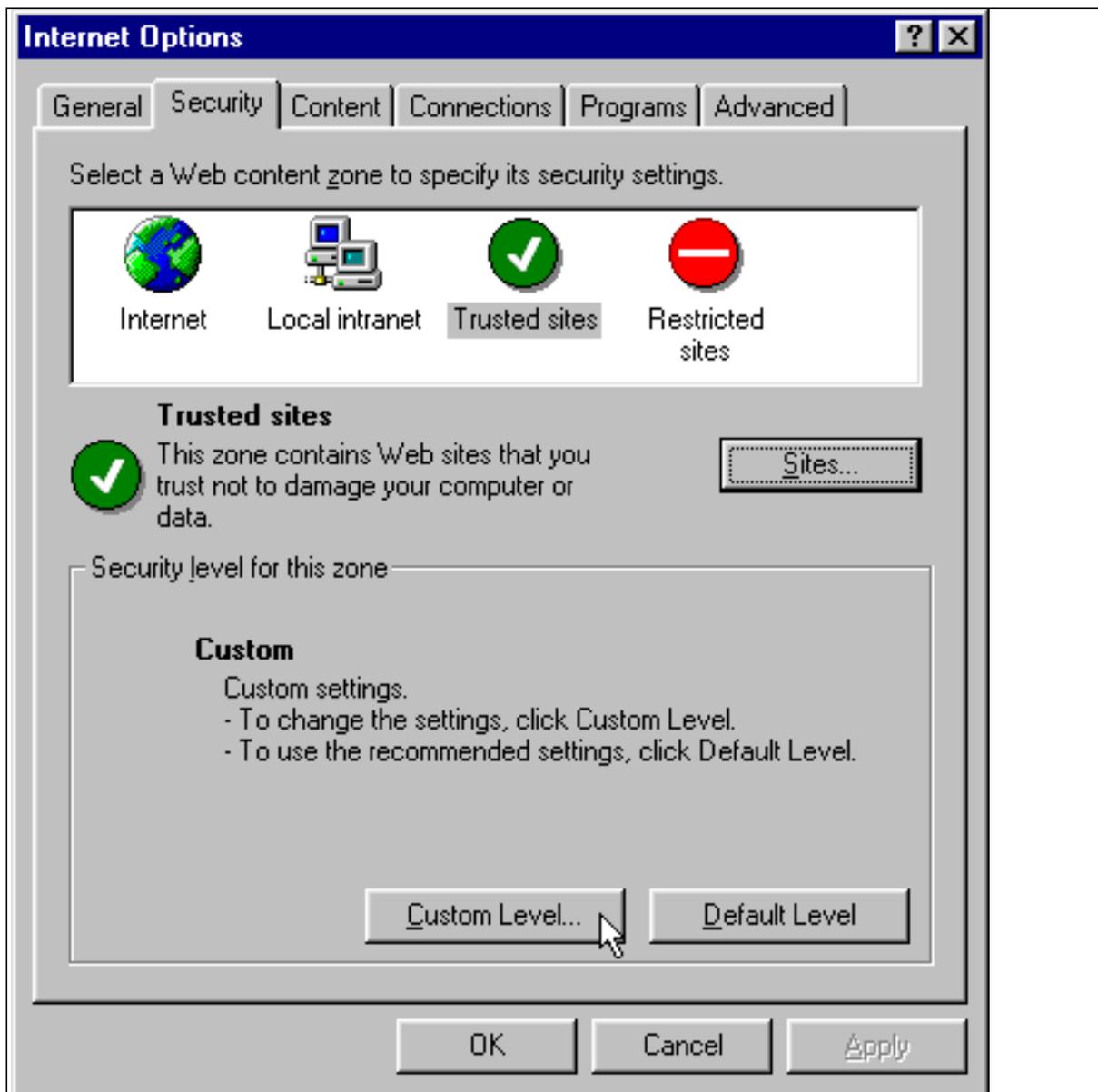


- 6 Enter the IP address of the STORM component and click on Add.



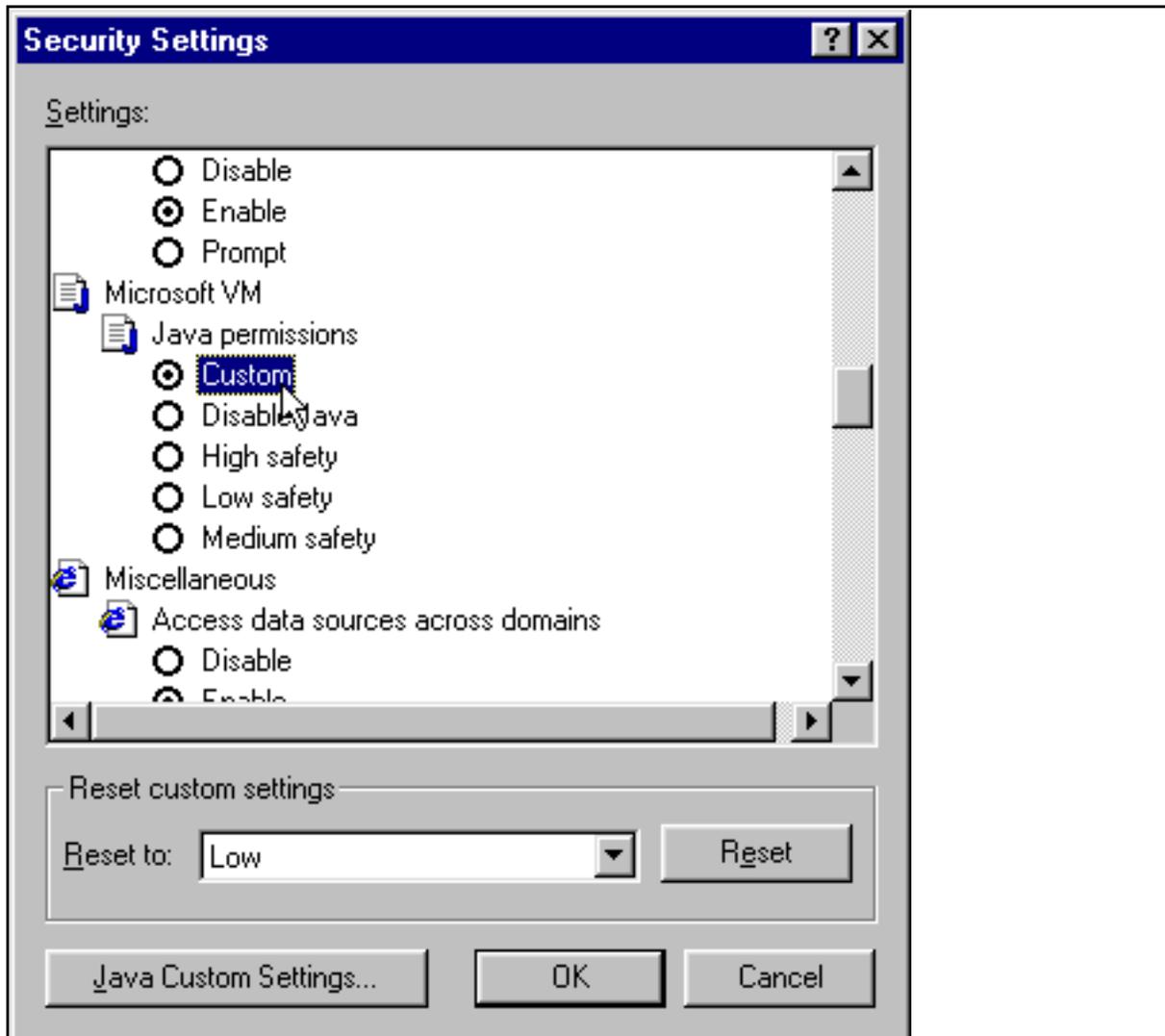
- 7 Click on OK from the Trusted sites window to confirm the change and close the window.

- 8 Click on Custom Level from the Internet Options window to open the Security Settings window.



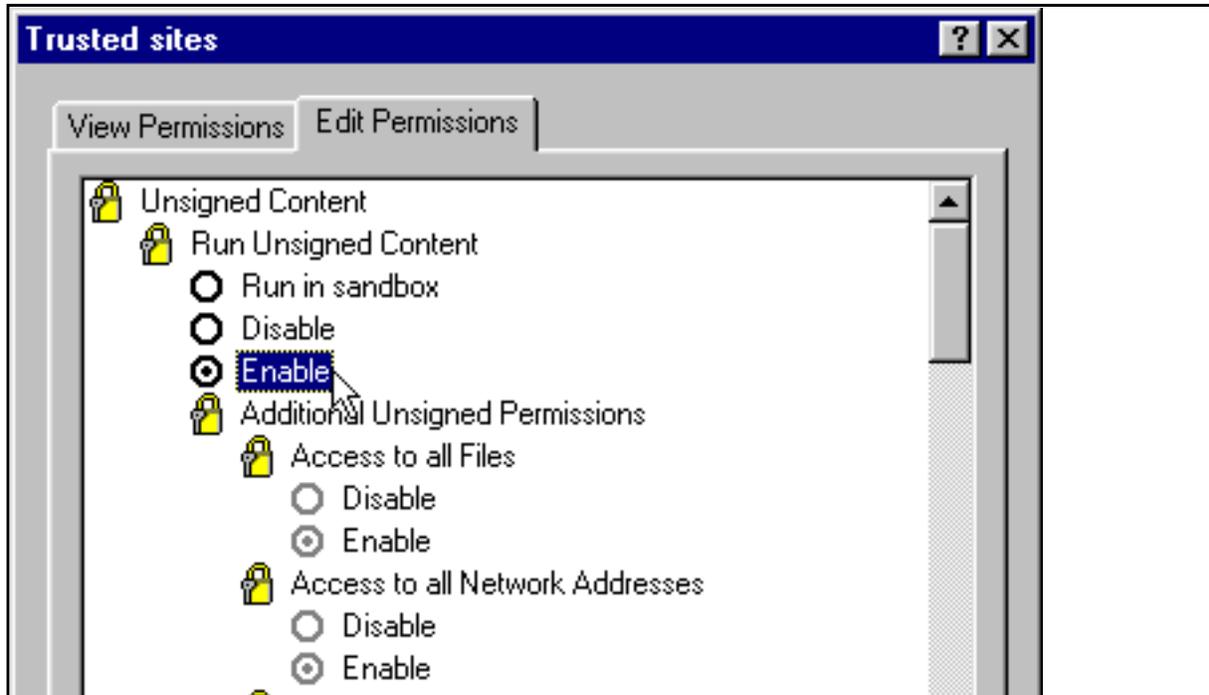
- 9 Use the scroll bar to locate Java Permissions on the Security Settings window.

- 10 Click on Custom from the Security Settings window.



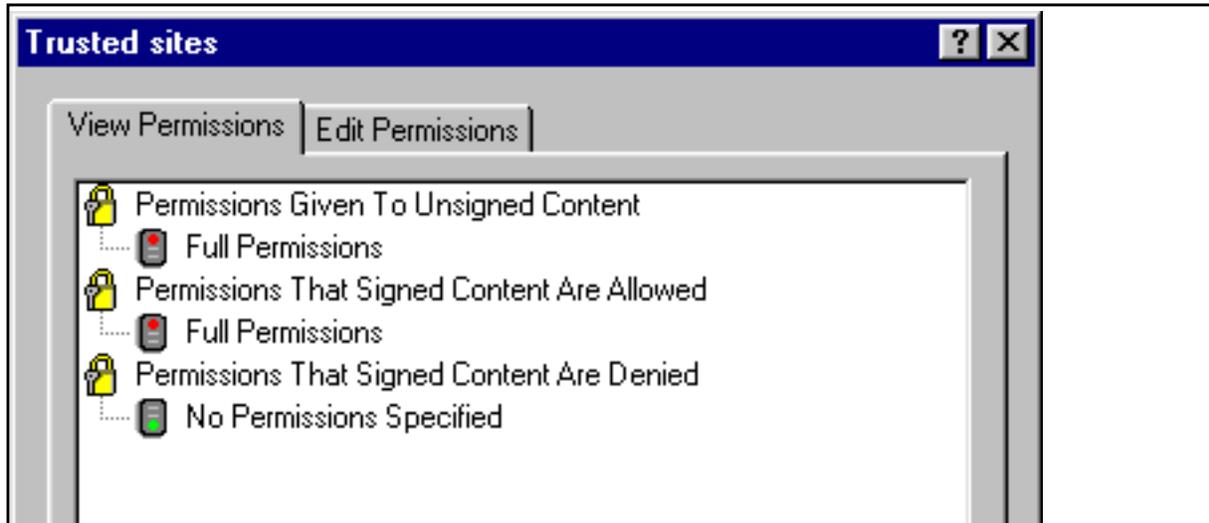
- 11 Click on the Java Custom Settings button from the Security Settings window to open the Trusted sites window.

- 12 Click on the Edit Permissions tab from the Trusted sites window.
- 13 Enable the Run Unsigned Content selection by clicking on Enable.



- 14 From the Run Signed Content selection, which is similar to the previous display shown for Run Unsigned Content, click on Enable.
- 15 Click on the View Permissions tab from the Trusted sites window and verify that Permissions Given to Unsigned Content and

Permissions That Signed Content Are Allowed are set to Full Permissions.



- 16 Click on OK from the Trusted sites window to confirm the change and close the window.
- 17 Click on OK from the Security Settings window to confirm the change and close the window.
- 18 Click on OK from the Internet Options window to confirm the change and close the window.
- 19 This procedure is complete.

Configure a remote host monitor

Use this procedure to add a remote host monitor.

The remote host monitor feature enables the STORM unit to monitor connectivity to the monitored host. In the event that connectivity is lost between the monitored host and the STORM unit, STORM raises a Communications alarm with a warning severity.

The recommended hosts to monitor are listed:

- both Call Agent cards
- The call processing application IP address on the Call Agent. Determine the IP address of the call processing application with the **QueryIP** command from the Call Agent Manager. Monitor the IP address for “activeirm.”
- USP - Compact cards

Note: Monitored hosts must be configured for each STORM unit.

At the STORM Manager client workstation

- 1 Click on the Connectivity panel tab.
- 2 Scroll to the Add Remote Host Monitor table and enter an IP address or hostname in the Host field.

Note: STORM does not validate this entry. Therefore, “Unreachable” displays if the user enters an invalid host.
- 3 Optionally enter a value in the Ping Interval field.

The valid range for this field is 100,000 (0.1 second) to 1,000,000 (1 second) microseconds.
- 4 Optionally enter a value in the Ping Timeout field.

The valid range for this field is 100,000 (0.1 second) to 1,000,000 (1 second) microseconds.
- 5 Click the Start button to begin monitoring the host.
- 6 This procedure is complete.

Deleting a remote host monitor

Use this procedure to stop monitoring a host.

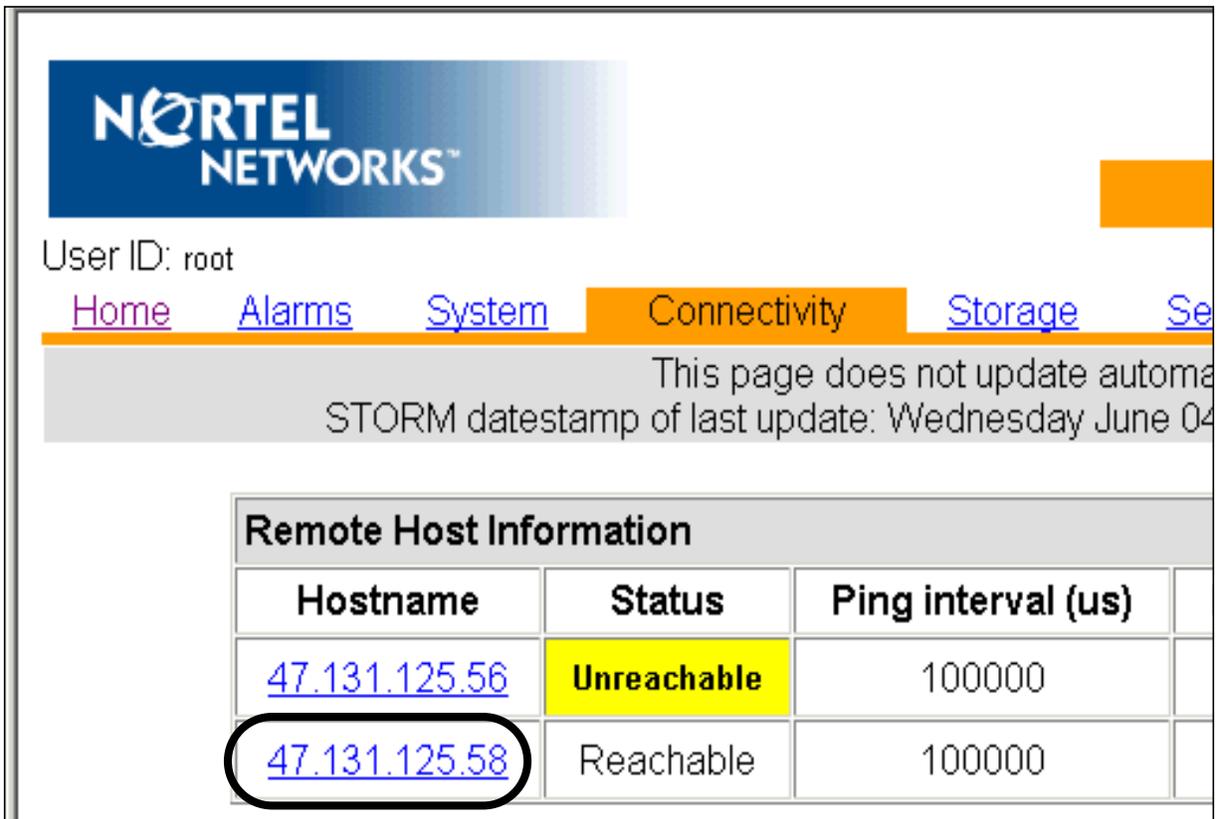
At the STORM Manager client workstation

- 1** Click on the Connectivity panel tab.
- 2** Click the Stop button under the Monitor heading in the Remote Host Information section that corresponds to the remote host to be stopped.
- 3** Locate the monitor to remove by the Hostname field and click the Stop button for that host.
- 4** This procedure is complete.

Modifying a remote host monitor

At the STORM Manager client workstation

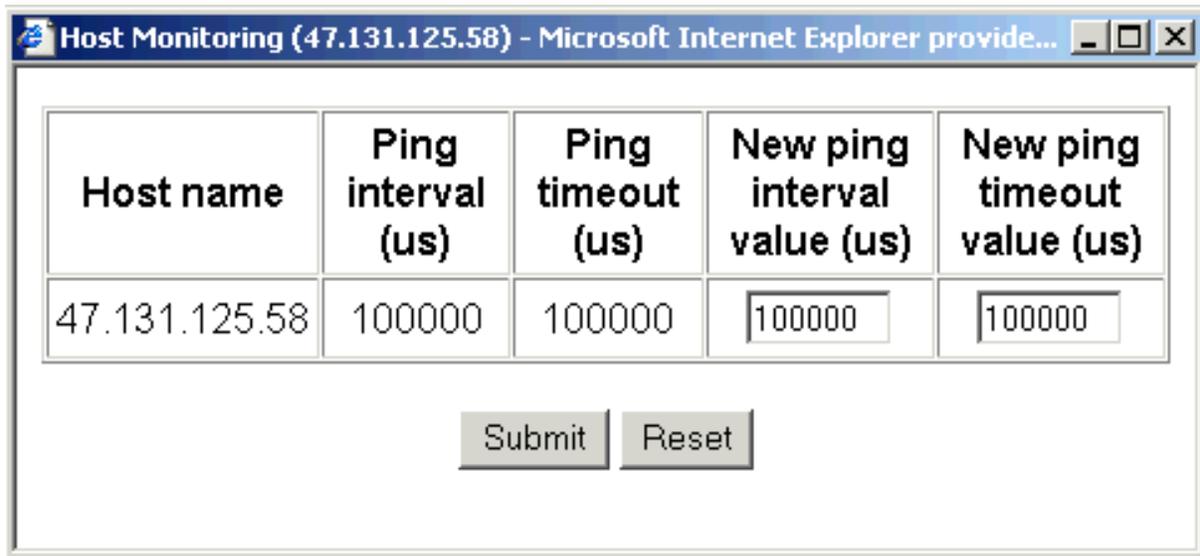
- 1 Click on the Connectivity tab.
- 2 Locate the monitor to modify by the Hostname field and click the link for that host to open the Host Monitoring window.



The screenshot shows the STORM Manager web interface. At the top left is the Nortel Networks logo. Below it, the user ID is 'root'. A navigation menu includes 'Home', 'Alarms', 'System', 'Connectivity' (highlighted), 'Storage', and 'Se'. A message states: 'This page does not update automatically. STORM timestamp of last update: Wednesday June 04'. Below this is a table titled 'Remote Host Information'.

Remote Host Information			
Hostname	Status	Ping interval (us)	
47.131.125.56	Unreachable	100000	
47.131.125.58	Reachable	100000	

- 3 Enter values in fields New ping interval value (us) and New ping timeout value (us). The valid range for both fields is 100 000 (0.1 second) to 1 000 000 (1 second) microseconds. The default value for both fields is 100 000 microseconds.



Host name	Ping interval (us)	Ping timeout (us)	New ping interval value (us)	New ping timeout value (us)
47.131.125.58	100000	100000	100000	100000

- 4 To resume monitoring the host, click the Submit button.
- 5 This procedure is complete.

Creating a file system

Perform this procedure at the direction of Nortel support personnel.

At the STORM Manager client workstation

- 1 Click on the Storage panel tab.
- 2 Scroll to the Create/Remove Filesystem section.
- 3 Enter a name for the new file system in the blank field and click the Create New Filesystem button to open the Set Size window.

Note 1: The name for the new file system must be fully qualified from the root and must begin with a forward slash (/) character.

Note 2: Use only the following characters for the name of the file system:

- 0-9
- a-z
- A-Z
- /

Underscore (_) is not a valid character.

Note 3: File system names must be unique.

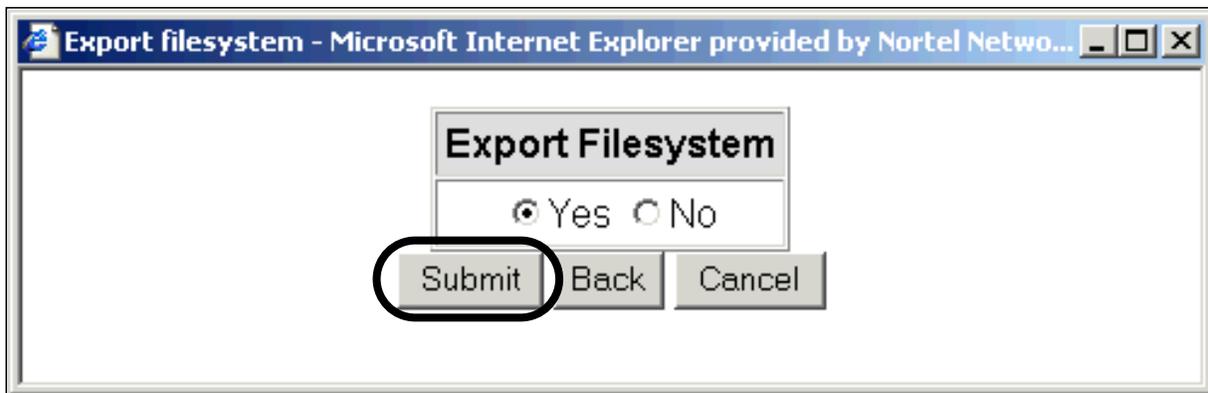
- 4 Enter the size of the file system to create in the New Size field.

Filesystem Name	Total Space Available (MB)	New Size (MB)
/newfilesystem	13250.56	100

Submit Cancel

- 5 Click the Submit button to open the Export Filesystem window.
- 6 Ensure that the Yes button is highlighted, and then click the Submit button to enable NFS to export the file system to other

hosts that use STORM. Otherwise, highlight the No button not to export the file system.



The Export Options window opens.

- 7 Edit the Exports Options and click Submit.



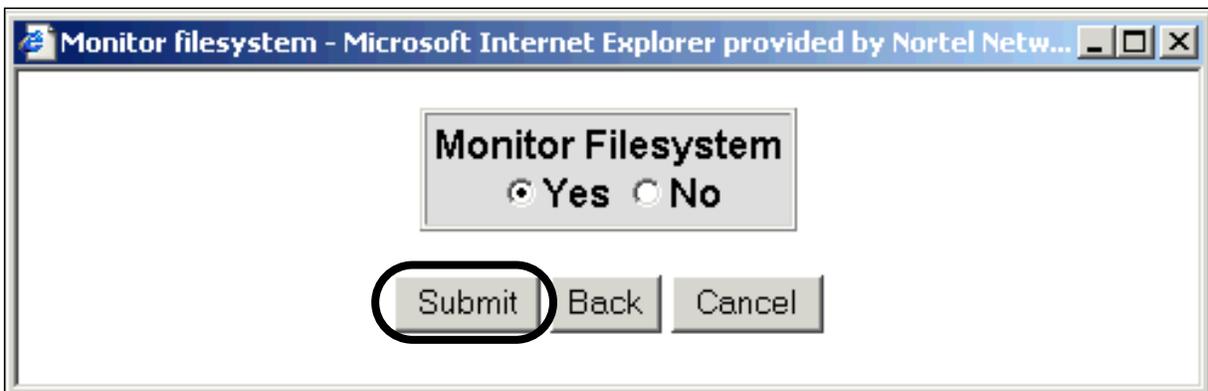
The following list briefly describes the export options:

- **IP address/subnet mask**
Enter the subnet address and netmask. For example, 47.142.226.0/255.255.255.0. Refer to [Additional information](#) for more secure options.
- **rw**
Leave this option so that clients have read and write access to the directory
- **secure**
Leave this option to ensure that NFS mount requests originate on a port less than IPPORT_RESERVED (1024). This ensures that mount requests from client applications without root privilege are denied.

- **no_root_squash**
Leave this option so that users logged in as root on a client can write files to the STORM unit and the files maintain the ownership and attributes of the root user.
- **no_all_squash**
Leave this option to map all user IDs and group IDs to an anonymous user.

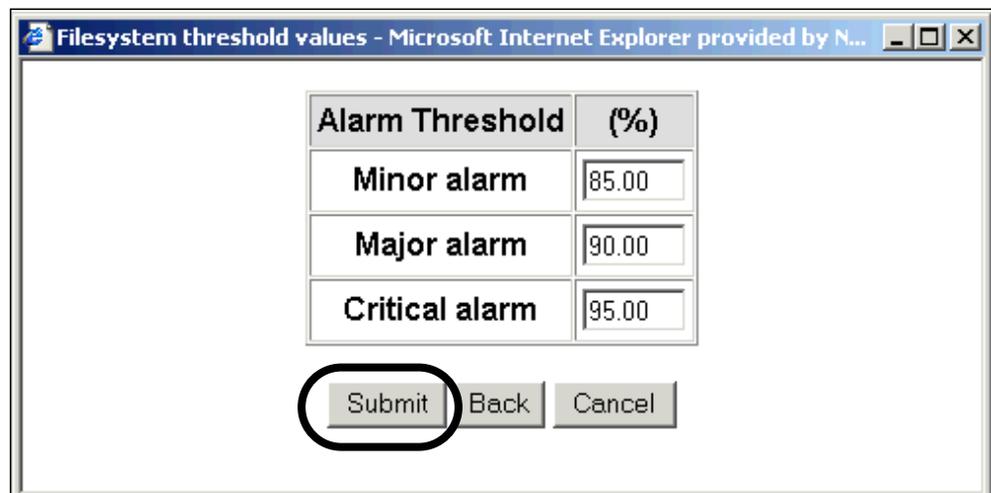
The Monitor Filesystem window opens.

- 8 Click Yes and Submit on the Monitor Filesystem window to enable disk space monitoring for this file system.



The Filesystem threshold values window opens.

- 9 Optionally change the alarm thresholds and then click Submit.



The Create Filesystem window opens.

- 10 Review the provisioning data and click Confirm to commit the change.

Filesystem Name	Total Space Available (GB)	New Size (MB)
/newfilesystem	12.94	100

Export Options

172.16.1.11/255.255.255.255
(rw,secure,no_root_squash,no_all_squash)

Alarm Threshold	(%)
Minor alarm	85.00
Major alarm	90.00
Critical alarm	95.00

Confirm Back Cancel

Due to overhead that the operating system requires, the size of the new file system is slightly larger than the value entered.

- 11 This procedure is complete.

Additional information

Improved security of exported data is available by specifying individual host IP addresses and a full subnet mask. For example, entering 47.142.226.247/255.255.255.255 allows only that host to access the export. Multiple export entries are available for each file system and offers access to exported data on a host by host basis.

In the following figure, two hosts are allowed to access the export entry. Attempts to mount the file system from all other hosts are denied.

STORM Filesystem Information (/newfilesystem) - Microsoft Internet Explorer provided by Nortel N...

Action	Filesystem Name	Total Space (MB)	Total Space Used (%)	New Size (MB)
<input type="button" value="Increase"/>	/newfilesystem	123.31	0.20	<input type="text" value="123.31"/>

Add/Remove	Export Options
<input type="button" value="Remove"/>	172.16.1.11/255.255.255.255 (rw,secure,no_root_squash,no_all_squash)
<input type="button" value="Remove"/>	172.16.1.12/255.255.255.255 (rw,secure,no_root_squash,no_all_squash)
<input type="button" value="Add"/>	<input type="text" value="127.0.0.1/255.255.255.0(rw,secure,no_root_squash,no_all_squash)"/>

	Current threshold (%)	New threshold (%)
Minor alarm	85.00	<input type="text" value="85.00"/>
Major alarm	90.00	<input type="text" value="90.00"/>
Critical alarm	95.00	<input type="text" value="95.00"/>

Removing a file system

**CAUTION****Possible service interruption**

Perform file system removal only at the direction of Nortel support personnel. Deleting file systems is a permanent loss of data, which could result in possible service interruption.

At the STORM Manager client workstation

- 1 Enter the name of the file system in the blank field under the Create/Remove Filesystem section in the center of the Storage panel.

Note: Deletion of file systems / and /storm is not allowed.

/mtc	.	1,019.31	0.25	0.02	1,019.06	99.98	85.00
m	.	123.31	0.25	0.20	123.06	99.80	85.00

Create/Remove Filesystem

Create New Filesystem	<input type="text"/>	Remove Filesystem
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- 2 Click the Remove Filesystem button.
- 3 This procedure is complete.

Increasing file system size

At the *STORM Manager client workstation*

- 1 Click on the Storage panel tab.
- 2 Click on the link for the file system to increase.

The screenshot shows the STORM Disk Management interface. At the top, there is a table with the following data:

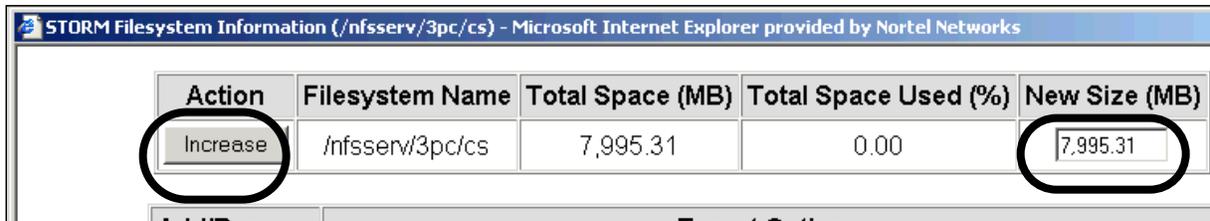
DISK Number	Disk Size (GB)	Disk St
0	68.37	.
1	68.37	.

Below this is the 'Filesystem Information' table:

Monitor	Filesystem Name	Test Results	Total Space (MB)	Total Space Used (MB)	Total Space Used (%)	To Sp Avail (M
Stop	/	.	54.46	48.56	89.16	5.
Stop	/boot	.	98.65	18.70	18.96	79
Stop	/storm	.	1,019.31	1.28	0.13	1,01

The STORM Filesystem Information window for the file system opens.

- 3 Enter the value for the file system size in the New Size field and click the Increase button.



Action	Filesystem Name	Total Space (MB)	Total Space Used (%)	New Size (MB)
Increase	/nfsserv/3pc/cs	7,995.31	0.00	7,995.31

The window closes and the increase is shown on the Storage panel.

- 4 This procedure is complete.

Enable client access to a file system

Have the IP address of the client host.

At the STORM Manager client workstation

- 1 Click on the Storage panel tab.
- 2 Click the link for the file system to export to the client.

DISK Number	Disk Size (GB)	Disk State	Disk Action
0	68.37	.	Remove
1	68.37	.	Remove

Monitor	Filesystem Name	Test Results	Total Space (MB)	Total Space Used (MB)	Total Space Used (%)	Total Space Available (MB)	Total Space Available (%)	Min Alarm Thresh (%)
Stop	/	.	54.46	48.56	89.16	5.90	10.84	96.0
Stop	/boot	.	98.65	18.70	18.96	79.95	81.04	85.0
Stop	/storm	.	1,019.31	1.28	0.13	1,018.04	99.87	85.0

The STORM Filesystem Information window for the file system opens.

3 Review the existing export options for the file system.

Action	Filesystem Name	Total Space (MB)	Total Space Used
Increase	/nfsserv/3pc/cs	7,995.31	0.00

Add/Remove	Export Options
Remove	47.131.125.5/255.255.255.128(rw,secure,no_root_squash,...
Remove	47.131.125.10(rw,secure,no_root_squash,no_all_...
Add	127.0.0.1/255.255.255.0(rw,secure,no_root_squash,no_all_squash,sy...

	Threshold (%)
Minor alarm	85.00

4 Determine the next action:

If the client IP address

is part of a provisioned subnet and subnet mask

is not part of a provisioned subnet or subnet mask

Do

The file system is already provisioned to allow access from the client. This procedure is complete.

Proceed to [step 5](#).

5 Edit the field beside the Add button.

If less restrictive security is preferred, enter the subnet IP address for the client and a 255.255.255.0 subnet mask.

Example

47.129.10.0/255.255.255.0(rw,secure,no_root_squash,no_all_squash)

If greater security is preferred, enter the IP address of the client and a 255.255.255.255 subnet mask or just the client IP address.

Example

47.129.10.13/255.255.255.255(rw,secure,no_root_squash,no_all_squash)

- 6** Click the Add button.
The window closes and the change is committed.
- 7** This procedure is complete.

Remove client access to a file system



CAUTION

Possible service interruption

Removing client access can disrupt service if subnet access is accidentally removed or if a host that requires access is accidentally removed.

Perform this procedure at the direction of Nortel support personnel.

At the *STORM Manager* client workstation

- 1 Click on the Storage panel tab.
- 2 Click on the link for the file system to modify.

STORM Disk Management - Microsoft Internet Explorer provided by Nortel Networks

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print Refresh

Address <https://47.131.125.5/disk-management.php?PHPSESSID=7a262e364269e25dff50f68ec85566c5>

DISK Number	Disk Size (GB)	Disk State	Disk Action
0	68.37	.	<input type="button" value="Remove"/>
1	68.37	.	<input type="button" value="Remove"/>

Filesystem Information

Monitor	Filesystem Name	Test Results	Total Space (MB)	Total Space Used (MB)	Total Space Used (%)	Total Space Available (MB)	Total Space Available (%)	Minor Alarm Threshold (%)	Major Alarm Threshold (%)
<input type="button" value="Stop"/>	/	.	54.46	48.56	89.16	5.90	10.84	96.00	97.00
<input type="button" value="Stop"/>	/boot	.	98.65	18.70	18.96	79.95	81.04	85.00	90.00
<input type="button" value="Stop"/>	/storm	.	1,019.31	1.28	0.13	1,018.04	99.87	85.00	90.00

The *STORM Filesystem Information* window for the file system opens.

3 Review the existing export options for the file system.

STORM Filesystem Information (/nfsserv/3pc/cs) - Microsoft Internet Explorer provided by Nortel Networks

Action	Filesystem Name	Total Space (MB)	Total Space Used (%)
Increase	/nfsserv/3pc/cs	7,995.31	0.00

Add/Remove	Export Options
Remove	47.131.125.5/255.255.255.128(nw,secure,no_root_squash,no_
Remove	47.131.125.10(nw,secure,no_root_squash,no_all_squ
Add	127.0.0.1/255.255.255.0(nw,secure,no_root_squash,no_all_squash,sync)

Minor alarm	Threshold (%)
	85.00

4 Determine the next action:

If the client IP address

is listed alone as an entry, or listed alone with a 255.255.255.255 subnet mask

is part of a provisioned subnet such as 47.129.10.0, or the subnet mask is not 255.255.255.255

Do

Click the Remove button to disable access from that host only.

Verify that no other hosts on the specified subnet are using the file system and then click the Remove button.

5 This procedure is complete.

Additional information

Clicking the Remove button on the first entry in the example above would disable access from all hosts on the 47.131.125.0 subnet since the netmask is 255.255.255.0. Proceed with caution when removing entries like this one. Ensure that no hosts on the 47.131.125.0 subnet are using the file system before clicking Remove.

The second example, 47.131.36.101 can be removed by clicking the Remove button without affecting the service on any subnets. However, ensure that the 47.131.36.101 host is in a maintenance state or offline before removing the file system entry.

Starting file system monitoring

The STORage Management (STORM) software has the ability to monitor disk usage and to raise critical, major, and minor alarms when thresholds are crossed.

Use this procedure to enable file system monitoring. Nortel recommends monitoring all file systems.

At the STORM Manager client workstation

- 1 Click on the Storage panel tab.
- 2 Optionally edit the alarm thresholds.
- 3 Click the green Start button to enable monitoring.

Disk Maintenance									
Disk Number	Disk State	Disk Action							
1	.	Remove							
2	.	Remove							

Filesystem Information									
Monitor	Filesystem Name	Test Results	Total Space (MB)	Total Space Used (MB)	Total Space Used (%)	Total Space Available (MB)	Total Space Available (%)	Minor Alarm Threshold (%)	Maj Alarm Thres (%)
Stop	/	.	52.95	49.06	92.64	3.90	7.36	96.00	97.00
Stop	/boot	.	98.65	57.17	57.96	41.48	42.04	85.00	90.00
Start	/storm	.	1,019.31	24.20	2.37	995.11	97.63	85.00	90.00
Stop	/nfsserv/usp	.	2,011.31	1,074.47	53.42	936.84	46.58	85.00	90.00

The window refreshes, monitoring starts, and the green Start button becomes a gray Stop button.

- 4 This procedure is complete.

Stopping file system monitoring

The STORage Management (STORM) software has the ability to monitor disk usage and to raise critical, major, and minor alarms when thresholds are crossed.

Use this procedure to disable file system monitoring. Disabling monitoring is necessary for reconfiguring monitoring thresholds.

Nortel recommends monitoring all file systems.

At the STORM Manager client workstation

- 1 Click on the Storage panel tab.
- 2 Click the grey Stop button for the file system to disable monitoring.

Filesystem Information							
Monitor	Filesystem Name	Test Results	Total Space (MB)	Total Space Used (MB)	Total Space Used (%)	Total Space Available (MB)	Total Space Available (%)
Stop	/	.	52.95	49.06	92.65	3.89	7.35
Stop	/boot	.	98.65	57.17	57.96	41.48	42.04
Stop	/storm	.	1,019.31	24.28	2.38	995.03	97.62
Stop	/nfsserv/usp	.	2,011.31	1,074.47	53.42	936.84	46.58

The window refreshes, monitoring stops, and the gray Stop button becomes a green Start button.

- 3 Do not leave monitoring disabled any longer than necessary to change the alarm thresholds.
- 4 This procedure is complete.

Editing file system monitoring thresholds

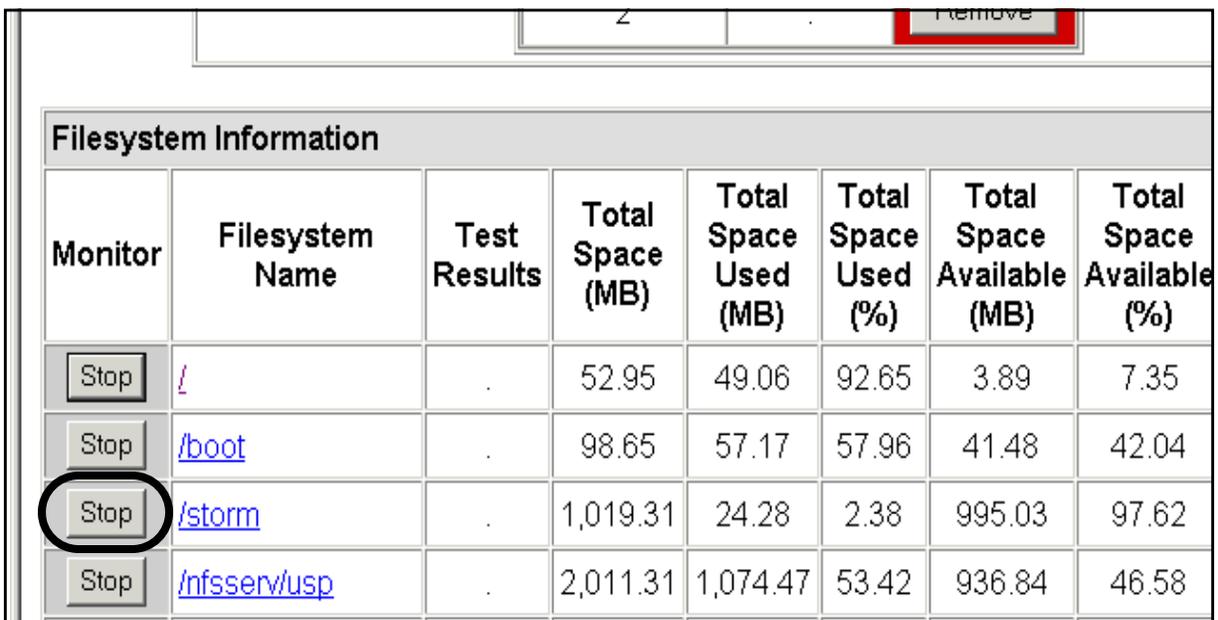
The STORage Management (STORM) software has the ability to monitor disk usage and to raise critical, major, and minor alarms when thresholds are crossed.

Use this procedure to reconfigure file system monitoring thresholds. Disabling monitoring is necessary for reconfiguring monitoring thresholds.

Nortel recommends monitoring all file systems.

At the STORM Manager client workstation

- 1 Click on the Storage panel tab.
- 2 Click the grey Stop button for the file system to modify.



Filesystem Information							
Monitor	Filesystem Name	Test Results	Total Space (MB)	Total Space Used (MB)	Total Space Used (%)	Total Space Available (MB)	Total Space Available (%)
Stop	/	.	52.95	49.06	92.65	3.89	7.35
Stop	/boot	.	98.65	57.17	57.96	41.48	42.04
Stop	/storm	.	1,019.31	24.28	2.38	995.03	97.62
Stop	/nfsserv/usp	.	2,011.31	1,074.47	53.42	936.84	46.58

The window refreshes, monitoring stops, and the gray Stop button becomes a green Start button.

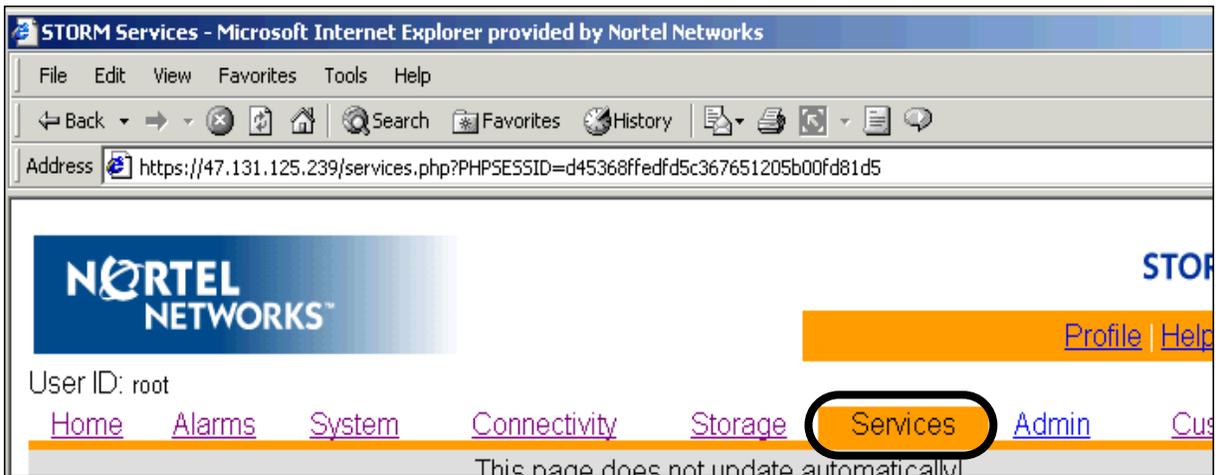
- 3 Enter new values for the minor, major, and critical thresholds.
- 4 Click the green Start button for the file system.
- 5 This procedure is complete.

Adding TFTP configuration information

The STORAGE Management (STORM) unit acts as a trivial file transfer protocol (TFTP) server for some network elements in the Nortel Carrier Voice over IP network.

At the STORM Manager client workstation

- 1 Click on the Services panel tab.



- 2 Enter the name of the directory to make available to TFTP requests in the blank field under column Directory Name.

Note: This entry must be fully specified from root (“/”).

NTP Information			
Server 1	Server 2	Server 3	Service
47.129.30.110 in sync	47.131.57.21 in sync	undefined	Run

TFTP Configuration	
Directory Name	Add/Remove
/tftpboot	
<input type="text" value="/nfsserv/usp"/>	<input type="button" value="Add"/>

- 3 Click on the Add button.

The screen refreshes and the entry is added to the list of directories available for TFTP requests.

- 4** This procedure is complete.

Deleting TFTP configuration information



CAUTION

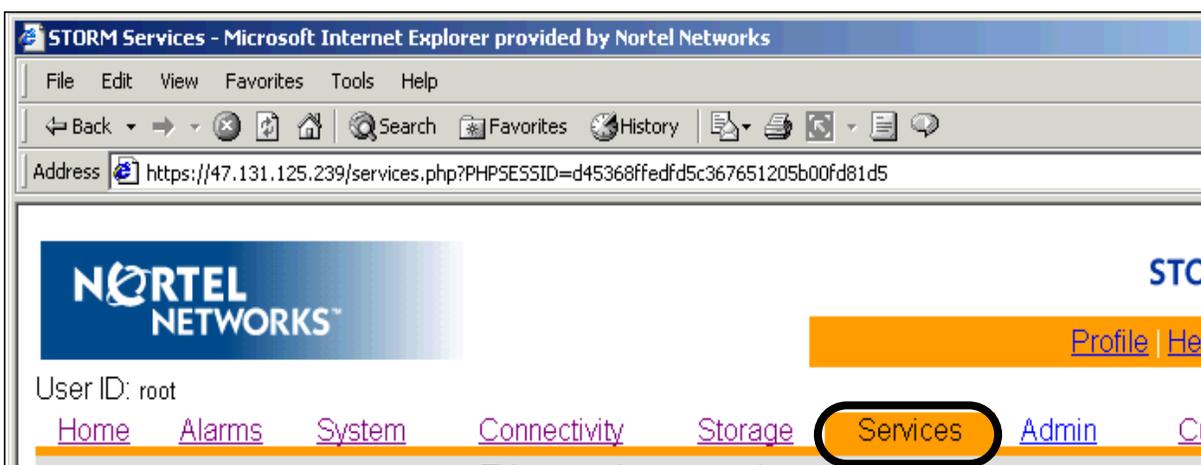
Possible service interruption

Deleting a trivial file transfer protocol (TFTP) directory that is used by a client network element will cause the client network element to fail in the event of a restart on the client network element.

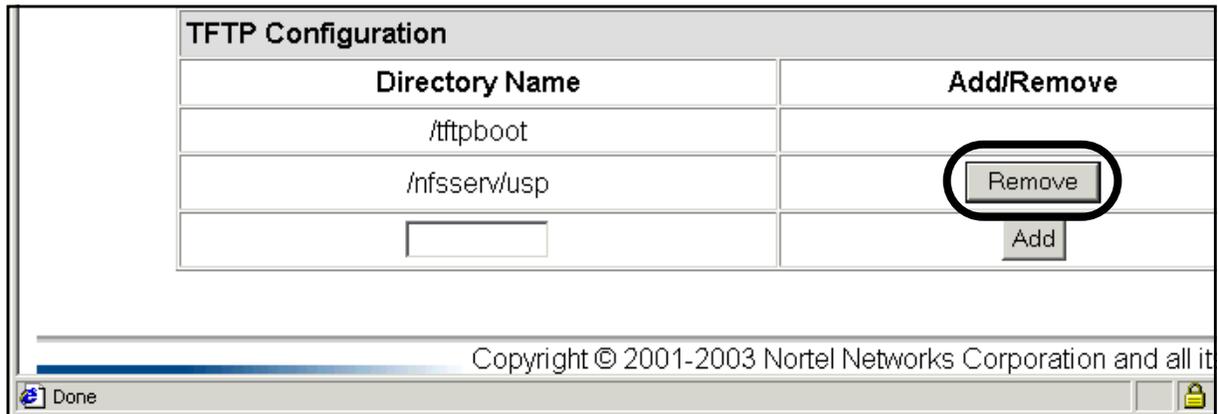
Perform this procedure at the direction of Nortel support personnel.

At the *STORM Manager client workstation*

- 1 Click on the Services panel tab.



- 2 From the list under the Directory Name column, locate the name of the TFTP directory to be deleted.
- 3 Click on the Remove button under the Add/Remove column.



The screen refreshes, the entry is deleted, and the files in the directory are not available for TFTP transport. Files in the directory are not deleted.

- 4 This procedure is complete.

Reconfigure NTP server

The STORAge Manager (STORM) uses Network Time Protocol (NTP) to synchronize time with other network elements. If the NTP servers change IP addresses, reconfigure the STORM units as follows.

STORM cPCI

STORM cPCI units receive NTP server information from the BOOTP response delivered by the CS 2000 Core Manager. When the NTP server information is reconfigured for the Shelf Controllers, all cards in the SAM21 shelf receive the updated NTP server address. The STORM unit requires a lock and unlock to update the information.

STORM SAM-XTS unit in a STORM-IA

Reconfiguration of the NTP server addresses is completed from a console session. Use a secure shell (SSH) client to connect to the STORM unit.

Note: In this document and in the other STORM documents, we use the term STORM Integrated Array (STORM-IA) to refer to the STORM installation that uses two STORM SAM-XTS shelves. We continue to use the term STORM SAM-XTS to refer to the hardware platform, and to identify the shelf type.

At an SSH enabled workstation

- 1 Open a connection to the STORM unit and login as the root user.

```
$ ssh -l root <ip_address>
```
- 2 Start the commissioning shell application on the STORM unit.

```
STORM-name> commish
```

The menu driven application starts.

```
System Setup, Copyright 2002 Nortel Networks, All Rights Reserved
-----
Setup Stages | Introduction to System Setup
-----
Introduction | -----
Hostname |
IPAddress | Welcome to the system setup tool.
Netmask |
Gateway |
Timezone |
NTP |
Logs |
SNMP |
Applications |
Summary |
-----
| Abort | | Next>> |
-----
This tool will help you to bring this server into service.
Use the <TAB> key to move and select fields
and the <ENTER> key to confirm the selection
```

- 3 Press the Enter key to confirm all the existing provisioned data until NTP is highlighted in the left hand column.

4 Provision the new IP addresses of the NTP servers.

System Setup, Copyright 2002 Nortel Networks, All Rights Reserved

Setup Stages	Configure the Network Time Protocol (NTP) servers
Introduction	
Hostname	
IPAddress	Please enter from 1 to 3 NTP server IP addresses
Netmask	
Gateway	NTP Server 1
Timezone	[47.129.30.110]
NTP	NTP Server 2
Logs	[47.131.57.21]
SNMP	NTP Server 3
Applications	[]
Summary	

| <<Back |
| Next>> |

Please specify a space separated list of up to 3 NTP server IP addresses you want the server to synchronize with.
For example: '192.168.5.3 192.168.5.4 192.168.6.72'

Note: Use the Tab key to navigate to the fields available on the right hand side of the screen.

- 5 Use the Enter key to confirm existing provisioning data and then use the Tab key to position on the Finish button and press Enter.

The provisioning data is committed, the STORM unit begins to synchronize with the servers, and the STORM Manager indicates that synchronization is in progress.

Network Services

NFS Status	TFTP Status	Active Remote Sessions
Running	Provisioned	4

NTP Information

Server 1	Server 2	Server 3	Service Status
47.129.30.110 establishing sync	47.131.57.21 establishing sync	47.142.226.247 establishing sync	Running

- 6 Wait five minutes for the STORM unit to synchronize with the NTP servers. Reload the page and ensure that the NTP Information changes from “establishing sync” to “in sync.”
- 7 This procedure is complete.

Additional information

The **commish** application requires a vt100 capable client terminal application. If the screen becomes garbled after starting the application, reset the client terminal application and then set the environment on the STORM unit to vt100.

```
STORM-name> export TERM=vt100
```

Configuring the Apache web server for HTTPS proxy for STORM

Perform this procedure only if you have been instructed to do so by the procedure for configuring the Apache web server for HTTPS proxy, found in *CS 2000 Management Tools Configuration Management*, NN10409-500.

Do not perform this procedure at any other time.

The prerequisites for this procedure are as follows. You must know the IP address of STORM unit 0, and the IP address of STORM unit 1.

Note: The IP address of a STORM unit is the address that you enter into your browser when you want to log in to the STORM unit.

Configuring the Apache web server for HTTPS proxy for STORM

At your workstation

- 1 The last thing you did in the procedure that sent you here was to select the “add_proxy_conf” option. Now the system is displaying the following prompt:

```
Enter proxy IP address (X to exit):
```

```
Enter the IP address of STORM unit 0. Type
```

```
><IP-address>
```

```
and press the Enter key
```

```
where
```

```
<IP-address> is the IP address of STORM unit 0
```

```
For example, if the IP address were 23.24.25.26, you would type
```

```
23.24.25.26
```

```
and press the Enter key.
```

Example of system response:

```
Enter hostname/tag associated with IP  
23.24.25.26:
```

- 2 Here you must again enter the IP address of STORM unit 0. Type **><IP-address>**

and press the Enter key

where

<IP-address> is the IP address of STORM unit 0

Note: You are adding a proxy to enable Integrated EMS to launch the STORM user interface. In this case you must enter the IP address, not a hostname.

For example, if the IP address were 23.24.25.26, you would type

23.24.25.26

and press the Enter key.

Example of system response:

Optional, enter remote hostname/tag associated with IP 23.24.25.26:

- 3 Do not type in a remote tag name. Just press the Enter key.

Example of system response:

Enter port number [443]:

- 4 Do not type in a port number. Just press the Enter key.

Example of system response:

Accept the following values:

IP Address = 23.24.25.26

Hostname = 23.24.25.26

Remote Tag =

Port Num = 443

!!WARNING!! This will result in WEBSERVER going down (restarting) for a short time

Continue? [Y/N]:

- 5 Confirm the values. Type

Y

and press the Enter key.

Example of system response:

The Apache web service stops and restarts, and then displays the Apache Proxy Configuration menu.

Apache Proxy Configuration

- 1 - add_proxy_conf (Add an IP to the Apache Proxy Module configuration)
- 2 - del_proxy_conf (Delete an IP from the Apache Proxy Module configuration)
- 3 - list_proxy_conf (List the Apache Proxy Module configuration)

X - exit

select -

- 6 Specify that you want to add another proxy configuration. Type

1

and press the Enter key.

Example of system response:

Enter proxy IP address (X to exit):

- 7 Enter the IP address of STORM unit 1. Type

><IP-address>

and press the Enter key

where

<IP-address> is the IP address of STORM unit 1

For example, if the IP address were 23.24.25.28, you would type

23.24.25.28

and press the Enter key.

Example of system response:

Enter hostname/tag associated with IP

23.24.25.28:

- 8** Here you must again enter the IP address of STORM unit 1. Type **><IP-address>** and press the Enter key.

where

<IP-address> is the IP address of STORM unit 1

Note: You are adding a proxy to enable Integrated EMS to launch the STORM user interface. In this case you must enter the IP address, not a hostname.

For example, if the IP address were 23.24.25.28, you would type

23.24.25.28

and press the Enter key.

Example of system response:

Optional, enter remote hostname/tag associated with IP 23.24.25.28:

- 9** Do not type in a remote tag name. Just press the Enter key.

Example of system response:

Enter port number [443]:

- 10** Do not type in a port number. Just press the Enter key.

Example of system response:

Accept the following values:

IP Address = 23.24.25.28

Hostname = 23.24.25.28

Remote Tag =

Port Num = 443

!!WARNING!! This will result in WEBSERVER going down (restarting) for a short time

Continue? [Y/N]:

- 11** Confirm the values. Type

Y

and press the Enter key.

Example of system response:

The Apache web service stops and restarts, and then displays the Apache Proxy Configuration menu.

Apache Proxy Configuration

- 1 - add_proxy_conf (Add an IP to the Apache Proxy Module configuration)
- 2 - del_proxy_conf (Delete an IP from the Apache Proxy Module configuration)
- 3 - list_proxy_conf (List the Apache Proxy Module configuration)

X - exit

select -

- 12** You have completed this procedure. Return to the procedure that sent to this document, and continue working according to the instructions in that procedure.