

IBM TotalStorage Master Console for  
SAN File System and SAN Volume Controller



# Installation and User's Guide - Errata

*Version 3 Release 1*

Revised September 9 2005



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# Contents

<b>Contents</b> .....	<b>3</b>
<b>About this guide</b> .....	<b>5</b>
Who should use this guide .....	5
Last Update .....	5
<b>Chapter 3. Planning for the Master console</b> .....	<b>7</b>
Hardware master console configuration steps .....	7
<b>Chapter 4. Installing master console software</b> .....	<b>9</b>
Installing Tivoli SAN Manager .....	9
Installing IBM Director .....	9
Preconfiguring IBM Director .....	10
Mirroring the boot drive .....	10
<b>Chapter 5. Configuring the master console</b> .....	<b>13</b>
Hardware master console configuration steps .....	13
Configuring the master console host name .....	14
Configuring the network .....	14
Entering IP Address for Ethernet Port 1 .....	15
Entering the IP Address for Ethernet Port 2 .....	15
Configuring the browser .....	15
Generating an SSH key pair using the PuTTYgen .....	16
Configuring a default PuTTY session .....	16
Storing Keys in the SAN Volume Controller Console software .....	17
Setting up error notification for SAN Volume Controller .....	18
Setting up email notification for SAN Volume Controller .....	18
Setting up Call Home for SAN Volume Controller .....	19
Setting up email notification for SAN File System .....	21
Compiling MIBs for SAN File System .....	21
Configuring service alert for SAN File System .....	23
Setting up email notification for SAN File System 25	
<b>Chapter 6. Managing the master console</b> .....	<b>27</b>
Recovering Action Plan preconfiguration data .....	27
<b>Notices</b> .....	<b>29</b>



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## About this guide

This guide provides errata information that pertains to version 3 release 1 of the *IBM TotalStorage Master Console for SAN File System and SAN Volume Controller Installation and User's Guide*.

This guide contains the corrections and additions on a per chapter basis. The chapter numbers in this guide correspond directly with the chapter numbers in the Installation and User's Guide provided with your master console.

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## Who should use this guide

Before installing or configuring the master console, review the errata contained within this guide and note the details with respect to the copy of the Installation and User's Guide supplied with your master console.

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## Last Update

This document was last updated: September 9, 2005



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## Chapter 3. Planning for the Master console

### Important:

The chapter describes planning information that augments the information in the information center and the *Installation and User's Guide*. Cross references in this chapter are all cross references to sections elsewhere in this document.

The following changes should be noted.

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### Hardware master console configuration steps

This section replaces the section "*Hardware master console configuration steps*" in the information center and the *Installation and User's Guide*:

If you have purchased a master console with the software preinstalled you should:

1. Complete all the master console planning steps in this chapter.
2. Go to Chapter 5, "Hardware master console configuration steps" on page 13 and perform the configuration tasks described there. Do not perform the steps in Chapter 4, "Installing master console software". These are only required if you did not purchase the master console software preinstalled on the hardware.





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## Chapter 4. Installing master console software

The chapter describes installation information that corrects the information in the information center and the *Installation and User's Guide*.

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### Installing Tivoli SAN Manager

This is a direct replacement for step 3 in Installing Tivoli SAN Manager.

3. From the Tivoli Storage Area Network Manager setup wizard, perform these steps to install Tivoli Storage Area Network Manager:
  - a. Select the language to be used for the installation, and click **OK**.
  - b. From the Controller Firmware Warning panel, click **OK**.
  - c. From the Welcome menu, click **Next**.
  - d. From the License Agreement panel, click **I accept the terms in the license agreement**, and then click **Next**.
  - e. From the Destination Directory panel, click **Next** to accept the default directory.
  - f. From the base port number panel, click **Next** to accept the default.
  - g. From the data repository panel, click **DB2**, and then click **Next**.
  - h. From the Single/Multiple User ID/Password Choice panel, you can decide to use the DB2 Administrator username and password you specified during the DB2 installation for all IDs and passwords on this panel. You can also choose to use different IDs and passwords for each of the IDs and passwords on this panel. After choosing, click **Next**.
  - i. Enter the DB2 Administrator username and password. Confirm the password and click **Next**.

**Note:** If you chose not to use the DB2 Administrator username and password, you will be prompted to enter IDs and passwords for DB2, Websphere, host authentication, and NetView.
  - j. From the database name panel, click **Next** to accept the default.
  - k. From the Tivoli Network installation drive menu, click **Next** to accept the default.
  - l. From the installation confirmation menu, click **Next**.
  - m. When prompted, click **Finish** to complete the installation of the Tivoli SAN Manager. Note that the machine will reboot and the master console installation wizard will continue.

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### Installing IBM Director

This is a direct replacement for step 3 in Installing IBM Director.

3. The IBM Director Setup Wizard is launched. From the Setup Wizard, perform these steps to install IBM Director:

- a. From the Welcome panel, click **Next**.
- b. From the License Agreement panel, click **I accept the terms in the License Agreement**, and click **Next**.
- c. From the Server Plus Pack panel, click **Next**.
- d. From the Feature and Installation Directory panel, click the Red x for SNMP Access and Trap Forwarding. Click **This Feature will be installed on the local hard drive**, and click **Next**.
- e. From the IBM Director service account information panel, fill in the following fields:
  - Domain. Enter the host name for the master console.
  - User name. Enter a Windows user account that has administrative privileges.
  - Password. Enter the password for the Windows user account (and confirm it).Then click **Next**.
- f. From the Encryption Settings panel, click **Next** to accept the defaults
- g. From the Software distribution settings panel, click **Next** to accept the defaults.
- h. Click **Install** to begin the installation.
- i. From the Network Drivers configuration pop-up, select the first port and then click **Enable driver**. Click **OK**.
- j. From the IBM Director database configuration, make sure that **Microsoft Jet 4.0**, which is the default, is selected. Do not select DB2 here. Then click **Next**.
- k. From the IBM Director Microsoft Jet database configuration, simply click **Next** because you cannot change any of the Jet database configuration values.
- l. Click **Finish** to complete the installation.
- m. When prompted to reboot the system, click **No**.
- n. From the master console installation wizard, click **Next**. The master console installation wizard validates the installation of IBM Director. If the validation is not successful, the Verify IBM Director Installation panel displays an error. Correct all errors and restart the master console installation wizard.

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## Preconfiguring IBM Director

This is a direct replacement for step 7 in Preconfiguring IBM Director.

7. Click **Local System account** and select **Allow service to interact with desktop**. Click **Apply**.

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## Mirroring the boot drive

This is a direct replacement for step 12 h in Mirroring the boot drive.

- h.** Copy the line for the system disk, and change Primary to Secondary, and change the system disk (for example, rdisk(0)) to mirrored disk (for example, rdisk(1)). The file should look similar to the following example:

```
[boot loader]
```

```
timeout=30 default=multi(0)disk(0)rdisk(0)partition(1)\WINNT
```

```
[operating systems]
```

```
multi(0)disk(0)rdisk(0)partition(1)\WINNT="Microsoft Windows 2000 Advanced Server Primary" /fastdetect
```

```
multi(0)disk(0)rdisk(1)partition(1)\WINNT="Microsoft Windows 2000 Advanced Server Secondary" /fastdetect
```



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## Chapter 5. Configuring the master console

The chapter describes configuration information that augments the information in the information center and the *Installation and User's Guide*.

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### Hardware master console configuration steps

If you are installing a hardware master console, this section replaces the nine steps listed under Configuring the master console in the information center and the *Installation and User's Guide*:

If you are installing a hardware master console, this section replaces the nine steps listed under Configuring the master console in the information center and the *Installation and User's Guide*:

This topic describes the general steps needed to configure the master console when you have purchased it preinstalled on hardware.

**Note:**

When a CD is inserted onto a Windows 2003 system with Autoplay enabled, a pop up appears with the text:

The disk or device contains more than one type of content.

What do you want Windows to do?

There is then a list of options with different actions associated with them.

When using the master console install CDs the correct action is:

Take No Action

To disable these popups follow these steps:

1. From the desktop, click **Start > Run**.
2. In the **Open** field, type **explorer** and then press Enter.
3. In the left panel, click **My Computer**.
4. In the right panel, right-click the icon for your CD drive and click **Properties**.
5. Click **Autoplay** tab.
6. Click **Mixed Content** type from the drop-down menu.
7. Click **Select an action to perform**.
8. Click **Take no action**.
9. Click **OK**.

Perform these steps to configure your hardware master console:

1. To begin configuring software on the master console, you must be logged in as a local administrator (for example, as the user, Administrator) on the system where the master console software is installed.
2. Configure the master console host name. See Chapter 5, "Configuring the master console host name" on page 14.

3. Configure the network. See Chapter 5, "Configuring the network" on page 14.
4. Configure the browser. See Chapter 5, "Configuring the browser" on page 15.
5. Generate an SSH key pair using the PuTTYgen. See Chapter 5, "Generating an SSH key pair using the PuTTYgen" on page 16.
6. Configure a default PuTTY session for command-line interface (CLI) access only. See Chapter 5, "Configuring a default PuTTY session" on page 16.
7. Store Keys in the SAN Volume Controller Console software. See Chapter 5, "Storing Keys in the SAN Volume Controller Console software" on page 17.
8. Set up email notification and call home for SAN Volume Controller. See Chapter 5, "Setting up error notification for SAN Volume Controller" on page 18.
9. Setting up email notification for SAN File System. See Chapter 5, "Setting up email notification for SAN File System" on page 21.
10. Install your chosen antivirus software on the master console.

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## Configuring the master console host name

This is a new topic in this chapter.

This topic describes how to configure the master console host name.

1. From the desktop, click **Start**.
2. Right-click on the **My Computer** icon.
3. Click on **Properties**.
4. Click **Computer Name**.
5. Click **Change**.
6. Type the master console host name in the **Computer name** field.
7. Click **More**.
8. Type the full path information in the **Primary DNS suffix of this computer** field.
9. Run the `install_path\MasterConsole\Support Utils\mcconfig.exe` command, where `install_path` is the drive letter and the directory where the master console is installed.

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## Configuring the network

This is a new topic in this chapter.

## Entering IP Address for Ethernet Port 1

This topic describes how to configure the IP address for the external Internet connection for Remote Access (Ethernet port 1).

**Tip:** After configuring the connection, you can disable it when you are not using remote access.

Perform these steps to configure the IP address for the external Internet connection:

1. From the desktop, right-click on the **My Network Places** icon.
2. Click **Properties**.
3. Right-click **Local Area Connection 1**.
4. Click **Properties**.
5. Click **Internet Protocol (TCP/IP)**.
6. Click **Properties**.
7. Type all required information for the IP and DNS addresses.
8. Connect Ethernet port 1 to the network.

## Entering the IP Address for Ethernet Port 2

This topic describes how to configure the IP address for the internal IP network connection (Ethernet port 2).

Perform these steps to configure the IP address for the internal network connection:

1. From the desktop, right-click on the **My Network Places** icon.
2. Click **Properties**.
3. Right-click **Local Area Connection 2**.
4. Click **Properties**.
5. Click **Internet Protocol (TCP/IP)**.
6. Click **Properties**.
7. Type all required information for the IP and DNS addresses.
8. Connect Ethernet port 2 to the network.

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## Configuring the browser

This is a new topic in this chapter.

This topic describes the Internet browser configurations.

If you are intending to access the SAN Volume Controller Console using a browser other than the one preinstalled on this master console, use your chosen browser's configuration instructions to ensure that new windows (pop-ups) are allowed to automatically open when you visit a Web site. Also uninstall or turn off any applications that block or suppress pop-up windows.

---

## Generating an SSH key pair using the PuTTYgen

This is a new topic in this chapter.

This task describes how to generate SSH keys using PuTTYgen on the master console.

You will need to generate SSH keys to be used for the SAN Volume Controller. You will be prompted for these keys when you install the SAN Volume Controller console.

Perform these steps to generate SSH keys on the master console:

1. Start the PuTTY Key Generator. Click **Start** → **Programs** → **PuTTY** → **PuTTYgen**.
2. Click **SSH2 RSA** as the type of key to be generated.
3. Click **Generate**.
4. Move the cursor around the blank area of the Key section to generate a random number.
5. Click **Save public key** to save the public key.
6. Type **icat** as the name of the key and click **OK**.
7. Click **Save private key** to save the private key.
8. When prompted to confirm that you want to create the key without a passphrase, click **Yes**.
9. Type **icat.ppk** as the name of the key and click **OK**.
10. Close the PuTTY Key Generator.

---

## Configuring a default PuTTY session

This section already exists in the Installation and User's Guide but has been included here to improve the useability of this errata.

This topic explains how to configure a default PuTTY session so that you can run SSH from a command-line interface.

You only need to perform these steps if you are planning to run the PuTTY from a command prompt window and you are using private and public keys.

**Remember:** Keys are required for SAN Volume Controller, but they are not required for SAN File System.



Perform these steps to configure the PuTTY session on the master console:

1. Click **Start** —>**Programs** —> **PuTTY** —> **PuTTY** to open the PuTTY Configuration GUI window.
2. In the categories pane, make sure that **Session** is selected.
3. Select **SSH** as the protocol under the PuTTY basic options.
4. In the categories pane, click **Connection** —> **SSH**.
5. Select **2** as the preferred SSH protocol version.
6. In the categories pane, click **Auth**.
7. Type the fully-qualified file name of the SSH client private key file you specified when you used the PuTTY Key Generator in the **Private key file for authentication** field in the Authentication Parameters. For example, C:\Support Utils\PuTTY\icat.ppk.  
  
If you do not know the file name, you can click Browse to select the file name from the system directory.
8. In the categories pane, click **Session**.
9. In the Saved Sessions window, click **Default Settings**.
10. Click **Save** to save your settings.

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## Storing Keys in the SAN Volume Controller Console software

This section already exists in the Installation and User's Guide but has been included here to improve the useability of this errata.

This topic describes how to store your SSH keys in the SAN Volume Controller Console software. When the keys that are used to communicate with the SAN Volume Controller are changed, you must store a copy of the new private key in the SAN Volume Controller Console software.

Perform the following steps to store a copy of the new private key in the SAN Volume Controller Console software:

1. Open a command prompt window by clicking **Start** —>**Run**.
2. Type **cmd.exe** in the Open box. Click **OK**.
3. Type the following command:  
**copy path\filename C:\Program Files\IBM\svconsole\cimom\icat.ppk**  
where *path\filename* is the path and file name where you stored the SSH private key when it was generated in the previous procedure.  
**Note:** Directory names with embedded spaces must be surrounded by quotation marks.
4. Stop and start the IBM® CIM Object Manager to make the change take effect. Perform the following:
  - a. Click **Start** —> **Control Panel**.
  - b. Double-click **Administrative Tools**.
  - c. Double-click **Services**.

- d. From the list of services, right-click **IBM CIM Object Manager-SVC**. Select **Stop** and wait for Windows® to stop the service
- e. From the list of services, right-click **IBM CIM Object Manager-SVC**. Select **Start**.

---

## Setting up error notification for SAN Volume Controller

This replaces the existing section **Setting up service alert for SAN Volume Controller**

This topic provides an overview of configuring service alerts for SAN Volume Controller.

Before performing these procedures:

- SAN Volume Controller must be installed and configured.
- You need to know the serial number of the SAN Volume Controller.

You can configure IBM Director to alert your system administrator through e-mail when errors or events are logged by the SAN Volume Controller and you can choose to initiate a call-home to IBM when failures that require service actions are logged by the SAN Volume Controller.

## Setting up email notification for SAN Volume Controller

This task provides step-by-step instructions for configuring IBM Director to alert your system administrator via e-mail when errors or events are logged by the SAN Volume Controller.

Perform the following steps to configure IBM Director to notify your system administrator of SVC errors and events:

1. Cause a temporary error on the SAN Volume Controller to force an SNMP trap to be sent to the master console IP address. For example, temporarily remove one of the SAN Volume Controller fibre channel cables, which will cause error code 1060 to be displayed on the front panel of the SAN Volume Controller node. After this error is displayed, replace the fibre channel cable, and delete the entry in the SAN Volume Controller error log.
2. Log on to the master console.
3. From the desktop, double-click the **IBM Director console** icon to open the IBM Director console.
4. Log on to the IBM Director console.
5. Validate that IBM Director received the traps sent by SAN Volume Controller with these steps:
  - a. Double click the **Event Log** in the right column of IBM Director console.
  - b. Verify that the SNMP traps were received. SAN Volume Controller traps can be identified by displaying the **Event Type** field of the log. For SAN Volume Controller traps, the field will contain text starting

with SNMP.iso.org.dod.internet.private.enterprises.ibm.ibmProd.190. If the traps were not received:

- Contact your network administrator to ensure that there was not a networking problem.
  - Verify that the error notification setting on the SAN Volume Controller is not set to none.
  - Verify that the master console IP address has been configured.
- c. Close the Event Log.
  - d. From the IBM Director main panel, click **Tasks**—>**Event Action Plan Builder**. The Event Action Plan Builder panel opens.
  - e. Expand the Send an Internet (SMTP) E-mail hierarchy in the right column of the Event Action Plan Builder panel.
  - f. Double click **2145EventNot**.
  - g. Type the following information in the displayed form:
    - **Internet E-mail Address** Enter an e-mail address (for example, the e-mail address of the system administrator).
    - **Reply to** Enter the e-mail address to which you want replies to be directed.
    - **SMTP E-mail server** Enter the name or IP address of the SMTP mail server.
    - **SMTP port** Enter the port number through which e-mail is sent to your e-mail server. The default is 25.
    - **Subject of E-mail Message** Enter the following text: 2145 Event Notification.
    - **Body of E-mail Message** Enter any information that you want to be sent to the recipient of the e-mail (for example, machine location information). The body of the e-mail will also contain all the SNMP trap data containing the details of the event.
  - h. Click **File->Save**.
  - i. Close the Event Action Plan Builder panel.
  - j. Close the main IBM Director panel.

## Setting up Call Home for SAN Volume Controller

This task provides step-by-step instructions for configuring IBM® Director for the SAN Volume Controller error notification and service alert (the Call Home feature).

Perform the following steps to configure the master console to support the Call Home feature:

1. Log on to the master console.
2. From the desktop, double-click the **IBM Director** console icon to open the IBM Director console.
3. Log on to the IBM Director console.
4. From the IBM Director main panel, click **Tasks**—>**Event Action Plan Builder**. The Event Action Plan Builder panel opens.

5. Expand the Send an Internet (SMTP) E-mail hierarchy in the right column of the Event Action Plan Builder panel.
6. Double click **2145CallHome**
7. Type the following information in the displayed form:
  - a. **Internet E-mail Address** If the SAN Volume Controller is located in North America, Latin America, South America or the Caribbean Islands, enter

callhome1@de.ibm.com

If the SAN Volume Controller is located anywhere else in the world, enter

callhome0@de.ibm.com

- a. **Reply to** Enter the e-mail address to which you want replies to be directed.
- b. **SMTP E-mail server** Enter the name or IP address of the SMTP mail server.
- c. **SMTP port** Enter the port number through which e-mail is sent to your e-mail server. The default is 25.
- d. **Subject of E-mail Message** Enter the following text: 2145 Event Notification.
- e. **Body of E-mail Message** Complete the following text fields replacing the text shown in italics. Do not change any other fields in the body of the e-mail message:

# Contact name = *contact\_name (maximum 72 characters)*

# Contact phone number = *telephone\_number (maximum 72 characters)*

# Offshift phone number = *telephone\_number (maximum 72 characters)*

# Machine location = *machine\_location (maximum 72 characters)*

8. Click **File->Save**
9. Double click **2145Test**
10. Enter the information in the displayed form that you entered in step 7 with this additional text field to be completed in the Body of E-mail Message

# Serial Number = *serial number of any installed SAN Volume Controller*

**Note:** When filling out the serial number use the serial number of any SAN Volume Controller node that you have installed. The SAN Volume Controller node's serial number can be located on the label to the right of the front panel.

11. Click **File->Save**
12. Right-click **2145Test** and select **Test**. This will generate a Call-Home record. You will receive a phone call from an IBM representative within 24

hours to confirm that the Call-Home test has been successful. If you do not receive a phone call, you should report this as a Call-Home failure.

13. Close the Event Action Plan Builder panel.
14. Close the main IBM Director panel.

Note: The action Plan data is preconfigured. If this data becomes corrupted, the Call Home function and event notifications will fail. To recover Action Plan preconfiguration data that has been damaged see Chapter : "Recovering Action Plan preconfiguration data" on page 27.

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## Setting up email notification for SAN File System

This section already exists in the Installation and User's Guide but has been included here to improve the useability of this errata.

This topic provides an overview of configuring service alerts for SAN File System.

The Service Alert feature works as follows:

1. The SAN File System raises an SNMP trap as the result of a detected error.
2. IBM® Director on the master console receives notification of the trap.
3. IBM Director collects the trap and sends a specifically formatted e-mail to the specified system administrator.

**Note:** When an alert is sent by SAN File System, the system administrator may contact IBM Support Center if assistance is needed.

To configure service alerts, you need to compile the MIBs for the SAN File System and the RSA II adapter, and you also need to configure Service Alerts. You can also setup up e-mail notification.

### Compiling MIBs for SAN File System

This topic describes how to compile MIBs for the SAN File System on the master console.

The SAN File System cluster must be installed and operational and the metadata server must have been configured to send traps to the master console.

You need to compile MIBs for the SAN File System Service Alert feature and for the RSA II adapter.

Perform the following steps to compile the Service Alert MIB.

1. Use secure copy to copy the MIB from the metadata server to the master console:
  - a. Open a DOS command prompt on the master console.

- b. Change to the putty directory (cd /program files/putty) and run **pscp** to copy a file from a metadata server engine. Note that you enter the command on one line and that target\_file needs to end in the extension .mib.

```
pscp -l private_key_file -2  
userID@engine_IP_address:/usr/share/snmp/mibs/IBM-SANFS-MIB.txt  
target_file.mib
```

If private keys have not been exchanged with the metadata servers, use the following syntax:

```
pscp.exe -2  
userID@engine_IP_address:/usr/share/snmp/mibs/IBM-SANFS-MIB.txt  
target_file.mib
```

2. Open the IBM® Director console.  
**Note:** When you log in to IBM Director, the password for the IBM Director Login window must match the password for the IBM Director Server services.
3. In the Tasks menu, click **Discover Systems** and then **SNMP Devices**.
4. In the Groups pane on the left side of the panel, expand the All Groups group and right-click the SNMP Devices group, then click **Compile a new MIB**.
5. When the window opens, asking you to select the location of the new MIB, click the IBM-SANFS-MIB.txt file that you have saved.
6. The Status Messages window presents the following:  
MIB file submitted to the server.  
Starting MIB compile...  
MIB Parsing complete  
Resolving MIB imports  
Saving MIB objects...  
MIB Compile Finished.
7. Close the Status Messages window.
8. Compile the MIB for the RSA II adapter to configure it to send traps as well.
  - a. Download the RSA MIB. The MIB is obtained from the IBM Support Web site at <http://www.ibm.com/pc/support> as part of the firmware package for the RSA II adapter. You download the firmware update from IBM as a single executable file.
  - b. Run the executable file, which will request that you insert a diskette. The diskette is formatted and the updated software is copied to the diskette (including the MIB).
  - c. Use the same process for compiling the RSA MIB as for the SAN File System MIB. For more information, refer to the RSA II firmware documentation.

## Configuring service alert for SAN File System

This task provides instructions for configuring IBM® Director for the SAN File System error notification and service alert.

The SAN File System management information base (MIB) must have been compiled on the master console. In addition, the SAN File System cluster must be installed and operational, and the metadata servers must have been configured to send traps to the master console. See the SAN File System Installation and Configuration Guide for information about configuring SNMP traps on metadata server engines.

Perform the following steps to configure the master console to support the Service Alert feature:

1. Verify that the metadata servers can send Simple Network Management Protocol (SNMP) traps to the master console. From the master metadata server, run the following snmptrap commands. Note that the quote marks are two single quotes:

```
snmptrap -v 2c -c public master_console_IP_address "
SNMPv2-MIB:coldStart
```

```
snmptrap -v 2c -c public master_console_IP_address "
IBM-SANFS-MIB:sanfsGenericTrap
```

where master\_console\_IP\_address is the IP address or host name of the master console.

2. Log on to the master console.
3. From the desktop double-click the **IBM Director console** icon to open the IBM Director console.
4. Log on to the IBM Director console.
5. Validate that IBM Director received the traps sent by the SAN File System master metadata server.
  - a. Double-click **Event Log** in the right column of the IBM Director console.
  - b. Verify that the SNMP traps were received. Look for the metadata server hostname or IP address under the Sender Name column. If the traps were not received:
    - Contact your network administrator to ensure that there was not a networking problem.
    - Make sure that the SAN File System sent the traps.
  - c. Close the event log.
6. From the IBM Director main panel, click **Tasks**.
7. In the Tasks menu, click **Event Action Plan Builder**. The Event Action Plan Builder window opens.
8. From the Event Action Plan Builder window, right-click **Simple Event Filter** and click **New**.

9. A new simple event filter builder window opens. Perform the following steps:
  - a. In the Event Type tab, make sure that the Any option is not checked.
  - b. Expand the tree in the Event Type tab to select the following:

**SNMP.iso.org.dod.internet.private.enterprises.ibm.ibmProd.ibmSanfsModule.ibmSanfsTraps**

- c. Click File, and then click Save as.
  - d. Enter **tankGenericTrap** and the name of the event filter and click **OK**.
10. Right-click **Send an Internet (SMTP) E-mail** in the right column of the Event Action Plan Builder menu and click **Customize**.
11. Type the following information in the displayed form:
  - **Internet E-mail address.** Fill in an e-mail address to which to send service notifications (for example, the e-mail address of the system administrator).
  - **Reply to.** Fill in an e-mail address to which to send service notifications (for example, the e-mail address of the system administrator).
  - **SMTP e-mail server.** Enter the name or IP address of the SMTP mail server.
  - **SMTP port.** Enter the port number through which e-mail is sent on your e-mail server. The default is 25.
  - **Subject of E-mail Message** — Enter the following text: IBM SAN FS Call-home Notification.
  - **Body of E-mail message** — Enter the following text as shown.

```
#Machine type=machine_type
#Device serial number=serial_number
#Record type=1
#Component id=software
#Contact name=contact_name
#Contact phone=telephone_number
#Mgmt node=&system
#Date recvd=&date
#Time recvd=&time
```

where:

- *Machine\_type* is a four-digit device type and three-digit model.
- *Serial\_number* is the serial number of the master engine in the cluster.
- The *contact\_name* and *telephone\_number* can be any length and format.
- The values *&system*, *&date*, and *&time* are entered exactly as shown. They are not variables.



**Note:** E-mails will include the text of the service alert message.

12. Click **File**, and then click **Save As**.
13. Enter **IBM SAN FS Call-home Notification** as the name of the e-mail action, and then click **OK**.
14. Expand the Event Action Plan > Log All Events hierarchy in the left column of the Event Action Plan window.
15. Expand the **Simple Event Filter** hierarchy in the middle column of the Event Action Plan Builder window.
16. Drag the **tankGenericTrap** event filter from the middle column to **Log All Events** in the left column.
17. Click **Yes** in response to any warning pop-up windows that open.
18. Expand the **Send an Internet (SMTP) E-mail** hierarchy in the right column of the Event Action Plan Builder menu.
19. Drag the **IBM SAN FS Call-home Notification** item from the **Send an Internet (SMTP) E-mail** hierarchy to the **tankGenerictrap** item in the left column.
20. Click **Yes** in response to any warning pop-up windows that open.
21. Optionally, enable the action history, which will show a history of all events.
  - a. Right-click the action plan that you just created.
  - b. Click Action History.
  - c. Click Enable.
22. Close the Event Action Builder window.
23. Close the IBM Director window.

## Setting up email notification for SAN File System

This task provides step-by-step instructions about setting up your e-mail notification for the SAN File System.

### Prerequisites

Compiling MIBs for the SAN File System

Perform the following steps to set up your e-mail notification:

1. Start IBM® Director by clicking the **IBM Director Console** icon on the desktop.
2. From the IBM Director Console menu bar, select **Tasks** → **Event Action Plan Builder**.
3. In the Actions column, expand the item Send an Internet (SMTP) E-mail.
4. Right-click **IBM SAN FS Call-home Notification** and select **Update**. The Customize Action: IBM SAN FS Call-home Notification panel displays.

5. Fill in the following items:
  - **Internet E-mail Address** — Fill in an e-mail address (for example, the e-mail address of the system administrator)
  - **Reply to** — Fill in the e-mail address to which you want any replies to be directed.
  - **SMTP E-mail Server** — Fill in the address of your e-mail server.
  - **SMTP Port** — Change this, if required, to your SMTP server port number.
  - **Subject of E-mail Message** — Fill in SAN File System Event Notification.
  - **Body of E-mail message** — Enter the following text as shown.

# Machine location = Data Centre

6. Click **File** —> **Save** to save the information.
7. Close the Event Action Plan Builder window.
8. Close the IBM Director Console window.

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## Chapter 6. Managing the master console

The chapter describes management information that augments the information in the information center and the *Installation and User's Guide*.

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### Recovering Action Plan preconfiguration data

This is a new topic in this chapter.

IBM Director is preconfigured to enable easy setting up of error notification for SAN Volume Controller. If this preconfiguration data becomes corrupted, the Call Home function and event notifications will fail. To recover Action Plan preconfiguration data that has been damaged,

1. Log on to the master console.
2. From the desktop, double-click the **IBM Director** console icon to open the IBM Director console.
3. Log on to the IBM Director console.
4. From the IBM Director main panel, click **Tasks**—>**Event Action Plan Builder**. The Event Action Plan Builder panel opens.
5. In the **Event Action Plans** column expand **Event Action Plan** and right click **2145 Action Plan**.
6. Click **Delete**.
7. In the **Event Filters** column expand **Simple Event Filter**.
8. Right click and delete **2145Error** and **2145Event**.
9. In the **Actions** column expand **Send an Internet (SMTP) E-mail**.
10. Right click and delete **2145CallHome**, **2145EventNot** and **2145Test**.
11. Locate the files 2145ActionPlan.properties and 2145.plan. These can be found in:  
    ..\Support Utils\Call Home Action Plans
12. Copy both files into:  
    ..\Program Files\IBM\Director\data\import\EventActionPlans.
13. Restart IBM Director Server:
  - a. Right click **My Computer**.
  - b. Click **Manage**.
  - c. Click **Services and Applications -> Services**.
  - d. Right click on **IBM Director Server**.
  - e. Click **Restart**.
  - f. The 2145 Action Plan will be automatically added with the pre-configured data.

14. Set up error notification for SAN Volume Controller. See Chapter 5, "Setting up error notification for SAN Volume Controller" on page 18.
15. Start the IBM Director Console by double clicking on the IBM Director Console Desktop icon.
16. Download the SVC MIB from the SVC support site: SAN Volume Controller Management Information Base (MIB).
17. Start the IBM Director Console by double clicking on the IBM Director Console Desktop icon.
18. If the Event Action Plan Builder Wizard window pops up, close it.
19. In the **Tasks** column, right click on **SNMP Browser** and select **Compile a new MIB**.
20. Navigate to the directory where the SVC MIB was downloaded to and select the MIB file.
21. Click **OK**. A **Compile MIB** status screen will pop up.
22. If no errors are displayed, MIB compilation has been successful and the **Compile MIB** status screen can be closed.
23. Click on **Tasks** -> **Event Action Plan Builder** from the taskbar.
24. In the **Event Action Plans** column expand **Event Action Plan** and **2145Action Plan**
25. Right click on **All Events** and select **Delete**.
26. Click **Yes** to any IBM Director popups that appear.
27. Close the Event Action Plan Builder window.
28. In the **Tasks** column of the IBM Director Console expand the **Event Action Plans** tree.
29. From the **Tasks** column drag **2145Action Plan** to **All Systems and Devices** in the **Groups** column.
30. Click **Yes**
31. Click **OK**
32. To verify the event action plan has been assigned to all systems and devices:
  - Make sure **Associations -> Event Action Plans** is checked from the toolbar.
  - Highlight **All Groups** in the **Groups** column.
  - **Group Category Contents** column expand **All Systems and Devices** and **Event Action Plans**.
  - Verify **2145Action Plan** is listed.

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