IBM DS4000 Service Alert Setup Instructions

Updated 05/30/06

Version 9.16

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About this file

This file contains the most recent information about the Service Alert for the IBM System Storage DS4000 Storage Server. You should print and review the contents of this file before using the DS4000 Service Alert.

You can find additional documentation for the various models of DS4000 at the following Web site:

http://www-1.ibm.com/servers/storage/disk/ds4000/index.html

Who should read this file

This readme file is intended for storage and network administrators.

How to get help

Go to the following Web sites for the most current DS4000 documentation and support information:

http://www-1.ibm.com/servers/storage/disk/ds4000/index.html

DS4000 Service Alert description

DS4000 Service Alert (hereafter called Service Alert) is a feature of the IBM System Storage DS4000 Storage Manager that monitors system health and automatically notifies the IBM Support Center when problems occur.

Service Alert sends an e-mail to a call management center that identifies your system and captures any error information that can identify the problem. The IBM support center analyzes the contents of the e-mail alert and contacts you with the appropriate service action.

The IBM DS4000 Service Alert, complements, but does not replace the basic hardware maintenance agreement in place for the DS4000 storage subsystems. With the DS4000 Service Alert activated, the IBM support center will monitor Service Alert e-mails with the same coverage being provided in the basic hardware maintenance agreement

Service offering contract

1. Following is an overview of the process for obtaining a service offering contract:

2. The account team submits an RPQ requesting Service Alert, using the designated country process.

3. The System Storage Hub receives the request and ensures that the following prerequisites are met:

   - The machine type, model, and serial number are provided unless this is for a DS4000 on order (not yet shipped).
   - The DS4000 management station is running DS4000 Storage Manager client version 9.12 or higher.
   - The DS4000 firmware level is at 05.3x.xx.xx or higher
   - The DS4000 management station has Internet access and e-mail capability.
   - Willingness to sign the service contract with the applicable fee. The account team can provide details regarding billing and fees.

4 After the prerequisites are confirmed, the service offering contract is sent.

5 When the contract has been signed, the approval is sent from the System Storage Hub, with the support team copied.

Activating DS4000 Service Alert

This section contains the instructions required to activate Service Alert. You must do all of the following tasks:

- Verify the prerequisites
- Create a user profile (userdata.txt)
- Rename each storage subsystem and synchronize the controller clock
- Configure Storage Manager to send alerts
- Activate the Service Alerts with IBM Technical Services (ITS)

Prerequisites

Before you use Service Alert, you must install DS4000 Storage Manager Client version 9.12 or higher in the DS4000 management station. In addition, the DS4000 firmware levels must be at 05.3x.xx.xx or higher.

You can download the DS4000 Storage Manager Client and firmware from the following Web sites:

http://www-1.ibm.com/servers/storage/support/disk/ds4800/
http://www-1.ibm.com/servers/storage/support/disk/ds4500/ (FAStT 900)
http://www-1.ibm.com/servers/storage/support/disk/ds4400/ (FAStT 700)
http://www-1.ibm.com/servers/storage/support/disk/ds4300/ (FAStT 600)
http://www-1.ibm.com/servers/storage/support/disk/ds4100/ (FAStT 100)
http://www-1.ibm.com/servers/storage/support/disk/fastt500/
http://www-1.ibm.com/servers/storage/support/disk/fastt200/

During the Storage Manager installation, be sure to enable the Event Monitor Service. If Storage Manager 9.12 or higher has already been installed, make sure that the IBM DS4000 Event Monitor service was enabled. If not, you must uninstall the DS4000 Storage Manager client and reinstall it with the Event Monitor service enabled.

NOTE: DS4000 Event Monitor service is not supported on Novell Netware 6.   You must use a management station with other operating systems installed, such as Windows Server 2003, Windows 2000 or Windows NT4.

Creating a user profile (userdata.txt)

The user profile is a text file that contains your individual contact information. It is placed at the top of the e-mail that Service Alert generates. A template is provided, which you can download and edit using any text editor.

IMPORTANT: The user profile file name must be userdata.txt. The file content must be in the format as described in step 2. In addition, the file must be placed in the appropriate directory in the DS4000 management station as indicated in step 4.

Perform the following steps to create the user profile:

1   Download the userdata.txt template file from one of the following Web sites:

http://www-1.ibm.com/servers/storage/support/disk/ds4800/downloading.html
http://www-1.ibm.com/servers/storage/support/disk/ds4500/downloading.html (FAStT 900)
http://www-1.ibm.com/servers/storage/support/disk/ds4400/downloading.html (FAStT 700)
http://www-1.ibm.com/servers/storage/support/disk/ds4300/downloading.html (FAStT 600)
http://www-1.ibm.com/servers/storage/support/disk/ds4100/downloading.html (FAStT 100)
http://www-1.ibm.com/servers/storage/support/disk/fastt500/downloading.html
http://www-1.ibm.com/servers/storage/support/disk/fastt200/downloading.html

The userdata.txt template is named "userdata.txt".

2   Type in the required information.

There should be seven lines of information in the file. The first line should always be "Title: IBM DS4000 Product".

The other lines contain the company name, company address, contact name, contact phone number, alternate phone number, and machine location information. Do not split the information for a given item; for example, do not put the company address on multiple lines. Use only one line for each item.

Note: When you type in the text for the userdata.txt file, the colon (:) is the only legal separator between the required label and the data. No extraneous data is allowed (blanks, commas, and so on) in the label unless specified. Labels are not case sensitive.

The Title field of the userdata.txt file must always be "IBM DS4000 Product". The rest of the fields should be completed for your specific DS4000 installation.

This is an example of a completed userdata.txt user profile:

> Title: IBM DS4000 Product
> Company name: IBM (73HA Department)
> Address: 3039 Cornwallis Road, RTP, NC 27709
> Contact name: John Doe
> Contact phone number: 919-254-0000
> Alternate phone number: 919-254-0001
> Machine location: Building 205, Lab 42

3   Save the userdata.txt file as a plain text file.

4   Store the userdata.txt file in the appropriate subdirectory of the DS4000 Storage Server management station, depending on the operating system that is installed in the management station:

- For Microsoft(R) Windows(R) Server 2003, Windows 2000 and Windows NT4, store the userdata.txt file in the "\IBM_DS4000\client\data" directory on the drive where Storage Manager was installed. Typically: C:\IBM_DS4000\client\data

- For AIX(R), Solaris, HP-UX and Linux operating systems, store the userdata.txt file in the /var/opt/SM directory.

- For Novell NetWare, store the userdata.txt file in the sys:/IBM_DS4000/client/data directory.

- VMware ESX servers that are connected to a DS4000 will require a separate workstation for DS4000 management. Service Alert is only supported in a VMware ESX and DS4000 environment by way of the remote management station.

Renaming the storage subsystem

NOTE: If you are an existing user of Service Alert which had been installed with Storage Manager version 8.x, please read *Upgrading to DS4000 Storage Manager 9.x with Service Alert previously installed* one page 10 before continuing.

When you register for Service Alert, you must change the existing node ID of each DS4000. Service Alert uses this new name to identify which DS4000 has generated the problem e-mail. You rename the storage subsystem using DS4000 Storage Manager client.

Before you can rename the storage subsystem, you must know the DS4000 machine type, model, and serial number. Depending on the model of DS4000, the information is located in the following areas:

- For the FAStT200: the label with this information is located on the right side on the rear lip of the controller enclosure.   NOTE: Be careful not to use the information of the drive expansion enclosure. The FAStT200 looks very similar to the FAStT EXP500 drive expansion enclosure.
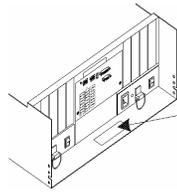
- For the FAStT500, DS4300, DS4400, and DS4500 the label with this information is located on the right side on the rear lip of the controller enclosure.   NOTE: Be careful not to use the information of the drive expansion enclosure. The DS4300 looks very similar to the DS4000 EXP700 drive expansion enclosure.

- For the DS4800: the label with this information is located on the left side of the rack mounting flange in the rear of the controller enclosure.
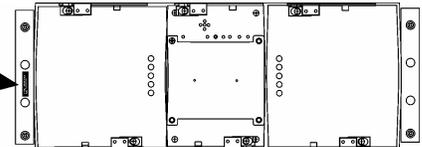
Perform the following steps to rename the storage subsystem:

1 Open the DS4000 Storage Manager client Enterprise Management window.

2 Double click on the storage system that you want to rename. The Subsystem Management Window opens.

3 Click Storage Subsystem --> Rename. The Rename Storage Subsystem window opens.

4 Type the new name for the subsystem. You must use the following naming convention for the new name; any errors in the format of the new name can result in delays or denial of IBM service support. The new name cannot contain more than 30 characters.

   Please use the following naming convention: ttttmmm-sssssss-cust_nodeid_reference

      Where: tttt   is the 4-digit IBM machine type of the product

            mmm   is the 3-digit IBM model number for the product

             -          is the required separator

            sssssss is the 7-digit IBM serial number for the machine

            -          is the required separator

            subsystem_name is any name for the subsystem

   IMPORTANT: No extra characters are allowed before the start of the "cust_nodeid_reference" string.

   Following are some examples of a new storage subsystem name:

      174290U-23A1234-IBM_Eng
      17421RU-23A1235-IBM_Acctg
      35521RX-23A1236-IBM_Mktg
      35422RU-23A1237-IBM_Mfg

NOTE: If you have previously installed Service Alert with DS4000 Storage Manager version 8.x, a different naming convention was used. It is not necessary to change any host names when upgrading to DS4000 Storage Manager version 9.12, but if you do rename a host, you must use the new naming convention described in this step.

5   Click OK to save the new name.

Steps 1 - 5 must be performed for each DS4000 that supports Service Alert.

Synchronizing the controller clock

This step is optional. If performed, it facilitates the trouble-shooting session because the time that the alert e-mail is sent is about the same as the time that the errors occurred in the DS4000.

To synchronize the controller clock with the time in the DS4000 management station that monitors the alerts, go to the Storage Management window. Select Storage System --> Set Controller Clock. Click OK when the confirmation window opens.

Configuring Storage Manager to Send Alerts

Important note: Starting with Storage Manager 9.14, (and depending on the level of firmware installed on the DS4000 controllers), you may have additional options for sending email alerts. These options are to:

* send event information only;
* Send event plus profile
* send event plus support data

For Service Alert, specify "event plus profile".

You may also be given an option to specify how frequently to send events. For Service Alert, specify every event

Perform the following steps:

1   From the DS4000 Storage Manager client's Enterprise Management window, select Exit --> Configure Alerts ...
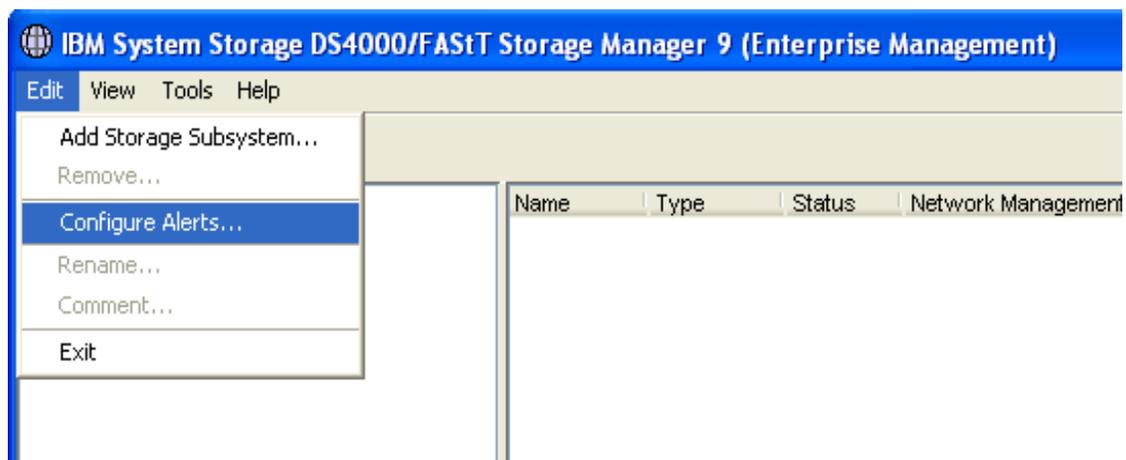
The Configure Alerts window opens..

2 Click the Mail Server tab.

   Enter the following information:

   • Mail (SMTP) server -   This is the
     address of your SMTP server.
     This server must be able to route
     data to the Internet domain.

   • Email sender address: This is
     the sender's e-mail address.
     This address is displayed on
     every mail message that is sent
     to the configured e-mail alert
     destination.

   If you have properly created the
   userdata.txt file, the contents will be
   displayed under Sender contact
   information.   If this area is blank,
   refer to *Creating a user profile*
   (userdata.txt) on page 4.

3 Click the Email Tab.

Configure Alerts

Alerts are generated for critical events only.

[Mail Server] [Email] [SNMP]

Mail (SMTP) server:

[   ]

Email sender address:

[   ]

Sender contact information:

Title: IBM DS4000 Product
Company name: IBM (73HA Department)
Address: 3039 Cornwallis Road, RTP, NC 27709
Contact name: John Doe
Contact phone number: 919-254-0000
Alternate phone number: 919-254-0001
Machine location: Building 205, Lab 42

Contact information source:

C:\Program Files\IBM_DS4000\client\data\userdata.txt

Note: To edit the sender contact information above, either (1) edit the
userdata.txt file, or (2) delete the userdata.txt file and then enter information
directly using the area above. If you are going to delete the file, save its
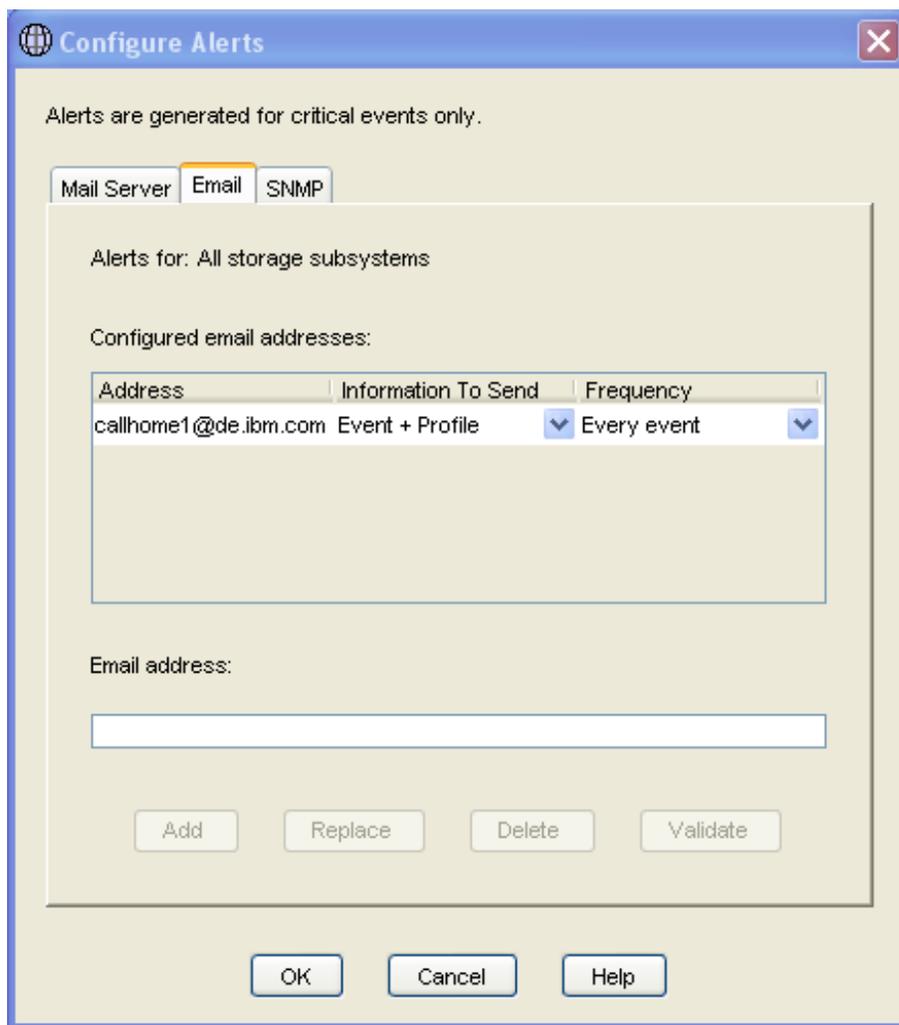contents first.

[OK]   [Cancel]   [Help]

4 Enter the email address that alerts will be sent to.

   Email address: This is the email address of the IBM location to which alerts will be sent. Enter one of the following depending on your geographic location:

   • For EMEA and A/P locations:

     callhome0@de.ibm.com

   • For the following locations use:

     callhome1@de.ibm.com

        < North America
        < South and Central America
        < Caribbean Islands

5 Click Add.

6 Click OK to close the Configure Alerts window.

Configure Alerts

Alerts are generated for critical events only.

Mail Server | **Email** | SNMP

Alerts for: All storage subsystems

Configured email addresses:

Address	Information To Send	Frequency
callhome1@de.ibm.com	Event + Profile	Every event

Email address:

[   ]

[Add] [Replace] [Delete] [Validate]

[OK] [Cancel] [Help]

Note that alerts can also be configured using the Task Assistant. The major difference is that you will be able to configure alerts for individual subsystems or all subsystems. Usually you will want alerts configured for all subsystems.

Activate the Service Alerts with IBM Technical Services (ITS)

After all previous tasks have been completed; you are ready to activate your system for Service Alert.

Call your IBM Support Center. Call the phone number you normally use to report a problem with a DS4000 subsystem. Provide the IBM Machine Type and Model of one of the storage subsystems that Service Alert will be used with. Tell the representative that you are ready to activate the DS4000 Service Alert process. The IBM representative will work with you to test your system setup and ensure that DS4000 Service Alert is working properly.

Depending on your configuration, you will be asked to use one of the following procedures to test that Service Alert is working:

- If you have a DS4000 or expansion enclosure with redundant power supplies perform this test:

    < Ensure that both power supplies are on.
    < Close the DS4000 Storage Manager client.
    < Then turn off one of the redundant power supplies in the DS4000 or DS4000 expansion enclosure. This simulates a power supply failure and a Service Alert will be sent to the IBM e-mail address that you specified in *Configuring Storage Manager to Send Alerts* on page 9.

    IMPORTANT: Do not turn off the power supply if this is the only one that is powered on in your storage server or expansion enclosure. See if you can use the alternate test described below.

- If you have a drive that is unused or not configured you can perform the following test:

    The IBM Support will assist you in manually failing a non-configured drive in the DS4000 Storage Server using the DS4000 Storage Manager client.

Upgrading to DS4000 Storage Manager 9.x with Service Alert previously installed

If you had previously installed Service Alert with DS4000 Storage Manager version 8.x, you may notice that a different naming convention for hosts was used than is described in this readme. It is not necessary to change any host names when upgrading to DS4000 Storage Manager version 9.x. However if you do need to rename a host, you must use the new naming convention described in *Renaming the Storage Subsystem* on page 5.

You will need to repeat the tasks described in *Configuring Storage Manager to Send Alerts* on page 7, and *Activate the Service Alerts with IBM Technical Services* on page 10 in order to re-define the email server and email addresses used for Service Alert.

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