

# HP Storage Essentials

For the Windows® and Linux operating systems

Software Version: 9.70

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## Report Database Guide

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This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>).

This product includes software written by Tim Hudson ([tjh@cryptsoft.com](mailto:tjh@cryptsoft.com)).

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**Note:** Some topics do not convert properly to PDF, causing format problems. Some elements of online help are completely removed from the PDF version. Those problem topics can be successfully printed from within the online help.

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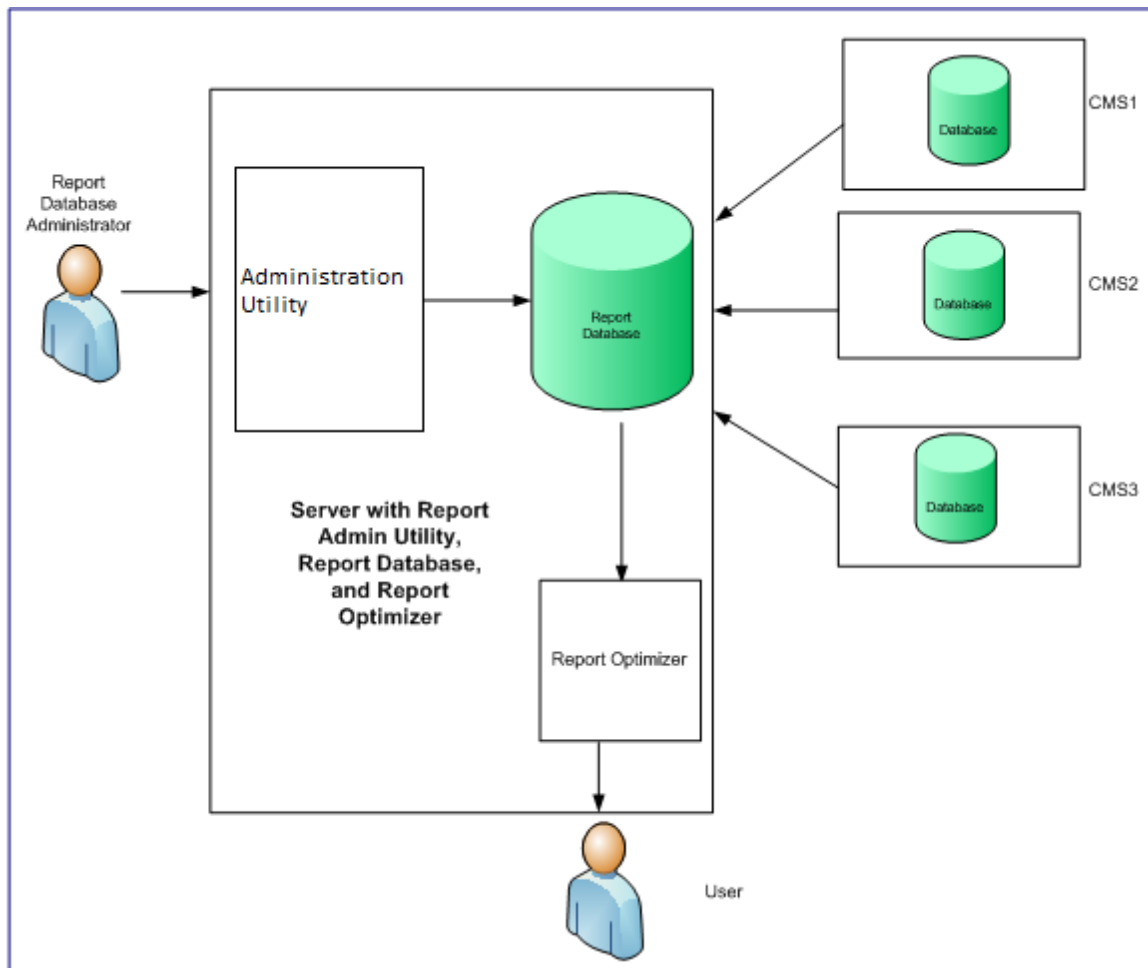
## About the Administration Utility

The Administration Utility is a tool used for managing the Storage Essentials database. Its contents are dependent on the components that you have installed. The management server data (AppStorManager service) is in the APPIQ\_SYSTEM schema and the Report Database data (AppStormReportDB service) is in schemas prefixed with "SD" (SnapShot Date). The Report Database is a central repository for all of the report data gathered from the management servers running HP Storage Essentials and provided to Report Optimizer.

For example, assume you have three central management servers running HP Storage Essentials each in a different time zone, and each are gathering data from a unique set of elements. The Report Database gathers the information from each of the management servers and makes it available to Report Optimizer.

In the following figure, there are three central management servers: CMS1, CMS2, CMS3. The Report Database gathers information from the report cache of each of the management servers and stores it in the Report Database. The information is then made available to Report Optimizer.

### Information from Each Central Management Server Database is Stored in a Centralized Report Database



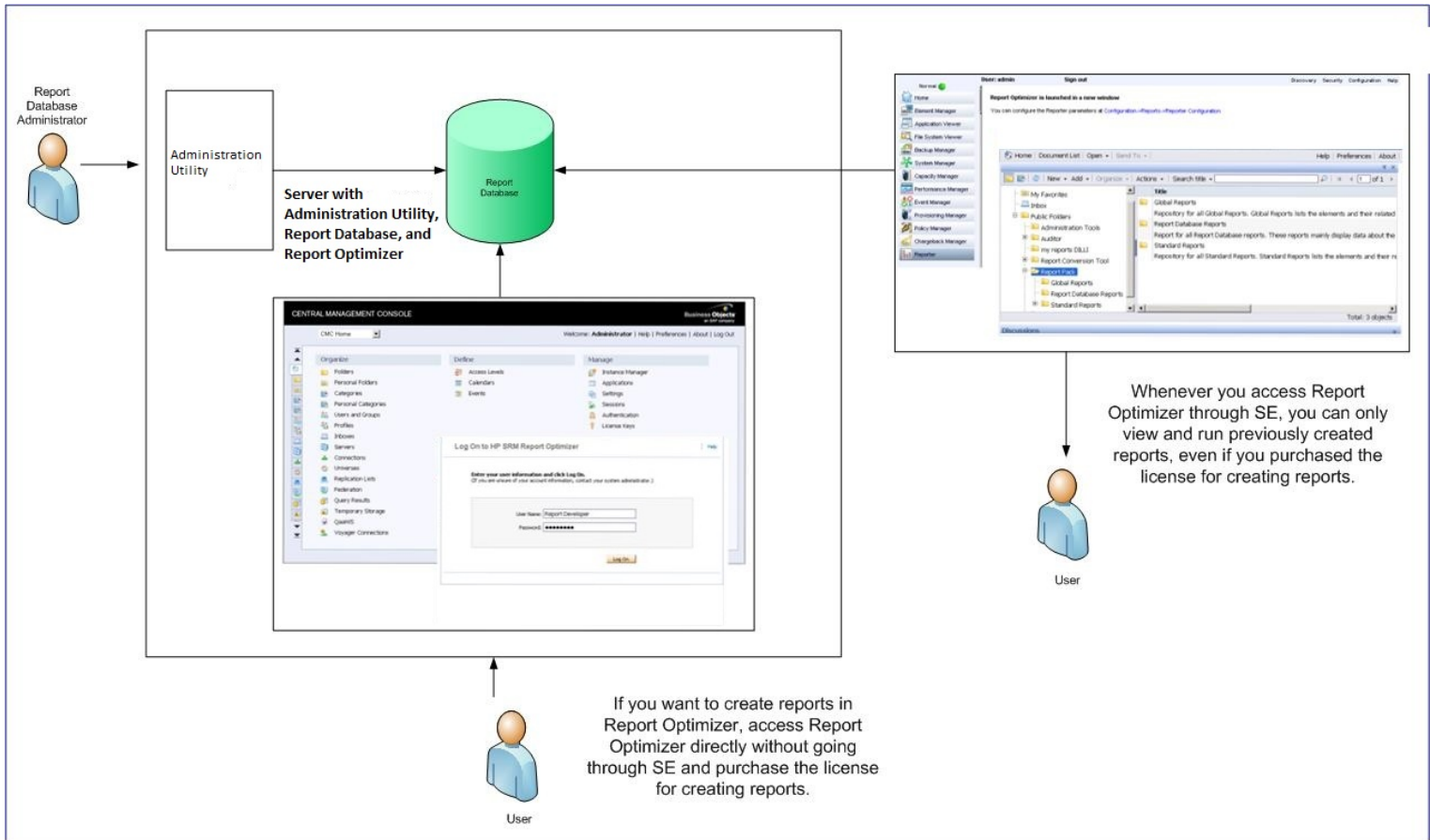
To view reports in Report Optimizer:

- Log on to Report Optimizer. You can create reports if you purchased the license for creating reports.

Or

- Access Report Optimizer through HP Storage Essentials. Whenever you access Report Optimizer through HP Storage Essentials, you can only view and run previously created reports, even if you purchased the license for creating reports.

### Accessing Reports



Use the Administration Utility to manage the Report Database, such as specify the management servers from which you want it to collect data.

**Caution:** To receive updated information for reports you must have the following set:

- The AppStorDatabase service must be running for the Report Database to be able to store the information from the management servers.
- The AppStorReportDB service must be running for the Report Database to be able to gather information from the management servers.
- The Allow Data Refresh option must be set to ON for the Report Database to pull data from the management servers.



- Report cache refreshes should be scheduled to occur as necessary on each of the management servers.

## Accessing the Administration Utility

The way you access the Administration Utility differs according to the operating system you are using.

### Accessing the Administration Utility on Windows

To access the Administration Utility on Windows:

1. Go to the %ADMIN\_HOME% directory.
2. Double-click **admin.bat**.

### Accessing the Administration Utility on Linux

To access the Administration Utility on Linux:

1. Set the display if you are accessing the Administration Utility remotely.
2. Enter the following at the command prompt to go to the \$ADMIN\_HOME directory :

```
# cd $ADMIN_HOME
```

3. Enter the following at the command prompt to run the Administration Utility:

```
# sh ./admin.sh
```

## Managing Services

The Administration Utility enables you to manage services and view host status. Services that are running are indicated with a green color icon and services that are stopped are indicated with a red color icon.

To start or stop a service, follow these steps:

1. Access the Administration Utility as described in "[Accessing the Administration Utility](#)" on the [previous page](#).
2. In the **Host Status** section on the top pane, click the **Manage Services** button. The Manage Services dialog box opens. The services and their current status are listed with Start, Stop and Restart button.
3. Click the **Start** button to start a stopped service or click the **Stop** button to stop a running service.
4. Click **Close**.

**Note:** (Applicable for Windows only)

- The AppStorManager service is dependent on the AppStorDatabase service. Therefore, the AppStorDatabase service cannot be stopped if the AppStorManager service is running. To stop the AppStorDatabase service, you must first stop the AppStorManager service.
- Start the AppStorDatabase service first before starting the AppStorManager service.

# Database Administration

You can manage the database using the Administration Utility. See the following topics for more information.

- "Exporting the Database" below
- "Importing the Database" on the next page
- "Re-initializing the Database" on the next page

## Exporting the Database

Use the Export Database option in the Administration utility to archive the database. This option saves the data in a zip file in the location specified by you.

The following services must be stopped before you export the database:

- AppStorManager
- AppStormReportDB (if Reporter is also installed)

To stop the AppStorManager service:

1. Go to the **Administrative Tools > Services** window.
2. Right-click **AppStorManager**.
3. Select **Stop** from the menu.

To stop the AppStormReportDB service:

1. Go to the **Administrative Tools > Services** window.
2. Right-click **AppStormReportDB**.
3. Select **Stop** from the menu.

To export the database, follow these steps:

1. Access the Administration Utility as described in "[Accessing the Administration Utility](#)" on [page 9](#).
2. From the left navigation pane, click **Database Administration > Export Database**. The Export Database section appears on the right pane.
3. In the section, specify the following information:
  - **Export To:** Click **Browse** to specify the file where you want to export the database. The Select Export File dialog opens. Browse to a folder and enter the file name to which you want to export the database.
4. Click **Export Database**. The Export Database dialog box appears with the message:  
`The database export is complete.`
5. Click **OK** to close the dialog box.

## Importing the Database

You can import data that you previously exported using the Export Database option in the Administration Utility. To import the data, upload the file (\*.zip) that was generated by the Export Database option previously. Export zip files from previous versions (earlier than 9.70) of Storage Essentials are not compatible with the new format. To export data from a previous release of Storage Essentials, use the Administrative Utility found on the Storage Essentials installation media.

The export file stores a snapshot of the data in its database. Since this file is a snapshot of the information stored in the database at a certain time, it might not contain the most current data from the management servers.

The following services must be stopped before you import the database:

- AppStorManager
- AppStormReportDB (if Reporter is also installed)

To stop the AppStorManager service:

1. Go to the **Administrative Tools > Services** window.
2. Right-click **AppStorManager**.
3. Select **Stop** from the menu.

To stop the AppStormReportDB service:

1. Go to the **Administrative Tools > Services** window.
2. Right-click **AppStormReportDB**.
3. Select **Stop** from the menu.

To import a database, follow these steps:

1. Access the Administration Utility as described in "[Accessing the Administration Utility](#)" on [page 9](#).
2. From the left navigation pane, click **Database Administration > Import Database**. The Import Database section appears on the right pane.
3. In the section, specify the following information:
  - **Import File:** Click **Browse** to specify the file that you previously exported. The Specify Import File dialog opens. Choose the file that you want to import and click **Select**.
4. Click **Import Database**. The Import Database dialog box appears with the message:  
`The database import is complete.`
5. Click **OK** to close the dialog box.

## Re-initializing the Database

**Caution:** Re-initializing the database removes everything from the database. This is not recommended unless you are sure about what you are doing. It is strongly suggested that you

export the database before you reinitialize it. See ["Exporting the Database"](#) on page 11 for more information on how to save the database.

To re-initialize the database, follow these steps:

1. Access the Administration utility as described in ["Accessing the Administration Utility"](#) on page 9
2. Expand **Database Administration** and click **Reinitialize Database**. A Warning dialog box appears with the following message:

```
All existing data will be erased from the database. It is strongly
recommended that you export the existing database before
reinitializing.
```

```
Continue with reinitialization of the database?
```

3. Click **Yes** to start the re-initialization of the database.

The Task Log Messages displays the status of the re-initialization and the log files in the pane below.

# Chapter 7

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## Report Database Configuration

Report Optimizer uses the Report Database to obtain data for reports. Make sure the Report Database is kept up to date as much as possible to ensure the latest information is displayed in the reports.

The Report Database gathers information from the report cache of each central management server. This gathering is done after the management server has completed a report cache refresh. The Report Database then stores the information in a separate schema for each management server.

**Caution:** To receive updated information for reports you must have the following set:

- The AppStorDatabase service must be running for the Report Database to be able to store information from the management servers.
- The AppStormReportDB service must be running for the Report Database to be able to gather information from the management servers.
- The Allow Data Refresh option must be set to **ON** for the Report Database to pull data from the management servers.
- Report cache refreshes should be scheduled to occur as necessary on each of the management servers.

## Collector Settings

To configure the settings for the Report Database, follow these steps:

1. Access the Administration Utility as described in "[Accessing the Administration Utility](#)" on [page 9](#)
2. From the left navigation pane, click **Report Database Configuration > Collector Settings**. The Collector Settings section appears on the right pane.
3. In the section, specify the following information:
  - **Allow Data Refresh (ON/OFF)**. When this option is set to OFF, the Report Database stops polling data from the report sources on the central management sever. The option is automatically set to OFF after an import. Change the status to ON after an import.
4. Click the **Submit** button.

## Setting Up the Reporting Sources

You must provide to the Report Database the DNS name or IP addresses of the management servers running HP Storage Essentials. The Report Database gathers report data from the management servers that are provided.

The database schemas of the management servers should be at the same version as those of the Administration utility. If you have a management server with an older schema, you must upgrade it. The risk with running schemas at different version levels is that the information in the schemas might not appropriately map the data.

To add a new report resource, follow these steps:

1. Access the Administration utility as described in "[Accessing the Administration Utility](#)" on [page 9](#)
2. From the left navigation pane, click **Report Database Configuration > Set Up Report Resources**. The Set Up Report Sources section appears on the right pane.
3. In the section, click **Add**. The Add Report Source window opens.
4. On the Add Report Source window, specify the following fields:
  - a. **Source Type**: The database type chosen for Storage Essentials appears by default.
  - b. **Source Name**: Specify a description of the source. This will display in the reports.
  - c. **IP Address/DNS Name**: Specify the IP address or DNS name of the server where Storage Essentials is installed.
  - d. **SID**: This appears only if the management server is installed with Oracle RAC database. Specify the System Identifier of the Oracle RAC database instance.
  - e. **Port**: This field appears only if the management server is installed with Oracle RAC database. Specify the port number that the Oracle Listener is using.
5. Click **OK**. The Confirm dialog box appears.
6. Click **Yes** to add the report source.

The report source is displayed in the Set Up Report Resources table and displays the Source ID, Source Name, IP Address/DNS Name, and Copy Status of the report resource.

The AppStormReportDB process starts polling the source within one minute. If RCR data is found, it is copied to the Report Database.

To reset all sources and gather data regardless of the last time the report data was collected, follow these steps:

1. Click **Get Data Now** on the right pane. The Confirm dialog box appears.
2. Click **Yes** to collect data.

## Obtaining Daily Reports

The steps in this section describe how to configure your environment to receive daily reports. Assume you need to provide daily reports by 7 a.m.

Information is gathered for the reports in the following order:

1. **Get Details**. The management server gathers information about the elements discovered by the management server.

2. **Local Report Cache Refresh.** The management server gathers information from the last successful Get Details. Get Details must be complete before the local cache refresh can begin.
3. **Global Copy.** The Report Database copies information from the report cache refresh of each management server.
4. **Global Merge.** The Report Database merges the information from the management servers.

As you can see, the processes depend on one another. If you have multiple management servers, the scheduling of these various processes can become tricky. This section splits the configuration of these processes into steps with the assumption you have at least five management servers.

The following is an example of how the different processes could be scheduled:

4:10 a.m. Get Details

6:10 a.m. Local Cache Refresh

6:25 a.m. Global Copy

6:50 a.m. Global Merge

7 a.m. Reports are Ready

The times provided would vary according to the environment. Let's first find the duration times of these processes for your environment. Once we have the duration times, we can work backwards from 7 a.m. with scheduling the processes.

## Step 1 – Finding the Longest Duration of Get Details

Assume you have five management servers. Obtain the duration of the last successful Get Details of each of those management servers, so you know when to schedule Get Details so that it completes in time for the local report cache refresh. Obtain the duration times of Get Details for a management server by referring to the GAEDSummary<timestamp>.log file for each management server.

To access the log:

1. Select **Configuration > Product Health**.
2. Click **Download Discovery Summary**.
3. Save the zip file and then unzip it.
4. Open the GAEDSummary.log file in a text editor. If you are using NotePad, you might need to select **Format > Word Wrap**.

The duration of Get Details is listed as Sync Duration, as shown in the following example:

```
[Sync Duration:] 12 minutes 31 seconds
```

5. Write down the duration times for Get Details for each of the management servers. Make note of the longest duration time for Get Details. For example:



- **Management server1.** Last successful Get Details took 2 hours.
- **Management server2.** Last successful Get Details took 3 hours.
- **Management server3.** Last successful Get Details took 3.5 hours.
- **Management server4.** Last successful Get Details took 4 minutes.
- **Management server5.** Last successful Get Details took 5 minutes.

## Step 2 – Finding the Longest Local Report Cache Refresh

The duration of the report cache refresh is displayed by the Most Recent Refresh Successful Duration (hh:mm:ss.sss) field on the Reports tab, which is accessible by clicking **Configuration > Reports**.

Write down the duration times for all of your management servers. It is especially important to make note of the longest duration time. You will need this information later. For example:

- **Management server1.** Last successful report cache refresh took 16 minutes.
- **Management server2.** Last successful report cache refresh took 18 minutes.
- **Management server3.** Last successful report cache refresh took 20 minutes.
- **Management server4.** Last successful report cache refresh took 25 minutes.
- **Management server5.** Last successful report cache refresh took 30 minutes.

## Step 3 – Finding the Duration of the Global Copy

To find the duration of the global copy:

1. Go to Report Optimizer.
2. Select the **Documentation List** menu.
3. In the left pane, select the Report Database Configuration Summary report under Report Pack in the Report Optimizer tree.

The listing of times is displayed.

4. Look for the report durations for all of the sites.
5. Write down the amount of time it took for the global copy to complete for all of the sites.

## Step 4 – Find the Duration of the Data Merge

Determine the amount of time it will take the Report Database combine the data from each of the global copies from the management servers.

1. Go to Report Optimizer.
2. Select the **Documentation List** menu.

3. In the left pane, select the Report Status report under Report Pack in the Report Optimizer tree.

The listing of times is displayed.

4. Subtract the global start time from the global end time. Write down the duration.

# User and Password Administration

You can change administrator and database user passwords using the Administration Utility. See the following topics for more information.

## Changing the Management Server Administrator Password

To change the Storage Essentials administrator password, follow these steps:

1. Access the Administration utility as described in "[Accessing the Administration Utility](#)" on [page 9](#).
2. From the left navigation pane, click **User and Password Administration > Change Management Server Admin Password**. The Change Database Password section appears on the right pane.
3. In the section, type the following the information:
  - **New Password:** Type the new password for administrator.
  - **Verify Password:** Re-type the password to confirm the password.
4. Click **Change Password** to set the new password.

## Changing the Database Password

To change the Storage Essentials database password, follow these steps:

1. Access the Administration utility as described in "[Accessing the Administration Utility](#)" on [page 9](#).
2. From the left navigation pane, click **User and Password Administration > Change Database Password**. The Change Database Password section appears on the right pane.
3. In the section, enter the following information:
  - **New Password:** Type the new password for the database.
  - **Verify Password:** Re-type the password to confirm the password.
4. Click **Change Password** to set the new password.

## Downloading the Log Files

Use the Download Logs option to gather all log files generated by the Storage Essential applications. The Download Logs option saves all the log files in a zip file, which is prefixed with AllLogs and then stamped with the date and time (24-hour clock) in MMDD-HHmm format; for example, AllLogs1125-1235.zip.

Some of the log files are generated only when you run certain features. For example, the reports.log file is only generated when you run reports.

To download the log files of Storage Essentials, follow these steps:

1. Access the Administration Utility as described in "[Accessing the Administration Utility](#)" on [page 9](#)
2. From the left navigation pane, click **Download Logs > Download Log Files**. The Download Log Files section appears on the right pane.
3. In the section, click the **Browse** button or type the path to an existing directory in the **Directory** box.
4. Click **Download Logs**. The log files are saved to a zip file and copied to the directory you specified.



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**Product name and version:** HP Storage Essentials, 9.70

**Document title:** Report Database Guide

**Feedback:**



