Oracle® Fabric Monitor 1.2.0

User's Guide

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Contents

Using This Documentation

This document provides installation and operation information about the Oracle Fabric Monitor plug-in for Oracle Fabric Manager. This document is written for system administrators, network administrators, and users who have experience administering advanced networks.

Release Notes

For late-breaking information and known issues about this product, refer to the release notes at:

http://docs.oracle.com/cd/E38500_01/

Related Documentation

Documentation	Links
All Oracle products	http://docs.oracle.com
Oracle Virtual Networking	http://docs.oracle.com/cd/E38500_01/

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CHAPTER 1

Installing Oracle Fabric Monitor

These topics describe how to install or upgrade to Oracle Fabric Monitor.

Preparing for Installation or Upgrade

These topics provide the preliminary information you need before you install or upgrade to Oracle Fabric Monitor.

Oracle Fabric Monitor Versus Xsigo Fabric Performance Monitor

Oracle Fabric Monitor is a plug-in for Oracle Fabric Manager that provides historical throughput information for servers, Oracle Fabric Interconnects, and network and storage clouds.

Similar to Xsigo Fabric Performance Monitor, Oracle Fabric Monitor provides graphs of throughput plotted against date. The graphs are color-coded, and the date interval is set by the user.

Unlike Xsigo Fabric Performance Monitor, Oracle Fabric Monitor can display multiple graphs, and multiple plots in those graphs, concurrently.

To optimize the performance of Oracle Fabric Monitor, these less-used features of Xsigo Fabric Performance Monitor are not supported:

- Zoom Mode
- Pin Mode
- Bar charts
- Pie charts
- Ingress and egress data

Upgrade and Installation Task Overview

This table lists the tasks in the order you must complete them to either upgrade an existing installation of Xsigo Fabric Performance Monitor to Oracle Fabric Monitor, or to perform a fresh installation of Oracle Fabric Monitor.

Oracle Fabric Manager Host Operating System	Upgrade From Xsigo Fabric Performance Monitor to Oracle Fabric Monitor	Fresh Installation of Oracle Fabric Monitor
Linux	• "Verify Prerequisites for Upgrade and Installation" on page 3 • "Prepare for Upgrade" on page 14 • "Download and Extract Oracle Fabric Monitor" on page 5 • "Install Oracle Fabric Monitor (Linux)" on page 9 • "Migrate the Schema (Linux)" on page 14 • "Activate Oracle Fabric Monitor" on page 13 • "Exploring the Oracle Fabric Monitor GUI" on page 17 • "Displaying Throughput" on page 24	• "Verify Prerequisites for Upgrade and Installation" on page 3 • "Download and Extract Oracle Fabric Monitor" on page 5 • "Download the MySQL Database" on page 6 • "Install the MySQL Database (Linux)" on page 8 • "Install Oracle Fabric Monitor (Linux)" on page 9 • "Activate Oracle Fabric Monitor" on page 13 • "Configure Oracle Fabric Monitor" on page 41 • "Exploring the Oracle Fabric Monitor GUI" on page 17 • "Displaying Throughput" on page 24

Oracle Fabric Manager Host Operating System	Upgrade From Xsigo Fabric Performance Monitor to Oracle Fabric Monitor	Fresh Installation of Oracle Fabric Monitor
Windows	• "Verify Prerequisites for Upgrade and Installation" on page 3 • "Prepare for Upgrade" on page 14 • "Download and Extract Oracle Fabric Monitor" on page 5 • "Install Oracle Fabric Monitor (Windows)" on page 11 • "Migrate the Schema (Windows)" on page 15 • "Activate Oracle Fabric Monitor" on page 13 • "Exploring the Oracle Fabric Monitor GUI" on page 17 • "Displaying Throughput" on page 24	• "Verify Prerequisites for Upgrade and Installation" on page 3 • "Download and Extract Oracle Fabric Monitor" on page 5 • "Download the MySQL Database" on page 6 • "Install the MySQL Database (Windows)" on page 10 • "Install Oracle Fabric Monitor (Windows)" on page 11 • "Activate Oracle Fabric Monitor" on page 13 • "Configure Oracle Fabric Monitor" on page 41 • "Exploring the Oracle Fabric Monitor GUI" on page 17 • "Displaying Throughput" on page 24
Oracle Solaris x86	Not Available	• "Verify Prerequisites for Upgrade and Installation" on page 3 • "Download and Extract Oracle Fabric Monitor" on page 5 • "Download the MySQL Database" on page 6 • "Install the MySQL Database (Oracle Solaris)" on page 12 • "Install Oracle Fabric Monitor (Oracle Solaris)" on page 12 • "Activate Oracle Fabric Monitor" on page 13 • "Configure Oracle Fabric Monitor" on page 41 • "Exploring the Oracle Fabric Monitor GUI" on page 17 • "Displaying Throughput" on page 24

▼ Verify Prerequisites for Upgrade and Installation

1. **If you are upgrading from Xsigo Fabric Performance Monitor 1.1.0 to Oracle Fabric Monitor 1.2.0, verify that these prerequisites are fulfilled.**

- Oracle Fabric Manager minimum version 4.3.0 installed
- PostgreSQL database version 9.1 installed
- Fully configured and functional Xsigo Fabric Performance Monitor 1.1.0 installed
- Free disk space equivalent to twice what is already used by the PostgreSQL database.

Note – If you must upgrade Oracle Fabric Manager to 4.3.0, do this first. Then remove Xsigo Fabric Performance Monitor through the Plugin Manager. Then perform the upgrade as described in "Upgrade and Installation Task Overview" on page 2.

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2. **If you are performing a fresh installation of Oracle Fabric Monitor 1.2.0, verify that these prerequisites are fulfilled.**
   - Oracle Fabric Manager minimum version 4.3.0 installed
   - MySQL database minimum version 5.6.12 installed
3. **If your Oracle Fabric Manager is configured for High Availability on active and passive servers, verify that the active and passive servers are configured identically.**

   The active and passive servers must have:
   - The same operating system and architecture. For example, 32- or 64-bit.
   - The same version of Oracle Fabric Manager.
   - The same versions of plug-ins.
   - The same time zone configured.

Downloading the Software

These topics describe how to download the Oracle Fabric Monitor and MySQL software.

Note – Before performing any of these tasks, first read and understand the overall procedure to either upgrade or make a fresh installation of Oracle Fabric Monitor in "Upgrade and Installation Task Overview" on page 2.

▼ Download and Extract Oracle Fabric Monitor

1. **Perform any prerequisite tasks.**

   See "Upgrade and Installation Task Overview" on page 2.

2. **Open a web browser on the Oracle Fabric Manager host that will receive the Oracle Fabric Monitor software, and go to:**

   `http://support.oracle.com`

   Oracle's My Oracle Support page is displayed.

3. **Sign in if you already have an account, or register for a new account.**

   The dashboard page is displayed.

4. **Choose More... → Patches & Updates.**

   The Patches and Updates page is displayed.

5. **In the Patch Search window, click the Product or Family (Advanced).**

6. **In the Product Is field, type Oracle Fabric Monitor.**

   Possible products are suggested.

7. **Click the most appropriate link.**

   The Release Is field might autopropagate with the most current version.

8. **From the Release Is drop-down menu, choose the most current version of the Oracle Fabric Monitor software.**

   For example, Oracle Fabric Monitor 1.2.

9. **Click outside of the drop-down menu.**

10. **Click Search.**

    The Patch Search window expands with the search results.

11. **In the Patch Name column, click the patch number link respective to your platform.**

    For example, `16339972`. The Patch Search window reformats.

12. **Click Read Me to display the README file.**

13. **Click Download.**

    The File Download window opens.

14. **Click the *filename*`.zip` link to initiate the download.**

    For example, `p16339972_11_Generic.zip`.

15. **Indicate where the file should be saved.**

    The file is downloaded and saved.

16. **In the receiving directory, decompress the** *filename*`.zip` **file.**

    These files are created:

File Name	Description
`READEME.txt`	Brief summary of installation, migration, and uninstallation.
`migrate.sh`	Migration tool from Xsigo Performance Monitor 1.1.0 to Oracle Fabric Monitor 1.2.0 for Linux hosts.
`migrate.bat`	Migration tool from Xsigo Performance Monitor 1.1.0 to Oracle Fabric Monitor 1.2.0 for Windows hosts.
`xsigo-xms-perfmgr-`*version*`.noarch.rpm`	Oracle Fabric Monitor installer for Linux hosts.
`xsigo-xms-perfmgr-`*version*`.exe`	Oracle Fabric Monitor installer for Windows hosts.
`xsigo-xms-perfmgr-`*version*`-solaris-x86.pkg`	Oracle Fabric Monitor installer for Oracle Solaris x86 hosts.

17. **Consider your next step.**

    - If you are performing a fresh installation of Oracle Fabric Monitor, download the MySQL database.

      See "Download the MySQL Database" on page 6.

    - If you are upgrading Xsigo Fabric Performance Monitor to Oracle Fabric Monitor, go to Step 18.

18. **Migrate the schema.**

    If you are upgrading Xsigo Fabric Performance Monitor to Oracle Fabric Monitor on:

    - Linux host, see "Migrate the Schema (Linux)" on page 14.
    - Windows host, see "Migrate the Schema (Windows)" on page 15.

▼ Download the MySQL Database

If neither the MySQL or PostgreSQL database is installed, you must download and install the MySQL database.

1. **Perform any prerequisite tasks before this procedure.**

   See "Upgrade and Installation Task Overview" on page 2.

2. **Open a web browser on the server that will host the MySQL database, and go to:**

   `http://dev.mysql.com/downloads/mysql`

3. **From the pull-down menu, select the host's operating system.**

   The web page is updated.

4. **Find your operating system's version, platform, and bit width in the list, and click the Download button to the right.**

   - For Linux, download the RPM bundle for your OS.

     For example, `MySQL-5.6.17-1.linux_glibc2.5.i386.rpm-bundle.tar`.

   - For Windows, download the MySQL Installer MSI.

     For example, `mysql-installer-web-community-5.6.17.0.msi`.

   - For Oracle Solaris x86, download the Compressed PKG for your OS.

     For example, `mysql-5.6.17-solaris11-x86_64.pkg.gz`.

5. **Log in with your Oracle Web account, sign up for an Oracle Web account, or just download the file.**

6. **Indicate where the file should be saved.**

   The file is downloaded and saved.

7. **Extract the MySQL database software according to your operating system's methodology.**

Note – For the MySQL Installer MSI, this step is not necessary.

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8. **Install the database.**

   See these links according to your operating system.

   - Linux – "Install the MySQL Database (Linux)" on page 8
   - Windows – "Install the MySQL Database (Windows)" on page 10
   - Oracle Solaris x86 – "Install the MySQL Database (Oracle Solaris)" on page 12

Installing the Software

These topics describe how to install the MySQL and Oracle Fabric Monitor software, and activate Oracle Fabric Monitor.

Note – Before performing any of these tasks, you must first read and understand the overall procedure to either upgrade or make a fresh installation of Oracle Fabric Monitor in "Upgrade and Installation Task Overview" on page 2.

▼ Install the MySQL Database (Linux)

What follows is a basic overview of the installation procedure. For more information about installing the MySQL database on a Linux host, refer to the MySQL installation documentation.

1. **Perform any prerequisite tasks before this procedure.**

   See "Upgrade and Installation Task Overview" on page 2.

2. **On the Linux host, install the MySQL client software.**

```
rpm -i MySQL-client-5.6.17-1.linux_glibc2.5.i386.rpm
```

3. **Install the MySQL server software.**

```
rpm -i MySQL-server-5.6.17-1.linux_glibc2.5.i386.rpm
```

Note – Read the output message carefully.

4. **Start the MySQL database.**

```
service mysql start
```

5. **Password-protect the database.**

   a. **Record the password in** `/root/.mysql_secret`**.**

b. Invoke password protection.

```
mysql -p
```

c. Log in to the MySQL client, and type these commands.

```
GRANT ALL PRIVILEGES ON *.* TO 'root'@'%' INDENTIFIED BY 'password';
FLUSH PRIVILEGES;
exit
```

where *password* is the password from Step a.

6. **Log in again to verify that the password is set.**
7. **Install Oracle Fabric Monitor.**

See "Install Oracle Fabric Monitor (Linux)" on page 9.

▼ Install Oracle Fabric Monitor (Linux)

1. **Perform any prerequisite tasks before this procedure.**

See "Upgrade and Installation Task Overview" on page 2.

2. **On the server hosting Oracle Fabric Manager, install Oracle Fabric Monitor.**
   - If this is a fresh installation, type.

```
rpm -ivh xsigo-xms-perfmgr-version.noarch.rpm
```

   - If this is an upgrade, type

```
rpm -Uvh xsigo-xms-perfmgr-version.noarch.rpm
```

   The `perfmgr.zip` file is written to the *XMS_ROOT*`/pluginstore` directory.

3. **Consider your next step.**
   - If you are upgrading from Xsigo Fabric Performance Monitor to Oracle Fabric Monitor, migrate the schema.

     See "Migrate the Schema (Linux)" on page 14.

   - If you are performing a fresh installation of Oracle Fabric Monitor, activate Oracle Fabric Monitor.

     See "Activate Oracle Fabric Monitor" on page 13.

▼ Install the MySQL Database (Windows)

This procedure is a basic overview of the installation process. For more information about installing the MySQL database on a Windows host, refer to the MySQL installation documentation.

1. **Perform any prerequisite tasks before this procedure.**

   See "Upgrade and Installation Task Overview" on page 2.

2. **As the administrator, double-click the icon of the MySQL `.msi` file.**
3. **Click Run.**
4. **Click Install MySQL Products, and r**ead and accept the license terms.
5. **Click Next.**

   The installer asks to download the latest software versions.

6. **Check the Skip the check for updates (not recommended) check box, and click Execute.**

   The installer asks you to select a setup type.

7. **Select Developer Default and click Next.**

   The installer checks that prerequisite software is installed. If prerequisite software is missing, cancel the installer, install the missing software, and return to this procedure again.

8. **If no prerequisite software is missing, click Next.**

   The installer lists the software to be installed.

9. **Click Execute.**

   The installation begins, and the installation progress is displayed.

10. **After all software components have been installed, click Next.**

    The installer begins configuration and prompts you to identify the configuration type.

11. **Choose Config Type → Development Machine.**
12. **Select the Enable TCP/IP Networking check box and type the Port Number 3306.**

    If this port is already taken, type a port number that is most appropriate and remember this number when configuring Oracle Fabric Monitor.

13. **Select the Open Firewall port for network access check box and click Next.**

    Advanced configuration is not necessary. The installer requests the root account password.

14. **Type the MySQL administrator's root password and type it a second time.**

    The password must be more than three characters long.

15. **Click Next.**

    Additional MySQL user accounts are not necessary. The installer requests Windows service details.

16. **Type the Windows Service Name and select Start the MySQL Server at System Startup check box.**

    Typically, the Windows Service Name is `MySQL`*number*, where *number* is the instance of the MySQL server.

17. **Click the Standard System Account button and click Next.**

    The configuration begins and the progress of configuration is displayed.

18. **When the configuration finishes, click Next, and then click Finish.**

19. **Install Oracle Fabric Monitor.**

    See "Install Oracle Fabric Monitor (Windows)" on page 11.

▼ Install Oracle Fabric Monitor (Windows)

1. **Perform any prerequisite tasks before this procedure.**

   See "Upgrade and Installation Task Overview" on page 2.

2. **On the server hosting Oracle Fabric Manager, double-click the `xsigo-xms-perfmgr-`*version*`.exe` installer icon.**

   Note – Double-click the icon for an upgrade as well.

   The `perfmgr.zip` file is written to the *XMS_ROOT*`/pluginstore` directory.

3. **Consider your next step.**

   - If you are upgrading from Xsigo Fabric Performance Monitor to Oracle Fabric Monitor, migrate the schema.

     See "Migrate the Schema (Windows)" on page 15.

   - If you are performing a fresh installation of Oracle Fabric Monitor, activate Oracle Fabric Monitor.

     See "Activate Oracle Fabric Monitor" on page 13.

▼ Install the MySQL Database (Oracle Solaris)

This procedure is a basic overview of the installation process. For more information about installing the MySQL database on an Oracle Solaris x86 host, refer to the MySQL installation documentation.

1. **Perform any prerequisite tasks before this procedure.**

   See "Upgrade and Installation Task Overview" on page 2.

2. **As the administrator, add the MySQL database package.**

```
pkgadd -d mysql-5.6.17-solaris11-x86_64.pkg
```

3. **Start the MySQL database.**

```
service mysql start
```

4. **Password protect the database.**

   a. **Record the password in** `/root/.mysql_secret`**.**

   b. **Invoke password protection.**

```
mysql -p
```

   c. **Log in to the MySQL client and type these commands.**

```
GRANT ALL PRIVILEGES ON *.* TO 'root'@'%' INDENTIFIED BY 'password';
FLUSH PRIVILEGES;
exit
```

   where *password* is the password from Step a.

5. **Log in again to verify that the password is set.**

6. **Install Oracle Fabric Monitor.**

   See "Install Oracle Fabric Monitor (Oracle Solaris)" on page 12.

▼ Install Oracle Fabric Monitor (Oracle Solaris)

1. **Perform any prerequisite tasks before this procedure.**

   See "Upgrade and Installation Task Overview" on page 2.

2. **As the administrator, install the Oracle Fabric Monitor package.**

```
pkgadd -d xsigo-xms-perfmgr-version-solaris-x86.pkg
```

3. **Activate Oracle Fabric Monitor.**

   See "Activate Oracle Fabric Monitor" on page 13.

▼ Activate Oracle Fabric Monitor

1. **Perform any prerequisite tasks before this procedure.**

   See "Upgrade and Installation Task Overview" on page 2.

2. **In the Navigation pane of Oracle Fabric Manager, click the Plugin Manager application.**

   The Installed Plugins Summary is displayed.

3. **Click the green plus sign icon.**

   The Add Plugin window is displayed.

4. **From the Plugin Name drop-down menu, select perfmgr.**

5. **Click Submit.**

   Activation begins.

6. **Type the Oracle Fabric Manager administrator's password when prompted, and click Submit.**

   When completed, Oracle Fabric Monitor is displayed under the Plugin Manager in the Navigation pane.

7. **Consider your next step.**

   - If you have upgraded Oracle Fabric Monitor, you can now use it.

     See Chapter 2.

   - If you have a fresh installation of Oracle Fabric Monitor, you must configure it.

     See "Configure Oracle Fabric Monitor" on page 41.

Upgrading the Software

These topics describe how to prepare for the upgrade and migrate the schema.

Note – Before performing any of these tasks, you must first read and understand the overall procedure to either upgrade or make a fresh installation of Oracle Fabric Monitor in "Upgrade and Installation Task Overview" on page 2.

▼ Prepare for Upgrade

1. **Perform any prerequisite tasks before this procedure.**

   See "Upgrade and Installation Task Overview" on page 2.

2. **On the server hosting the PostgreSQl database, verify that there is sufficient disk space for the database.**

   A rule of thumb is to have twice the database size free. For example, if the database presently occupies 10 Gbytes of disk space, you should have an additional 20 Gbytes of disk space available for upgrade.

3. **Make a backup of the PostgreSQL database.**

   Refer to the PostgreSQL documentation for instructions.

4. **Download and extract the Oracle Fabric Monitor software.**

   See "Download and Extract Oracle Fabric Monitor" on page 5.

▼ Migrate the Schema (Linux)

1. **Perform any prerequisite tasks before this procedure.**

   See "Upgrade and Installation Task Overview" on page 2.

2. **Copy the `migrate.sh` tool to the Linux server hosting the PostgreSQL database.**

3. **Initiate the migration.**

```
migrate.sh
```

   The schema is migrated.

4. **Activate Oracle Fabric Monitor.**

   See "Activate Oracle Fabric Monitor" on page 13.

▼ Migrate the Schema (Windows)

1. **Perform any prerequisite tasks before this procedure.**

   See "Upgrade and Installation Task Overview" on page 2.

2. **Copy the `migrate.bat` tool to the Windows server hosting the PostgreSQL database.**

3. Double-click on the migration tool icon **to initiate the migration.**

   The schema is migrated.

4. **Activate Oracle Fabric Monitor.**

   See "Activate Oracle Fabric Monitor" on page 13.

CHAPTER 2

Using Oracle Fabric Monitor

These topics describe how to use Oracle Fabric Monitor.

Exploring the Oracle Fabric Monitor GUI

These topics provide an overview of the Oracle Fabric Monitor features.

Description	Links
Learn the initial and subordinate panes of Oracle Fabric Monitor.	"Oracle Fabric Monitor Layout" on page 18
Understand the function of each clickable icon.	"Oracle Fabric Monitor Icons" on page 19
Configure the database for use by Oracle Fabric Monitor (if necessary).	"Configure Oracle Fabric Monitor" on page 41
Change the start date and end date of the data displayed (if necessary).	"Set the Date Range" on page 42
Learn about the data graph axis and the mouse pointer behavior.	"Exploring Graph Functionality" on page 20
Learn how to select which particular data graphs to display.	"Exploring the Legend Box" on page 22

Oracle Fabric Monitor Layout

Oracle Fabric Monitor displays data throughput by means of colored graphs. Each graph appears in a pane or portion of the Oracle Fabric Monitor window. The main Oracle Fabric Monitor window displays four panes:

Pane Name	Location	Description
All Servers	Upper left	Displays the average throughput of all VNICs (network), all VHBAs (storage), and the combination of the two graphs (total), as referenced from the servers of the fabric devices.
All Fabric Devices	Upper right	Displays the average throughput of all VNICs (network), all VHBAs (storage), and the combination of the two graphs (total), as referenced from the devices of the fabric.
Network Clouds	Lower left	Displays the average throughput of all VNICs (network) as referenced from the network clouds of the fabric.
Storage Clouds	Lower right	Displays the average throughput of all VHBAs (storage), as referenced from the storage clouds of the fabric.

Clicking the View Details icon of a pane redraws the Oracle Fabric Monitor window with subordinate panes.

- All Servers – Subordinate panes are Servers pane, VNICs pane, and VHBAs pane.
- All Fabric Devices – Subordinate panes are Fabric Devices pane, I/O Cards pane, and I/O Ports pane.
- Network Clouds – Subordinate panes are Network clouds pane and VNICs pane.
- Storage Clouds – Subordinate panes are Storage clouds pane and VHBAs pane.

Oracle Fabric Monitor Icons

This table describes the icons that are used in the Oracle Fabric Monitor GUI.

Note – If an icon in a pane or Legend box is dimmed, it is not active or functional in the present state.

Icon	Name	Description
	Back	Returns you to the main Oracle Fabric Monitor window.
	Edit Configuration	Changes the parameters of the database used by Oracle Fabric Monitor. See "Configure Oracle Fabric Monitor" on page 41.
	Edit Dates	Sets the starting and ending date for the graphs. See "Set the Date Range" on page 42.
	Calendar	Navigates through a calendar to set the date. See "Set the Date Range" on page 42.
	View Details	Expands the pane and reformats the Oracle Fabric Monitor window for that type of data source.
	Refresh	Deselects any data sources and reloads or restores the graph in the pane to a default state. **Note -** Clicking the Refresh icon does not affect sorting.

Icon	Name	Description
	Hide button	Minimizes or reveals the Legend box.
	Toggle	Inverts the state of the selected data source graphs from displayed to hidden, or hidden to displayed.
	Select	Displays the selected data source or the subordinates of the data source (VNICs, VHBAs, I/O cards, and I/O ports) in another graph.
	Color squares	Identifies the color of the data source graph.

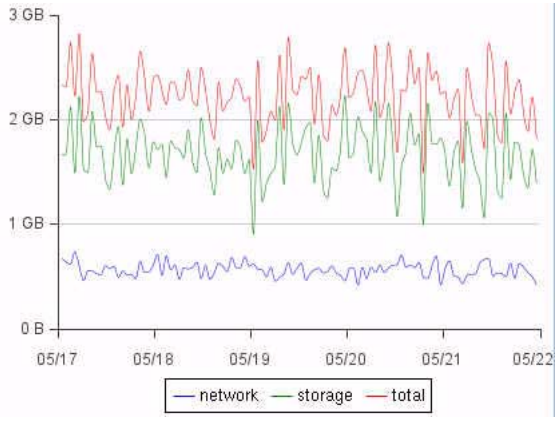
Exploring Graph Functionality

These topics describe graph features and behavior.

- "Throughput Versus Date Graphs" on page 20
- "Mouseover Behavior" on page 21

Throughput Versus Date Graphs

The data is plotted on a graph where the vertical axis is the throughput, and the horizontal axis is the date (time).



The throughput axis scaling and range are automatically selected in real-time, relative to the data that is selected. Changing the data to be displayed changes the throughput axis.

The date axis scaling is automatically selected from the range set by the Edit Date icon and is fixed. Changing the data to be displayed does not affect the date axis.

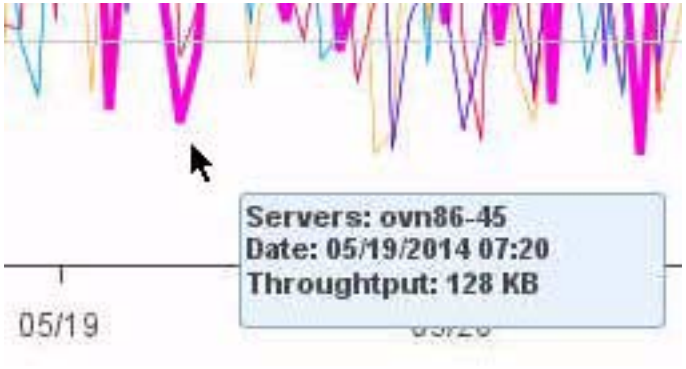
In the main Oracle Fabric Monitor window, graphs have the words network, storage, and or total under them.

- network – The blue graph represents the VNIC throughput.
- storage – The green graph represents the VHBA throughput.
- total – The red graph represents the sum of VNIC and VHBA throughput.

Mouseover Behavior

Moving the mouse pointer over a graph causes that graph to become bold. The pointer has an invisible circle of influence, so more than one graph might become bold at a time.

When the mouse pointer is held stationary on a graph, information about that data point appears in a pop-up window.



The pop-up window has the type and name of the data source, the date and time, and the throughput in bytes per second.

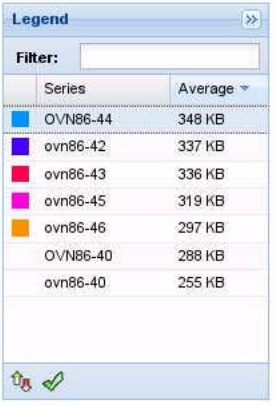
Note – Moving the mouse pointer over an icon displays pop-up text that describes the purpose of that icon.

Exploring the Legend Box

These topics describe how to use the Legend box and how it affects the graph.

Legend Box Overview

The Legend box accompanies all graphs, except for those of the main Oracle Fabric Monitor window. The Legend box lists all data sources of a type, which are children of a parent data source or type. By default, the top five data sources with the greatest throughput are graphed and have color squares to the left of their name, indicating their respective graphs.



You can filter the data sources by name or throughput, select data sources, and show or hide the graphs of the data sources selected.

▼ Filter Data By Name

1. **In the Filter field of the Legend box, type the string to filter.**

Note – The asterisk (*) is the wild card.

The data sources are automatically filtered as you type.

The top five data sources with the greatest throughput are assigned colors, and their graphs are plotted.

2. **Delete the filter string to unfilter the data sources.**

▼ Sort Data By Name or Throughput

- **In the Legend box, click either the word Series or Average to sort the data sources.**
  - Series – Sort is alphanumeric, by most significant character (case-insensitive).
  - Average – Sort is by greatest throughput. This is the default sort.

Note – Clicking the word a second time inverts the order of the sort.

The top five data sources with the greatest throughput are assigned colors and their graphs are plotted.

▼ Select Data

1. **In the Legend box, select a data source.**

   Clicking on a second data source selects it and deselects the first.

2. **Hold the Ctrl key to select additional data sources without deselecting those which have already been selected.**

3. **Hold the Shift key to select all data sources within two endpoints.**

Note – Holding the Shift and Ctrl key together and selecting the bottom data source selects all data sources.

4. **Click the Refresh icon of the active pane to restore the selections to default.**

▼ Toggle Data Hidden or Visible

1. **In the Legend box, filter, sort, and or select the data sources which graphs you want to show and or hide.**

   See "Filter Data By Name" on page 22, "Sort Data By Name or Throughput" on page 23, and "Select Data" on page 23.

Note – You can both hide displayed graphs and show hidden graphs in one operation.

---

2. **Click the Toggle icon to invert the state of the graph, show to hide, and hide to show.**

In this snapshot, the top two data sources were selected and toggled hidden. For the bottom two data sources, the blank space to the left of the data source was clicked.

3. **Alternatively, click the color square next to the data source to hide that graph, or click in the blank area to the left of a data source to display that graph.**
4. **Click the Refresh icon of the active pane to restore to the default display.**

Displaying Throughput

These topics describe how to display graphs of throughput.

Description	Links
Start up Oracle Fabric Monitor to display overall information.	"Display the Oracle Fabric Monitor Window" on page 25
Display the throughput from a server context, from both VNICs and VHBAs.	"Displaying Server Throughput" on page 26
Display the throughput from an Oracle Fabric Interconnect context, from I/O cards and I/O ports.	"Displaying Fabric Device Throughput" on page 30
Display the throughput from a network cloud (from VNICs) or storage cloud (from VHBAs) context.	"Displaying Cloud Throughput" on page 34

▼ Display the Oracle Fabric Monitor Window

1. **In the Navigation pane of the Fabric Manager, under the Plugin Manager, click Oracle Fabric Monitor.**

   The Oracle Fabric Monitor window is displayed.

2. **(Optional) Change the date range to expand the data.**

   See "Set the Date Range" on page 42.

3. **(Optional) Click on any one or combination of the words `network`, `storage`, and `total`, below the date axis to hide or display the respective graphs.**

Note – When a graph is hidden, its respective word is grayed-out.

4. **Move the mouse pointer over the graph to display the average throughput at that instance of time.**

   See "Mouseover Behavior" on page 21.

5. **For more detail, investigate the throughput from a server context, an Oracle Fabric Interconnect context, or a cloud context.**

   See:

   - "Displaying Server Throughput" on page 26
   - "Displaying Fabric Device Throughput" on page 30
   - "Displaying Cloud Throughput" on page 34

Displaying Server Throughput

These topics describe how to display throughput from a server context.

Servers Pane Overview

This snapshot shows the Servers pane and its subordinate VNICS pane and VHBAs pane.

▼ Display Server Throughput

1. **In the Navigation pane of the Fabric Manager, under the Plugin Manager, click Oracle Fabric Monitor.**

   The Oracle Fabric Monitor window is displayed.

2. **In the All Servers pane, click the View Details icon.**

   The Servers pane is displayed. See "Servers Pane Overview" on page 26.

3. **(Optional) Change the date range to expand the data.**

   See "Set the Date Range" on page 42.

Note – If you attempt to change the date further into the procedure, you automatically return to this step in the procedure, and you will need to reperform all subsequent steps a second time.

4. **(Optional) In the Servers pane Legend box, filter, sort, select, and toggle the server data you want to view.**

   See "Exploring the Legend Box" on page 22.

Note – If necessary, click the Refresh icon to reload the data to the default display.

5. **Move the mouse pointer over the graph to display the average throughput at that instance of time.**

   See "Mouseover Behavior" on page 21.

6. **When finished, click the Back icon as necessary to return to the Oracle Fabric Monitor window.**

7. **(Optional) Investigate the throughputs of other contexts.**

   See:

   - "Displaying Server Throughput" on page 26
   - "Displaying Fabric Device Throughput" on page 30
   - "Displaying Cloud Throughput" on page 34

▼ Display Server VNIC Throughput

1. **In the Navigation pane of the Fabric Manager, under the Plugin Manager, click Oracle Fabric Monitor.**

   The Oracle Fabric Monitor window is displayed.

2. **In the All Servers pane, click the View Details icon.**

   The Servers pane is displayed. See "Servers Pane Overview" on page 26.

3. **(Optional) Change the date range to expand the data.**

   See "Set the Date Range" on page 42.

Note – If you attempt to change the date further into the procedure, you automatically return to this step in the procedure, and you will need to reperform all subsequent steps a second time.

4. **In the Servers pane Legend box, select the server to investigate, and click the select icon.**

   Only that server's graph is displayed in the Servers pane, and the VNICs for that server are displayed in the VNICs pane.

5. **(Optional) In the VNICs pane Legend box, filter, sort, select, and toggle the VNIC data you want to view.**

   See "Exploring the Legend Box" on page 22.

Note – If necessary, click the Refresh icon to reload the data to the default display.

---

6. **Move the mouse pointer over the graph to display the average throughput at that instance of time.**

   See "Mouseover Behavior" on page 21.

7. **When finished, click the Back icon as necessary to return to the Oracle Fabric Monitor window.**

8. **(Optional) Investigate the throughputs of other contexts.**

   See:

   - "Displaying Server Throughput" on page 26
   - "Displaying Fabric Device Throughput" on page 30
   - "Displaying Cloud Throughput" on page 34

▼ Display Server VHBA Throughput

1. **In the Navigation pane of the Fabric Manager, under the Plugin Manager, click Oracle Fabric Monitor.**

   The Oracle Fabric Monitor window is displayed.

2. **In the All Servers pane, click the View Details icon.**

   The Servers pane is displayed. See "Servers Pane Overview" on page 26.

3. **(Optional) Change the date range to expand the data.**

   See "Set the Date Range" on page 42.

Note – If you attempt to change the date further into the procedure, you automatically return to this step in the procedure, and you will need to reperform all subsequent steps a second time.

---

4. **In the Servers pane Legend box, select the server to investigate, and click the select icon.**

   Only that server's graph is displayed in the Servers pane, and the VHBAs for that server are displayed in the VHBAs pane.

5. **(Optional) In the VHBAs pane Legend box, filter, sort, select, and toggle the VHBA data you want to view.**

   See "Exploring the Legend Box" on page 22.

Note – If necessary, click the Refresh icon to reload the data to the default display.

---

6. **Move the mouse pointer over the graph to display the average throughput at that instance of time.**

   See "Mouseover Behavior" on page 21.

7. **When finished, click the Back icon as necessary to return to the Oracle Fabric Monitor window.**

8. **(Optional) Investigate the throughputs of other contexts.**

   See:

   - "Displaying Server Throughput" on page 26
   - "Displaying Fabric Device Throughput" on page 30
   - "Displaying Cloud Throughput" on page 34

Displaying Fabric Device Throughput

These topics describe how to display throughput from an Oracle Fabric Interconnect context.

Fabric Devices Pane Overview

This snapshot shows the Fabric Devices pane and its subordinate I/O Cards pane and I/O Ports pane.

▼ Display Fabric Device Throughput

1. **Display the Oracle Fabric Monitor window.**

   See "Display the Oracle Fabric Monitor Window" on page 25.

2. **In the All Fabric Devices pane, click the View Details icon.**

   The Fabric Devices pane is displayed. See "Fabric Devices Pane Overview" on page 30.

3. **(Optional) Change the date range to expand the data.**

   See "Set the Date Range" on page 42.

Note – If you attempt to change the date further into the procedure, you automatically return to this step in the procedure, and you will need to reperform all subsequent steps a second time.

4. **(Optional) In the Fabric Devices pane Legend box, filter, sort, select, and toggle the Oracle Fabric Interconnect data you want to view.**

   See "Exploring the Legend Box" on page 22.

Note – If necessary, click the Refresh icon to reload the data to the default display.

5. **Move the mouse pointer over the graph to display the average throughput at that instance of time.**

   See "Mouseover Behavior" on page 21.

6. **When finished, click the Back icon as necessary to return to the Oracle Fabric Monitor window.**

7. **(Optional) Investigate the throughputs of other contexts.**

   See:

   - "Displaying Server Throughput" on page 26
   - "Displaying Fabric Device Throughput" on page 30
   - "Displaying Cloud Throughput" on page 34

▼ Display I/O Card Throughput

1. **Display the Oracle Fabric Monitor window.**

   See "Display the Oracle Fabric Monitor Window" on page 25.

2. **In the All Fabric Devices pane, click the View Details icon.**

   The Fabric Devices pane is displayed. See "Fabric Devices Pane Overview" on page 30.

3. **(Optional) Change the date range to expand the data.**

   See "Set the Date Range" on page 42.

Note – If you attempt to change the date further into the procedure, you automatically return to this step in the procedure, and you will need to reperform all subsequent steps a second time.

4. **In the Fabric Devices pane Legend box, select the Oracle Fabric Interconnect to investigate, and click the select icon.**

   Only that Oracle Fabric Interconnect's graph is displayed in the Fabric Devices pane, and the I/O cards for that Oracle Fabric Interconnect are displayed in the I/O Cards pane.

5. **(Optional) In the I/O Cards pane Legend box, filter, sort, select, and toggle the I/O card data you want to view.**

   See "Exploring the Legend Box" on page 22.

Note – If necessary, click the Refresh icon to reload the data to the default display.

---

6. **Move the mouse pointer over the graph to display the average throughput at that instance of time.**

   See "Mouseover Behavior" on page 21.

7. **When finished, click the Back icon as necessary to return to the Oracle Fabric Monitor window.**

8. **(Optional) Investigate the throughputs of other contexts.**

   See:

   - "Displaying Server Throughput" on page 26
   - "Displaying Fabric Device Throughput" on page 30
   - "Displaying Cloud Throughput" on page 34

▼ Display I/O Port Throughput

1. **Display the Oracle Fabric Monitor window.**

   See "Display the Oracle Fabric Monitor Window" on page 25.

2. **In the All Fabric Devices pane, click the View Details icon.**

   The Fabric Devices pane is displayed. See "Fabric Devices Pane Overview" on page 30.

3. **(Optional) Change the date range to expand the data.**

   See "Set the Date Range" on page 42.

Note – If you attempt to change the date further into the procedure, you automatically return to this step in the procedure, and you will need to reperform all subsequent steps a second time.

---

4. **In the Fabric Devices pane Legend box, select the Oracle Fabric Interconnect to investigate, and click the select icon.**

   Only that Oracle Fabric Interconnect's graph is displayed in the Fabric Devices pane, and the I/O ports for that Oracle Fabric Interconnect are displayed in the I/O Ports pane.

5. **(Optional) In the I/O Ports pane Legend box, filter, sort, select, and toggle the I/O port data you want to view.**

   See "Exploring the Legend Box" on page 22.

Note – If necessary, click the Refresh icon to reload the data to the default display.

---

6. **Move the mouse pointer over the graph to display the average throughput at that instance of time.**

   See "Mouseover Behavior" on page 21.

7. **When finished, click the Back icon as necessary to return to the Oracle Fabric Monitor window.**

8. **(Optional) Investigate the throughputs of other contexts.**

   See:

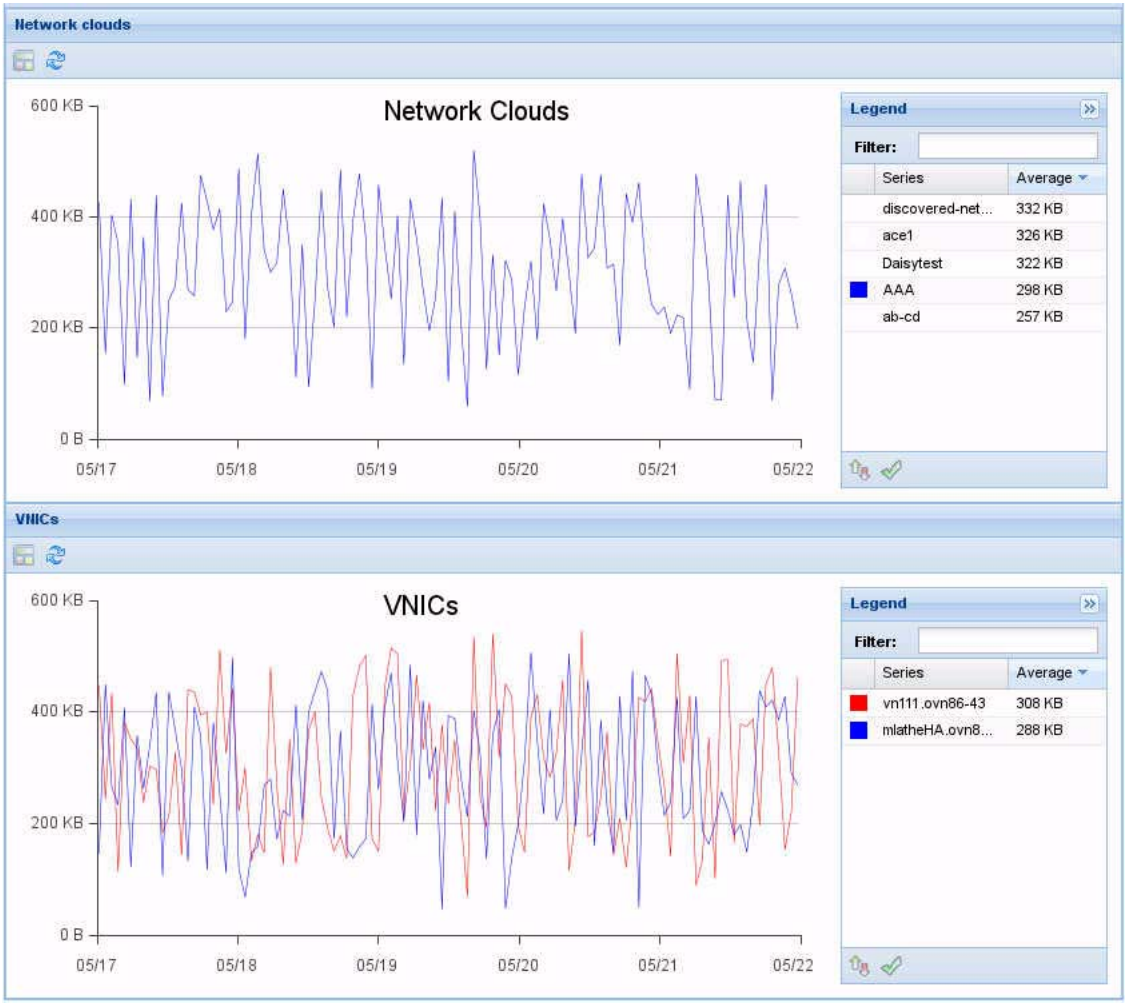
   - "Displaying Server Throughput" on page 26
   - "Displaying Fabric Device Throughput" on page 30
   - "Displaying Cloud Throughput" on page 34

Displaying Cloud Throughput

These topics describe how to display throughput from a network cloud or storage cloud context.

Network Clouds Pane Overview

This snapshot shows the Network clouds pane and its subordinate VNICs pane.



▼ Display Network Cloud Throughput

1. **In the Navigation pane of the Fabric Manager, under the Plugin Manager, click Oracle Fabric Monitor.**

   The Oracle Fabric Monitor window is displayed.

2. **In the Network Clouds pane, click the View Details icon.**

   The Network clouds pane is displayed. See "Network Clouds Pane Overview" on page 34.

3. **(Optional) Change the date range to expand the data.**

   See "Set the Date Range" on page 42.

Note – If you attempt to change the date further into the procedure, you automatically return to this step in the procedure, and you will need to reperform all subsequent steps a second time.

---

4. **(Optional) In the Network clouds pane Legend box, filter, sort, select, and toggle the network cloud data you want to view.**

   See "Exploring the Legend Box" on page 22.

Note – If necessary, click the Refresh icon to reload the data to the default display.

---

5. **Move the mouse pointer over the graph to display the average throughput at that instance of time.**

   See "Mouseover Behavior" on page 21.

6. **When finished, click the Back icon as necessary to return to the Oracle Fabric Monitor window.**

7. **(Optional) Investigate the throughputs of other contexts.**

   See:

   - "Displaying Server Throughput" on page 26
   - "Displaying Fabric Device Throughput" on page 30
   - "Displaying Cloud Throughput" on page 34

▼ Display Network Cloud VNIC Throughput

1. **In the Navigation pane of the Fabric Manager, under the Plugin Manager, click Oracle Fabric Monitor.**

   The Oracle Fabric Monitor window is displayed.

2. **In the Network Clouds pane, click the View Details icon.**

   The Network clouds pane is displayed. See "Network Clouds Pane Overview" on page 34.

3. **(Optional) Change the date range to expand the data.**

   See "Set the Date Range" on page 42.

Note – If you attempt to change the date further into the procedure, you automatically return to this step in the procedure, and you will need to reperform all subsequent steps a second time.

4. **In the Network clouds pane Legend box, select the cloud to investigate, and click the select icon.**

   Only that cloud's graph is displayed in the Network clouds pane, and the VNICs for that cloud are displayed in the VNICs pane.

5. **(Optional) In the VNICs pane Legend box, filter, sort, select, and toggle the VNIC data you want to view.**

   See "Exploring the Legend Box" on page 22.

Note – If necessary, click the Refresh icon to reload the data to the default display.

6. **Move the mouse pointer over the graph to display the average throughput at that instance of time.**

   See "Mouseover Behavior" on page 21.

7. **When finished, click the Back icon as necessary to return to the Oracle Fabric Monitor window.**

8. **(Optional) Investigate the throughputs of other contexts.**

   See:

   - "Displaying Server Throughput" on page 26
   - "Displaying Fabric Device Throughput" on page 30
   - "Displaying Cloud Throughput" on page 34

Storage Clouds Pane Overview

This snapshot shows the Storage clouds pane and its subordinate VHBAs pane.

▼ Display Storage Cloud Throughput

1. **In the Navigation pane of the Fabric Manager, under the Plugin Manager, click Oracle Fabric Monitor.**

   The Oracle Fabric Monitor window is displayed.

2. **In the Storage Clouds pane, click the View Details icon.**

   The Storage clouds pane is displayed. See "Storage Clouds Pane Overview" on page 37.

3. **(Optional) Change the date range to expand the data.**

   See "Set the Date Range" on page 42.

Note – If you attempt to change the date further into the procedure, you automatically return to this step in the procedure, and you will need to reperform all subsequent steps a second time.

---

4. **(Optional) In the Storage clouds pane Legend box, filter, sort, select, and toggle the storage cloud data you want to view.**

   See "Exploring the Legend Box" on page 22.

Note – If necessary, click the Refresh icon to reload the data to the default display.

---

5. **Move the mouse pointer over the graph to display the average throughput at that instance of time.**

   See "Mouseover Behavior" on page 21.

6. **When finished, click the Back icon as necessary to return to the Oracle Fabric Monitor window.**

7. **(Optional) Investigate the throughputs of other contexts.**

   See:

   - "Displaying Server Throughput" on page 26
   - "Displaying Fabric Device Throughput" on page 30
   - "Displaying Cloud Throughput" on page 34

▼ Display Storage Cloud VHBA Throughput

1. **In the Navigation pane of the Fabric Manager, under the Plugin Manager, click Oracle Fabric Monitor.**

   The Oracle Fabric Monitor window is displayed.

2. **In the Storage Clouds pane, click the View Details icon.**

   The Storage clouds pane is displayed. See "Storage Clouds Pane Overview" on page 37.

3. **(Optional) Change the date range to expand the data.**

   See "Set the Date Range" on page 42.

Note – If you attempt to change the date further into the procedure, you automatically return to this step in the procedure, and you will need to reperform all subsequent steps a second time.

4. **In the Storage clouds pane Legend box, select the cloud to investigate, and click the select icon.**

   Only that cloud's graph is displayed in the Storage clouds pane, and the VHBAs for that cloud are displayed in the VHBAs pane.

5. **(Optional) In the VHBAs pane Legend box, filter, sort, select, and toggle the VHBA data you want to view.**

   See "Exploring the Legend Box" on page 22.

Note – If necessary, click the Refresh icon to reload the data to the default display.

6. **Move the mouse pointer over the graph to display the average throughput at that instance of time.**

   See "Mouseover Behavior" on page 21.

7. **When finished, click the Back icon as necessary to return to the Oracle Fabric Monitor window.**

8. **(Optional) Investigate the throughputs of other contexts.**

   See:

   - "Displaying Server Throughput" on page 26
   - "Displaying Fabric Device Throughput" on page 30
   - "Displaying Cloud Throughput" on page 34

Performing Supportive Tasks

These tasks describe how to configure the database and set the date range.

- "Configure Oracle Fabric Monitor" on page 41
- "Set the Date Range" on page 42

▼ Configure Oracle Fabric Monitor

1. **In the Navigation pane of the Fabric Manager, under the Plugin Manager, click Oracle Fabric Monitor.**

2. **Consider your next step.**
   - If a dialog box informing you to configure Oracle Fabric Monitor is displayed, click Yes.
   - If the Oracle Fabric Monitor window is displayed, click the Edit Configuration icon.

   The Oracle Fabric Monitor database configuration widow is displayed.

3. **Select or type these configuration values.**

Parameter	Description
Database Type	From the pull-down menu, select either MySQL or Postgres.
Database Host Name	The host name of the server hosting the database.
Database Port	The port used by the database. By default, the PostgreSQL database uses port 5432, and the MySQL database uses port 3306. If you set the port to a different number when you installed the MySQL database, type that number here. The arrows increment or decrement the port number.

Parameter	Description
Existing database?	Check this box if the database has already been configured. **Note -** The Oracle Fabric Monitor database configuration window changes when this box is checked or unchecked.
Admin Username	If this is a new database configuration, type `mysql`.
Admin Password	If this is a new database configuration, use the password from when the MySQL database was installed.
New Database Name	If this is a new database configuration, provide the name of the database.
New Username	If this is a new database configuration, provide the name of the user who has administrative privileges of the database.
New Password	If this is a new database configuration, provide the password for the user with administrative privileges of the database.
Existing Database Name	If the database has already been configured, confirm the name of the database.
Existing Username	If the database has already been configured, confirm the name of the user who has administrative privileges of the database.
Existing Password	If the database has already been configured, confirm the password for the user with administrative privileges of the database.

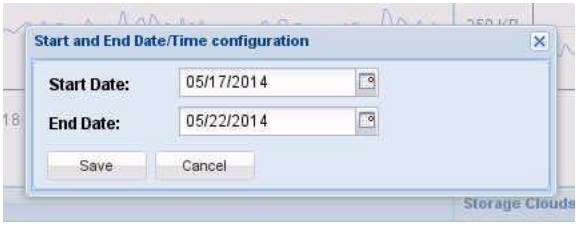
4. **Click Test Connection to verify that Oracle Fabric Monitor can communicate with the database.**
5. **Consider your next step.**
   - If the test passes, click OK, and go to Step 6.
   - If the test fails, click OK, correct the values where indicated, then repeat the test in Step 4.
6. **Click Save.**

   Oracle Fabric Monitor is ready to use. See "Exploring the Oracle Fabric Monitor GUI" on page 17.

▼ Set the Date Range

1. **In the Oracle Fabric Monitor window, click the Edit Date icon.**

   The Start and End Date/Time configuration window opens.



2. **Provide a Start Date (month/day/year).**
3. **Provide an End Date (month/day/year).**
4. **Click Save.**

   All graphs are updated.
5. **Return to the task you were performing.**

   See "Displaying Throughput" on page 24.