

HP Service Health Reporter

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Windows® and Linux operating systems

High Availability Guide

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Chapter 1: Introduction

This guide provides instructions on how to configure Service Health Reporter (SHR) in a high availability environment using the cluster software. Configuring SHR in high availability environment improves its availability when used as a mission critical application.

Note: Ensure that the cluster software is installed and configured on the systems before you begin installing SHR in a High Availability (HA) environment. HP Software Support does not provide any assistance in installing and configuring the cluster software.

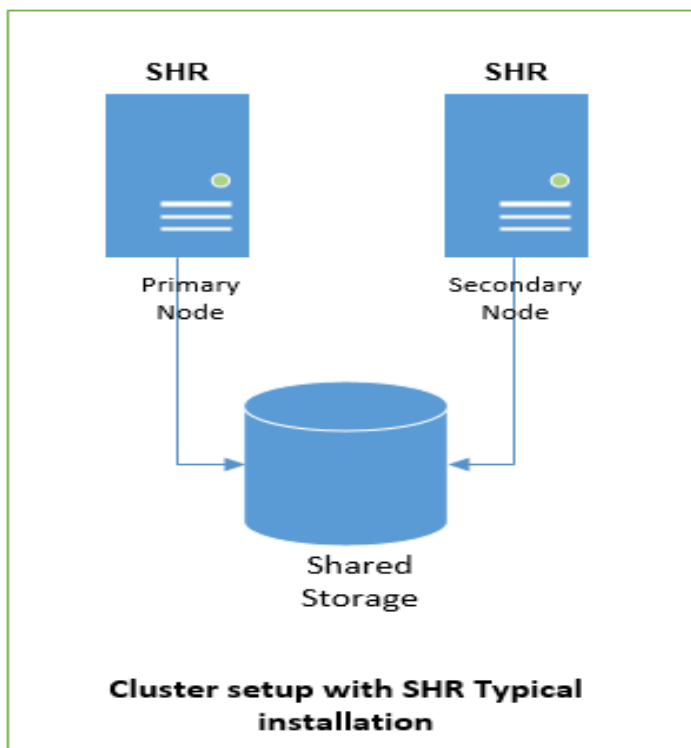
See *HP Service Health Reporter Support Matrix* for a list of cluster software programs supported by SHR.

SHR Setup in High Availability Environment

This guide covers the configuration of a two-node cluster using a shared disk with SHR installed on both the clusters. However, this setup can be implemented using multiple nodes.

Figure 1 shows the SHR configuration in a high availability setup.

Figure 1: SHR Setup in HA Configuration



As shown in figure 1:

1. Install SHR on both the nodes of the cluster. See *HP Service Health Reporter Interactive Installation Guide* for more information.

One node acts as a primary (active) node, and the other acts as a secondary (passive) node. SHR installation is supported in an active-passive setup of nodes only.

2. Configure a shared storage for both the nodes.

Note: For all system and storage requirements information see the *HP Service Health Reporter Performance, Sizing, and Tuning Guide*.

Chapter 2: Prerequisites

The primary requirement for cluster implementation is that in case of a failover, all the designated processes are initiated seamlessly on the secondary (failover) node.

Hostname and IP Address

For a simple system failover implementation, there must be two or more servers that are each capable of hosting a unique “floating” hostname and associated IP address (wherever applicable) that are not associated with a physical node (that is a “logical” hostname and IP address).

Only one of the failover nodes hosts this name and IP address at any given time. During a system failover, the hostname and IP is “transferred” from the failed server to the failover node. The applications, however, will always access the same hostname and IP.

SHR stores the values of hostname and IP during installation for use at run time.

Register only the public IP address of SHR in DNS.

Licensing

Type the Logical IP address to generate the license for the High Availability environment. For information on licensing in High Availability environment, see *HP Service Health Reporter Configuration Guide*.

Setting Failover Nodes

To set failover machines, follow these steps:

1. In a two-node cluster, set one system to function as the primary node and one system to function as secondary node and install the cluster software on both.

Ensure that both the primary and secondary nodes have similar system resources.

This is because when you install the database and SHR; the database tuning parameters are set based on the system resources available on the machine on which it is installed. In case there is a failover and the secondary node has significantly less resources than the primary node, the parameters used to initialize and tune the database might not only be sub-optimal, but could also prevent the database from being started.

2. Set up a shared storage.
3. Ensure that the cluster software is running. To verify, run the following command on both the

nodes:

```
hastatus -sum
```

Verifying System Resources and Node Patch Levels

Verify that each failover node has similar resources (for example, RAM, swap) and patch levels for the operating system before installing SHR.

Synchronizing System Clocks

SHR has many time-dependent and time-critical processes. Therefore, it is important that each node in the cluster uses the same source for time synchronization to keep data collection, aggregation, reporting, and logging correct and consistent.

Ensure that both the primary and secondary nodes have the same system time.

Cluster Environment Agents

The cluster environment uses “agents” for monitoring the status and health of various resources, bringing them online and shutting them down in normal and emergency situations. It includes the agents required to handle common resources such as:

- Network Interface Cards
 - IP addresses
 - Physical Disk drives
 - Logical Disk drives
- Ensure that `nslookup` with the hostname and with IP address should give the same output. Both the cases should display the same hostname and IP address.
 - Ensure that the shared disk space is sufficient for installing SHR components.
 - For all system requirements and configuration information, see the *HP Service Health Reporter Interactive Installation Guide*.

Chapter 3: Installing SHR on Cluster Setup

Before configuring SHR on cluster setup, ensure that all the nodes in the cluster can access the shared storage for SHR through the Cluster software Admin Console.

You can install SHR in two different set up:

- ["Typical Installation and Configuration of SHR" below](#)
- ["Custom Installation and Configuration of SHR" on page 35](#)

Typical Installation and Configuration of SHR

This section describes how to install and configure SHR on the same system.

Note: Install SHR on the primary node first and then on the secondary node. Avoid parallel installations.

Installing SHR on the Primary Node

For instructions on installing SHR, see the *HP Service Health Reporter Interactive Installation Guide*.

After SHR is installed, perform the following for windows:

1. Open the AgentScript_SHR_VCS.pl file from:
`%PMDB_HOME%\HA\Veritas\Windows\AgentScripts.`
2. Enter the drive alphabet of the shared storage in the \$SharedDriveLetter parameter.
3. Save and close the file.

Configuring SHR on the Primary node

Follow these steps:

1. Assign the shared storage to the SHR primary node.

Note: The shared storage can only be assigned to one node at a time.

2. For instructions on post-installation configuration of SHR, see *HP Service Health Reporter*

Configuration Guide.

Note: Specify the location of the shared storage in the Database File Location field while performing the task "Create the Database Schema" in the *HP Service Health Reporter Configuration Guide*.

For example:

- For Windows, if the drive letter of the shared storage is **E**, then the location will be E:\HP-SHR\Sybase\db.
- For Linux, if the shared storage is /SHRmount, then the location will be /SHRmount/HP-SHR/SybaseDB.

3. Deploy the Content Packs based on the topology that you have selected. For steps to deploy Content Packs, see *HP Service Health Reporter Configuration Guide*.

Note: To deploy Content Packs after installation and configuration of SHR is complete, "[Deploying Content Packs when SHR is running](#)" on page 69.

4. Copy the SHR files from local disk to shared disk.

For Windows

Run the following command:

```
%PMDB_HOME%\..\nonOV\perl\bin\perl %PMDB_HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive <shared_drive_letter> -node primary -logicalhost <logical_hostname> >> %PMDB_HOME%\HA\setup.log
```

where, <shared_drive_letter> is the drive letter of the shared storage (for example, G:), and <logical_hostname> is the logical host name for the SHR application.

Note: Type the above command in a single line.

For example,

```
%PMDB_HOME%\..\nonOV\perl\bin\perl %PMDB_HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive G -node primary -logicalhost example.example1.com >> %PMDB_HOME%\HA\setup.log
```

Run the following command:

```
sc config OvCtrl start= demand
```

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws SHRDB -c  
"uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<datab  
ase.sybase.dbfileloc>\pmdb.db;links=tcPIP  
{host=<database.host>;port=<database.port>}" -v -pe"
```

where,

<angular bracket value>: The value is obtained from the %PMDB_HOME%\data\config.prp file.

<password>: The password of the PMDB database entered during post-installation of SHR.

For Linux

Run the following command:

```
/opt/OV/nonOV/perl/a/bin/perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_  
Setup.pl -sharedDrive <shared_drive> -node primary -logicalhost <Logical_  
hostname> -Bosqlpassword <password> -primaryhost <primary_node_hostname>
```

where, <shared_drive> is the location of the shared drive (for example, SHRMount), <Logical_hostname> is the logical host name for the SHR application, and <primary_node_hostname> is the host name of the primary node.

Note: Type the above command in a single line.

For example,

```
/opt/OV/nonOV/perl/a/bin/perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_  
Setup.pl -sharedDrive G -node primary -logicalhost example.example1.com -  
Bosqlpassword password -primaryhost example2.example3.com
```

5. Switch the shared storage from the primary node to the secondary node.
6. Perform this step only if SHR is installed in Linux environment.
 - a. Open ccm.config located at /opt/HP/BSM/BO/bobje/.
 - b. Search for the **SERVICENAME** and **SERVICENAME_AUDIT** parameters and note down their values.

Installing SHR on the Secondary node

Ensure that all the SAP BusinessObjects services are stopped on the primary node before installing SHR on the secondary node. The SAP BusinessObject services are as follows:

- BOE120SQLAW.
- Business Objects webserver.

- Server Intelligent Agent (HOML01GEATON).

Perform the following steps:

1. Start the SHR installation. For instructions on installing SHR, see *HP Service Health Reporter Interactive Installation Guide*.
2. After you agree to the licensing terms and conditions on the License Agreement page perform the following steps *before proceeding* with the installation:

For Windows

- a. Open `PrimaryServer.ini` located at `%temp%/../HP-SHR`.
- b. Search for the following parameters:

DATABASEUID

DATABASEUID_AUDIT

- c. Replace the values of the above parameters with the primary node server name without the FQDN.

For example, if the complete server name is `server.example.com`, then use just `server` as the input value.

- d. Save and close the file.

For Linux

- a. Open another console session on the secondary node.
- b. Open the `Sp7response.ini` file in edit mode. This file is located at `/tmp/HP-SHR/`.
- c. Search for the following parameters:

SERVICENAME

SERVICENAME_AUDIT

- d. Replace the values of the above parameters with the values noted down from the primary node.
 - e. Save and close the file
3. Continue with the installation in the first console.

4. For Windows

After SHR is installed in the secondary node, perform the following steps:

- a. Open the `AgentScript_SHR_VCS.pl` file from:

`%PMDB_HOME%\HA\Veritas\Windows\AgentScripts.`

Note: Ensure that the required shared storage is available in the secondary node and then proceed.

- a. Enter the drive letter of the shared storage in the `$SharedDriveLetter` parameter.
- b. Save and close the file.

Configuring SHR on the Secondary node

1. For Windows

Copy `config.prp` from `%PMDB_HOME%\data\` on the primary node to the same location on the secondary node.

Note: If you change the database password in one of the SHR nodes using the Administration Console, copy `config.prp`, located at `%PMDB_HOME%\data\`, from that node to all the other SHR nodes.

Also, open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular node.

For Linux

- a. Copy `config.prp` from `$PMDB_HOME/data/` on the primary node to the same location on the secondary node.
- b. Open `config.prp` and replace the value of `bo.cms` with the host name of the secondary node.

Note: If you change the database password in one of the SHR nodes using the Administration Console, copy `config.prp`, located at `$PMDB_HOME\data\`, from that node to all the other SHR nodes.

Also, open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular node.

2. For Windows

Run the following command:

```
%PMDB_HOME%\.nonOV\perl\bin\perl %PMDB_HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive <shared_
```

```
drive_letter> -node secondary -logicalhost <logical_hostname> >> %PMDB_
HOME%\HA\setup.log
```

where, *<shared_drive_letter>* is the drive letter of the shared storage (for example, G:), and *<logical_hostname>* is the logical host name for the SHR application.

Note: Type the above command in a single line.

For example,

```
%PMDB_HOME%\..\nonOV\perl\a\bin\perl %PMDB_
HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive G -node
secondary -logicalhost example.example1.com >> %PMDB_HOME%\HA\setup.log
```

```
C:\Users\shrclusadm>%PMDB_HOME%\..\nonOV\perl\a\bin\perl %PMDB_
HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive S:// -node
primary -logicalhost SHRCP8946.shr.com >> %PMDB_HOME%\HA\setup.log
```

Run the following command:

```
sc config OvCtrl start= demand
```

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws BSMR -c
"uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<datab
ase.sybase.dbfileloc>\pmdb.db;links=tcPIP{host=<database.host
>;port=<database.port>}" -v -pe"
```

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws SHRDB -c
"uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<datab
ase.sybase.dbfileloc>\pmdb.db;links=tcPIP
{host=<database.host>;port=<database.port>}" -v -pe"
```

where,

<angular bracket value>: The value is obtained from the %PMDB_HOME%\data\config.prp file.

<password>: The password of the PMDB database entered during post-installation of SHR.

For Linux

Run the following command:

```
/opt/OV/nonOV/perl/a/bin/perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_
Setup.pl -sharedDrive <shared_drive> -node secondary -logicalhost <logical_
hostname> -Bosqlpassword <password> -primaryhost <primary_node_hostname>
```

where, *<shared_drive>* is the location of the shared drive (for example, *\$SHRMount*), *<Logical_hostname>* is the logical host name for the SHR application, and *<primary_node_hostname>* is the host name of the primary node.


Note: Type the above command in a single line.

For example:

```
/opt/OV/nonOV/perl/a/bin/perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_Setup.pl -sharedDrive G -node secondary -logicalhost example.example1.com -Bosqlpassword password -primaryhost example2.example3.com
```

Verify whether SHR is installed properly on both the nodes and whether the correct folders are copied to the shared storage.

- After both the nodes are configured, the following folders from the HP-SHR directory are copied by the script on the shared drive:
 - BusinessObjects
 - PMDB
 - PostgreSQL
 - server

However, only partial contents of these folders are copied to the shared drive. The contents which are copied to the shared drive are marked with  (icon in windows only) in the HP-SHR folders on both the SHR nodes.

- Check the log files located at:

For Windows

- %PMDB_HOME%\HA\setup.log

For Linux

- \$PMDB_HOME\HA\setup.log

Creating Server Intelligence Agent (SIA) in the Secondary Node

After installing SHR on both the nodes, you must create a Server Intelligence Agent (SIA) in the secondary node.

Creating Server Intelligence Agent (SIA) in the Secondary Node For Windows

To create SIA in secondary node:

1. From the Microsoft Windows Services window, start the BOE120SQLAW service.
2. Start the Go to **Start > Programs > BusinessObjects XI 3.1 > BusinessObjects Enterprise > Central Configuration Manager**. The Central Configuration Manager window opens.
3. Right-click **Server Intelligence Agent** and click **Stop Now**.

Note: Do not close the Central Configuration Manager window.

4. Open the `<drive_letter>:\Program Files (x86)\Business Objects\BusinessObjects Enterprise 12.0\win32_x86\` folder.

where, `<drive_letter>` is the drive letter where the SAP BusinessObjects is installed.

5. Delete all the files starting with `_boe`.
6. Run the following command in the command prompt:

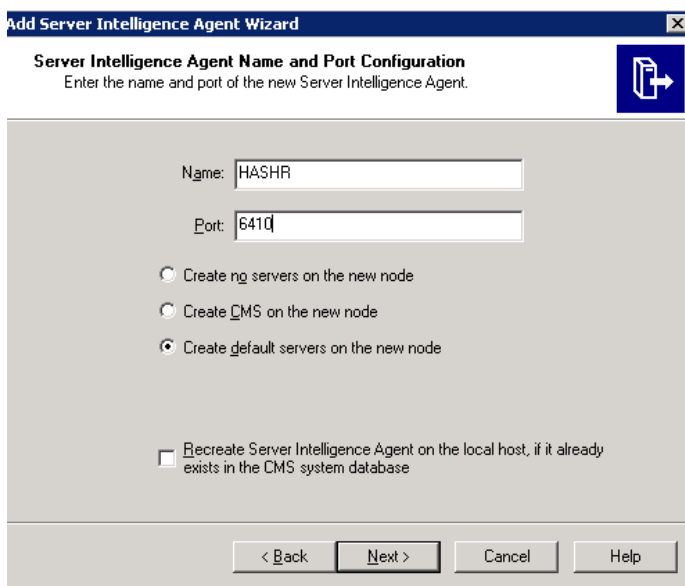
```
sc delete BOE120SIAHOML01GEATON
```
7. Refresh the Central Configuration Manager window. The Server Intelligence Agent created by the installer is deleted.
8. In the Central Configuration Manager window, right-click **Business Objects Webserver** and click **Stop Now**.
9. From the Services window, click the **BOE120SQLAW** service and check if the service is started. If the service is stopped then click **Start**.

10. Click **Add Server Intelligence Agent** () in the Central Configuration Manager window.

The Add Server Intelligence Agent Wizard window opens.

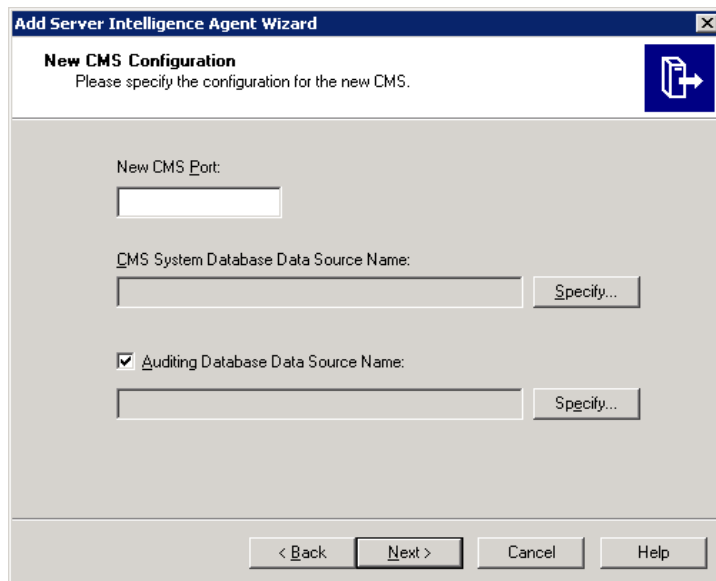


11. Click **Next**. The Server Intelligence Agent Name and Port Configuration page opens.



12. On the Server Intelligence Agent Name and Port Configuration page:
 - Specify the SIA name as **HASHR**.
 - Specify the SIA port number as **6410**.
 - Select **Create default servers on the new node** and click **Next**.

The New CMS Configuration page opens.



13. On the New CMS Configuration page:
 - Specify the new CMS port number as 6400.
 - Click **Specify** next to the CMS System Database Data Source Name field.
 - The Select Database Driver window opens.
Select **SQL Anywhere (ODBC)** and click **OK**.
 - The Select Data Source window opens.
Click the **Machine Data Source** tab.
 - Select **BOE120** and click **OK**
The Connect to SQL Anywhere window opens.
In the Password field on the Login tab, specify the password (**pmdb_admin** is the default password if you have not changed the SAP BusinessObjects database password).
Click **OK**.
 - You return to the New CMS Configuration page.
 - Click **Specify** next to the **Auditing Database Data Source Name** field.
 - The Select Database Driver window opens.
Select **SQL Anywhere (ODBC)** and click **OK**.

- The Select Data Source window opens.

Click the **Machine Data Source** tab.

Select **BOE120_AUDIT** and click **OK**

- The Connect to SQL Anywhere window opens.

In the **Password** field on the Login tab, specify the password (**pmdb_admin** is the default password if you have not changed the SAP BusinessObjects database password).

Click **OK**.

- You return to the New CMS Configuration page.
- Click **Next**.

14. The CMS Logon page opens.

The screenshot shows a dialog box titled "Add Server Intelligence Agent Wizard" with a sub-tab "CMS Logon". The instruction "Enter the CMS logon information." is displayed. The form fields are: "System:" (dropdown menu with "jwfvmc1702:6400" selected), "User Name:" (text box with "Administrator" entered), "Password:" (empty text box), and "Authentication:" (dropdown menu with "Enterprise" selected). Navigation buttons at the bottom include "< Back", "Next >", "Cancel", and "Help".

15. Enter the following credentials:


- **User Name:** Administrator
- Keep the **Password** field empty.
- Click **Next**.

16. The Add Server Intelligence Agent Wizard window displays the summary of SIA details. Click **Finish**.

17. Go to the Central Configuration Manager window and start Business Objects Webserver and Server Intelligence Agent.

Wait until all the services start.

To check whether all the services are running:

- a. Go to **Start > Programs > BusinessObjects XI 3.1 > BusinessObjects Enterprise > Central Configuration Manager**. The Central Configuration Manager window opens.
 - b. Select the new SIA.
 - c. Click  in the Central Configuration Manager window.
The Manage Servers window opens.
 - d. Check whether all the services against the new SIA name are in the **Running** state.
18. Double-click **Server Intelligence Agent**, in the Server Intelligence Agent Properties window select **Dependency**.
 19. The Add Dependency window opens, select **BOE120SQLAW** from the list and click **Add**, then click **OK**.
 20. Start the Server Intelligence Agent and the BusinessObjects Webserver.
 21. After starting the services perform the following steps:
 - a. Launch Central Management Console (CMC).
 - b. Log in to CMC with Administrator account.
 - c. Click on Servers.
 - d. Double-click on **InputFileRepository** server.
 - e. In Context menu click on **Properties**.
 - f. Type the path in **Temporary Directory**. (For Example: <installation directory of BOE>:\Program Files\Business Objects\BusinessObjects Enterprise12.0\FileStore\Input\Temp).
 - g. Type the path in **File Store Directory**. (For Example: <installation directory of BOE>:\Program Files\Business Objects\BusinessObjects Enterprise12.0\FileStore\Input).
 - h. Click on **Save & Close**.
 - i. Restart the **InputFileRepository** server.
 - j. Perform the steps from d to i for **OutputFileRepository** server.

Creating Server Intelligence Agent (SIA) in the Secondary Node For Linux

To create SIA in secondary node:

1. Open a console and change the directory to /opt/HP/BSM/BO/bobje.
2. Run the following commands:

```
sh sawstartup.sh
```

3. Run the following command to start creating a new SIA:

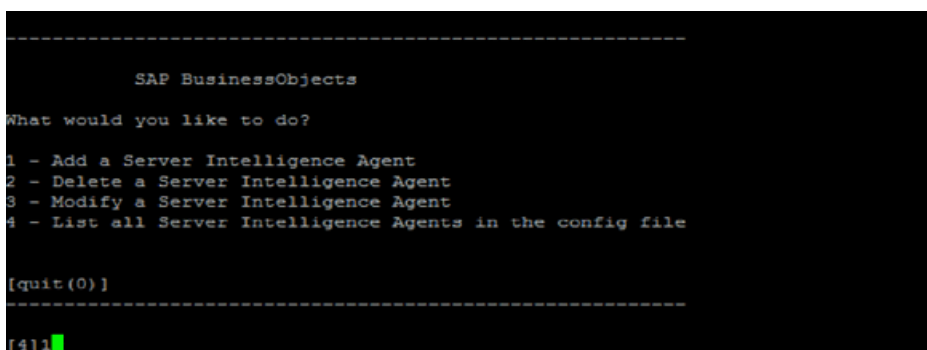
```
su - SHRBOADMIN
```

Go to /opt/HP/BSM/BO/bobje and run the following command:

```
./serverconfig.sh
```

Steps 4-24 display the text displayed for creating a new SIA. The input for each step is displayed at the bottom of each image. Make sure you enter the specified input to move on to the next step.

4. Enter 1.



```
-----  
SAP BusinessObjects  
What would you like to do?  
1 - Add a Server Intelligence Agent  
2 - Delete a Server Intelligence Agent  
3 - Modify a Server Intelligence Agent  
4 - List all Server Intelligence Agents in the config file  
  
[quit (0)]  
-----  
[4]1
```

5. Enter 3.

```
-----  
SAP BusinessObjects  
  
If it already exists in the CMS system database, do you want to recreate the  
Server Intelligence Agent on the local host?  
  
Use this option only if this Server Intelligence Agent does not exist on any hos  
ts in the deployment.  
  
[yes(3)/no(2)/back(1)/quit(0)]  
-----  
[no]
```

6. Enter PRD_SHR.

```
-----  
SAP BusinessObjects  
  
Please enter the name of the new Server Intelligence Agent.  
  
[back(1)/quit(0)]  
-----  
[IWFVM01052]:
```

7. Enter 6410.

```
-----  
SAP BusinessObjects  
  
Please enter the port of the new Server Intelligence Agent.  
  
[back(1)/quit(0)]  
-----  
[]6410
```

8. Enter 2.

```
-----  
SAP BusinessObjects  
  
noservers (Create no servers on the new node)  
cms (Create CMS on the new node)  
defaultservers (Create default servers on the new node)  
  
[noservers(4)/cms(3)/defaultservers(2)/back(1)/quit(0)]  
-----  
[noservers]2
```

9. Enter 6400.

```
-----  
SAP BusinessObjects  
  
Enter the port of the new CMS.  
  
[back(1)/quit(0)]  
-----  
[default (6400)]6400
```

10. Enter 2.

```
-----  
SAP BusinessObjects  
  
Specify Destination CMS database connection information.  
  
Select the type of database connection from the following:  
[Oracle(6)/DB2(5)/Sybase(4)/MySQL(3)/SQL Anywhere(2)/back(1)/quit(0)]  
-----  
[Oracle]2
```

11. Enter the value noted down for **SERVICENAME** while configuring SHR on the primary node.

```
-----  
SAP BusinessObjects  
  
Specify Destination CMS database connection information.  
  
Enter the ODBC data source name (DSN) for connecting to your SQL Anywhere database.  
  
[back(1)/quit(0)]  
-----
```

- 12. Enter SHR.

```
-----  
SAP BusinessObjects  
  
Specify Destination CMS database connection information.  
  
Enter the user name for connecting to your SQL Anywhere database.  
  
[back(1)/quit(0)]  
-----  
[SHR] SHR
```

- 13. Enter the password.

```
-----  
SAP BusinessObjects  
  
Specify Destination CMS database connection information.  
  
Enter the password for connecting to your SQL Anywhere database.  
  
[back(1)/quit(0)]  
-----  
[ ]
```

- 14. Enter 3.


```
-----  
SAP BusinessObjects  
  
Would you like to enable auditing?  
  
[yes (3)/no (2)/back(1)/quit (0)]  
-----  
[yes]3
```

- 15. Enter 2.

```
-----  
SAP BusinessObjects  
  
Specify auditing database connection information.  
  
Select the type of database connection from the following:  
[Oracle (6)/DB2 (5)/Sybase (4)/MySQL (3)/SQL Anywhere (2)/back(1)/quit (0)]  
-----  
[SQL Anywhere]2
```

- 16. Enter the value noted down for **SERVICENAME_AUDIT** while configuring SHR on the primary node.

```
-----  
SAP BusinessObjects  
  
Specify auditing database connection information.  
  
Enter the ODBC data source name (DSN) for connecting to your SQL Anywhere database.  
[back(1)/quit (0)]  
-----  
[shr1r012BOE120]
```

- 17. Enter SHR

```
-----  
SAP BusinessObjects  
  
Specify auditing database connection information.  
  
Enter the user name for connecting to your SQL Anywhere database.  
  
[back(1)/quit(0)]  
-----  
[SHR]█
```

18. Enter the password.

```
-----  
SAP BusinessObjects  
  
Specify auditing database connection information.  
  
Enter the password for connecting to your SQL Anywhere database.  
  
[back(1)/quit(0)]  
-----  
[ ]█
```

19. Enter Administrator.

```
-----  
SAP BusinessObjects  
  
Enter the user name to connect to this CMS.  
  
[back(1)/quit(0)]  
-----  
[Administrator]Administrator█
```

20. Leave this field blank. Press Enter.

```
-----  
SAP BusinessObjects  
  
Enter the password to connect to this CMS.  
  
[back(1)/quit(0)]  
-----  
[ ]
```

21. Enter 1.

```
-----  
SAP BusinessObjects  
  
Choose the number of the type of authentication to  
use when contacting the CMS  
  
1 - secEnterprise  
2 - secLDAP  
  
[back/quit(0)]  
-----  
[1]
```

22. Enter 3.

```
-----  
SAP BusinessObjects  
  
The following information will be used to create the new  
Server Intelligence Agent.  
CMS Name: IWFVM01052  
Server Intelligence Agent Name: SHR_CMS  
Server Intelligence Agent Port: 6410  
Create Default Servers: yes  
CMS Port: 6400  
CMS Database: BOE120  
Audit Database: BOE120_AUDIT  
  
Do you want to create the Server Intelligence Agent?  
[yes(3)/no(2)/back(1)/quit(0)]  
-----  
[yes]3
```

23. Enter 0.

```
-----  
SAP BusinessObjects  
What would you like to do?  
1 - Add a Server Intelligence Agent  
2 - Delete a Server Intelligence Agent  
3 - Modify a Server Intelligence Agent  
4 - List all Server Intelligence Agents in the config file  
  
[quit(0)]  
-----  
[4]0
```

24. Enter 1.

```
-----  
SAP BusinessObjects  
Are you sure you want to quit?  
  
[yes(1)/no(0)]  
-----  
[no]1
```

25. Check if there are any processes which are still running using the following command:

```
ps -ef |grep '6400\|6410' |grep -v grep
```

If there are any processes still running, stop them manually.

26. Run the command `hastart`.

27. Stop all the services and switch the shared storage from the secondary node to the primary node.

To stop the SQLAnywhere service:

- a. Go to `/opt/HP/BSM/BO/bobje`.
- b. Run the command `/sawstop.sh`.
- c. Enter the password.

To stop all the other services

- a. Go to `/etc/init.d/`.

All the SHR services start with **HP**.

- b. To stop a service, use the command:

```
service <service name> stop
```

28. After starting the services perform the following steps:

- a. Launch Central Management Console (CMC).
- b. Log in to CMC with Administrator account.
- c. Click on Servers.
- d. Double-click on **InputFileRepository** server.
- e. In Context menu click on **Properties**.
- f. Type the path in **Temporary Directory**. (For Example: <installation directory of BOE>:\Program Files\Business Objects\BusinessObjects Enterprise12.0\FileStore\Input\Temp).
- g. Type the path in **File Store Directory**. (For Example: <installation directory of BOE>:\Program Files\Business Objects\BusinessObjects Enterprise12.0\FileStore\Input).
- h. Click on **Save & Close**.
- i. Restart the **InputFileRepository** server.
- j. Perform the steps from d to i for **OutputFileRepository** server.

Creating SHR resource groups in Cluster Setup

Prerequisites

Before creating SHR resource groups, change the startup type of the following services to manual:

- HP_PMDB_Platform_Administrator
- HP_PMDB_Platform_Collection
- HP_PMDB_Platform_DB_Logger
- HP_PMDB_Platform_IM
- HP_PMDB_Platform_PostgreSQL
- HP_PMDB_Platform_Sybase
- HP_PMDB_Platform_Timer

- Business Objects Webserver
- BOE120SQLAW

For Linux

- Set the VCS_HOME environment variable in both the nodes.
- If the share drive is configured using Linux commands, then the locking_type parameter in the lvm.conf file must be set to zero. The lvm.conf file is located in /etc/lvm.
- Ensure that Veritas is running in both the nodes.

If Veritas is not running on any node, run the following command on that node:

```
$VCS_HOME\bin\hastart
```

Follow these steps to create SHR resource groups in VCS:

1. For Windows

Open SHR_win_vcsconfigure.pl from %PMDB_HOME%/HA/Veritas/Windows/SetupScripts/.

For Linux

Open SHR_linux_vcsconfigure.pl from \$PMDB_HOME/HA/Veritas/Linux/SetupScripts/.

2. Specify the following parameters under User Customizable Parameters:

■ For Windows

Parameters	Description
SHRNODE1	The physical host name of the primary node.
SHRNODE2	The physical host name of the secondary node.
SHRNODE1_IP_ADDRESS	The physical IP address of the primary node. For example: 16.123.45.678.
SHRNODE2_IP_ADDRESS	The physical IP address of the secondary node. For example: 16.123.45.679.
VIRTUAL_IP_ADDRESS_FOR_SHR	The 'virtual' IP address assigned to SHR. For example: 16.321.45.968.
NETMASK_FOR_VIRTUAL_IP_ADDRESS_FOR_SHR	The subnet mask for the 'virtual' IP address of SHR.
NETWORK_INTERFACE1	The physical address of the primary node obtained by using the ipconfig/all command. For example, 00-50-56-93-02-F9.
NETWORK_INTERFACE2	The physical address of the secondary node obtained by using the ipconfig/all command. For example, 00-50-56-93-02-F4.
UNAME	The username of the Veritas Cluster administrator.
PWD	The password of the Veritas Cluster administrator. You must provide the password when you run the SHR_win_vcconfigure.pl file.
DOMAIN	The domain to which the Veritas Cluster belongs.
MOUNT_POINT_FOR_SHR_SHARE	The drive letter of the shared storage. For example, G:\.
FILESYSTEM	The file system type of the shared storage.

Parameters	Description
SIG_SHR_SHARE	The signature of the shared storage. To get the signature of the shared storage: <ol style="list-style-type: none"> i. Open the command prompt. ii. Go to %VCS_HOME%\bin\. iii. Run the command: <pre>havo1 -getdrive</pre>
\$DG_GROUP_NAME \$DG_VOLUME_NAME \$DG_GUID	# *ONLY* IN CASE OF DYNAMIC GROUP. GROUP NAME of the disk group. Run the command VMGetDrive and check the file VMDriveInfo.txt in the folder where you execute the command for this file.
\$DYNAMIC_GROUP	Add "true" for CLUSTER DYNAMIC GROUP or "false" for BASIC DISK GROUP.

■ For Linux

Parameters	Description
SHRNODE1	The physical host name of the primary node.
SHRNODE2	The physical host name of the secondary node.
SHRNODE1_IP_ADDRESS	The physical IP address of the primary node.
SHRNODE2_IP_ADDRESS	The physical IP address of the secondary node.
VIRTUAL_IP_ADDRESS_FOR_SHR	The 'virtual' IP address assigned to SHR.
NETMASK_FOR_VIRTUAL_IP_ADDRESS_FOR_SHR	The subnet mask for the 'virtual' IP address of SHR.
NETWORK_INTERFACE1	The physical address of the primary node obtained by using the ipconfig/all command. For example, 00-50-56-93-02-F9.
MOUNT_POINT_FOR_SHR_SHARE	/dev/test/lvol1 for LVM or /dev/vx/dsk/<veritas_group_name>/<veritas_volume_name> for veritas.

Parameters	Description
SHRmount	The folder where the device is mounted.
VOLUME_GROUP_ON_SHARED_DISK	Volume group containing logical volume for Logical Volume Manager (LVM) type
NETWORK_INTERFACE	Name of the NIC device associated with the IP address.
VOLUME	Name of the veritas volume.
DG_GROUP	Name of the veritas disk group
FILESYSTEM	The file system type of the shared storage.
LOGICAL_VOLUME_ON_SHARED_DISK	Name of Linux LVM2 logical volume.

3. Run the `SHR_win_vcsconfigure.pl` script using the following command:

For Windows

```
%PMDB_HOME%\..\nonOV\perl\a\bin\perl.exe "%PMDB_HOME%\HA\Veritas\Windows\SetupScripts\SHR_win_vcsconfigure.pl"
```

For Linux

```
/opt/OV/nonOV/perl/a/bin/perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_linux_vcsconfigure.pl
```

Note: Type the above command in a single line.

4. Open the Veritas Java console.
In the left pane, navigate to **SHR_Resource_Group > Mount > shr-mount**.
5. Click the **Properties** tab.
6. Edit the value of `FsckOpt` attribute to `-n`.
7. Save the configuration.

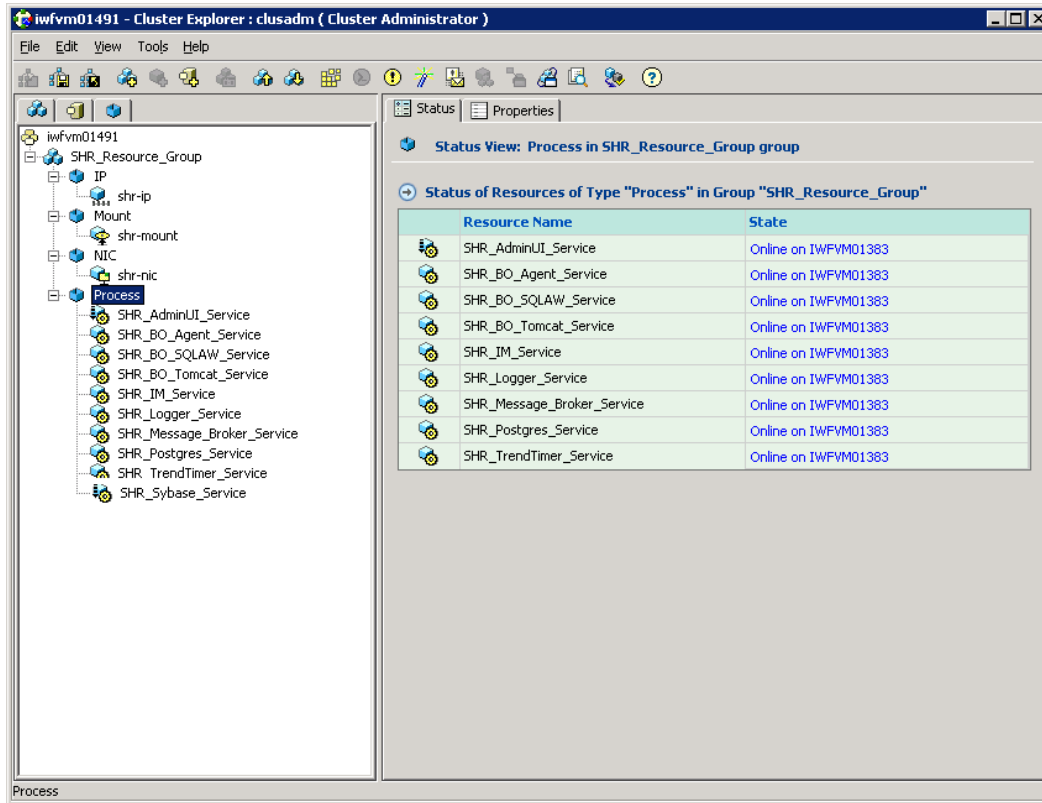
Validating SHR Installation

To validate whether SHR resource groups are created properly on both the nodes:

1. Go to the Cluster software Administration Java Console.

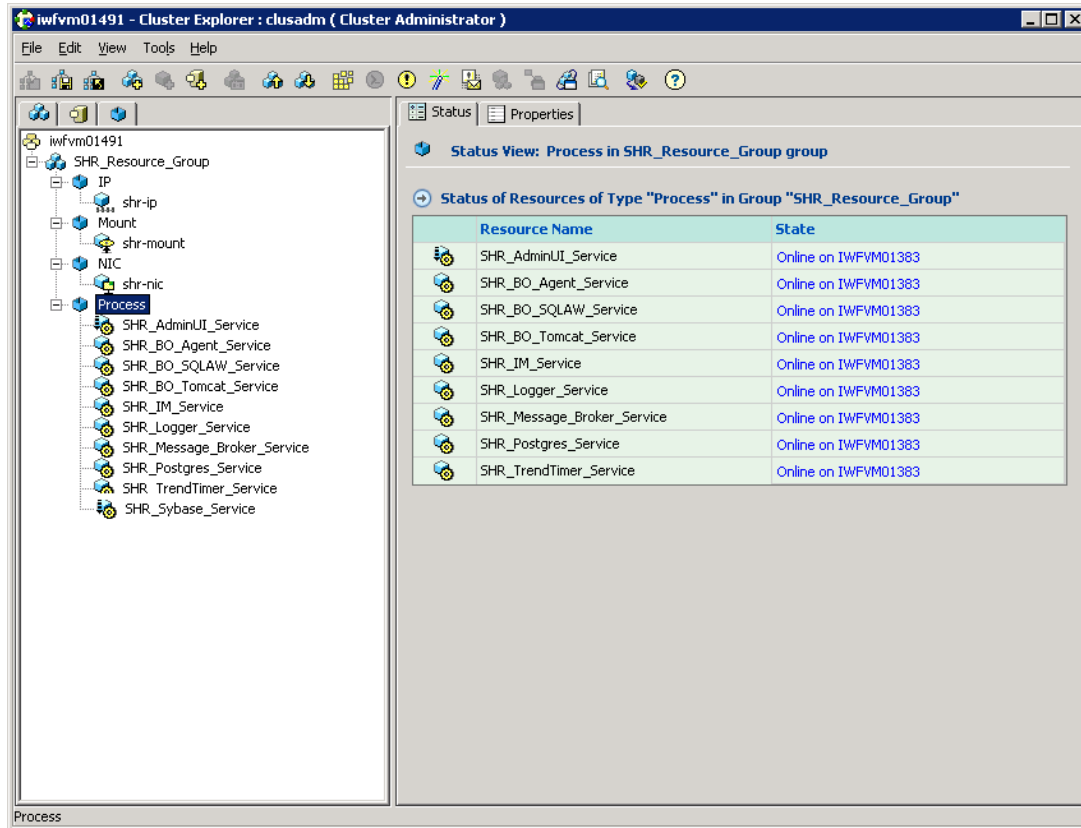
Log on to one of the nodes and see if all the services under `SHR_Resource_Group` are online.

Note: If the services do not start automatically then do probe the services and clear faults in resource group. If you still see the issue, please start IP/Mount resources manually.



For Linux :

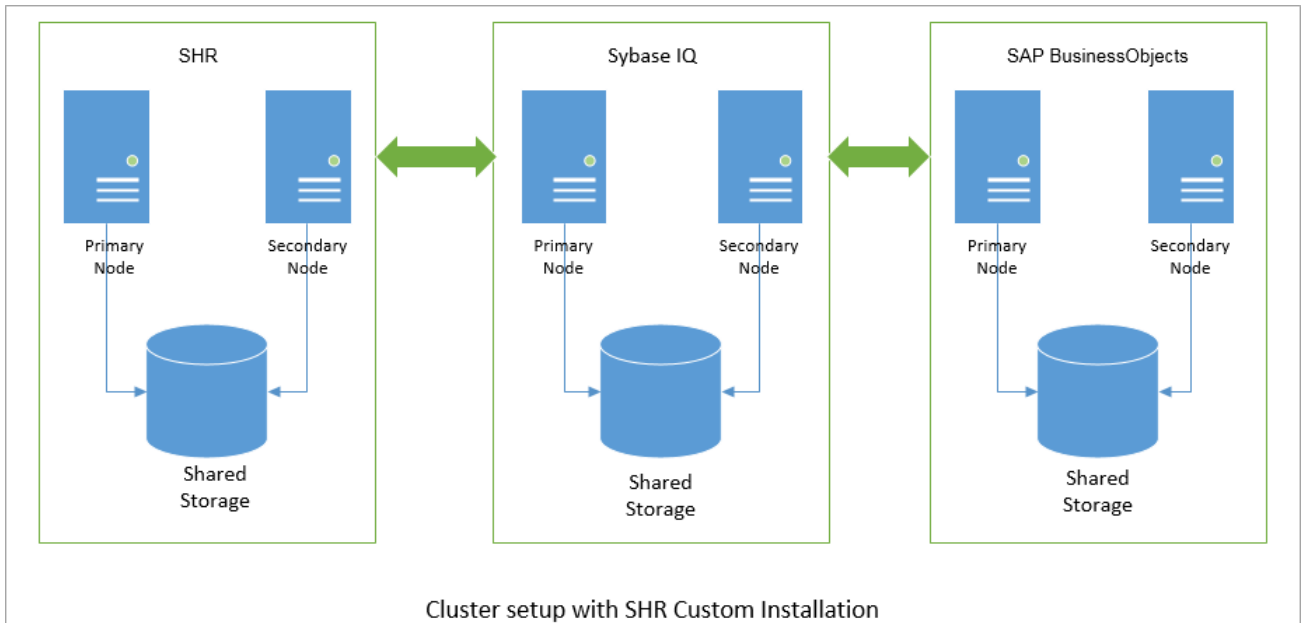
The screen for validating SHR resource group will be as shown below:



Custom Installation and Configuration of SHR

Figure 2 displays the SHR installation on cluster setup with Sybase IQ and SAP BusinessObjects installed on a different systems with cluster setup.

Figure 2: SHR Setup with Remote Sybase IQ and SAP BusinessObjects Installation



Installing SHR on Primary Node

Install SHR on the primary node of the SHR cluster. For instructions on Installing SHR, see *HP Service Health Reporter Interactive Installation Guide*.

Note: Install standalone SHR without Sybase IQ.

For Windows

After SHR is installed:

1. Open the AgentScript_SHR_VCS.pl file from:

C:\HP-SHR\PMDB\HA\Veritas\Windows\AgentScripts.

1. Enter the drive letter of the shared storage in the \$SharedDriveLetter parameter.
2. Save and close the file.

Note: Ensure that the SAP BusinessObjects is configured on another node before performing the post-installation configuration on the SHR system.

Perform the following commands in the config.prp file and then restart the Admin UI service.

```
bo.cms = <BO Logical HostName>
```

```
remote.bo.hostnames = <Fully Qualified names of all BO nodes>
```

The <Fully Qualified names of all BO nodes> should be separated with a ",".

For Example: remote.bo.hostnames=host1,host2,hostn.

Installing Sybase IQ on primary node

Install Sybase IQ on the primary node of the Sybase IQ cluster. For instructions on installing Sybase IQ, see *HP Service Health Reporter Interactive Installation Guide*.

Recreate Sybase IQ as a Service

For Windows

For steps to recreate Sybase IQ as a service in Windows, "[Recreating Sybase IQ as a Service](#)" on [page 70](#).

For Linux

The Sybase IQ service is created by the installer when installing SHR in Linux environment.

After you install Sybase IQ on both the Sybase IQ nodes:

- Assign the Sybase IQ shared drive to the Sybase IQ primary node.

Note: The shared storage can only be assigned to one node at a time.

Installing SAP BusinessObjects on primary node

Install SAP BusinessObjects (SAP BOBJ) on the primary and node of the SAP BusinessObjects cluster. For instructions on installing SAP BusinessObjects, see *HP Service Health Reporter Interactive Installation Guide*.

Configuring SHR on the primary node

Follow these steps:

1. Assign the shared storage to the SHR primary node.

Note: The shared storage can only be assigned to one node at a time.

2. For instructions post-installation configuration of SHR, see *HP Service Health Reporter Configuration Guide*.

Note:

- Ensure that the SAP BusinessObjects is configured on another node before performing the post-installation configuration on the SHR system.
- While configuring the connection to Sybase IQ in the *HP Service Health Reporter Configuration Guide*, define the logical host name of the Sybase IQ node.
- While performing task *Create the Database Schema* of the *HP Service Health Reporter Configuration Guide*, in the **Database File Location** field, specify the location on the shared storage.

- For example:

For Windows, if the drive letter of the shared storage is **E**, then the location will be E:\HP-SHR\Sybase\db.

For Linux, if the shared storage is /SHRmount, then the location will be /SHRmount/HP-SHR/SybaseDB.

3. Deploy the Content Packs based on the topology that you have selected. For steps to deploy Content Packs, see *HP Service Health Reporter Configuration Guide*.

Note: To deploy Content Packs after installation and configuration of SHR is complete, "[Deploying Content Packs when SHR is running](#)" on page 69.

4. For Windows

Run the following command:

```
%PMDB_HOME%\..\nonOV\perl\bin\perl %PMDB_HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive <shared_drive_letter> -node primary -logicalhost <logical_hostname> >> %PMDB_HOME%\HA\setup.log
```

where, <shared_drive_letter> is the drive letter of the shared storage (for example, G:\), and <logical_hostname> is the logical host name for the SHR application.

Note: Type the above command in a single line.

Run the following command:

```
sc config OvCtrl start= demand
```

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws SHRDB -c  
"uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<datab  
ase.sybase.dbfileloc>\pmdb.db;links=tcPIP  
{host=<database.host>;port=<database.port>}" -v -pe"
```

where,

<angular bracket value>: The value is obtained from the %PMDB_HOME%\data\config.prp file.

<password>: The password of the PMDB database entered during post-installation of SHR.

For Linux

Run the following command:

```
perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_Setup.pl -sharedDrive  
<shared_drive> -node primary -logicalhost <logical_hostname> -Bosqlpassword  
<password> -primaryhost <primary_node_hostname>
```

where, <shared_drive> is the location of the shared drive (for example, SHRMount), <logical_hostname> is the logical host name for the SHR application, and <primary_node_hostname> is the host name of the primary node.

Note: Type the above command in a single line.

For example,

```
/opt/OV/nonOV/perl/a/bin/perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_  
Setup.pl -sharedDrive G -node secondary -logicalhost example.example1.com -  
Bosqlpassword password -primaryhost example2.example3.com
```

5. Switch the shared storage from the primary node to the secondary node.
6. Perform this step only if SHR is installed in Linux environment.
 - a. Open ccm.config located at /opt/HP/BSM/BO/bobje/.
 - b. Search for the SERVICENAME and SERVICENAME_AUDIT parameters and note down their values.

Configuring Sybase IQ on Primary Node

For Windows

Run the following command:

```
%PMDB_HOME%\..\nonOV\perl\bin\perl %PMDB_  
HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive <shared_drive_  
Letter> -node primary -logicalhost <logical_hostname> >> %PMDB_HOME%\HA\setup.log
```

where, *<shared_drive_letter>* is the drive letter of the shared storage (for example, G:\), and *<logical_hostname>* is the logical host name for the SHR application.

Note: Type the above command in a single line.

Run the following command:

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws SHRDB -c  
"uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<database.  
sybase.dbfileloc>\pmdb.db;links=tcip{host=<database.host>;port=<database.port>}" -  
v -pe"
```

where,

<angular bracket value>: The value is obtained from the %PMDB_HOME%\data\config.prp file.

<password>: The password of the PMDB database entered during post-installation of SHR.

For Linux

Run the following command:

```
perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_Setup.pl -sharedDrive <shared_  
drive> -node primary -logicalhost <logical_hostname> -Bosqlpassword <password> -  
primaryhost <primary_node_hostname>
```

where, *<shared_drive>* is the location of the shared drive (for example, SHRMount), *<logical_hostname>* is the logical host name for the SHR application, and *<primary_node_hostname>* is the host name of the primary node.

Note: Type the above command in a single line.

For example,

```
/opt/OV/nonOV/perl/a/bin/perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_  
Setup.pl -sharedDrive G -node secondary -logicalhost example.example1.com -  
Bosqlpassword password -primaryhost example2.example3.com
```

Configuring SAP BusinessObjects on Primary Node

For Windows

Follow these steps:

1. Assign the shared storage to the SHR primary node.

Note: The shared storage can only be assigned to one node at a time.

Execute `createDSN.pl` script to make appropriate entries in `config.prpfile`.


```
Perl createDSN.pl -username pmdb_admin -hostname <Sybase IQ FQDN> -port 21424 -  
dbpath <DB folder – without pmdb.db> -engine <SHR hostname> -password <DB password>
```

For Windows

Run the following command:

```
%PMDB_HOME%\..\nonOV\perl\bin\perl %PMDB_  
HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive <shared_drive_  
Letter> -node primary -logicalhost <logical_hostname> >> %PMDB_HOME%\HA\setup.log
```

where, <shared_drive_letter> is the drive letter of the shared storage (for example, G:\), and <logical_hostname> is the logical host name for the SHR application.

Note: Type the above command in a single line.

Run the following command:

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws SHRDB -c  
"uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<database.  
sybase.dbfileloc>\pmdb.db;links=tcpip{host=<database.host>;port=<database.port>}" -  
v -pe"
```

where,

<angular bracket value>: The value is obtained from the %PMDB_HOME%\data\config.prp file.

<password>: The password of the PMDB database entered during post-installation of SHR.

For Linux

Run the following command:

```
perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_Setup.pl -sharedDrive <shared_  
drive> -node primary -logicalhost <logical_hostname> -Bosqlpassword <password> -  
primaryhost <primary_node_hostname>
```

where, <shared_drive> is the location of the shared drive (for example, SHRMount), <logical_hostname> is the logical host name for the SHR application, and <primary_node_hostname> is the host name of the primary node.

Note: Type the above command in a single line.

For example,

```
/opt/OV/nonOV/perl/bin/perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_  
Setup.pl -sharedDrive G -node secondary -logicalhost example.example1.com -  
Bosqlpassword password -primaryhost example2.example3.com
```

Installing SHR on the secondary node

Note: Before starting installation on the secondary node, ensure that all the SAP BusinessObjects services are stopped on the primary node.

1. Start the SHR Installation. For instructions on Installing SHR, see *HP Service Health Reporter Interactive Installation Guide*.
2. After you agree to the licensing terms and conditions on the License Agreement page perform the following steps before proceeding with the installation:

For Windows

- a. Open `PrimaryServer.ini` located at `%temp%/../HP-SHR`.
- b. Search for the following parameters:

DATABASEUID

DATABASEUID_AUDIT

- c. Replace the values of the above parameters with the primary node server name without the FQDN.

For example, if the complete server name is `server.example.com`, then use just `example` as the input value.

- d. Save and close the file.

For Linux

- a. Open another console session on the secondary node.
- b. Open the `Sp7response.ini` file in edit mode. This file is located at `/tmp/HP-SHR/`.
- c. Search for the following parameters:

SERVICENAME

SERVICENAME_AUDIT

- d. Replace the values of the above parameters with the values noted down from the primary node.
 - e. Save and close the file
3. Continue with the installation in the first console.

After SHR is installed in the secondary node, perform the following steps:

- a. Open the AgentScript_SHR_VCS.pl file from %PMDB_HOME%\HA\Windows\AgentScripts.

Note: Ensure that the required shared storage is available in the secondary node and then proceed.

- a. Enter the drive letter of the shared storage in the \$SharedDriveLetter parameter.
- b. Save and close the file.

Installing Sybase IQ on secondary node

Install Sybase IQ on the secondary node of the Sybase IQ cluster. For instructions on installing Sybase IQ, see *HP Service Health Reporter Interactive Installation Guide*.

Recreate Sybase IQ as a Service

For Windows

For steps to recreate Sybase IQ as a service in Windows, ["Recreating Sybase IQ as a Service" on page 70](#).

For Linux

The Sybase IQ service is created by the installer when installing SHR in Linux environment.

After you install Sybase IQ on both the Sybase IQ nodes:

- Assign the Sybase IQ shared drive to the Sybase IQ primary node.

Note: The shared storage can only be assigned to one node at a time.

Installing SAP BusinessObjects on secondary node

Install SAP BusinessObjects (SAP BOBJ) on the secondary node of the SAP BusinessObjects cluster. For instructions on installing SAP BusinessObjects, see *HP Service Health Reporter Interactive Installation Guide*.

Configuring SHR on the secondary node

1. For Windows

- a. Copy `config.prp` from `%PMDB_HOME%\data\` on the primary node to the same location on the secondary node.
- b. Open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

Note: Whenever you change the database password in one of the SHR nodes using the Administration Console, copy `config.prp`, located at `%PMDB_HOME%\data\`, from that node to all the other SHR nodes. Also, open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

For Linux

- a. Copy `config.prp` from `$PMDB_HOME/data/` on the primary node to the same location on the secondary node.
- b. Open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

Note: Whenever you change the database password in one of the SHR nodes using the Administration Console, copy `config.prp`, located at `$PMDB_HOME\data\`, from that node to all the other SHR nodes. Also, open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

2. For Windows

Run the following command:

```
%PMDB_HOME%\..\nonOV\perl\bin\perl %PMDB_HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive <shared_drive_letter> -node secondary -logicalhost <logical_hostname>>> %PMDB_HOME%\HA\setup.log
```

where, `<shared_drive_letter>` is the drive letter of the shared storage (for example, `G:\`), and `<logical_hostname>` is the logical host name for the SHR application.

Note: Type the above command in a single line.

For example,

```
%PMDB_HOME%\..\nonOV\perl\a\bin\perl %PMDB_HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive G:\\ -node secondary -logicalhost example.example1.com >> %PMDB_HOME%\HA\setup.log
```

Run the following commands:

```
sc config OvCtrl start= demand
```

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws BSMR -c "uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<database.sybase.dbfileloc>\pmdb.db;links=tcpip{host=<database.host>;port=<database.port>}" -v -pe"
```

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws SHRDB -c "uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<database.sybase.dbfileloc>\pmdb.db;links=tcpip{host=<database.host>;port=<database.port>}" -v -pe"
```

where,

<angular bracket value>: The value is obtained from the %PMDB_HOME%\data\config.prp file.

<password>: The password of the PMDB database entered during post-installation of SHR.

For Linux

Run the following command:

```
perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_Setup.pl -sharedDrive <shared_drive> -node secondary -logicalhost <logical_hostname> -Bosqlpassword <password> -primaryhost <primary_node_hostname>
```

where,

<shared_drive> is the location of the shared drive (for example, SHRMount).

<logical_hostname> is the logical host name for the SHR application.

<primary_node_hostname> is the host name of the primary node.

Note: Type the above command in a single line.


For example,

```
/opt/OV/nonOV/perl/a/bin/perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_Setup.pl -sharedDrive G -node secondary -logicalhost example.example1.com -Bosqlpassword password -primaryhost example2.example3.com
```

For Windows

After both the nodes are configured, the following folders from the HP-SHR directory are copied on the shared drive:

- PMDB
- PostgreSQL
- servers

However, only partial contents of these folders are copied to the shared drive. The contents which are copied to the shared drive are marked with  in the HP-SHR folders on both the SHR nodes.

Configuring Sybase IQ on Secondary Node

1. For Windows

- a. Copy `config.prp` from `%PMDb_HOME%\data\` on the primary node to the same location on the secondary node.
- b. Open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

Note: Whenever you change the database password in one of the SHR nodes using the Administration Console, copy `config.prp`, located at `%PMDb_HOME%\data\`, from that node to all the other SHR nodes. Also, open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

For Linux

- a. Copy `config.prp` from `$PMDb_HOME/data/` on the primary node to the same location on the secondary node.
- b. Open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

Note: Whenever you change the database password in one of the SHR nodes using the Administration Console, copy `config.prp`, located at `$PMDb_HOME\data\`, from that node to all the other SHR nodes. Also, open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

2. For Windows

Run the following command:

```
%PMDb_HOME%..\nonOV\perl\bin\perl %PMDb_
HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive <shared_
```

```
drive_letter> -node secondary -logicalhost <logical_hostname>>> %PMDB_
HOME%\HA\setup.log
```

where, *<shared_drive_letter>* is the drive letter of the shared storage (for example, G:\), and *<logical_hostname>* is the logical host name for the SHR application.

Note: Type the above command in a single line.

For example,

```
%PMDB_HOME%\..\nonOV\perl\bin\perl %PMDB_
HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive G:\ -node
secondary -logicalhost example.example1.com >> %PMDB_HOME%\HA\setup.log
```

Run the following command:

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws BSMR -c
"uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<datab
ase.sybase.dbfileloc>\pmdb.db;links=tcPIP{host=<database.host
>;port=<database.port>}" -v -pe"
```

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws SHRDB -c
"uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<datab
ase.sybase.dbfileloc>\pmdb.db;links=tcPIP
{host=<database.host>;port=<database.port>}" -v -pe"
```

where,

<angular bracket value>: The value is obtained from the %PMDB_HOME%\data\config.prp file.

<password>: The password of the PMDB database entered during post-installation of SHR.

For Linux

Run the following command:

```
perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_Setup.pl -sharedDrive
<shared_drive> -node secondary -logicalhost <logical_hostname> -Bosqlpassword
<password> -primaryhost <primary_node_hostname>
```

where, *<shared_drive>* is the location of the shared drive (for example, SHRMount), *<logical_hostname>* is the logical host name for the SHR application, and *<primary_node_hostname>* is the host name of the primary node.

Note: Type the above command in a single line.


For example,

```
/opt/OV/nonOV/perl/a/bin/perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_Setup.pl -sharedDrive G -node secondary -logicalhost example.example1.com -Bosqlpassword password -primaryhost example2.example3.com
```

For Windows

After both the nodes are configured, the following folders from the HP-SHR directory are copied on the shared drive:

- PMDB

However, only partial contents of these folders are copied to the shared drive. The contents which are copied to the shared drive are marked with  in the HP-SHR folders on both the SHR nodes.

Configuring SAP BusinessObjects on Secondary Node

1. For Windows

- Copy `config.prp` from `%PMDB_HOME%\data\` on the primary node to the same location on the secondary node.
- Open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

Note: Whenever you change the database password in one of the SHR nodes using the Administration Console, copy `config.prp`, located at `%PMDB_HOME%\data\`, from that node to all the other SHR nodes. Also, open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

For Linux

- Copy `config.prp` from `$PMDB_HOME/data/` on the primary node to the same location on the secondary node.
- Open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

Note: Whenever you change the database password in one of the SHR nodes using the Administration Console, copy `config.prp`, located at `$PMDB_HOME\data\`, from that node to all the other SHR nodes. Also, open `config.prp` on each node and change the value of `bo.cms` to the physical hostname of that particular secondary node.

2. For Windows

Run the following command:


```
%PMDB_HOME%\..\nonOV\perl\a\bin\perl %PMDB_HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive <shared_drive_letter> -node secondary -logicalhost <logical_hostname>>> %PMDB_HOME%\HA\setup.log
```

where, *<shared_drive_letter>* is the drive letter of the shared storage (for example, G:\), and *<logical_hostname>* is the logical host name for the SHR application.

Note: Type the above command in a single line.

For example,

```
%PMDB_HOME%\..\nonOV\perl\a\bin\perl %PMDB_HOME%\HA\Veritas\Windows\SetupScripts\SHR_HA_Setup.pl -sharedDrive G:\\ -node secondary -logicalhost example.example1.com >> %PMDB_HOME%\HA\setup.log
```

Run the following command:

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws BSMR -c "uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<database.sybase.dbfileloc>\pmdb.db;links=tcPIP{host=<database.host>;port=<database.port>}" -v -pe"
```

```
%PMDB_HOME%\..\Sybase\IQ-16_0\Bin64\iqdsn.exe -y -ws SHRDB -c "uid=<database.username>;pwd=<password>;eng=<database.sybase.engine>;dbf=<database.sybase.dbfileloc>\pmdb.db;links=tcPIP{host=<database.host>;port=<database.port>}" -v -pe"
```

where,

<angular bracket value>: The value is obtained from the %PMDB_HOME%\data\config.prp file.

<password>: The password of the PMDB database entered during post-installation of SHR.

For Linux

Run the following command:

```
perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_Setup.pl -sharedDrive <shared_drive> -node secondary -logicalhost <logical_hostname> -Bosqlpassword <password> -primaryhost <primary_node_hostname>
```

where, *<shared_drive>* is the location of the shared drive (for example, SHRMount), *<logical_hostname>* is the logical host name for the SHR application, and *<primary_node_hostname>* is the host name of the primary node.

Note: Type the above command in a single line.


For example,

```
/opt/OV/nonOV/perl/a/bin/perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_HA_Setup.pl -sharedDrive G -node secondary -logicalhost example.example1.com -Bosqlpassword password -primaryhost example2.example3.com
```

For Windows

After both the nodes are configured, the following folders from the HP-SHR directory are copied on the shared drive:

- BusinessObjects

However, only partial contents of these folders are copied to the shared drive. The contents which are copied to the shared drive are marked with  in the HP-SHR folders on both the SHR nodes.

Creating Server Intelligence Agent (SIA) in the Secondary Node

After installing SHR on both the nodes, you must create a Server Intelligence Agent (SIA) in the secondary node.

Creating Server Intelligence Agent (SIA) in the Secondary Node for Windows

For steps to create Server Intelligence Agent (SIA) in the secondary node for Windows, "[Creating Server Intelligence Agent \(SIA\) in the Secondary Node For Windows](#)" on page 16.

Creating Server Intelligence Agent (SIA) in the Secondary Node for Linux

For steps to create Server Intelligence Agent (SIA) in the secondary node for Linux, "[Creating Server Intelligence Agent \(SIA\) in the Secondary Node For Linux](#)" on page 21.

Creating SHR Resource Groups in Cluster Setup

Note:

- Create the SHR resource groups on all of the SHR component clusters.
- Ensure that the Environment Variable OvInstallDir is set on the remote Sybase IQ node where you install the SHR resource group.

Prerequisites

Before creating SHR resource groups, change the startup type of the following services to manual:

- HP_PMDB_Platform_Administrator
- HP_PMDB_Platform_Collection
- HP_PMDB_Platform_DB_Logger
- HP_PMDB_Platform_IM
- HP_PMDB_Platform_PostgreSQL
- HP_PMDB_Platform_Sybase
- HP_PMDB_Platform_Timer
- Business Objects Webserver
- BOE120SQLAW

Note: For steps to change the services' startup type to manual, "[Changing the Startup Type of the Services](#)" on page 69.

For Linux

- Set the VCS_HOME environment variable in both the nodes.
- If the share drive is configured using Linux commands, then the `locking_type` parameter in the `lvm.conf` file must be set to zero. The `lvm.conf` file is located in `/etc/lvm`.
- Ensure that Veritas is running in both the nodes.

If Veritas is not running on any node, run the following command on that node:

```
$VCS_HOME\bin\hastart
```

Follow these steps:

1. For Windows

Open `SHR_win_vcsconfigure.pl` from `%PMDB_HOME%/HA/Veritas/Windows/SetupScripts/.`

For Linux

Open `SHR_linux_vcsconfigure.pl` from `$PMDB_HOME/HA/Veritas/Linux/SetupScripts/.`

2. Specify the following parameters under **User Customizable Parameters:**

■ For Windows

Parameters	Description
SHRNODE1	The physical host name of the primary node.
SHRNODE2	The physical host name of the secondary node.
SHRNODE1_IP_ADDRESS	The physical IP address of the primary node. For example: 16.123.45.678.
SHRNODE2_IP_ADDRESS	The physical IP address of the secondary node. For example: 16.123.45.679.
VIRTUAL_IP_ADDRESS_FOR_SHR	The 'virtual' IP address assigned to SHR. For example: 16.321.45.968.
NETMASK_FOR_VIRTUAL_IP_ADDRESS_FOR_SHR	The subnet mask for the 'virtual' IP address of SHR.
NETWORK_INTERFACE1	The physical address of the primary node obtained by using the ipconfig/all command. For example, 00-50-56-93-02-F9.
NETWORK_INTERFACE2	The physical address of the secondary node obtained by using the ipconfig/all command. For example, 00-50-56-93-02-F4.
UNAME	The username of the Veritas Cluster administrator.
PWD	The password of the Veritas Cluster administrator. You must provide the password when you run the SHR_win_vcconfigure.plfile.
DOMAIN	The domain to which the Veritas Cluster belongs.
MOUNT_POINT_FOR_SHR_SHARE	The drive letter of the shared storage. For example, G:\.
FILESYSTEM	The file system type of the shared storage.

Parameters	Description
SIG_SHR_SHARE	The signature of the shared storage. To get the signature of the shared storage: <ol style="list-style-type: none"> i. Open the command prompt. ii. Go to %VCS_HOME%\bin\. iii. Run the command: havo1 -getdrive
\$DG_GROUP_NAME \$DG_VOLUME_NAME \$DG_GUID	# *ONLY* IN CASE OF DYNAMIC GROUP. GROUP NAME of the disk group. Run the command VMGetDrive and check the file VMDriveInfo.txt in the folder where you execute the command for this file.
\$DYNAMIC_GROUP	Add "true" for CLUSTER DYNAMIC GROUP or "false" for BASIC DISK GROUP.

■ For Linux

Parameters	Description
SHRNODE1	The physical host name of the primary node.
SHRNODE2	The physical host name of the secondary node.
SHRNODE1_IP_ADDRESS	The physical IP address of the primary node.
SHRNODE2_IP_ADDRESS	The physical IP address of the secondary node.
VIRTUAL_IP_ADDRESS_FOR_SHR	The 'virtual' IP address assigned to SHR.
NETMASK_FOR_VIRTUAL_IP_ADDRESS_FOR_SHR	The subnet mask for the 'virtual' IP address of SHR.
NETWORK_INTERFACE1	The physical address of the primary node obtained by using the ipconfig/all command. For example, 00-50-56-93-02-F9.
MOUNT_POINT_FOR_SHR_SHARE	/dev/test/lvol1 for LVM or /dev/vx/dsk/<veritas_group_name>/<veritas_volume_name> for veritas.

Parameters	Description
SHRmount	The folder where the device is mounted.
VOLUME_GROUP_ON_SHARED_DISK	Volume group containing logical volume for Logical Volume Manager (LVM) type
NETWORK_INTERFACE	Name of the NIC device associated with the IP address.
VOLUME	Name of the veritas volume.
DG_GROUP	Name of the veritas disk group
FILESYSTEM	The file system type of the shared storage.
LOGICAL_VOLUME_ON_SHARED_DISK	Name of Linux LVM2 logical volume.

3. Run the SHR_win_vcsconfigure.pl file using the following command:

For Windows

```
%PMDB_HOME%\..\nonOV\perl\bin\perl.exe "%PMDB_HOME%\HA\Veritas\Windows\SetupScripts\SHR_win_vcsconfigure.pl"
```

For Linux

```
perl $PMDB_HOME/HA/Veritas/Linux/SetupScripts/SHR_linux_vcsconfigure.pl
```

Note: Type the above command in a single line.

4. **For Linux**

- a. Open the Veritas Java console.

In the left pane, navigate to **SHR_Resource_Group** -> **Mount** -> **shr-mount**.

- b. Click the **Properties** tab.
- c. Edit the value of **FsckOpt** attribute to **-n**.
- d. Save the configuration.

Updating SAP BusinessObjects DSN Details in SHR nodes

Note: You must perform this task on the primary and secondary SHR nodes.

To update the SAP BusinessObjects DSN details in SHR node:

1. Go to **Start > Programs > BusinessObjects XI 3.1 > BusinessObjects Enterprise > 32-bit Data Source (ODBC)**.

The ODBC Data Source Administrator window opens.

2. Click the **System DSN** tab.
3. Under System Data Sources, select **BSMR**.
4. Click **Configure**.

The ODBC Configuration for SQL Anywhere window opens.

5. Click the **Network** tab.
6. Under TCP/IP Protocol Options, click **Host**.
7. In the **Value** field for Host, enter the logical host name of the Sybase IQ node.

Note: For SHR primary node, enter the logical host name of the Sybase IQ primary node, and for SHR secondary node, enter the logical host name of the Sybase IQ secondary node.

8. Click the **Login** tab.
9. In the **Server name** field, enter the logical host name of the Sybase IQ node.

Note: For SHR primary node, enter the logical host name of the Sybase IQ primary node, and for SHR secondary node, enter the logical host name of the Sybase IQ secondary node.

10. Click the **ODBC** tab and click **Test Connection**.

If you have entered the correct Sybase IQ node details, then the ODBC Configuration for SQL Anywhere window displays the *Connection Successful* message.

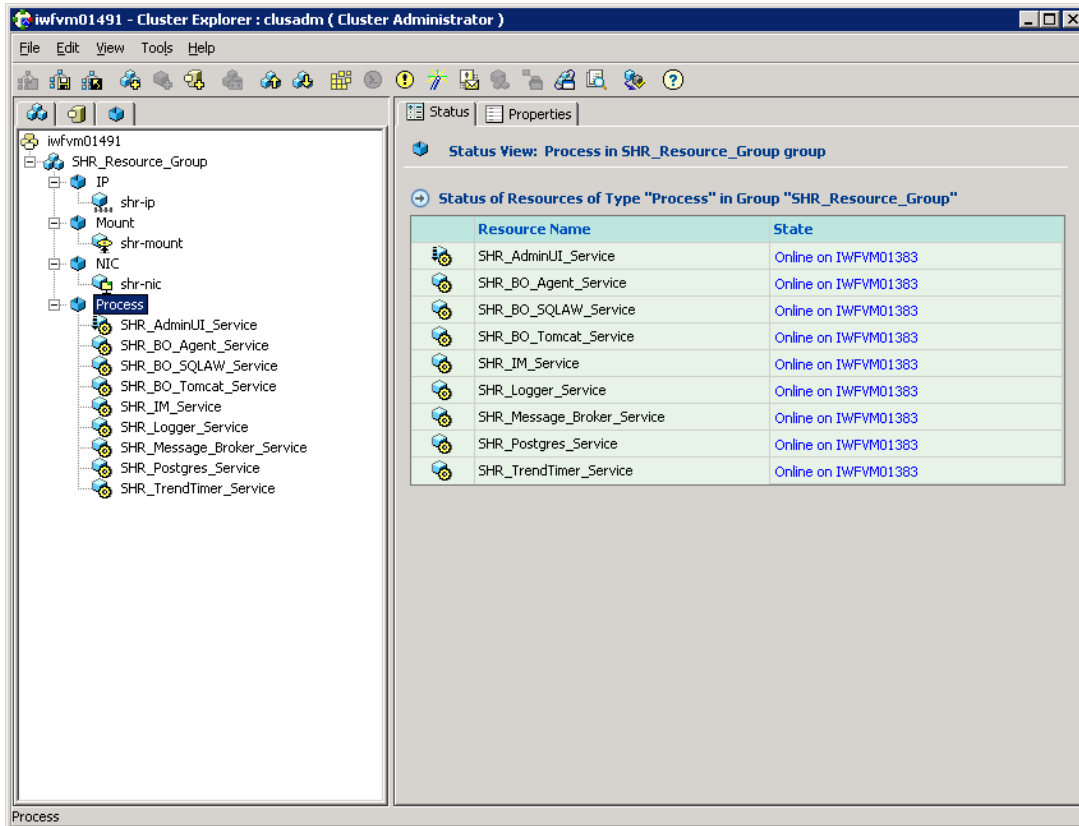
11. Click **OK**.
12. Click **OK** on the ODBC Data Source Administrator.

Validating SHR Installation

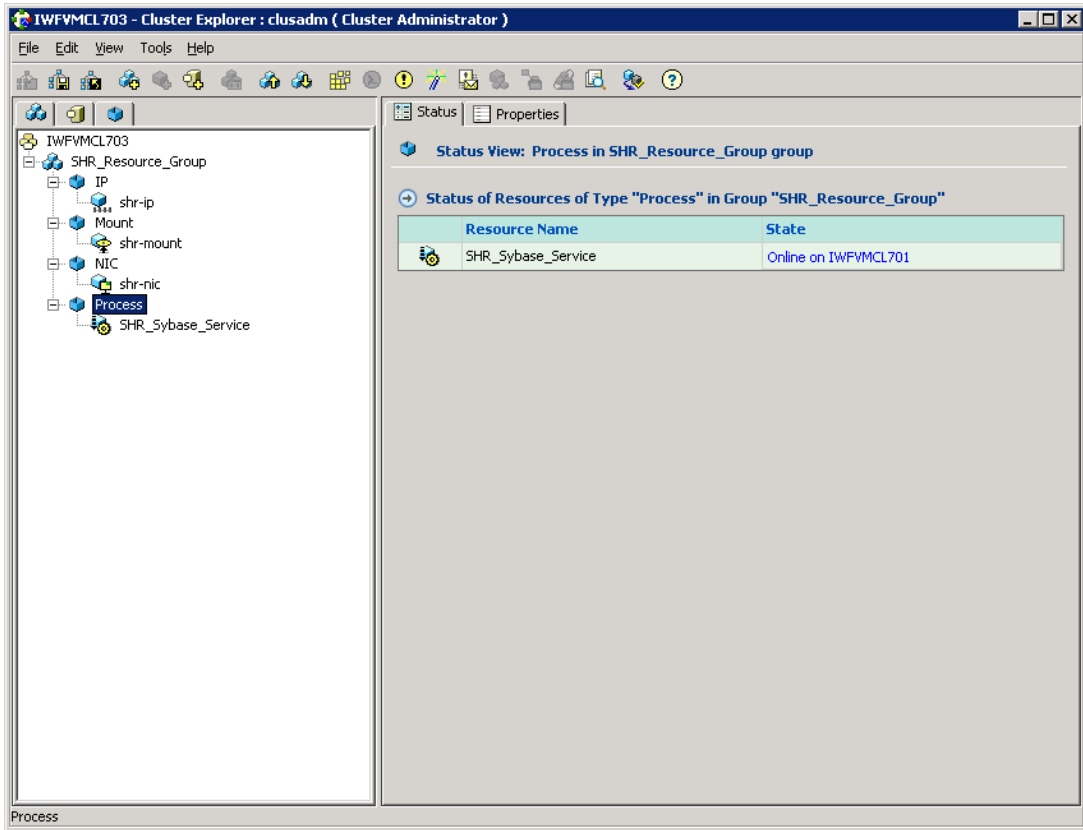
To validate whether SHR resource groups are created properly on both the nodes:

1. Go to the Cluster software Administration Java Console on the SHR setup.
2. Log on to one of the nodes and see if all the services under SHR_Resource_Group are online.

Note: If the services do not start automatically then do probe the services and clear faults in resource group. If you still see the issue, please start IP/Mount resources manually.



3. Go to the Cluster software Administration Java Console on the Sybase IQ setup.
4. Log on to one of the nodes and see if all the services under SHR_Resource_Group are online.



Chapter 4: Upgrade SHR in High Availability environment

If you have installed the previous version of SHR in a high availability environment using cluster software program, ensure that the following prerequisites are met to perform the upgrade.

The node where you plan to install the recent version of SHR must be an active node with access to shared storage.

Note: You can upgrade to the latest version of SHR from the previous version only. You cannot upgrade any other older versions of SHR directly to the latest version.

You must upgrade SHR on the primary node and then perform upgrade on the secondary node. Do not perform parallel upgrade.

Prerequisites

Before you upgrade SHR, complete the following tasks:

1. Take a backup of the complete SHR setup to prevent any data loss due to an unsuccessful upgrade.

For more information, see *“Database Backup and Recovery”* in the *HP Service Health Reporter Disaster Recovery Guide*.

2. In the node where you want to install the recent version of SHR, perform the following steps to set to maintenance mode.
 - a. From the location %PMDB_HOME%\HA\common\config\ folder, open the ha_config.prp file.
 - b. Remove # from the #maintenance mode=true.
 - c. Save the file and exit.
3. Perform the following steps to stop all SHR services on all HA nodes:

For Windows:

- a. Log on to the SHR system.
- b. From the Services window stop the following services:

- HP_PMDB_Platform_Administrator
- HP_PMDB_Platform_Collection
- HP_PMDB_Platform_DB_Logger
- HP_PMDB_Platform_Timer
- HP_PMDB_Platform_IM
- HP_PMDB_Platform_Message_Broker
- HP_PMDB_Platform_PostgreSQL
- HP_PMDB_Platform_Sybase
- Sybase IQ Agent 15.4 Service
- Business Objects Webserver Service

For Linux:

- a. Log on to the SHR system as root user.
- b. Run the following commands:
 - `service HP_PMDB_Platform_Administrator stop`
 - `service HP_PMDB_Platform_Collection stop`
 - `service HP_PMDB_Platform_DB_Logger stop`
 - `service TrendTimer stop`
 - `service HP_PMDB_Platform_IM stop`
 - `service HP_PMDB_Platform_PostgreSQL stop`
 - `service HP_PMDB_Platform_Sybase stop`

Perform the following steps to stop the SAP BusinessObjects services:

- Log on to the system as root.
- Run the following command to stop the webserver:

```
sh /opt/HP/BSM/BO/bobje/tomcatshutdown.sh
```

- Switch to the SAP BusinessObjects administrator by running the following command:

```
su - SHRBOADMIN
```

- c. Stop the processes.

For Windows:

Open Windows Task Manager, go to the Processes tab:

- If the *iqsrv15* process is running, select it and click **End Process**.
- If the *abcloadNrun* processes are running, wait until they complete or, select and click **End Process Tree**.

For Linux:

Run the following commands to stop the processes.

- `ps -ef|grep iqsrv15`
- `ps -ef | grep abcloadNrun`

Note down the process ID (pid) displayed by the output of each command and run the following commands

```
kill -9 <pid_1>
```

```
kill -9 <pid_2>
```

In this instance, <pid_1> and <pid_2> are the process IDs that you noted down in the earlier step.

4. Ensure all the installation prerequisites and preinstallation tasks listed in the *HP Service Health Reporter Interactive Installation Guide* are met.

Note: The latest version of SHR does not support Windows 2003. If SHR is currently installed on Windows 2003, make sure to upgrade the operating system to Windows 2008 before upgrading to the latest version of SHR.

Important Upgrade Considerations

Use the installer program provided with the SHR media to perform the upgrade. Note the following before performing the upgrade:

- Typical Installation: If all components in the previous version of the SHR setup are installed on a single system, follow the instructions for Typical Installation to complete the upgrade. Refer to *HP Service Health Reporter Interactive Installation Guide* for the steps.

Note: After performing the upgrade, launch the **SHR Administration Console > Administration**

> **Deployment Manager** and upgrade the content packs to the latest version. For more information, see “*Upgrading Content Packs*” in the *HP Service Health Reporter Configuration Guide*.

Upgrade SHR on the Primary Node

Pre-upgrade steps:

1. Assign the shared storage to the SHR primary node.

Note: The shared storage can only be assigned to one node at a time.

2. Execute the upgrade scripts on active node to remove the links in local disk.

From the SHR media run the following upgrade script:

For Windows:

```
HAUpgrade.bat <Shared disk>
```

For example: C:\HPSHR-09.40.000-win5.2_64-release>HAUpgrade.bat E:

The output is as follows:

```
Pre SHR upgrade steps execution started
```

```
1297 File(s) copied
```

```
600 File(s) copied
```

```
242 File(s) copied
```

```
1632 File(s) copied
```

```
291 File(s) copied
```

```
Pre SHR upgrade steps execution completed
```

For Linux:

```
HAUpgrade.sh <Mount Point>
```

For example: HAUpgrade.sh /shared folder/

3. Before performing upgrade, ensure that the following folders are physical folders and not links:

- %PMDB_HOME%\config
 - %PMDB_HOME%\lib
 - %PMDB_HOME%\scripts
 - %PMDB_HOME%\Postgres\data
 - %PMDB_HOME%\Postgres\Mgmtdata
4. From the Services window, ensure that PostgreSQL service is running.
 5. Start postgres service and login to database via **Pgadmin** to see if PostgreSQL works as expected.

If the PostgreSQL service fails to start, kill postgres services related processes and start the service again.

Upgrade steps

For upgrade instructions of SHR, see the *HP Service Health Reporter Interactive Installation Guide*.

Note: In the wizard, before accepting the License Agreement, perform the following:

For Windows: Copy the `\opt\HP\BSM\PMDB\temp\PostgreSQL\postgreInstall.bat` file to the `%temp%\..\HP-SHR` directory.

For Linux: Copy the `/opt/HP/BSM/PMDB/temp/PostgreSQL/postgreInstall.sh` file to the `/temp/../../HP-SHR` directory.

After upgrade, perform the following steps:

1. Execute the upgrade scripts on active node to remove the links in local disk.

From the SHR media run the following upgrade script:

For Windows:

```
HAUpgrade.bat <Shared disk>
```

For example: `C:\HPSHR-09.40.000-Win5.2_64-release>HAUpgrade.bat E:`

For Linux:

```
HAUpgrade.sh <Mount Point>
```

For example: `HAUpgrade.sh /shared folder/`

2. Ensure that all SHR services are stopped before upgrade SHR on secondary node.
3. Switch the shared storage from the primary node to the secondary node.

Post Upgrade validation

Perform the following tasks after upgrading SHR on the High Availability environment:

1. Start SHR services manually and verify all services are up and running.
2. Launch the following URL and make sure that you are able to log on to the Administration Console as administrator:

`http://<SHR_Server_FQDN>:21411`

3. Launch the following URL and make sure that you are able to log on to the InfoView Console as administrator:

`http://<SHR_Server_FQDN>:8080`

If you can log on to the console, SHR is upgraded successfully. If you see an authentication error, you must restore the backed-up databases on the system, and perform the upgrade procedure again. For more information, see the *"Database Backup and Recovery"* section in the *HP Service Health Reporter Configuration Guide*.

Note: Recreate Administrator and Collection Services

If you have installed SHR in a domain, recreate the following services as mentioned in *"Configuring SHR Services when SHR is Installed in a Domain"* section of the *HP Service Health Reporter Configuration Guide*.

- HP PMDB Platform Administrator Service
- HP PMDB Platform Collection Service

Upgrade SHR on the Secondary Node

Pre-upgrade steps:

1. Assign the shared storage to the SHR secondary node.
2. Ensure that the secondary node is in maintenance mode. Do not start the SHR services.
3. Execute the upgrade scripts on active node to remove the links in local disk.

From the SHR media run the following upgrade script:

For Windows:

```
HAUpgrade.bat <Shared disk>
```

For example: `C:\HPSHR-09.40.000-win5.2_64-release>HAUpgrade.bat E:`

The output is as follows:

Pre SHR upgrade steps execution started

1297 File(s) copied

600 File(s) copied

242 File(s) copied

1632 File(s) copied

291 File(s) copied

Pre SHR upgrade steps execution completed

For Linux:

`HAUpgrade.sh <Mount Point>`

For example: `HAUpgrade.sh /shared folder/`

4. Before performing upgrade, ensure that the following folders are physical folders and not links:

- `%PMDB_HOME%\config`
- `%PMDB_HOME%\lib`
- `%PMDB_HOME%\scripts`
- `%PMDB_HOME%\Postgres\data`
- `%PMDB_HOME%\Postgres\Mgmtdata`

Upgrade steps

Ensure that all of the SHR services are stopped.

For upgrade instructions of SHR, see the *HP Service Health Reporter Interactive Installation Guide*.

Note: In the wizard just before moving ahead of the License Agreement page, perform the following:

For Windows: Copy the `\opt\HP\BSM\PMDB\temp\PostgreSQL\postgreInstall.bat` file to the `%temp%\..\HP-SHR` directory.

For Linux: Copy the `/opt/HP/BSM/PMDB/temp/PostgreSQL/postgreInstall.sh` file to the `/temp/../../HP-SHR` directory.

After upgrade, perform the following steps:

1. Execute the upgrade scripts on active node to remove the links in local disk.

From the SHR media run the following upgrade script:

For Windows:

```
HAUpgrade.bat <Shared disk>
```

For example: C:\HPSHR-09.40.000-win5.2_64-release>HAUpgrade.bat E:

For Linux:

```
HAUpgrade.sh <Mount Point>
```

For example: HAUpgrade.sh /shared folder/

2. From the location %PMDb_HOME%\HA\common\config\ folder, open the ha_config.prp file.

Remove # from the #maintenance mode=true.

Save the file and exit.

Post Upgrade validation

Perform the following tasks after upgrading SHR on the High Availability environment:

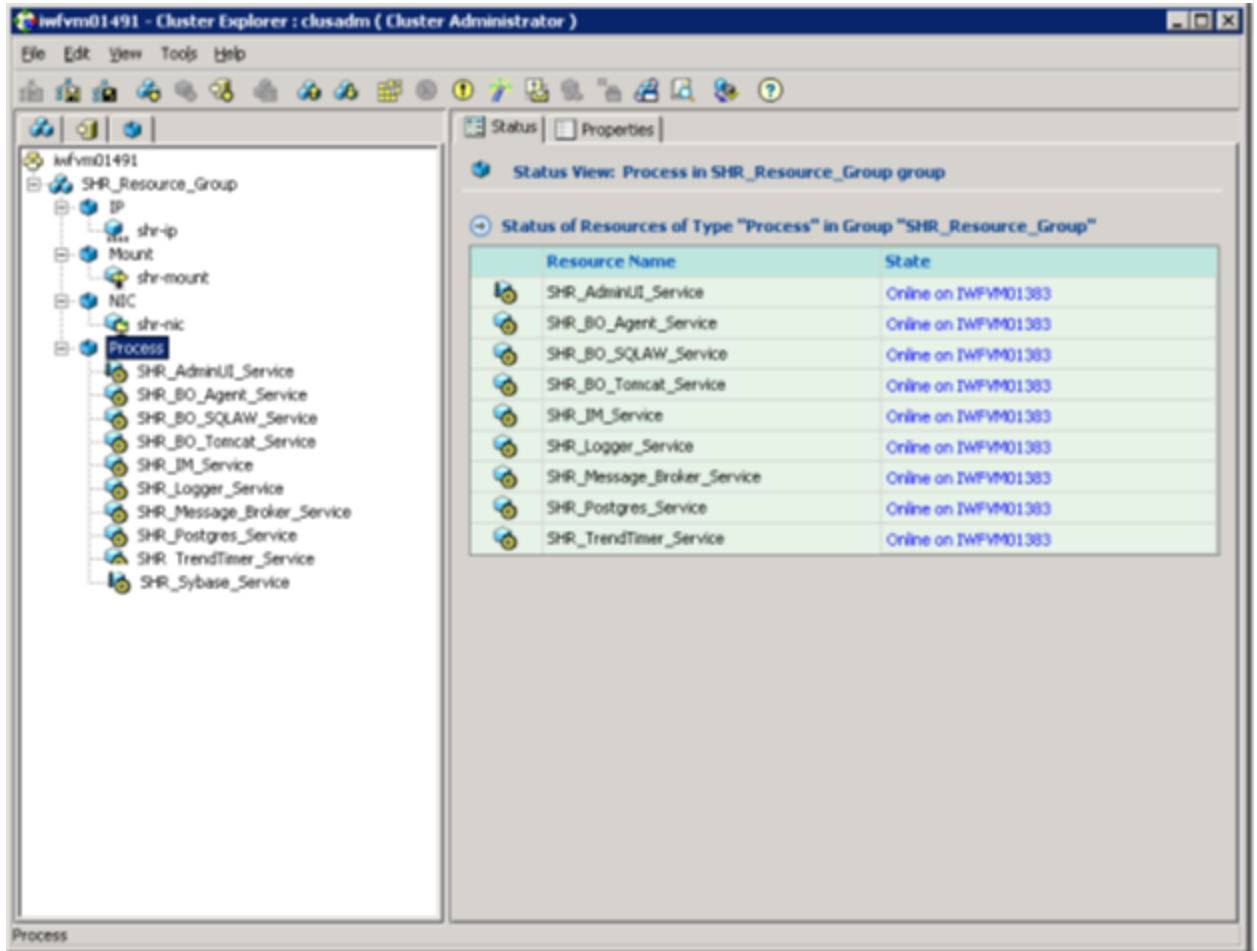
1. Start SHR services manually and verify all services are up and running.
2. Launch the following URL and make sure that you are able to log on to the Administration Console as administrator:

```
http://<SHR_Server_FQDN>:21411
```

Validating SHR Installation

To validate if SHR resource groups are created on both the nodes, perform the following:

1. In the Cluster software Administration Java Console, log on to one of the nodes and see if all the services under SHR_Resource_Group are online.



Chapter 5: Troubleshooting

For information on the location of the different SHR installation and post-installation log files and other basic installation and troubleshooting steps, see *Troubleshooting SHR Installation of the SHR Installation and Configuration Guide*.

SHRAgent Script

SHR agent script monitors all SHR services and logs the status of each service into the log file specific to that service.

The log files for these services are kept in the %PMDB_HOME%\HA\log folder.

You can change the logging setting (for example log file size, debug level) by editing the log4perl_shr_ha.conf file located in the %PMDB_HOME%\HA\common\config\ folder.

Cluster Setup Log Files

Cluster Setup generates two types of error message logs:

- Engine log
- Agent Log

The log files generated by these two log types are appended by an alphabets in the descending order. For example, the first file will be named as <filename>_A.Log, the second file will be named as <filename>_B.Log, and so on.

SHRResource Group Script Troubleshooting

To troubleshoot any problems in the SHR resource group script:

- Check whether all the user customizable parameters are defined correctly in the script.
- Check the SHR_Resource_creation.LOG file present in the %PMDB_HOME%\HA\Veritas\Windows\SetupScripts\ folder.

Appendix A: Appendix

This appendix provides you with additional information relevant to SHR.

Deploying Content Packs when SHR is running

Follow these steps to deploy the Content Packs if SHR is already running:

1. Open `ha_config.prp` from the `%PMDB_HOME%\HA\common\config\` folder.
2. Remove '#' from the `#maintenance mode=true` parameter.
3. Save the file and exit.
4. Deploy the Content Packs from the Deployment Manager page in the Administration Console. For more information, see *Selecting and Installing the Content Packs* of the *HP Service Health Reporter Configuration Guide*.
5. After you deploy the Content Packs, open `ha_config.prp`.
6. Add '#' to the `maintenance mode=true` parameter.
7. Save the file and exit.

Changing the Startup Type of the Services

Follow these steps to change the startup type of the services to manual:

1. On the SHR system, click **Start > Run**. The Run dialog box opens.
2. In the **Open** field, type `services.msc`. The Services window opens.
3. On the right pane, right-click the service which you want to start manually, and then click **Properties**.
4. Under the General tab, from the Startup type drop-down list, select **Manual**.
5. Click **OK**.
6. Close the Services window.

Recreating Sybase IQ as a Service

Complete the following prerequisites before creating Sybase IQ as a service.

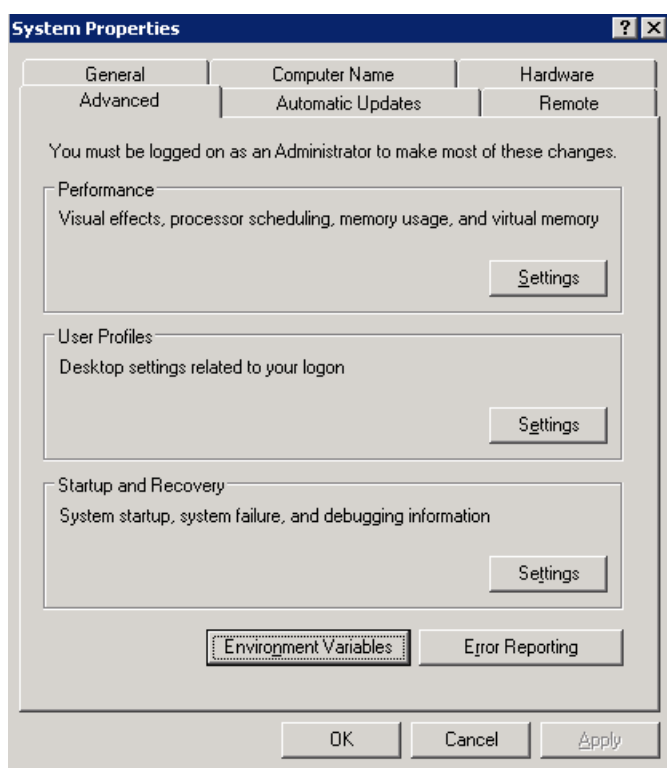
Task 1: Setting the PMDB_HOME environment variable on the remote Sybase IQ node

To set the PMDB_HOME environment variable:

1. Go to the **Control Panel** and double-click **System**.

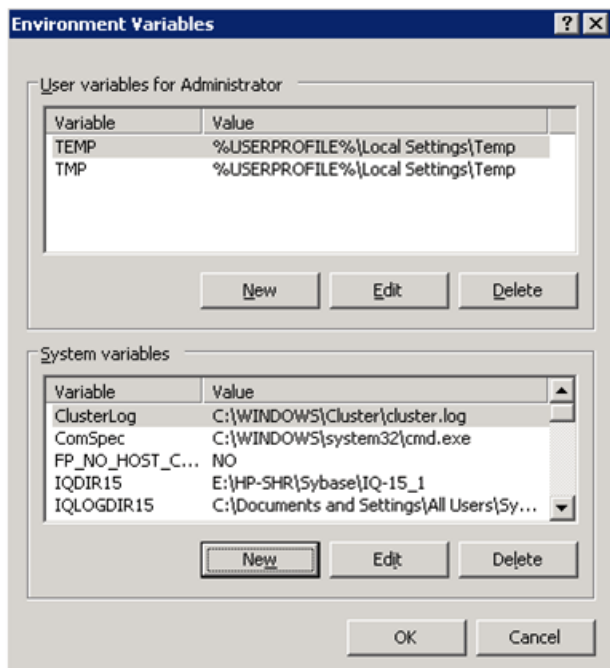
The System Properties window opens.

2. Click the **Advanced** tab.



3. On the Advanced tab, click **Environment Variables**.

The Environment Variables window opens.



4. In the System Variables box, click **New**.

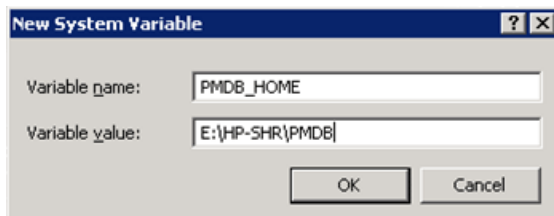
The New System Variable window opens.

5. In the **Variable name** field, enter PMDB_HOME.

In the **Variable value** field, enter `<product_installation_directory>\PMDB`

where, `<product_installation_directory>` is the directory where Sybase IQ is installed.

For example, E:\HP-SHR\PMDB.



6. Click **OK**.

7. In the System Variables box, click **New**.

The New System Variable window opens.

8. In the **Variable name** field, enter OvInstallDir.

In the **Variable value** field, enter `<product_installation_directory>`

where, `<product_installation_directory>` is the directory where Sybase IQ is installed.

For example, `E:\HP-SHR\`.

9. Click **OK**.

Task 2: Copying files to the remote Sybase IQ node

Copy the following files to the remote Sybase IQ node.

The directories given below are the directories where the files are present as well as the directories where you must copy the files.

If these directories don't exist on the remote Sybase IQ node, create the directories before copying the files.

File Name	Directory
SybaseServiceCreation.bat	%PMBD_HOME%\bin\
JavaService.exe	%PMBD_HOME%\bin\JavaService\
JavaServiceDebug.exe	%PMBD_HOME%\bin\JavaService\
LGPL.txt	%PMBD_HOME%\bin\JavaService\
BSMRLogConfig.xml	%PMBD_HOME%\config
BSMRLogConfigClient.xml	%PMBD_HOME%\config
config.prp	%PMBD_HOME%\data
activemq-all-5.1.0.jar	%PMBD_HOME%\lib
commons-logging-1.0.4.jar	%PMBD_HOME%\lib
commons-logging-api.jar	%PMBD_HOME%\lib
log4j-1.2.15.jar	%PMBD_HOME%\lib
utils.jar	%PMBD_HOME%\lib

Task 3: Verifying if Sybase IQ service already exists

To verify whether Sybase IQ service already exists:

1. Go to **Start > Run**.

The Run window opens.

2. In the **Open** field, enter `Services.msc`.

3. The Services window opens. You can check whether the **HP SH Reporter Sybase Service** is present in the list of services.

If the **HP SH Reporter Sybase Service** exists, then remove the service before proceeding further.

To remove the service, run the following command:

```
%PMDB_HOME%\bin>SybaseServiceCreation.bat -remove <product_installation_directory>
```

where, *<product_installation_directory>* is the directory where Sybase IQ is installed.

For example, %PMDB_HOME%\bin>SybaseServiceCreation.bat -remove E:\HP-SHR.

Creating Sybase IQ Service

To create a new Sybase IQ service:

1. Open the command prompt and go to %PMDB_HOME%/bin.
2. Run the following command:

```
%PMDB_HOME%\bin>SybaseServiceCreation.bat -install <product_installation_directory>
```

where, *<product_installation_directory>* is the directory where Sybase IQ is installed.

For example, %PMDB_HOME%\bin>SybaseServiceCreation.bat -install E:\HP-SHR.

3. Go to **Start > Run**.

The Run window opens.

4. In the **Open** field, enter `Services.msc`.

The Services window opens.

5. Right-click **HP SH Reporter Sybase Service** and click **Start**.

This starts the database.

To verify whether the database is started, go to task manager and check whether `IQSRV16.exe` is visible in the **Process** tab.

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Feedback on High Availability Guide (Service Health Reporter 9.40)

Just add your feedback to the email and click send.

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We appreciate your feedback!

