



HPE Operations Bridge Reporter

Software Version: 10.20

Windows® and Linux operating systems

Disaster Recovery Guide

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Chapter 1: Introduction

Operations Bridge Reporter (OBR) enables you to back up and recover the database to prevent data loss in the event of a database failure. It is recommended that you take regular back up of the database before you begin using OBR in production.

Disaster recovery planning helps to minimize the business disruption if a significant event affect an entire data center. Possible uses for the disaster recovery configuration include the following:

- Unexpected unavailability of a data center due to natural disaster.
- Anticipated unavailability of a server or data center due to natural events (for example, a forecasted hurricane), facilities maintenance, or data center movement.

Disaster recovery is different from high availability in that with disaster recovery, downtime is expected. Generally, disaster recovery configuration includes the following processes:

- Setting up redundant hardware and software at a disaster recovery location that is remote to the primary, operational location.
- Providing for one-way replication of application data to the disaster recovery location.

Disaster Recovery will typically have the following tasks:

- Planning to secure the data against different kinds of failures
- Configuring the environment for backup and recovery
- Setting up a backup schedule and ensuring complete backup is taken
- Troubleshooting the issues in backup procedure
- Recovering from data loss successfully if the need arises

About this guide

This guide consists of the following information:

- Planning for Disaster Recovery
- Considerations before moving ahead with the backup and restore procedures

- Taking a backup of OBR components
- Successful restore of the backup - for Windows 2012 and Linux operating systems

Intended Audience

This guide is intended for administrators responsible for planning, preparing, and executing disaster recovery.

Planning Disaster Recovery of OBR

Disaster recovery of OBR includes planning for taking regular back up of OBR databases, and creating a backup of key configuration and license files. Regular back up helps you to recover data and prevent data loss in the event of a disaster.

Important Considerations

- You must schedule the full back up tasks to run at regular intervals.
- Retain the OBR media and note down the details of the hardware of the system where OBR is currently installed. The same system configurations must be used for your disaster recovery setup.
- While planning for database backup, the OBR system with SAP BusinessObjects installed on same system requires 5 GB for the backup storage space.

In case of distributed (custom) scenario, 5 GB for the backup storage space is required in the OBR system and SAP BusinessObjects system respectively.

For Vertica storage space, see [Vertica Backup and Restore](#).

- You must ensure to change the Administration Console password on the systems before you move ahead with back up and restore steps.

Also, change the SAP BusinessObjects Central Management Console (CMC) database (SQL Anywhere) password on the systems before you move ahead with back up and restore steps.

Caution: Ensure that you change the default password before you start using OBR. For more information, refer *Changing Default Passwords* in the *Operations Bridge Reporter Online help for Administrators*.

- It is recommended to take a daily backup.

If you have scheduled a daily backup, the backup files will be saved with the three letter prefix of the day the backup is taken.

For example, if the backup script is run on a Monday the backup file will be saved with the name `<backup_path>/SHR_DR_FullBackup/Mon`.

However the previous backup will be overwritten by the next week's backup files. Similarly, for a twelve-hour backup, the backup files may get overwritten if the backup script is run on the same day. You must ensure that you create separate folders for such instances if you prefer to retain the old back ups.

- In the event of a OBR server failure, you can recover the OBR database from the backup location. The backup system and the primary system must be identical with same hardware specifications, operating systems, OBR version, file path, topology, post installation configurations and deployed content packs.
- If you have changed any of the configuration files (Example: CAC), performance tuning in the primary setup then perform all those changes for the disaster recovery setup.

Caution: OBR must have a static IP address. You must set up the OBR Disaster Recovery environment (remote or local) with the same IP address and host name similar to the primary OBR server to restore the permanent license. No additional license is required for restoring OBR.

Terminologies used

Following are the terminologies used in this guide:

Terminology	Explanation
SIA	Server Intelligence Agent
CMC	Central Management Console
CCM	Central Configuration Manager
OBR server1	Initial OBR system where the existing data back up is taken.
OBR server2	New OBR installed system where the data is restored.
SHR_DR_Backup	Name of the backup file.

Chapter 2: Backup OBR

It is recommended that you take regular back up of the OBR components before you begin using OBR in production.

This chapter guides you to take a back up of OBR.

OBR's full back up script enables you to take a complete back up of the following components (including the database files and transaction logs):

- SAP BusinessObjects (File store)
- SAP BusinessObjects Central Management Console (CMC) database (SQL Anywhere)
- Management database tables (PostgreSQL)
- Configuration Files

Note: In a Custom Installation scenario, perform the following steps to take a backup of OBR on the systems where you have installed the OBR components.

On Windows

The %PMDB_HOME%\DR\SHR_full_Backup.pl script helps you take a full backup of the OBR components mentioned in "Backup OBR" above.

The script generates the DR.log file in the path %PMDB_HOME%\log.

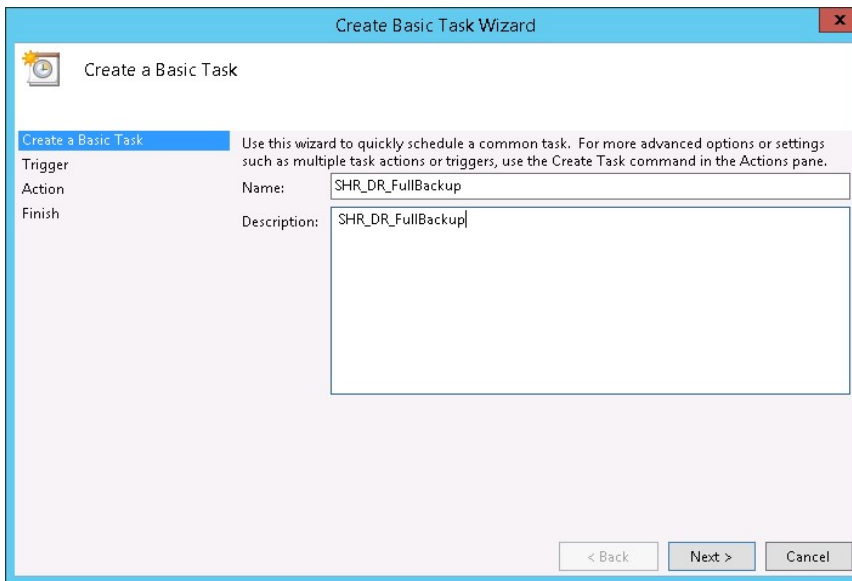
Note: If you have set up OBR High Availability environment, perform the following steps before running the backup script:

1. On the primary SAP BusinessObjects server, go to the location %PMDB_HOME%\DR .
2. Copy the following files:
 - %PMDB_HOME%\DR\SQLA_Lin_DR_BI4Audit_Enc.enc
 - %PMDB_HOME%\DR\SQLA_Lin_DR_BI4CMS_Enc.enc
3. Go to the location %PMDB_HOME%\DR in the secondary SAP BusinessObjects server and paste the copied files.

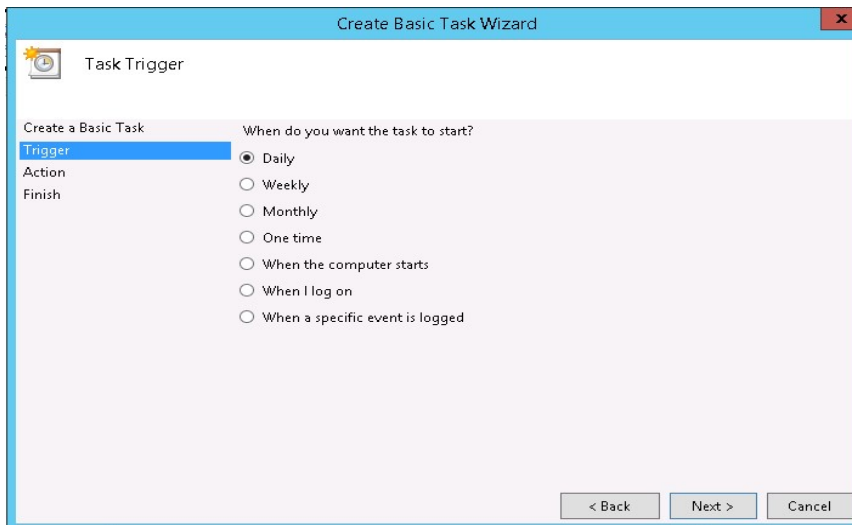
Make sure that you run the backup script on Active Nodes.

Log on to OBR server1 where you have installed the OBR components and perform the following steps to schedule the backup:

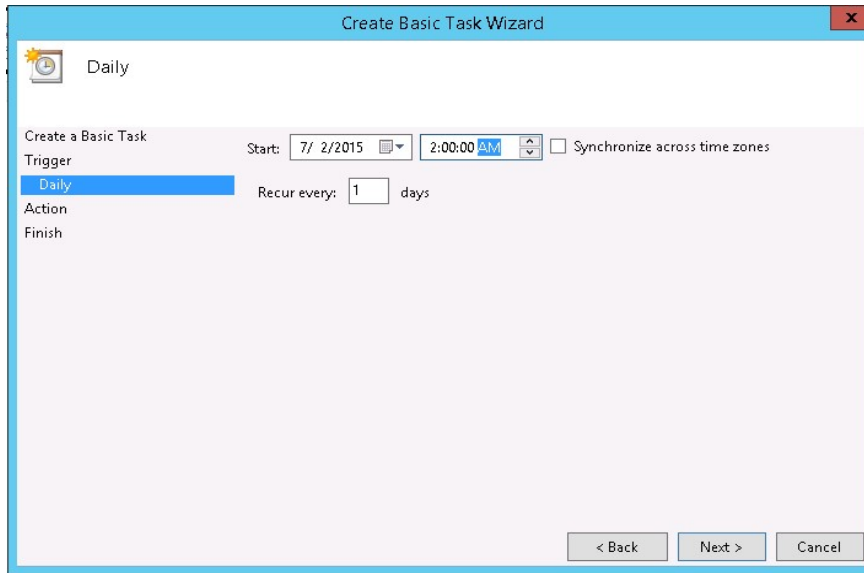
1. Go to **Start** and type **Task Scheduler** in **Search**. Double-click on the Task Scheduler to open it.
2. In the Task Scheduler window, click **Create Basic Task**. The Create Basic Task wizard appears.
3. Type **SHR_DR_FullBackup** for the Name and Description, and then click **Next**.



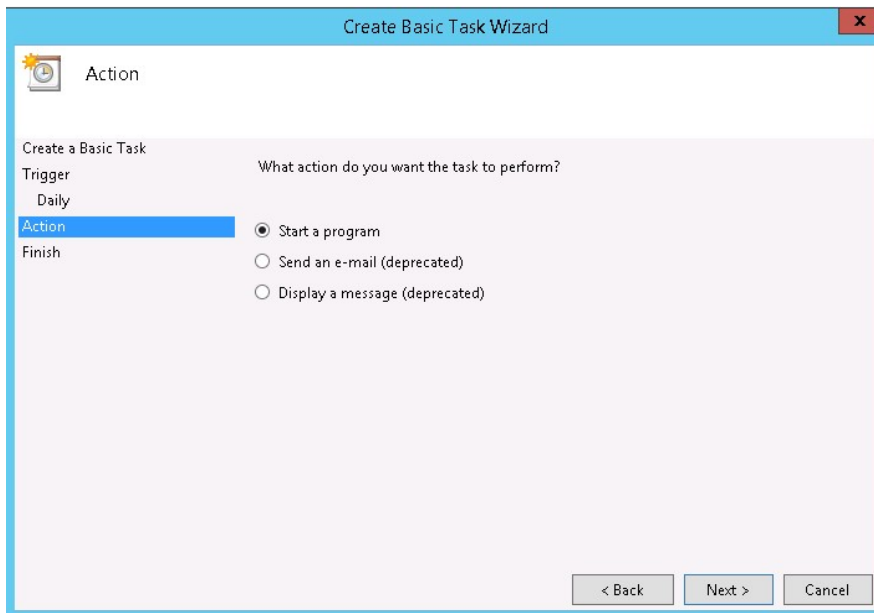
4. Select **Daily**, and then click **Next**.



5. Select the start time, type 1 in the **Recur every** text box, and then click **Next**.



6. Select **Start a program** in Action page, and then click **Next**.



7. Type `perl` and then Browse to `%PMDB_HOME%\DR`, select **SHR_full_Backup.pl**, and then click **Next**.

In the Add arguments field, type the following details:

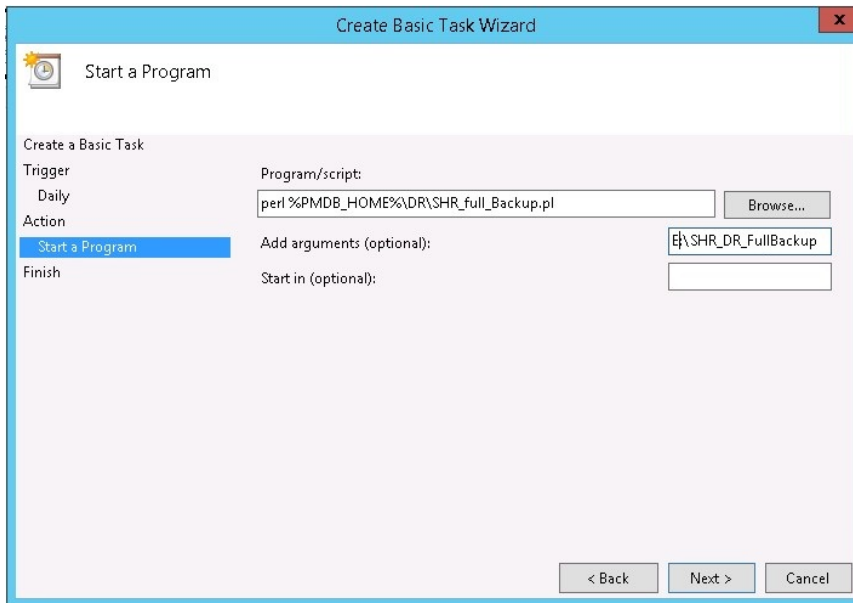
`<backup_path>`

In this instance:

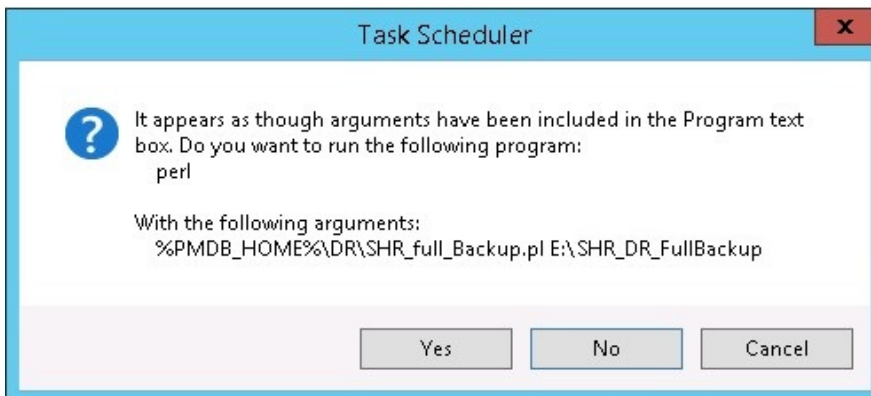
- *<backup_path>* is the location where you want to store the backup files and data.

Example: E:\SHR_Full_Backup

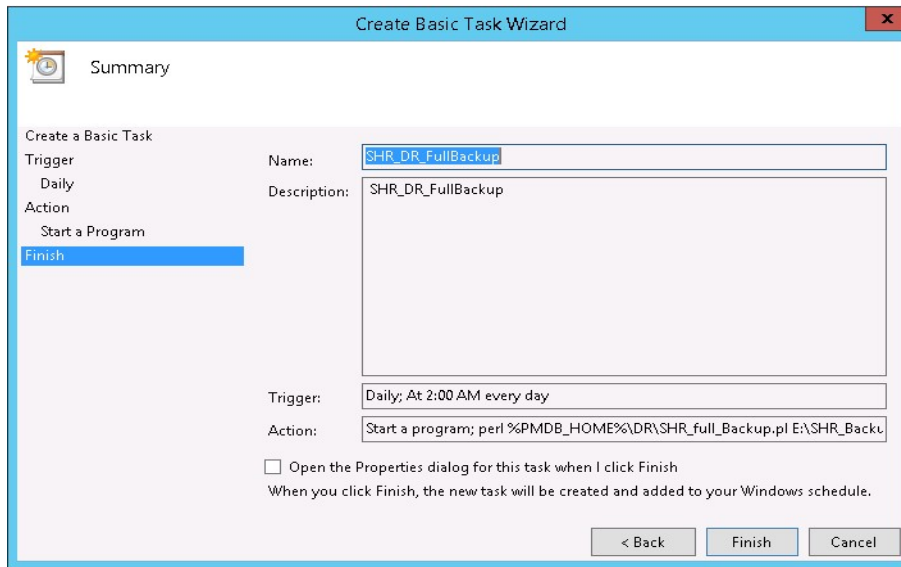
Note: If you want to backup the files to a custom folder, you must create it before you enter the path in **Add arguments** text box.



8. The following Task Scheduler message appears, click **Yes**.

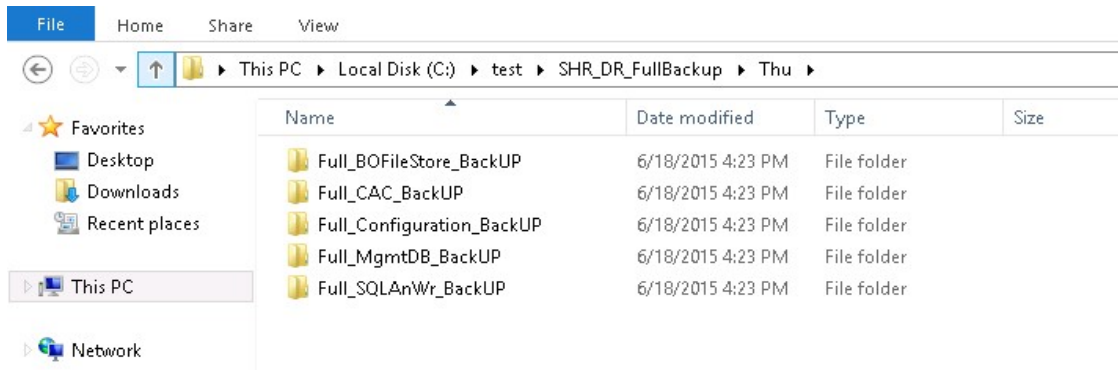


9. Click **Finish** in the Summary page.



You can check the task created in the **Active Tasks** of the Task Scheduler window.

Following image is the example of the backup files:



Tip: Run the following commands to rotate/truncate the BI4Audit, BI4CMS log files size:

1. `dbbackup -xo "<Installed Drive>\Program Files (x86)\SAP BusinessObjects\sqlanywhere\database\BI4_Audit.log" -c @"%PMDB_HOME%\DR\SQLA_Win_DR_BI4Audit_Enc.enc" -o "<temporary directory>\<BO Log file name>.log"`
2. `dbbackup -xo "<Installed Drive>\Program Files (x86)\SAP BusinessObjects\sqlanywhere\database\BI4_CMS.log" -c @"%PMDB_HOME%\DR\SQLA_Win_DR_BI4CMS_Enc.enc" -o "<temporary directory>\<BO Log file name>.log"`

where, *<temporary directory>* is the location for the output log file.

<BO Log file name> is the name of the output BO log file. For example: *<bo.log>*.

On Linux

The `$PMDB_HOME/DR/SHR_full_Backup.pl` script helps you take a full back up of the OBR components mentioned in ["Backup OBR" on page 7](#).

The script generates the `DR.log` file in the path `$PMDB_HOME/log`.

Note: If you have set up OBR High Availability environment, perform the following steps before running the backup script:

1. On the primary SAP BusinessObjects server, go to the location `$PMDB_HOME/DR`.
2. Copy the following files:
 - `$PMDB_HOME/DR/SQLA_Lin_DR_BI4Audit_Enc.enc`
 - `$PMDB_HOME/DR/SQLA_Lin_DR_BI4CMS_Enc.enc`
3. Go to the location `$PMDB_HOME/DR` in the secondary SAP BusinessObjects server and paste the copied files.

Make sure that you run the backup script on Active Nodes.

Log on to the OBR server1 where you have installed the OBR components and follow these steps to schedule the back up:

1. Log on to the OBR system as root.
2. To edit your crontab file, type the following command at the command prompt:


```
crontab -e
```
3. Add a line to the crontab file to invoke the `$PMDB_HOME/DR/SHR_full_Backup.pl` script once every day.

```
<time schedule> </opt/OV/nonOV/perl/a/bin/perl> <Location of the backup script> <backup path>
```

where, *<time schedule>* is the time of the day the script is invoked (the time schedule is as per the crontab format)

<Location of the backup script> is the location of the `SHR_full_Backup.pl` back up script

<backup path> the location of the back up files

For example: `0 15 * * 0 /opt/OV/nonOV/perl/a/bin/perl $PMDB_HOME/DR/SHR_full_Backup.pl /root/SHR_DR_FullBackup`

In the above example, the `$PMDB_HOME/DR/SHR_full_Backup.pl` script is invoked on the first day of the week at 15:00 hours and the data file backup is stored at `/root/SHR_DR_FullBackup`.

4. Save the crontab file.

All the log files for crontab are in the location `/var/mail`.

5. After running the scheduled backup, note down the backup sub folder and file for Management DB

`<backup path>/SHR_DR_FullBackup/<the day of backup>/Full_MgmtDB_BackUP`

`<backup path>/SHR_DR_FullBackup/<the day of backup>/Full_MgmtDB_BackUP/Mgmt_backup_AGGREGATE_CONTROL.dat`

For example:

`/root/SHR_DR_FullBackup/SHR_DR_FullBackup/Thu/Full_MgmtDB_BackUP`

`/root/SHR_DR_FullBackup/SHR_DR_FullBackup/Thu/Full_MgmtDB_BackUP/Mgmt_backup_AGGREGATE_CONTROL.dat`

Tip: Run the following commands to rotate/truncate the BI4Audit, BI4CMS log files size:

1. `cd /opt/HP/BSM/BOE4/sqlanywhere/bin64`
2. `./dbbackup -xo "/opt/HP/BSM/BOE4/sqlanywhere/database/BI4_Audit.log" -c@"$PMDB_HOME/DR/SQLA_Lin_DR_BI4Audit_Enc.enc" -o "<temporary directory>/<BO Log file name>.log"`
3. `./dbbackup -xo "/opt/HP/BSM/BOE4/sqlanywhere/database/BI4_CMS.log" -c@"$PMDB_HOME/DR/SQLA_Lin_DR_BI4CMS_Enc.enc" -o "<temporary directory>/<BO Log file name>.log"`

where, `<temporary directory>` is the location for the output log file.

`<BO Log file name>` is the name of the output BO log file. For example: `<bo.log>`.

Chapter 3: Restore OBR

Before restoring the backup, you must install OBR on the new system using the media. You must also ensure that the same system and OBR configurations are retained in the new system.

After you complete the OBR installation and configuration, you must ensure to bring the Vertica database down.

Transfer all backup data into a local directory of the new system. OBR's restore script enables you to restore all of the backup data.

Note: In a Custom Installation scenario, perform the following restore steps on the systems where you have installed the OBR components.

On Windows

Note: If you have set up OBR High Availability environment, edit `SHR_full_Restore.pl` script before running the restore script. Perform the following steps to edit the restore script:

1. Go to the location `%PMDB_HOME%\DR`.
2. Open the `SHR_full_Restore.pl` and edit the line `$bofilestore_winpath = $quotes.$bopathoutput.$FileStore.$quotes`; to replace SAP BusinessObjects path as follows:


```
$bofilestore_winpath = $quotes.<NFS Shared Disk path where Input and Output File store is copied>.$quotes;
```
3. In the same file, edit the line `$boSQLAnywhere_winpath = $quotes.$bopathoutput."\\.\.\sqlanywhere\database".$quotes`; to replace SQL Anywhere path as follows:

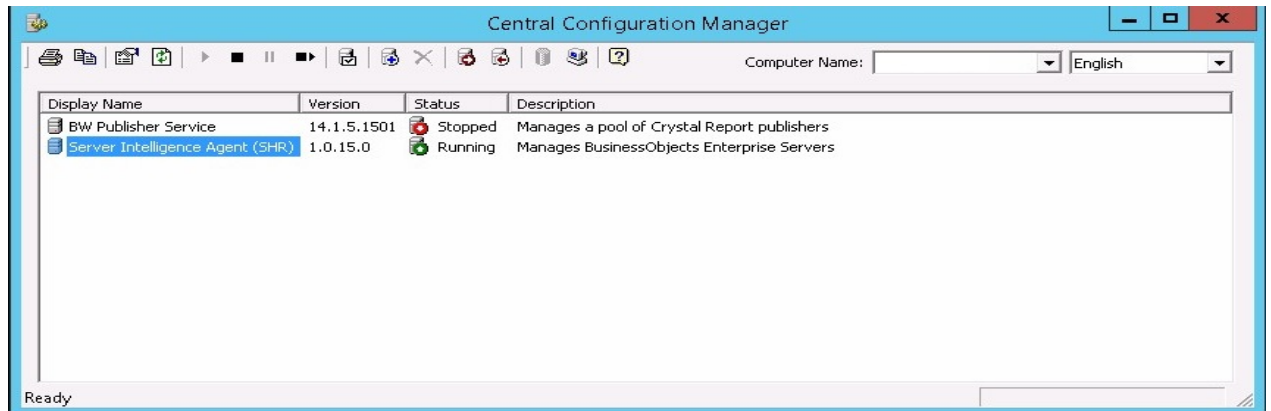

```
$boSQLAnywhere_winpath = $quotes.<NFS Shared Disk path where SQL Anywhere .db files are copied>.$quotes;
```

Make sure that you run the restore script on Active Nodes.

Log on to the system where OBR is installed that is OBR server2 and follow these steps to restore the back up of the OBR components:

1. Copy the backup file SHR_DR_FULLBACKUP from the backup location of OBR server1 to OBR server2 where you want to restore the backup.
2. Go to **Start** and type **Central Configuration Manager** in **Search**. Double-click on the Central Configuration Manager.

The Central Configuration Manager window appears.



3. Right-click on **Server Intelligence Agent (SHR)** and click **Stop**.
4. From the **Services** window, click the **SLQ Anywhere for SAP Business Intelligence** service and click **Stop**.
5. Rename the existing file store folder.

The default location of the file store is <BusinessObjects installed drive>:\Program Files (x86)\SAP BusinessObjects\SAP BusinessObjects Enterprise XI 4.0\FileStore.

For example: You can rename it to FileStore_old.

6. From the default location move the existing SQL Anywhere database to another location.

The default location of the SQL Anywhere database is <BusinessObjects installed drive>:\Program Files (x86)\SAP BusinessObjects\sqlanywhere\database.

7. Perform the following steps to run the restore script:
 - a. Click **Start > Run**. The Run dialog box appears.
 - b. Type `cmd`, and then press **ENTER**. The command prompt appears.
 - c. Run the following command:

`Perl <Location of the restore script> <Location of the backup file>`

where, *<Location of the restore script>* is the path of the restore script, and *<Location of the backup file>* is the path of the particular day's backup file that you want to restore.

For example: Per1 %PMDB_HOME%\DR\SHR_full_Restore.pl E:\SHR_Backup\SHR_DR_FullBackup\Thu

8. Click **Start > Run**. The Run dialog box appears.
9. Type dbisqlc and then press **ENTER**. The Connect to SQL Anywhere window opens.
10. From the **Services** window, click the **SQL Anywhere for SAP Business Intelligence** service and click **Start**.



11. In the Connect to SQL Anywhere window, type the following details:

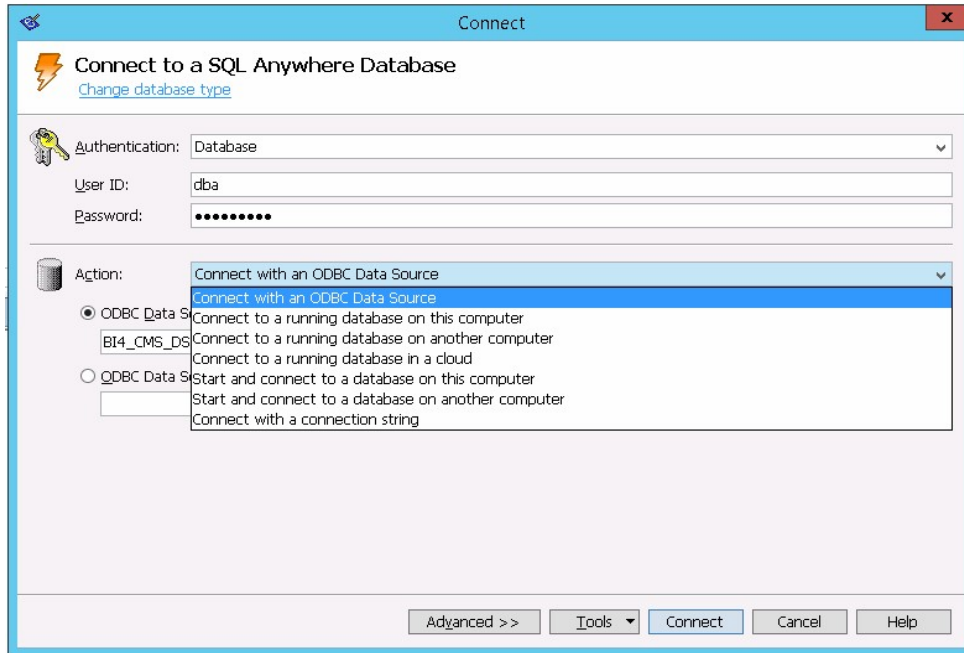
- User ID: Type the user as dba
- Password: *<password>*

where, *<password>* is the password used to log on to the CMC database (SQL Anywhere)

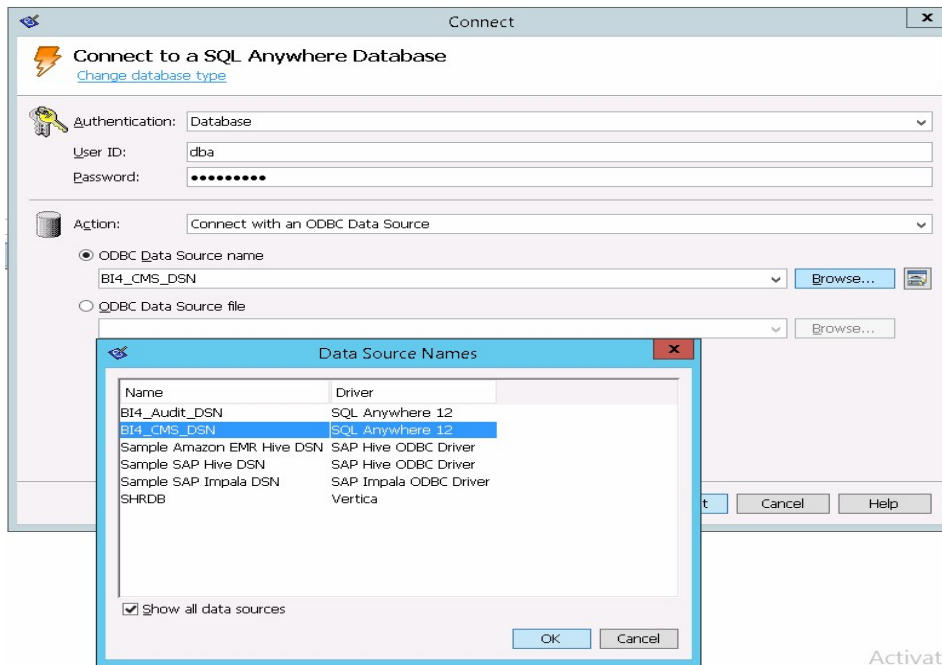
Note: If you have not changed the password in the server where the back up is taken, type the same password else, type the changed password.

Caution: Ensure that you change the default password before you start using OBR. For more information, refer *Changing Default Passwords* in the *Operations Bridge Reporter Online help for Administrators*.

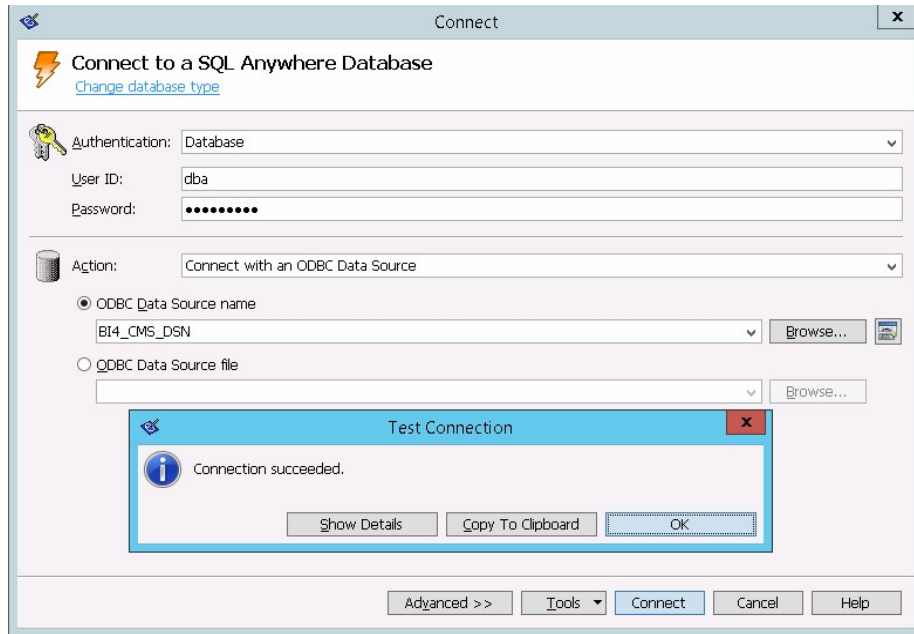
- Action: Select **Connect with an ODBC Data Source** from the drop down.



- o Select the **ODBC Data Source name** option, and then click **Browse** to enter the source name BI4_CMS_DSN.

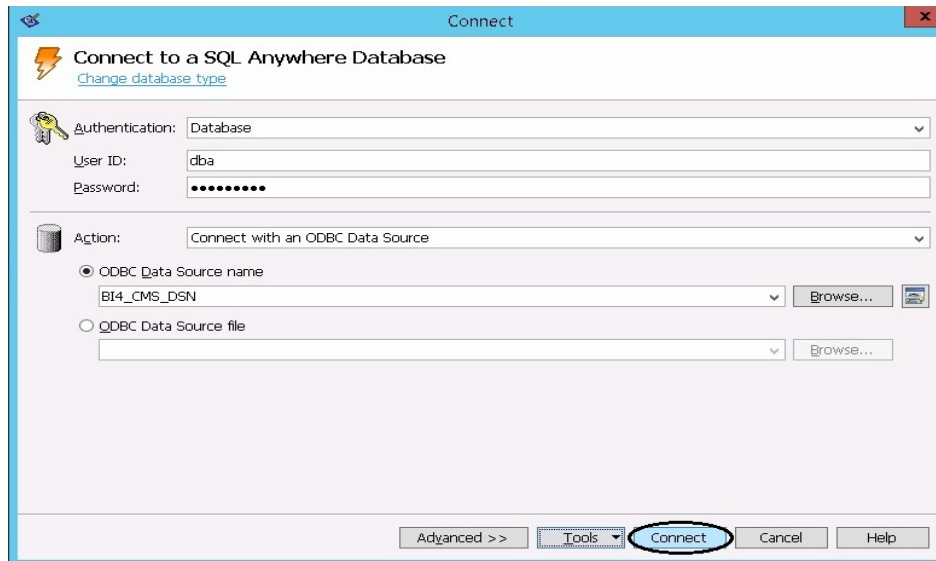


- o Check the connection as shown in the following image.



The Connection succeeded confirmation dialog box appears.

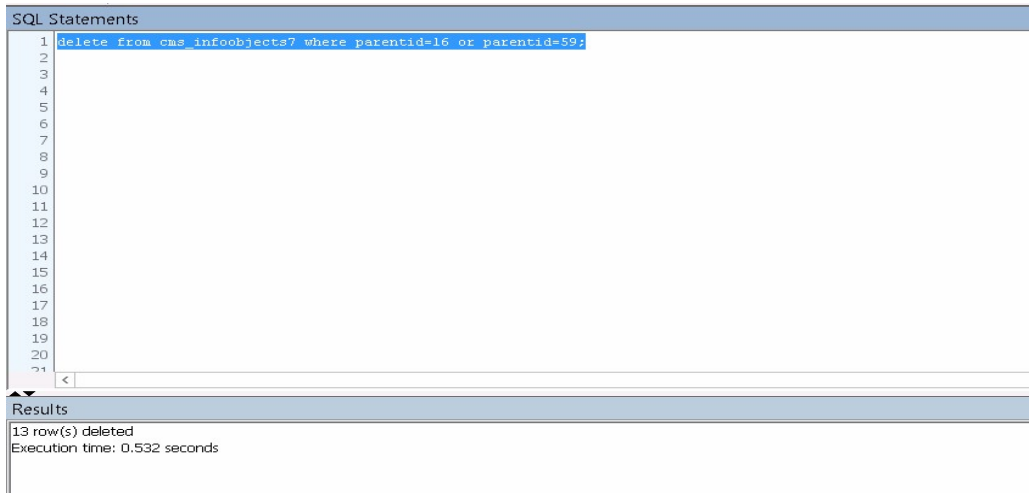
- o Click **Connect**.



12. In the SQL Statements pane, type the following query:

```
delete from cms_infoobjects7 where parentid=16 or parentid=59;
```

13. Click **Execute**. You will get a message that displays the number of records deleted as shown in the following image.




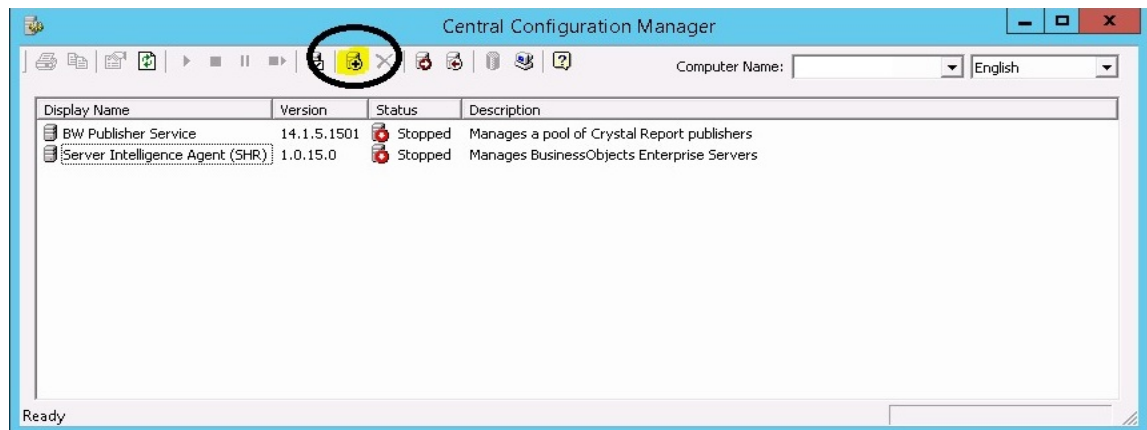
14. Commit the query execution and close the Connect to SQL Anywhere window.

15. Create a new SIA:

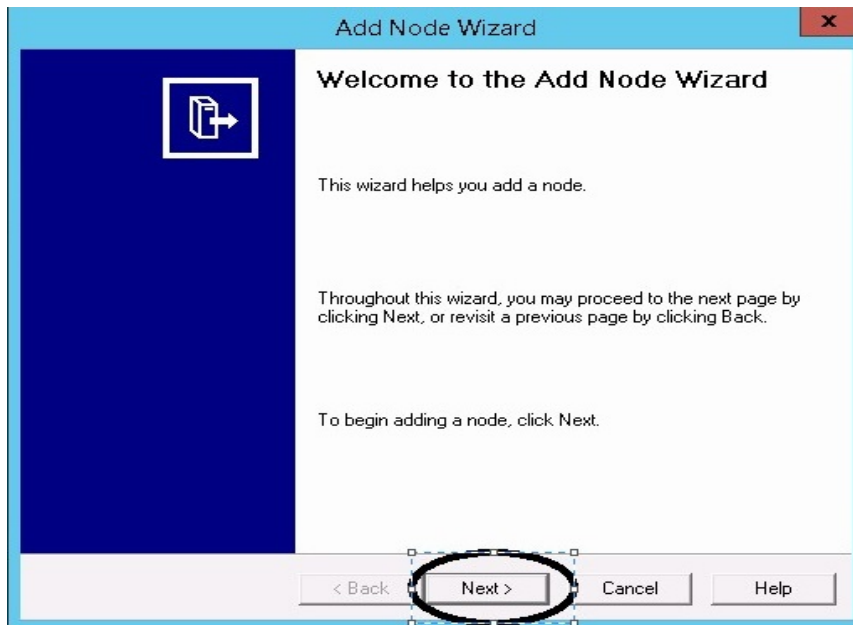
Note: Ensure that the SIA is not started before moving ahead.

a. Go to **Start** and type **Central Configuration Manager** in **Search**. Double-click on the Central Configuration Manager to open it.

b. Click on  to create a new SIA node. The Add Node Wizard appears.

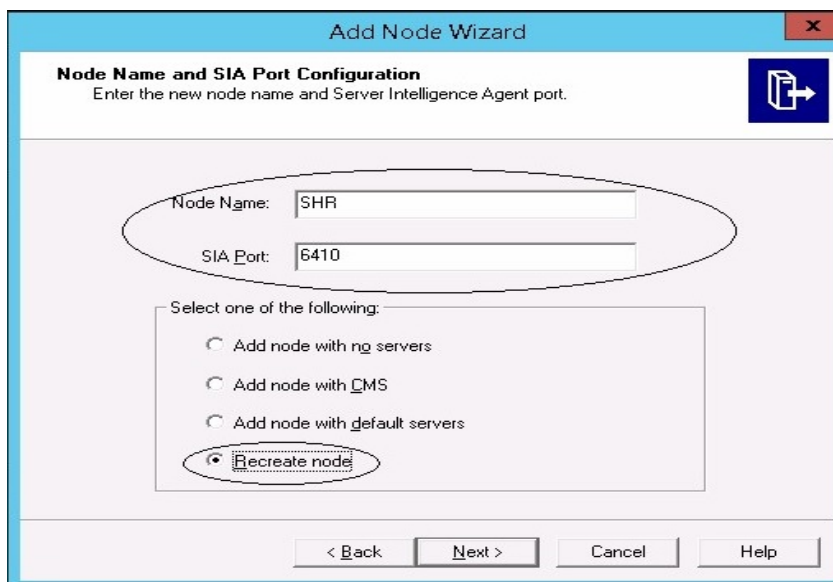


c. Click **Next**. The Node name and SIA Port Configuration page appears.

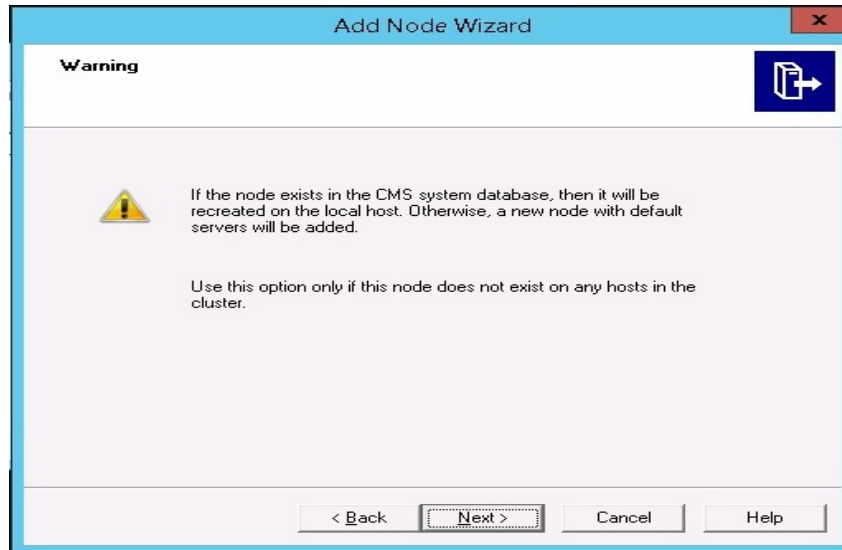


d. Type the following details:

- Node Name: OBR
- SIA Port: 6410
- Select the **Recreate Node** option.
- Click **Next**.

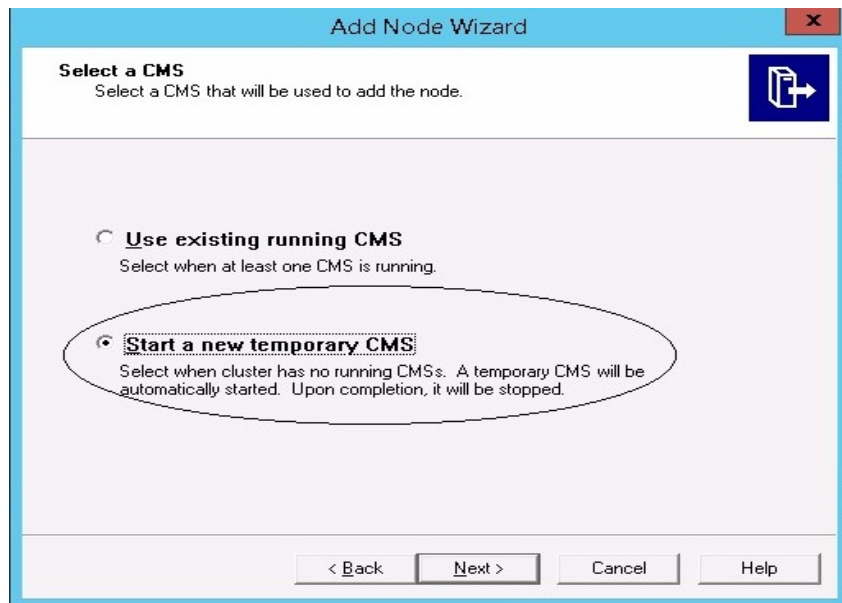


e. A warning message appears as shown in the following image. Click **Next**.



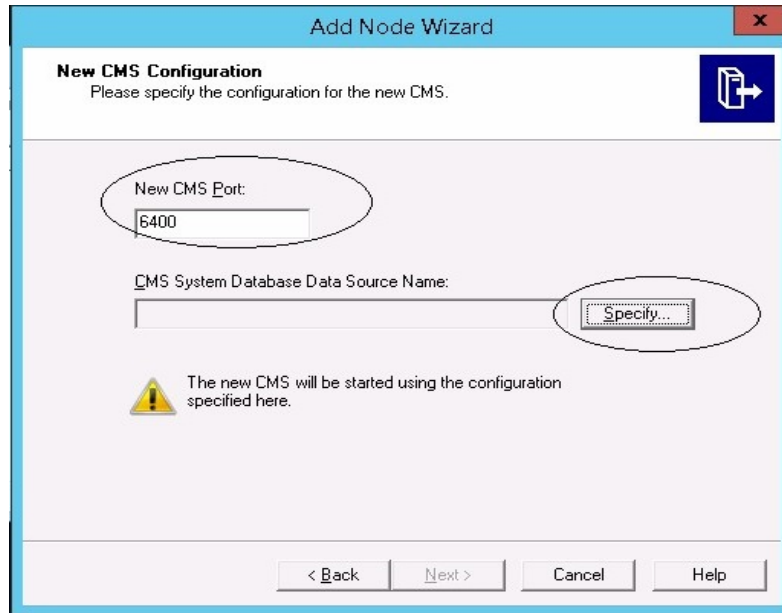
The Select a CMS page appears.

- f. Select **Start a new temporary CMS** option and click **Next**.

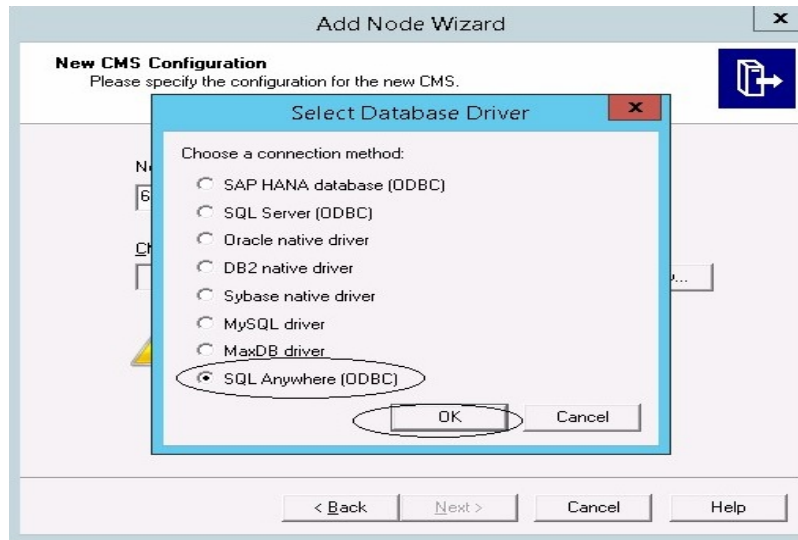


The New CMS Configuration page appears.

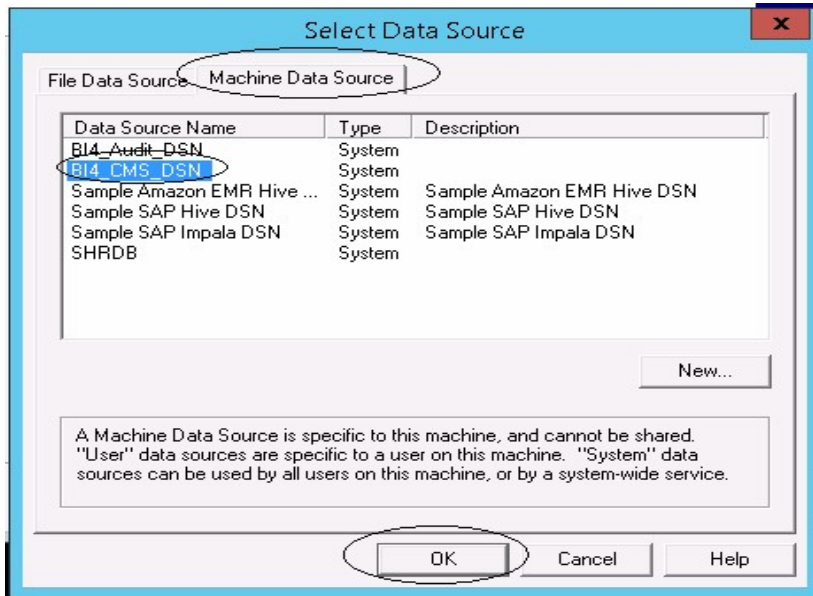
- g. Type 6400 for **New CMS Port**, and click on **Specify**.



- h. Select **SQL Anywhere (ODBC)** option in Select Database Driver page, and click **OK**.



- i. In Select Data Source page, click the **Machine Data Source** tab, and select **BI4_CMS_DSN**. Click **OK**.



j. In Connect to SQL Anywhere wizard, type the following:

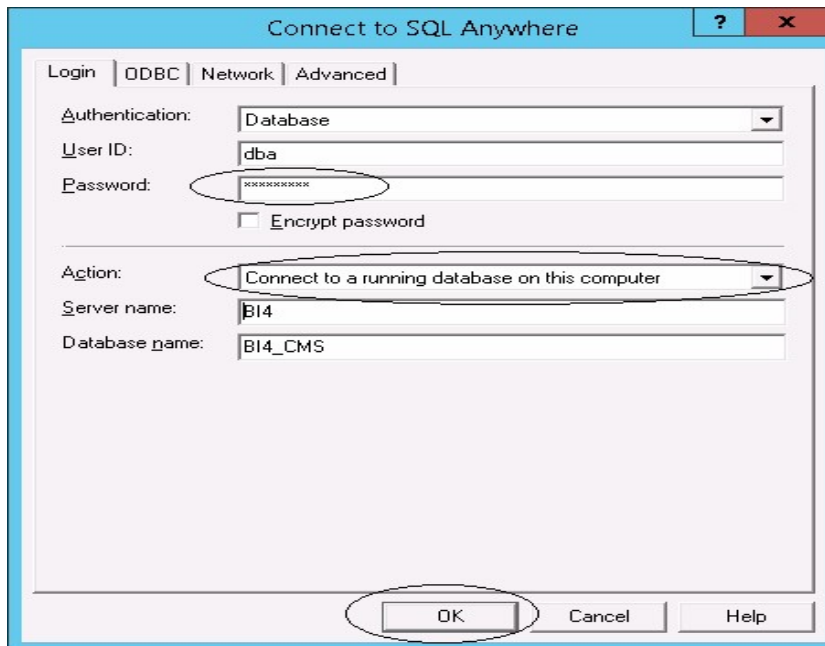
- User ID: dba
- Password: <password>

where, <password> is the password used to log on to the CMC database (SQL Anywhere)

Note: If you have not changed the password in the server where the back up is taken, type the same password else, type the changed password.

Caution: Ensure that you change the default password before you start using OBR. For more information, refer *Changing Default Passwords* in the *Operations Bridge Reporter Online help for Administrators*.

- Action: Select the **Connect to a running database on this computer** option. Click **OK**.

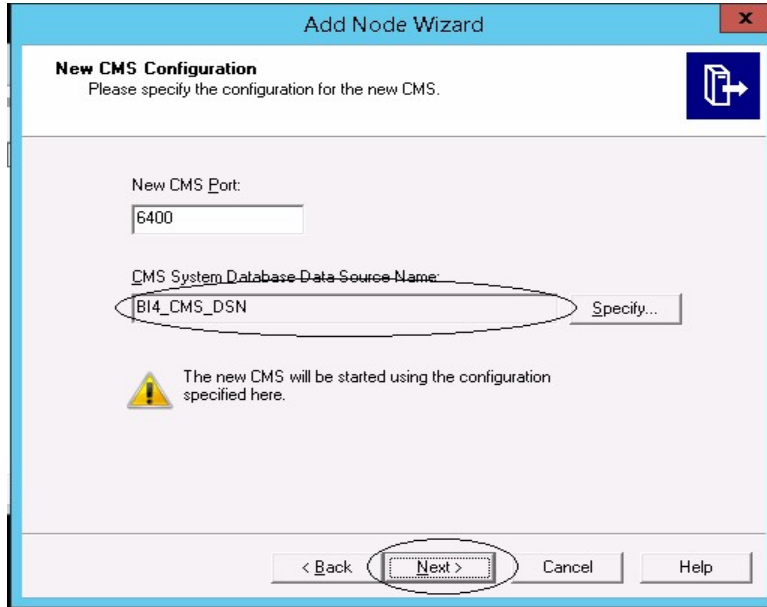


- k. In Specify Cluster Key page, type the cluster key as 1ShrAdmin. Click **OK**.

Note: The default cluster key is 1ShrAdmin, if you have changed the cluster key then enter the changed cluster key value.



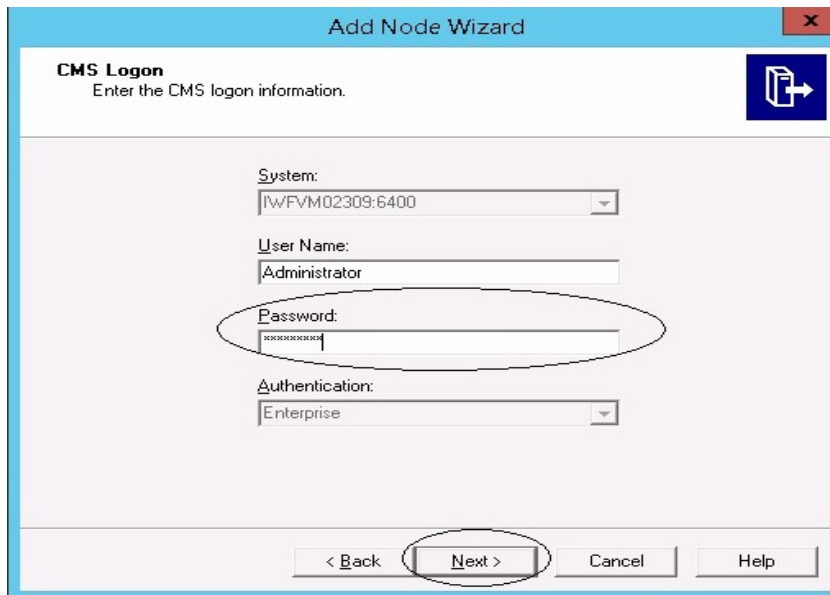
- l. The **CMS System Database Data Source name** will now be enabled in New CMS Configuration page. Click **Next**.



- m. Type the **Password** for the CMS Logon page, and click **Next**.

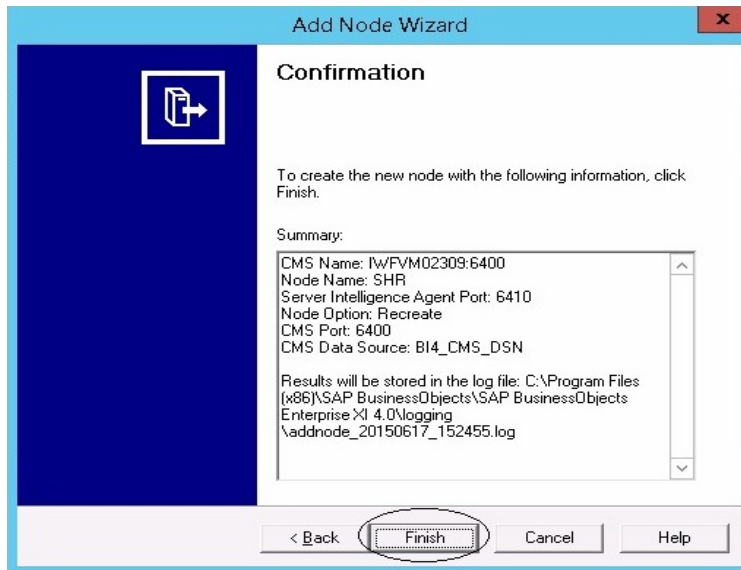
Note: If you have not changed the password in the server where the back up is taken, type the same password else, type the changed password.

Caution: Ensure that you change the default password before you start using OBR. For more information, refer *Changing Default Passwords* in the *Operations Bridge Reporter Online help for Administrators*.

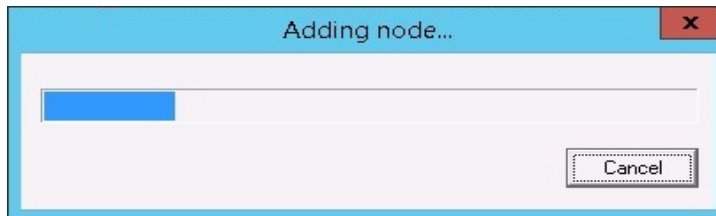


The Confirmation page appears.

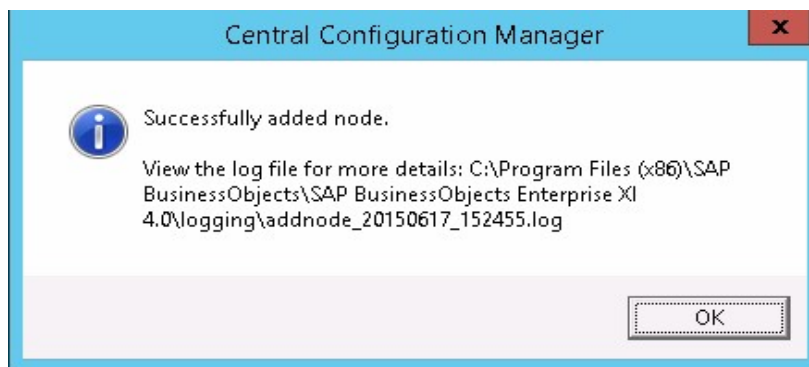
- n. Click **Finish**.



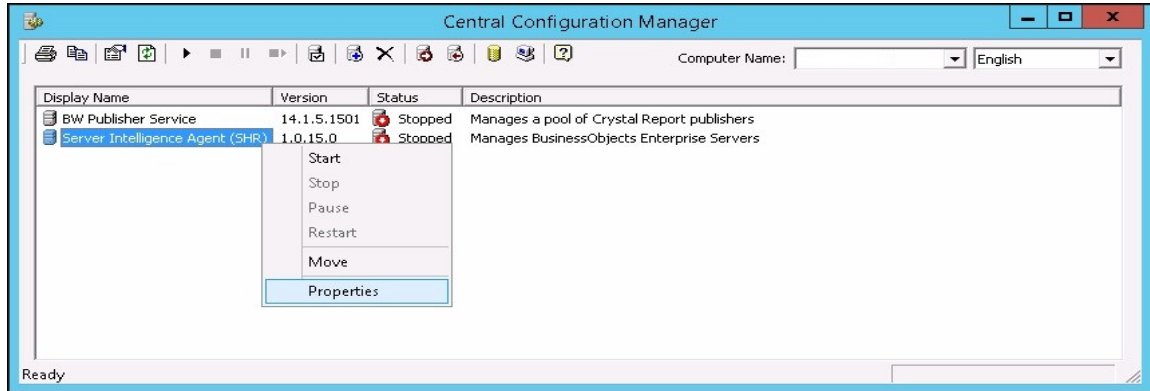
The Adding node... dialog box appears. Wait till the process gets completed.



A confirmation dialog appears as shown in the following image:



- o. In CCM, right-click on **Server Intelligence Agent (SIA)** and select **Properties**.

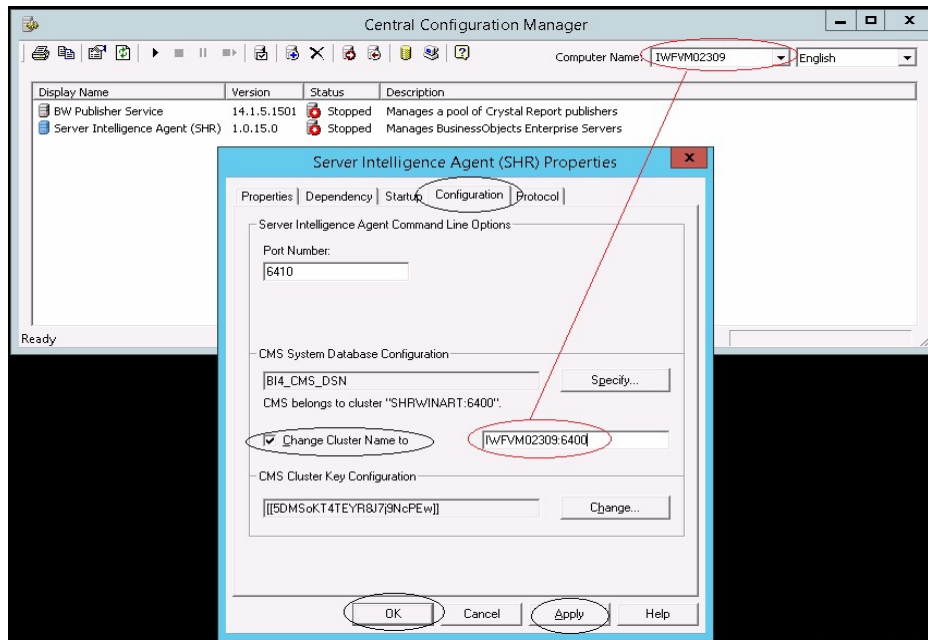


p. Select the **Configuration** tab and perform the following

- Select the **Change Cluster Name** to check box.
- Type the cluster name in the format `<Cluster Name>:6400`

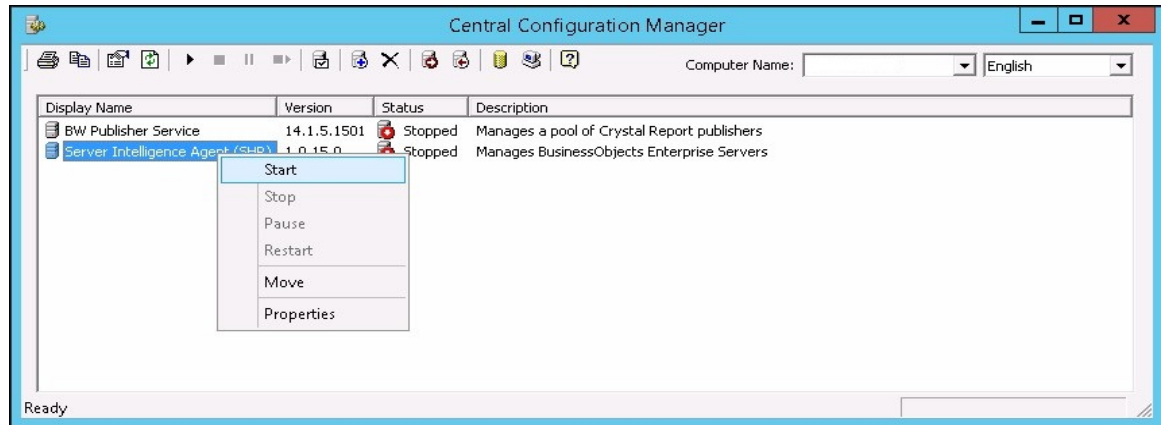
where, the `<Cluster Name>` is same as the **Computer Name** that appears in the Central Configuration Manager.

The following image shows the example for the Cluster Name:



- Click **Apply** and then click **OK**.

q. In CCM, right-click on **Server Intelligence Agent (SHR)** (SIA) and click **Start**.



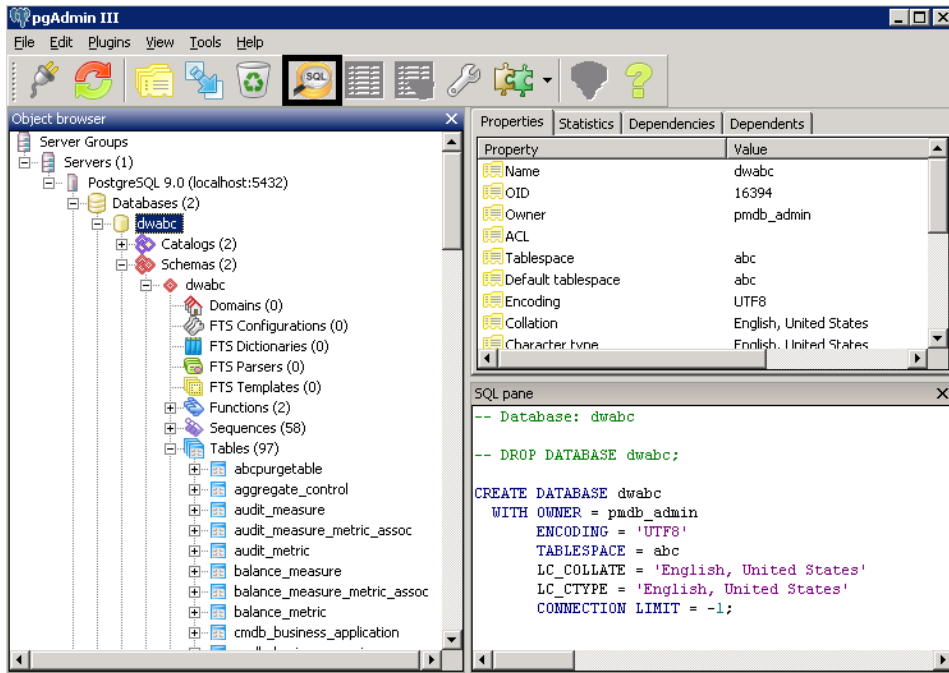
Log on to Central Management Console (CMC) and check if the restore is successful.

To restore the management database table, follow these steps:

1. Log on to the OBR system.
2. Go to **Start** and type **pgAdmin III** in **Search**. Double-click on the pgAdmin III to open it.
3. Connect to the database by providing the password. Launch the sql query analyzer by clicking the sql icon.

Note: If you have not changed the password in the server where the back up is taken, type the same password else, type the changed password.

Caution: Ensure that you change the default password before you start using OBR. For more information, refer *Changing Default Passwords* in the *Operations Bridge Reporter Online help for Administrators*.



4. Run the following query to restore the database tables:

```
Delete From dwabc.aggregate_control
```

```
COPY dwabc.aggregate_control from '<Path of the backupfile>\\backup_AGGREGATE_
CONTROL.dat'
```

where, *<Path of the backupfile>* is the directory where you placed the Management database backup file.

For Example: COPY dwabc.aggregate_control from 'E:\SHR_DR_FullBackup\\backup_AGGREGATE_CONTROL.dat'

On Linux

Note: If you have set up OBR High Availability environment, edit SHR_full_Restore.pl script before running the restore script. Perform the following steps to edit the restore script:

1. Go to the location \$PMDB_HOME/DR .
2. Open the SHR_full_Restore.pl and edit the line \$dcp8 = \$pmdbhome."/../BOE4/sap_bobj/data"; to replace SAP BusinessObjects path as follows:

```
$dcp8 = "<NFS Shared Disk path where Input and Output File store is copied>";
```

3. In the same file, edit the line `$dcp9 = $pmdbhome."/../BOE4/sqlanywhere/database";` to replace SQL Anywhere path as follows:

```
$dcp9 = "<NFS Shared Disk path where SQL Anywhere .db files are copied>";
```

Make sure that you run the restore script on Active Nodes.

Log on to the system where OBR is installed that is OBR server2 and follow these steps to restore the backup of the OBR components:

1. Copy the backup file `SHR_DR_FULLBACKUP` from the backup location of OBR server1 to OBR server2 where you want to restore the back up.
2. Log on to the system as root.
3. Run the following command to stop the web server:

```
sh /opt/HP/BSM/BOE4/sap_bobj/tomcatshutdown.sh
```

4. Move the SQL Anywhere Data Base files in OBR server2 from the following location to another location of your choice

```
$PMDB_HOME/./BOE4/sqlanywhere/database/*BI4*
```

Similarly, from the following location rename the `frsinput` and `frsoutput` directories

```
$PMDB_HOME/./BOE4/sap_bobj/data
```

5. Switch to the SAP BusinessObjects administrator by running the following command:

```
su - shrboadmin
```

6. Run the following command to stop all Server Intelligence Agent servers:

```
sh $PMDB_HOME/./BOE4/sap_bobj/stopservers
```

7. Stop the SQL Anywhere service:

```
sh $PMDB_HOME/./BOE4/sap_bobj/sqlanywhere_shutdown.sh
```

If prompted for password, specify the SQL Anywhere database password.

8. Switch back to root by running the following command:

```
exit
```

9. Copy the backup files (that you have taken a back up in the chapter *Back up OBR Database* "[On](#)

Linux" on page 12) perform the following:

```
perl <Location of the restore script> <Location of the backup file>
```

where, <Location of the restore script> is the path of the restore script, and <Location of the backup file> is the path of the particular day's backup file that you want to restore.

For example: perl \$PMDB_HOME/DR/SHR_full_Restore.pl /root/SHR_DR_FullBackup/Thu

10. Run the following command:

```
chown shrboadmin:shrboadmin $PMDB_HOME/../../BOE4/sqlanywhere/database/*BI4*
```

11. Ensure that you log in as shrboadmin user and not root.

```
su - shrboadmin
```

12. Start the SQL Anywhere service. Execute the following command to start SQL Anywhere.

```
sh $PMDB_HOME/../../BOE4/sap_bobj/sqlanywhere_startup.sh
```

13. Go to the location /opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/odbc.ini and note down the ODBC Data Source name of the CMS database.

For example the ODBC Data Source name of the CMS database in the following image is BI4_CMS_DSN_1435083599

```
[ODBC Data Sources]
BI4_CMS_DSN_1435083599=SQLAnywhere 12.0
BI4_Audit_DSN_1435083599=SQLAnywhere 12.0

[BI4_CMS_DSN_1435083599]
UID=dba
DatabaseName=BI4_CMS
ServerName=BI4_1435083599
Host=localhost:2638
Driver=/opt/HP/BSM/BOE4/sqlanywhere/lib64/libdbodbc12.so

[BI4_Audit_DSN_1435083599]
UID=dba
DatabaseName=BI4_Audit
ServerName=BI4_1435083599
Host=localhost:2638
Driver=/opt/HP/BSM/BOE4/sqlanywhere/lib64/libdbodbc12.so
```

14. Create a new Server Intelligence Agent by running the following command:

```
sh $PMDB_HOME/../../BOE4/sap_bobj/serverconfig.sh
```

The SAP BusinessObjects wizard appears in the command line console.

15. Type 1, and then press **Enter**.

```
-----  
SAP BusinessObjects  
What do you want to do?  
1 - Add node  
2 - Delete node  
3 - Modify node  
4 - Move node  
5 - Back up server configuration  
6 - Restore server configuration  
7 - Modify web tier configuration  
8 - List all nodes  
  
[quit(0)]  
-----  
[8]1
```

16. Type the name of the new Node, and then press **Enter**.

```
-----  
SAP BusinessObjects  
  
* Node Configuration *  
Enter the name of the new node.  
  
[back(1)/quit(0)]  
-----  
[IWFVM02570]SHRM2
```

17. Type 6410 as the port number, and then press **Enter**.

```
-----  
SAP BusinessObjects  
  
* Node Configuration *  
Enter the port of the new Server Intelligence Agent.  
  
[back(1)/quit(0)]  
-----  
[ ]6410
```


18. Type 3 (default server) to add node with default server, and then press **Enter**.

```
-----  
SAP BusinessObjects  
  
* Node Configuration *  
  
Select one of the following:  
  
no servers (Add node with no servers)  
cms (Add node with CMS)  
default servers (Add node with default servers)  
recreate (Recreate node)  
  
[no servers(5)/cms(4)/default servers(3)/recreate(2)/back(1)/quit(0)]  
-----  
  
[no servers]3
```

19. Type 2 to select a temporary CMS, and then press **Enter**.

```
-----  
SAP BusinessObjects  
  
* Select a CMS *  
  
Select a CMS that will be used to add the node.  
  
existing  
  (Select when at least one CMS is running.)  
temporary  
  (Select when cluster has no running CMSs. A temporary CMS will be automatically started. Upon completion, it will be stopped.)  
  
[existing(3)/temporary(2)/back(1)/quit(0)]  
-----  
  
[existing]2
```

20. Type 6400 for the CMS port number, and then press **Enter**.

```
-----  
SAP BusinessObjects  
  
* New OMS Configuration *  
Enter the port of the new OMS.  
  
Warning: The new OMS will start using the configuration specified here.  
  
[back(1)/quit(0)]  
-----  
[default (6400)]6400
```

21. Type 2 for SQL Anywhere, and then press **Enter**.

```
-----  
SAP BusinessObjects  
  
* New OMS Configuration *  
Specify new OMS database connection information.  
  
Select the type of database connection from the following:  
[SAPHANA(8)/Oracle(7)/DB2(6)/Sybase(5)/MySQL(4)/MaxDB(3)/SQLAnywhere(2)/back(1)/quit(0)]  
-----  
[SAPHANA]2
```

22. Enter the ODBC data source name that you have noted down earlier in [step 12](#), and then press **Enter**.

```

-----
                SAP BusinessObjects

* New OMS Configuration *

Specify new OMS database connection information.

Enter the ODBC data source name (DSN) for connecting to your SQL Anywhere database.

[back(1)/quit(0)]
-----

[BI4_OMS_DSN_1434393679]

```

23. Type the user name, and then press **Enter**.

Note: This must be the same user name that is used in the SAP BusinessObjects Server from where the back up is taken.

```

-----
                SAP BusinessObjects

* New OMS Configuration *

Specify new OMS database connection information.

Enter the user name for connecting to your SQLAnywhere database.

[back(1)/quit(0)]
-----

[dba]dba

```

24. Type the password, and then press **Enter**.

Note: If you have not changed the password in the server where the back up is taken, type the same password else, type the changed password.

Caution: Ensure that you change the default password before you start using OBR. For more information, refer *Changing Default Passwords* in the *Operations Bridge Reporter Online help for Administrators*.

```
-----  
SAP BusinessObjects  
  
* New CMS Configuration *  
Specify new CMS database connection information.  
  
Enter the password for connecting to your SQLAnywhere database.  
  
[back(1)/quit(0)]  
-----  
[]
```

25. Type the cluster key, and the press **Enter**.

Note: The default cluster key is 1ShrAdmin, if you have changed the cluster key then enter the changed cluster key value.

```
-----  
SAP BusinessObjects  
  
* New CMS Configuration *  
Enter the cluster key.  
  
[back(1)/quit(0)]  
-----  
[]
```

26. Type Administrator as the user name to connect to the CMS, and press **Enter**.

```

-----
                SAP BusinessObjects

* OMS Logon *

Enter the user name to connect to this OMS.

Note that only Enterprise authentication is supported.

[back(1)/quit(0)]
-----

[Administrator] █

```

27. Type the password, and then press **Enter**.

Note: If you have not changed the password in the server where the back up is taken, type the same password else, type the changed password.

Caution: Ensure that you change the default password before you start using OBR. For more information, refer *Changing Default Passwords* in the *Operations Bridge Reporter Online help for Administrators*.

```

-----
                SAP BusinessObjects

* OMS Logon *

Enter the password to connect to this OMS.

[back(1)/quit(0)]
-----

[] █

```

28. Type yes to add a new node, and then press **Enter**.

```

-----
                SAP BusinessObjects

* Confirmation *

The following information will be used to create the new node.

CMS Name: IWFVM02570:6400
Node Name: SHRM2
Server Intelligence Agent Port: 6410
Node Option: Create default servers
CMS Port: 6400
CMS Data Source: BI4_CMS_DSN_1434393679

Results will be stored in the log file: /opt/HP/BSM/BOE4/sap_bobj//logging/addnode_20150616_224929.log

Do you want to create the node?

[yes(3)/no(2)/back(1)/quit(0)]
-----

[yes]

```

The Confirmation screen for adding a node appears.

```

-----
                SAP BusinessObjects

* Confirmation *

The following information will be used to create the new node.

CMS Name: IWFVM02570:6400
Node Name: SHRM2
Server Intelligence Agent Port: 6410
Node Option: Create default servers
CMS Port: 6400
CMS Data Source: BI4_CMS_DSN_1434393679

Results will be stored in the log file: /opt/HP/BSM/BOE4/sap_bobj//logging/addnode_20150616_224929.log

Do you want to create the node?

[yes(3)/no(2)/back(1)/quit(0)]
-----

[yes]
Adding node...

```

29. Press **Enter** to continue.

```

-----
                SAP BusinessObjects

* Confirmation *

The following information will be used to create the new node.

OVS Name: IMFVM02570:6400
Node Name: SHRM2
Server Intelligence Agent Port: 6410
Node Option: Create default servers
OVS Port: 6400
OVS Data Source: BI4_OVS_DSN_1434393679

Results will be stored in the log file: /opt/HP/BSW/BCE4/sap_bobj//logging/addnode_20150616_224929.log

Do you want to create the node?

[yes(3)/no(2)/back(1)/quit(0)]
-----

[yes]
Adding node...
.....Successfully added node.
View the log file for more details: /opt/HP/BSW/BCE4/sap_bobj//logging/addnode_20150616_224929.log

Press Enter to continue...
█
    
```

30. Type 0 to quit, and then press **Enter**.

```

-----
                SAP BusinessObjects

What do you want to do?

1 - Add node
2 - Delete node
3 - Modify node
4 - Move node
5 - Back up server configuration
6 - Restore server configuration
7 - Modify web tier configuration
8 - List all nodes

[quit(0)]
-----

[8]0█
    
```

31. Type 1 to confirm quit, and then press **Enter**.

```

-----
                SAP BusinessObjects

Are you sure you want to quit?

[yes(1)/no(0)]
-----

[no]1█
    
```

32. Take a back up of /opt/HP/BSM/BOE4/sap_bobj/ccm.config
33. Remove/ Delete the SHRLAUNCH section as shown in the following image:

```

#1/bin/sh
BOKTEIID="opt/HP/BSM/BOE4/sap_bobj/"
BOKTEIDSTALLLOCAL="user"
BOKTEIDLAB="en"
BOKTEIDCEBEKE="bc00U-1MVE9M-710XJC4-Gb200MC-7b"
BOKTEIDSENAME="shrbadmin"
BOKTEIDVERSTO="XI 4.0"
CLUSTER_NAME_SERVER=""
CLUSTER_PORT_NUMBER="6400"
CNS_CLUSTER="no"
CNS_NAME_SERVER="IWPV02570"
CNS_PORT_NUMBER="6400"
CNS_SERVER_IP="8080"
CNS_SERVER_PORT="8080"
CNS_SERVER_HOST="die"
DBTYPE_AUDDT="sqlanywhere"
DBTYPE="sqlanywhere"
DEFAULT_NAME_SERVER="no"
INSTALL_DIR="opt/HP/BSM/BOE4/sap_bobj/"
LOCAL_NAME_SERVER="IWPV02570"
NAME_SERVER="IWPV02570"
PIDDIR="/opt/HP/BSM/BOE4/sap_bobj/serverpids"
PRODUCT_ID_NAME="BusinessObjects"
PRODUCT_ID_VER="14.0"
RECIPT_PORT="8443"
RECIPT_FILE="opt/HP/BSM/BOE4/sap_bobj/data/.bobj"
RECIPT="yes"
SERVICE_NAME_AUDDT="BI4_Audit"
SERVICE_NAME="BI4_OMS"
SERVICE_PORT="no"
SHUTDOWN_PORT="8005"
STARTUP_NAME="SHR"
STARTUP_PORT="6410"
TTSModeValue="undefined"
SHRLAUNCH="opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/generic/bobjrestart.sh -protect "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/generic/java launch.sh" --bb
obj_product_languages_dir/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/Languages/" -djava.net.preferIPv4Stack=false -djava.awt.headless=true -bcsm.sap.vm.tag=SHRM
2 --Xms64m --Xmx256m --XX:+ExitVMOnOutOfMemoryError --XX:+HeapDumpOnOutOfMemoryError --XX:+PrintGCHeapStops --XX:+PrintGCDateTimes --XX:LogGCMaxFileCount=3
--XX:LogGCMaxFileSize=5m --XX:HeapDumpPath=/opt/HP/BSM/BOE4/sap_bobj/logging/" --XtraceFiles=/opt/HP/BSM/BOE4/sap_bobj/logging/SHR_jvm.SPID.log --XX:GCHeap
storyFilename=/opt/HP/BSM/BOE4/sap_bobj/logging/SHR_gc.prf --Xloggc=/opt/HP/BSM/BOE4/sap_bobj/logging/SHR_gc.log --XX:ErrorFiles=/opt/HP/BSM/BOE4/sap_bobj/logging/S
HR_dump.SPID.log --jar "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/java/lib/SIA.jar" --boot "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/linux_x64/_boe_SHR
bootstrp.prt" --port "6410" --pidFile "/opt/HP/BSM/BOE4/sap_bobj/serverpids/SHR.pid" --loggingPath "/opt/HP/BSM/BOE4/sap_bobj/logging/" --traceInPath "/opt/
HP/BSM/BOE4/sap_bobj/enterprise_xi40/conf/BO_trace.ini" --name "SHR" --dbinfo "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/linux_x64/_boe_SHR.dbinfo" --piddir "/opt/HP/BSM/BOE4/sap
_bobj/serverpids/" --noaudit"
SHRLAUNCH="opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/generic/bobjrestart.sh -protect "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/generic/java launch.sh" --bb
obj_product_languages_dir/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/Languages/" -djava.net.preferIPv4Stack=false -djava.awt.headless=true -bcsm.sap.vm.tag=SHRM
2 --Xms64m --Xmx256m --XX:+ExitVMOnOutOfMemoryError --XX:+HeapDumpOnOutOfMemoryError --XX:+PrintGCHeapStops --XX:+PrintGCDateTimes --XX:LogGCMaxFileCount=3
--XX:LogGCMaxFileSize=5m --XX:HeapDumpPath=/opt/HP/BSM/BOE4/sap_bobj/logging/" --XtraceFiles=/opt/HP/BSM/BOE4/sap_bobj/logging/SHRM2_jvm.SPID.log --XX:GCHe
storyFilename=/opt/HP/BSM/BOE4/sap_bobj/logging/SHRM2_gc.prf --Xloggc=/opt/HP/BSM/BOE4/sap_bobj/logging/SHRM2_gc.log --XX:ErrorFiles=/opt/HP/BSM/BOE4/sap_bobj
/logging/SHRM2_dump.SPID.log --jar "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/java/lib/SIA.jar" --boot "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/linux_x64/_boe
SHRM2_bootstrp.prt" --port "6410" --pidFile "/opt/HP/BSM/BOE4/sap_bobj/serverpids/SHRM2.pid" --loggingPath "/opt/HP/BSM/BOE4/sap_bobj/logging/" --traceInPath "/opt/
HP/BSM/BOE4/sap_bobj/enterprise_xi40/conf/BO_trace.ini" --name "SHRM2" --dbinfo "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/linux_x64/_boe_SHRM2.dbinfo" --piddir "/
opt/HP/BSM/BOE4/sap_bobj/serverpids/" --noaudit"
    
```

Remove the below marked line

34. After removing/ deleting SHRLAUNCH section, save the file as shown in the following image:

```

#1/bin/sh
BOKTEIID="opt/HP/BSM/BOE4/sap_bobj/"
BOKTEIDSTALLLOCAL="user"
BOKTEIDLAB="en"
BOKTEIDCEBEKE="bc00U-1MVE9M-710XJC4-Gb200MC-7b"
BOKTEIDSENAME="shrbadmin"
BOKTEIDVERSTO="XI 4.0"
CLUSTER_NAME_SERVER=""
CLUSTER_PORT_NUMBER="6400"
CNS_CLUSTER="no"
CNS_NAME_SERVER="IWPV02570"
CNS_PORT_NUMBER="6400"
CNS_SERVER_IP="8080"
CNS_SERVER_PORT="8080"
CNS_SERVER_HOST="die"
DBTYPE_AUDDT="sqlanywhere"
DBTYPE="sqlanywhere"
DEFAULT_NAME_SERVER="no"
INSTALL_DIR="opt/HP/BSM/BOE4/sap_bobj/"
LOCAL_NAME_SERVER="IWPV02570"
NAME_SERVER="IWPV02570"
PIDDIR="/opt/HP/BSM/BOE4/sap_bobj/serverpids"
PRODUCT_ID_NAME="BusinessObjects"
PRODUCT_ID_VER="14.0"
RECIPT_PORT="8443"
RECIPT_FILE="opt/HP/BSM/BOE4/sap_bobj/data/.bobj"
RECIPT="yes"
SERVICE_NAME_AUDDT="BI4_Audit"
SERVICE_NAME="BI4_OMS"
SERVICE_PORT="no"
SHUTDOWN_PORT="8005"
STARTUP_NAME="SHR"
STARTUP_PORT="6410"
TTSModeValue="undefined"
SHRLAUNCH="opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/generic/bobjrestart.sh -protect "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/generic/java launch.sh" --bb
obj_product_languages_dir/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/Languages/" -djava.net.preferIPv4Stack=false -djava.awt.headless=true -bcsm.sap.vm.tag=SHRM
2 --Xms64m --Xmx256m --XX:+ExitVMOnOutOfMemoryError --XX:+HeapDumpOnOutOfMemoryError --XX:+PrintGCHeapStops --XX:+PrintGCDateTimes --XX:LogGCMaxFileCount=3
--XX:LogGCMaxFileSize=5m --XX:HeapDumpPath=/opt/HP/BSM/BOE4/sap_bobj/logging/" --XtraceFiles=/opt/HP/BSM/BOE4/sap_bobj/logging/SHRM2_jvm.SPID.log --XX:GCHe
storyFilename=/opt/HP/BSM/BOE4/sap_bobj/logging/SHRM2_gc.prf --Xloggc=/opt/HP/BSM/BOE4/sap_bobj/logging/SHRM2_gc.log --XX:ErrorFiles=/opt/HP/BSM/BOE4/sap_bobj
/logging/SHRM2_dump.SPID.log --jar "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/java/lib/SIA.jar" --boot "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/linux_x64/_boe
SHRM2_bootstrp.prt" --port "6410" --pidFile "/opt/HP/BSM/BOE4/sap_bobj/serverpids/SHRM2.pid" --loggingPath "/opt/HP/BSM/BOE4/sap_bobj/logging/" --traceInPath "/opt/
HP/BSM/BOE4/sap_bobj/enterprise_xi40/conf/BO_trace.ini" --name "SHRM2" --dbinfo "/opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/linux_x64/_boe_SHRM2.dbinfo" --piddir "/
opt/HP/BSM/BOE4/sap_bobj/serverpids/" --noaudit"
    
```


35. Run the following command to start all Server Intelligence Agent servers:

```
/opt/HP/BSM/BOE4/sap_bobj/startservers
```

36. Run the following commands:

```
cd /etc/initd
```

- a. **On RHEL 6.x/SUSE Linux Enterprise Server 11:**

```
service SAPBOBJEnterpriseXI40 stop
```

```
service SAPBOBJEnterpriseXI40 start
```

- b. **On RHEL 7.x:**

```
systemctl stop SAPBOBJEnterpriseXI40.service
```

```
systemctl start SAPBOBJEnterpriseXI40.service
```

To restore the management database table, follow these steps:

1. Run the following commands to launch PgAdminIII:

a. `cd $PMDB_HOME/./Postgres/bin`

b. `./psql -U pmdb_admin -d dwabc -p 21425`

2. Connect to the database by providing the same password which was configured during post installation.
3. Launch the sql query analyzer.

Note: You must ensure that all the folders in the backup folder path have read permissions for all users.

4. Run the following query to restore the database tables:

```
Delete from aggregate_control
```

```
COPY aggregate_control from '<backup_path>/Mgmt_backup_AGGREGATE_CONTROL.dat';
```

In this instance, *<backup_path>* is the directory where you placed the Management database backup file.

For example: `COPY dwabc.aggregate_control from '/root/SHR_DR_FullBackup/SHR_DR_FullBackup/Thu/Full_MgmtDB_BackUP/Mgmt_backup_AGGREGATE_CONTROL.dat';`

Chapter 4: Backup and Restore Vertica Database

OBR uses Vertica database for storing, processing, and managing the performance data of your IT environment. You must take a regular backup of Vertica database along with the other OBR database files.

For Vertica backup and restore documentation, see [Vertica Backup and Restore](#).

Points to note:

1. To start the Vertica database backup, log on as *<Vertica Database Administrator>* (For example, verticadba) in SSH.

```
su - verticadba
```

2. To create vbr.py configuration files, run the `/opt/vertica/bin/vbr.py -setupconfig` command from the directory where the *<Vertica Database Administrator>* user (For example, verticadba) has read-write access.

For example, `cd /home/verticadba`

```
/opt/vertica/bin/vbr.py -setupconfig
```

After you restore the Vertica database backup successfully, bring the Vertica database up.

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Feedback on Disaster Recovery Guide (Operations Bridge Reporter 10.20)

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