

Oracle BI EE对接FusionInsight

适用场景

```
Oracle BI EE 11g <-> FusionInsight HD V100R002C60U20  
Oracle BI EE 11g <-> FusionInsight HD V100R002C70SPC200  
Oracle BI EE 12c <-> FusionInsight HD V100R002C60U20  
Oracle BI EE 12c <-> FusionInsight HD V100R002C70SPC200
```

Linux环境安装OBIEE

安装OS

- 安装RedHat6.5操作系统，desktop版
- 创建用户oracle

安装jdk8

- 获取jdk8安装包，执行安装

```
[root@obiee tmp]# rpm -Uvh jdk-8u121-linux-x64.rpm  
Preparing...                                           ##### [100%]  
 1:jdk1.8.0_121                                     ##### [100%]  
Unpacking JAR files...  
  tools.jar...  
  plugin.jar...  
  javaws.jar...  
  deploy.jar...  
  rt.jar...  
  jsse.jar...  
  charsets.jar...  
  localedata.jar...  
[root@obiee tmp]# java -version  
java version "1.8.0_121"  
Java(TM) SE Runtime Environment (build 1.8.0_121-b13)  
Java HotSpot(TM) 64-Bit Server VM (build 25.121-b13, mixed mode)
```

安装Weblogic

- 创建oracle home目录：

```
umask 027  
mkdir -p /Oracle/Middleware/Oracle_Home  
chown -R oracle:oracle /Oracle/
```

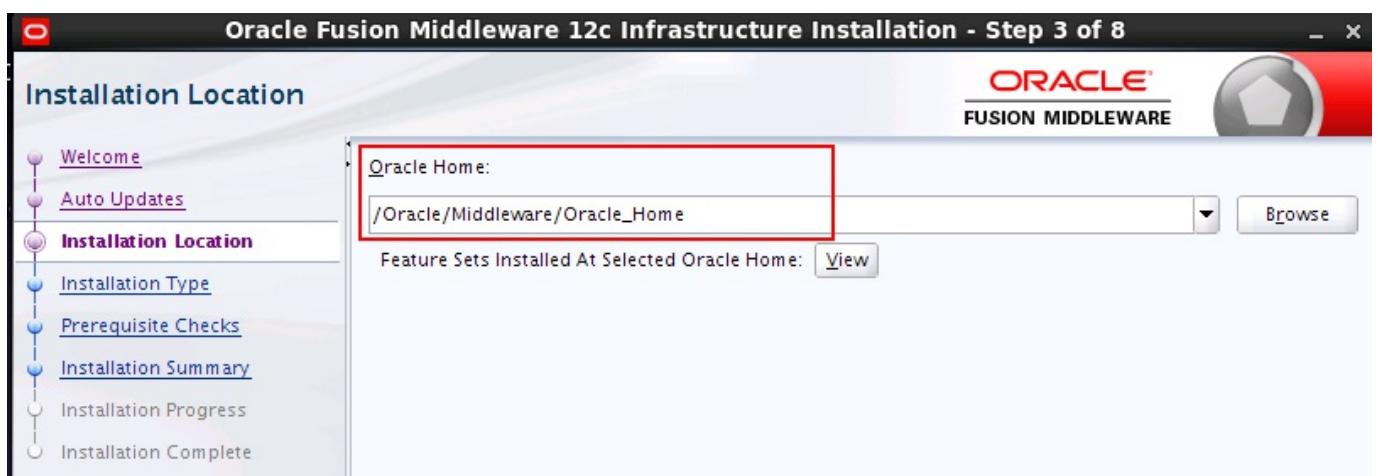
- 上传weblogic安装包，解压
- 以oracle用户登录图形界面

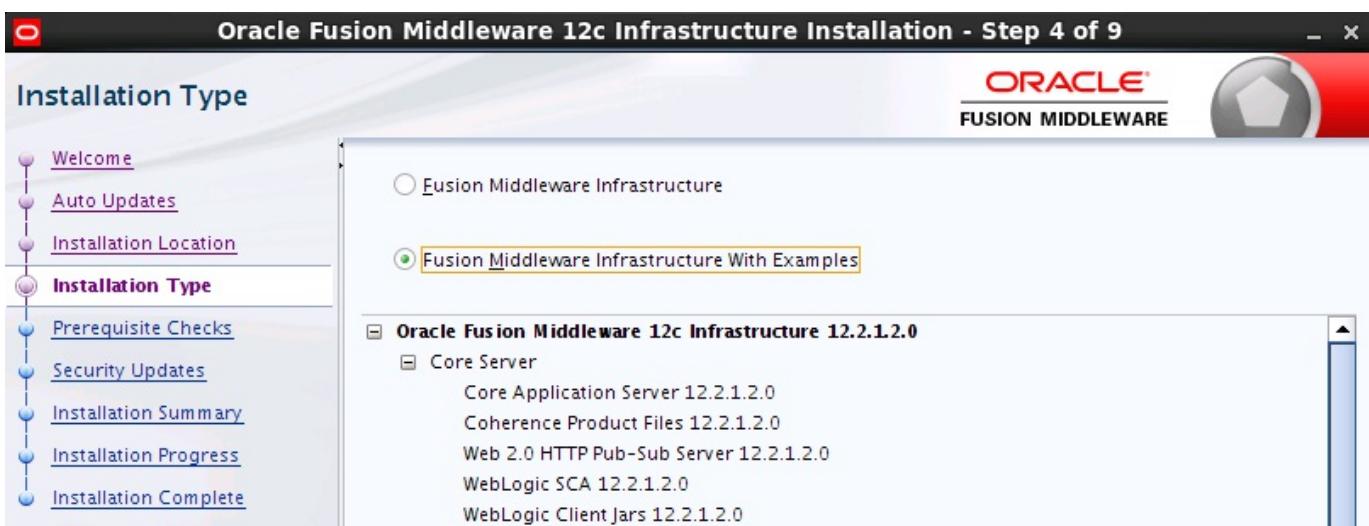
Applications Places System

Computer oracle's Home Trash

```
oracle@obiee:/tmp
File Edit View Search Terminal Help
[oracle@obiee Desktop]$ cd /tmp/
[oracle@obiee tmp]$ java -jar fmw_12.2.1.2.0_infrastructure.jar
Launcher log file is /tmp/OraInstall2017-02-13_04-40-57PM/launcher2017-02-13_04-40-57PM.log.
Extracting the installer . . . . . Done
Checking if CPU speed is above 300 MHz. Actual 2594.145 MHz Passed
Checking monitor: must be configured to display at least 256 colors. Actual 65536 Passed
Checking swap space: must be greater than 512 MB. Actual 6143 MB Passed
Checking if this platform requires a 64-bit JVM. Actual 64 Passed (64-bit not required)
Checking temp space: must be greater than 300 MB. Actual 35018 MB Passed

Preparing to launch the Oracle Universal Installer from /tmp/OraInstall2017-02-13_04-40-57PM
```





```
[oracle@obiee tmp]$ java -jar fmw_12.2.1.2.0_infrastructure.jar
Launcher log file is /tmp/OraInstall2017-02-13_04-40-57PM/launcher2017-02-13_04-40-57PM.log.
Extracting the installer . . . . . Done
Checking if CPU speed is above 300 MHz. Actual 2594.145 MHz Passed
Checking monitor: must be configured to display at least 256 colors. Actual 65536 Passed
Checking swap space: must be greater than 512 MB. Actual 6143 MB Passed
Checking if this platform requires a 64-bit JVM. Actual 64 Passed (64-bit not required)
Checking temp space: must be greater than 300 MB. Actual 35018 MB Passed
```

Preparing to launch the Oracle Universal Installer from /tmp/OraInstall2017-02-13_04-40-57PM
Log: /tmp/OraInstall2017-02-13_04-40-57PM/install2017-02-13_04-40-57PM.log
Visit <http://www.oracle.com/support/policies.html> for Oracle Technical Support policies.
Logs successfully copied to /home/oracle/oraInventory/logs.

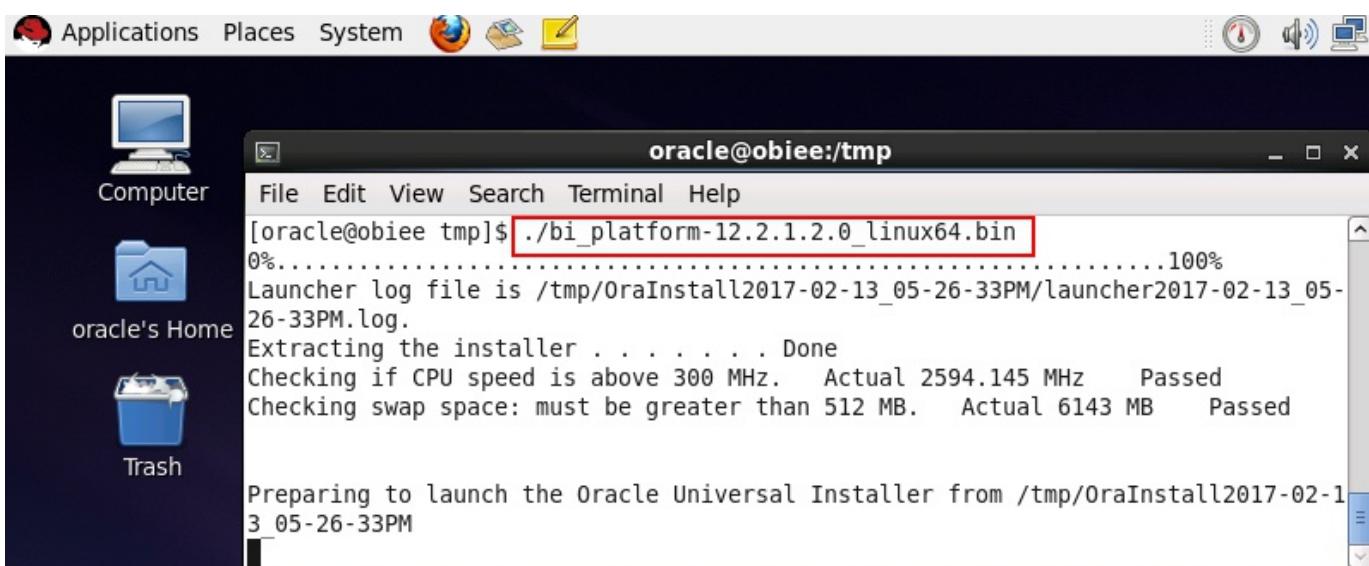
安装BI Server

- 上传OBIEE安装包，解压

```
chmod 755 bi_platform-12.2.1.2.0_linux64.bin
```

- 以oracle用户登录图形界面

```
./bi_platform-12.2.1.2.0_linux64.bin
```





Central Inventory Directory

Enter the Central inventory directory for all your oracle installations. The installer will create a new central inventory directory if it does not exist.

Inventory Directory:

/home/oracle/oralInventory

[Browse](#)

Enter the full path for the directory.

Operating System Group :

oracle



Specify a group with write permission to the inventory directory

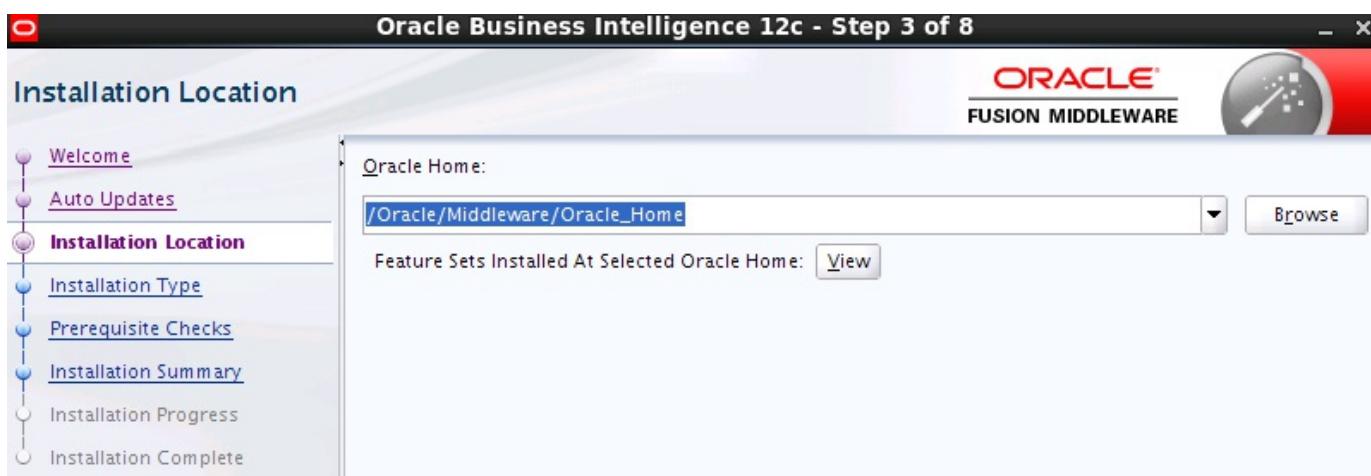
Central Inventory Pointer File

Click OK to create a script (createCentralInventory.sh) in the inventory directory. Run this script to create a pointer file, which is used to identify the location of the central inventory for future installations and administrative operations, such as patching and upgrade.

[Help](#)

[OK](#)

[Cancel](#)



Installation Type

BI Platform Distribution

BI Platform Distribution with Samples

bi_platform 12.2.1.2.0

BI Platform

- BI Platform Suite Configuration 12.2.1.2.0
- BI Enterprise Edition 12.2.1.2.0
- BI Publisher 12.2.1.2.0
- BI Essbase 12.2.1.2.0
- BI EPM 12.2.1.2.0
- BI Platform Core 12.2.1.2.0
- BI Platform Schema 12.2.1.2.0
- BI Platform Samples 12.2.1.2.0

Oracle Business Intelligence 12c - Step 5 of 8

Prerequisite Checks

- >Welcome
- Auto Updates
- Installation Location
- Installation Type
- Prerequisite Checks**
- Installation Summary
- Installation Progress
- Installation Complete

100%	
	Checking operating system certification
	Checking recommended operating system packages
	Checking kernel parameters
	Checking Recommended glibc version
	Checking physical memory
	Checking Java version used to launch the installer

View Log

```
/tmp/OraInstall2017-02-13_05-26-33PM/install2017-02-13_05-26-3:
[2017-02-13T17:31:30.597+08:00] [sysman] [NOTIFICATION] [] [oracle.sysman.oi.oiis.OiisVariable] [host: obiee]
[2017-02-13T17:31:30.600+08:00] [sysman] [NOTIFICATION] [] [oracle.sysman.oi.oiis.OiisVariable] [host: obiee]
[2017-02-13T17:31:30.600+08:00] [sysman] [NOTIFICATION] [] [oracle.sysman.oi.oiis.OiisVariable] [host: obiee]
[2017-02-13T17:31:30.600+08:00] [sysman] [NOTIFICATION] [] [oracle.sysman.oi.oiis.OiisVariable] [host: obiee]
[2017-02-13T17:31:30.606+08:00] [as] [NOTIFICATION] [] [oracle.as.install.engine.modules.presentation]
[2017-02-13T17:31:30.608+08:00] [as] [ERROR] [] [oracle.as.install.engine.modules.prereq] [host: obiee]
Checking for compat-libcap1-1.10; Not found. Failed
Checking for compat-libstdc++-33-3.2.3-x86_64; Not found. Failed
Checking for libgcc-4.4.4-x86_64; found libgcc-4.4.7-4.el6-x86_64. Passed
Checking for libstdc++-4.4.4-x86_64; found libstdc++-4.4.7-4.el6-x86_64. Passed
Checking for libstdc++-devel-4.4.4-x86_64; Not found. Failed
Checking for sysstat-9.0.4; found sysstat-9.0.4-22.el6-x86_64. Passed
Checking for gcc-4.4.4; Not found. Failed
Checking for gcc-c++-4.4.4; Not found. Failed
Checking for make-3.81; found make-1:3.81-20.el6-x86_64. Passed
Checking for glibc-2.12-x86_64; found glibc-2.12-1.132.el6-x86_64. Passed
Checking for glibc-devel-2.12-x86_64; found glibc-devel-2.12-1.132.el6-x86_64. Passed
Checking for libaio-0.3.107-x86_64; found libaio-0.3.107-10.el6-x86_64. Passed
Checking for libaio-devel-0.3.107-x86_64; Not found. Failed
Check complete. The overall result of this check is: Failed
```

Problem: Some recommended packages are missing (see above).
 Recommendation: You may actually have installed packages which have obsoleted these, in which case you can use the yum provides command to find them.

- 补齐lib包

```
yum install -y compat-libcap1 compat-libstdc++-33 libstdc++-devel gcc gcc-c++ libaio-devel
```

- 取消当前安装，重新运行安装程序

Oracle Business Intelligence 12c - Step 5 of 8

ORACLE FUSION MIDDLEWARE

Prerequisite Checks

100%

✓	Checking operating system certification
✓	Checking recommended operating system packages
✓	Checking kernel parameters
✓	Checking Recommended glibc version
✓	Checking physical memory
✓	Checking Java version used to launch the installer

Oracle Business Intelligence 12c - Step 7 of 8

ORACLE FUSION MIDDLEWARE

Installation Progress

100%

✓	Prepare
✓	Copy
✓	Generating Libraries
✓	Performing String Substitutions
✓	Linking
✓	Setup
✓	Saving the inventory
✓	Post install scripts

[View Messages](#) [View Successful Tasks](#) [View Log](#)

Applications
Driving Profitable Growth

[Help](#) [Back](#) [Next >](#) [Finish](#) [Cancel](#)

安装Oracle Database 12c

- 安装数据库软件

创建数据库安装目录

```
mkdir -p /Oracle/database  
chown -R oracle:oracle /Oracle
```

下载Oracle Database 12c安装包，解压得到database文件夹

```
chmod -R 755 database/  
cd database/  
su oracle  
.runInstaller
```

只安装单实例数据库软件

Oracle Database 12c Release 1 Installer - Step 2 of 9

Select Installation Option

Select any of the following install options.

Create and configure a database
 Install database software only
 Upgrade an existing database



Oracle Database 12c Release 1 Installer - Step 3 of 10

System Class

Desktop class
Choose this option if you are installing on a laptop or desktop class system. This option includes a starter database and allows minimal configuration.

Server class
Choose this option if you are installing on a server class system, which Oracle defines as a system used in a production data center. This option allows for more advanced configuration options.



Oracle Database 12c Release 1 Installer - Step 3 of 9

Grid Installation Options

Select the type of database installation you want to perform.

Single instance database installation
 Oracle Real Application Clusters database installation
 Oracle RAC One Node database installation



Oracle Database 12c Release 1 Installer - Step 5 of 10

Select Install Type

Typical install
Perform full Oracle Database installation with basic configuration.

Advanced install
Allows advanced selections such as different passwords for the SYS,SYSMAN, SYSTEM and DBSNMP accounts, database character set, product languages, automated backups, custom installation, and alternative storage options such as Oracle Automatic Storage Management.



- 创建数据库实例

```
cd /Oracle/database/product/12.1.0/dbhome_1/bin/  
.dbca
```

Database Configuration Assistant - Welcome - Step 1 of 6

Database Operation



Database Operation

Creation Mode

- Prerequisite Checks
- Summary
- Progress Page
- Finish

Select the operation that you want to perform.

- Create Database
- Configure Database Options
- Delete Database
- Manage Templates
- Manage Pluggable Databases

字符集选择AL32UTF8，不勾选“create as container database”

Database Configuration Assistant - Create Database - Step 2 of 6

ORACLE[®] 12c
DATABASE

Creation Mode

Database Operation

Creation Mode

Prerequisite Checks

- Summary
- Progress Page
- Finish

- Create a database with default configuration

Global Database Name:

Storage Type:

Database Files Location:

Fast Recovery Area:

Database Character Set:

Administrative Password:

Confirm Password:

Create As Container Database

Pluggable Database Name:

- Advanced Mode

Database Configuration Assistant - Create Database - Step 6 of 6

ORACLE[®] 12c
DATABASE

Finish

- Database Operation
- Creation Mode
- Prerequisite Checks
- Summary
- Progress Page

Finish

Database creation complete. For details check the logfiles at:
`/Oracle/database/cfgtoollogs/dbca/orcl`.

Database Information:

Global Database Name: orcl
System Identifier(SID): orcl
Server Parameter File name: /Oracle/database/product/12.1.0/dbhome_1/dbs/spfileorcl.ora
EM Database Express URL: https://obiee:5500/em

Note: All database accounts except SYS and SYSTEM are locked. Select the Password Management button to view a complete list of locked accounts or to manage the database accounts. From the Password Management window, unlock only the accounts you will use. Oracle strongly recommends changing the default passwords immediately after unlocking the account.

- 配置环境变量 `vi ~/.bash_profile`

```
ORACLE_BASE=/Oracle/database
ORACLE_HOME=$ORACLE_BASE/product/12.1.0/dbhome_1
ORACLE_SID=orcl
ORACLE_TERM=xterm
PATH=$PATH:$ORACLE_HOME/bin
export ORACLE_BASE
export ORACLE_HOME
export ORACLE_SID
export ORACLE_TERM
export PATH
```

导入环境变量

```
source ~/.bash_profile
```

- 配置监听程序和网络服务名

```
netca
```

Listener端口设为默认值1521

网络服务名配置为 ORCL

- 启动数据库和监听程序

主机重启后，需要重新执行以下命令启动数据库和监听程序

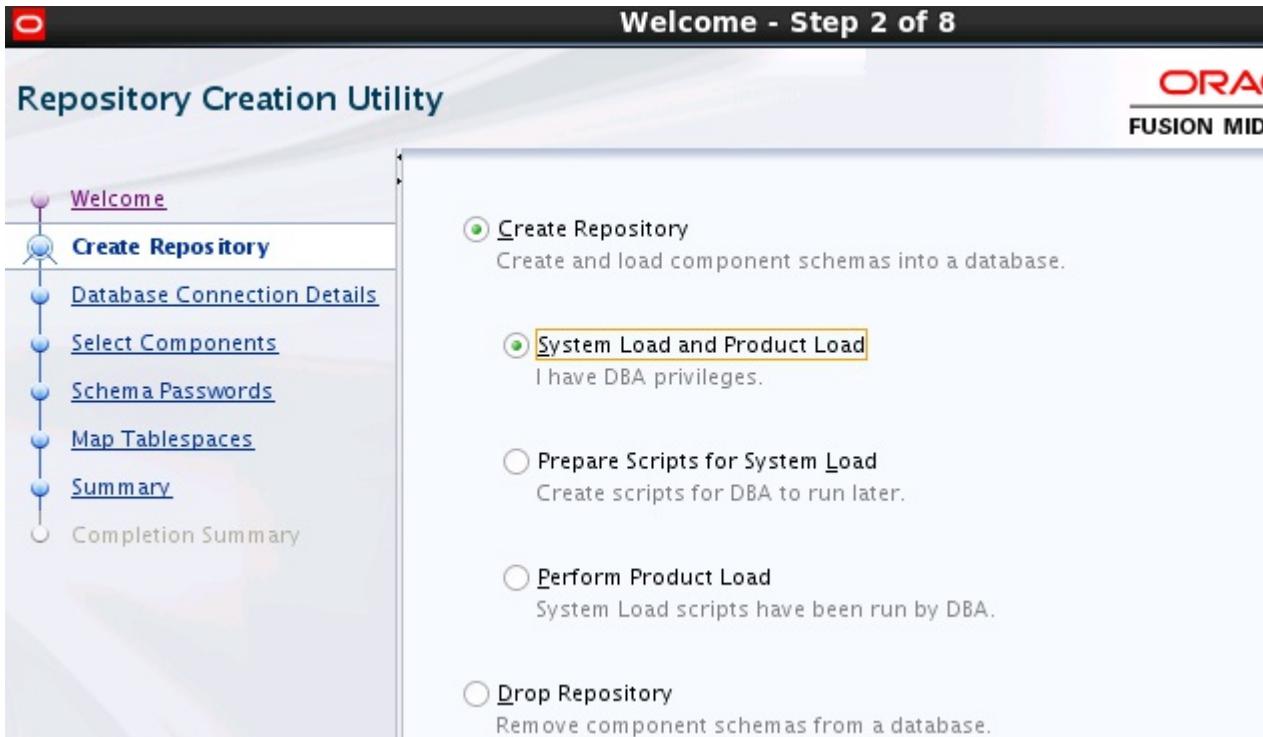
```
su oracle
source ~/.bash_profile
lsnrctl start
sqlplus / as sysdba
```

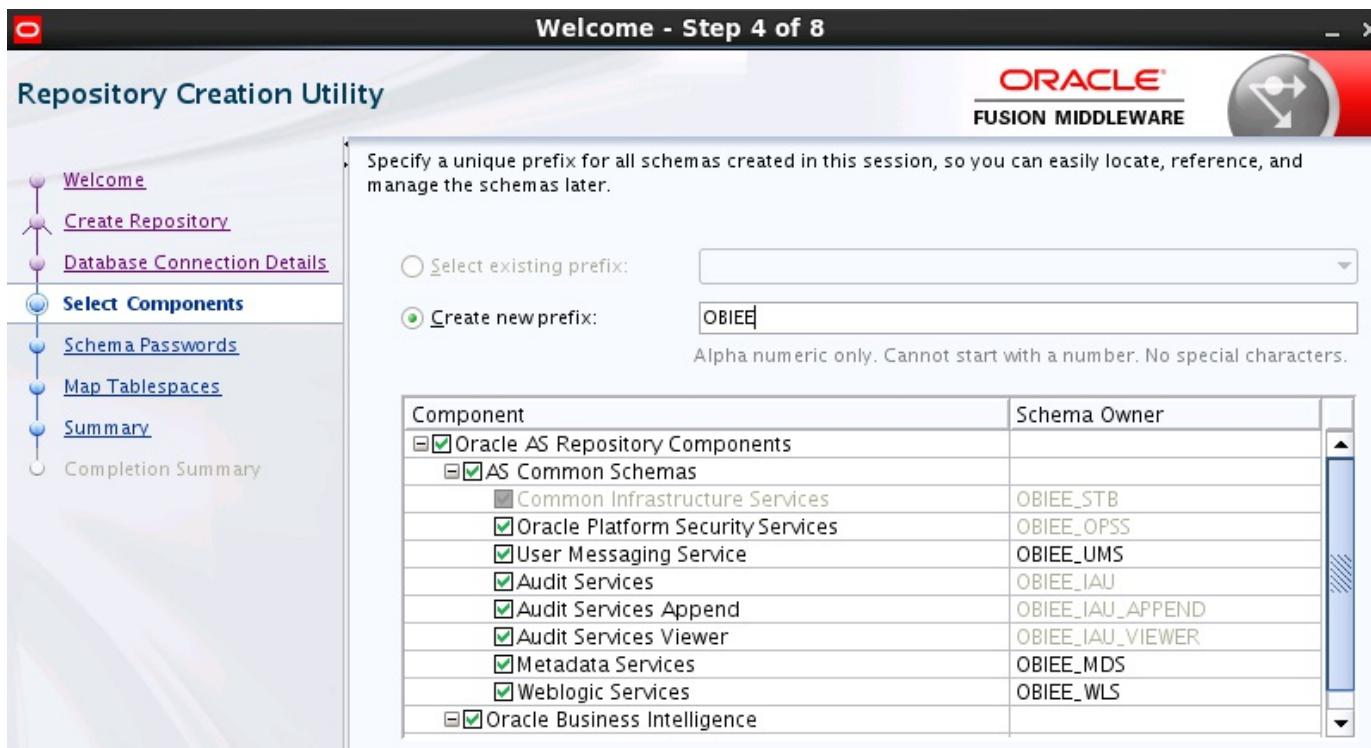
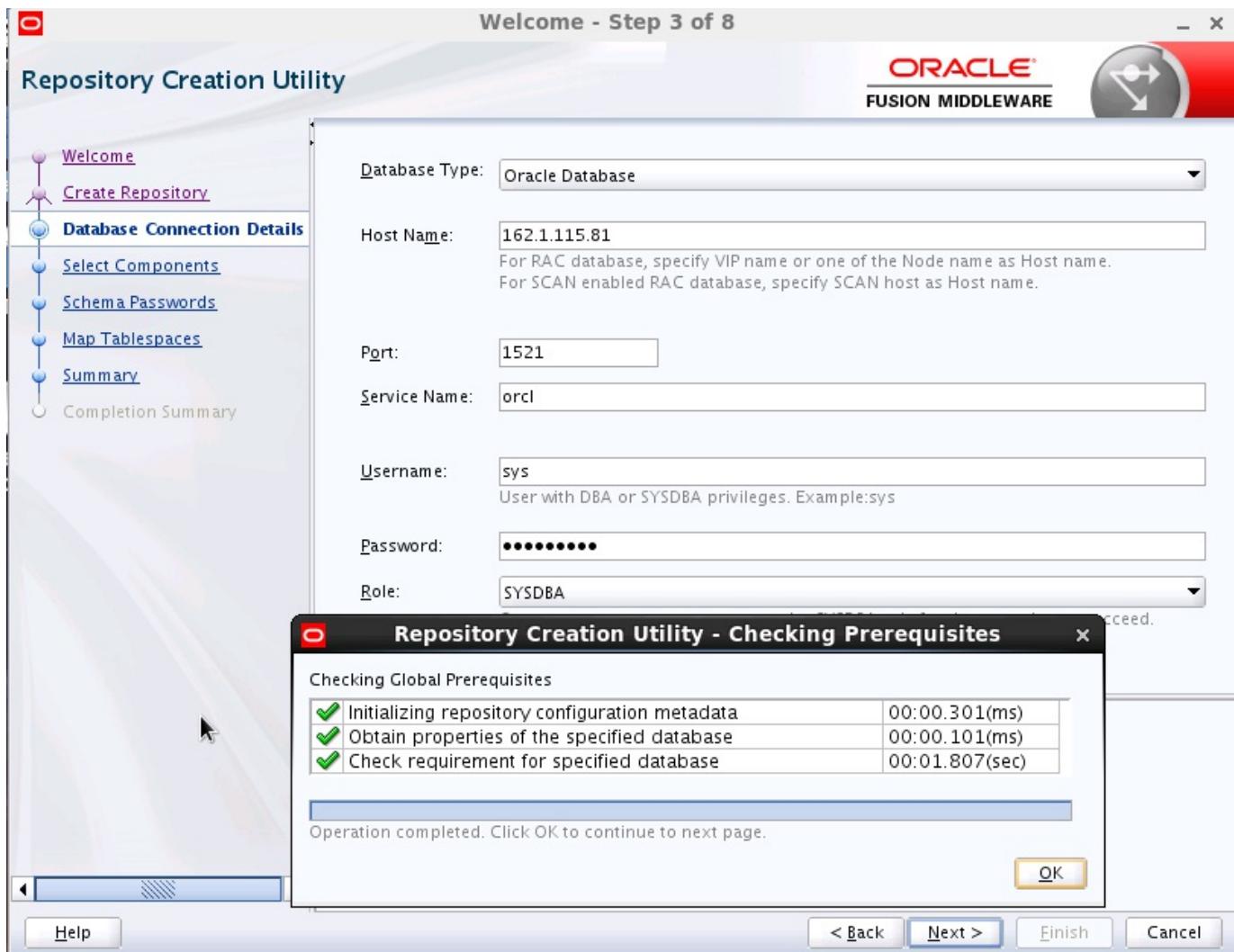
sqlplus界面执行 `startup`

使用RCU创建Schema

- 启动rcu

```
cd /Oracle/Middleware/Oracle_Home/oracle_common/bin/
./rcu
```





Welcome - Step 5 of 8

Repository Creation Utility

FUSIC

- [Welcome](#)
- [Create Repository](#)
- [Database Connection Details](#)
- [Select Components](#)
- Schema Passwords**
- [Map Tablespaces](#)
- [Summary](#)
- [Completion Summary](#)

Define passwords for main and auxiliary schema users.

Use same passwords for all schemas

Password: **Huawei123**
 Alpha numeric only. Cannot start with a number
 No special characters except: \$, #, _.

Confirm Password:

Use main schema passwords for auxiliary schemas

Specify different passwords for all schemas

Welcome - Step 6 of 8

Repository Creation Utility

ORACLE FUSION MIDDLEWARE

- [Welcome](#)
- [Create Repository](#)
- [Database Connection Details](#)
- [Select Components](#)
- [Schema Passwords](#)
- Map Tablespaces**
- [Summary](#)
- [Completion Summary](#)

Default and temporary tablespaces for the selected components appear in the table below.
 To create new tablespaces or modify existing tablespaces, use the Manage Tablespaces Button

Manage Tablespaces

Component	Schema Owner	Default Tablespace	Temp Tablespace
Common Infrastructure...	OBIEE_STB	*OBIEE_STB	*OBIEE_IAS_TEMP
Oracle Platform Securi...	OBIEE_OPSS	*OBIEE_IAS_OPSS	*OBIEE_IAS_TEMP
Business Intelligence P...	OBIEE_BIPLATFORM	*OBIEE_BIPLATFORM	*OBIEE_IAS_TEMP
User Messaging Service	OBIEE_UMS	*OBIEE_IAS_UMS	*OBIEE_IAS_TEMP
Audit Services	OBIEE_IAU	*OBIEE_IAU	*OBIEE_IAS_TEMP
Audit Services Append	OBIEE_IAU_APPEND	*OBIEE_IAU	*OBIEE_IAS_TEMP
Audit Services Viewer	OBIEE_IAU_VIEWER	*OBIEE_IAU	*OBIEE_IAS_TEMP
Metadata Services	OBIEE_MDS	*OBIEE_MDS	*OBIEE_IAS_TEMP
Weblogic Services	OBIEE_WLS	*OBIEE_WLS	*OBIEE_IAS_TEMP



Repository Creation Utility

- [Welcome](#)
- [Create Repository](#)
- [Database Connection Details](#)
- [Select Components](#)
- [Schema Passwords](#)
- [Map Tablespaces](#)
- Summary**

[Completion Summary](#)

Database details:

Host Name 162.1.115.81
Port 1521
Service Name ORCL
Connected As sys
Operation System and Data Load concurrently
Prefix for (prefixable) Schema Owners OBIEE

Component	Schema Owner	Tablespace Type	Tablespace Name
Common Infrastructure Services	OBIEE_STB	Default Temp Additional	OBIEE_STB OBIEE_IAS_TEMP [None]
Oracle Platform Security Services	OBIEE_OPSS	Default Temp Additional	OBIEE_IAS_OPSS OBIEE_IAS_TEMP [None]
Business Intelligence Platform	OBIEE_BIPLATFORM	Default Temp Additional	OBIEE_BIPLATFORM OBIEE_IAS_TEMP [None]
User Messaging Service	OBIEE_UMS	Default Temp Additional	OBIEE_IAS_UMS OBIEE_IAS_TEMP [None]
Audit Services	OBIEE_IAU	Default Temp	OBIEE_IAU OBIEE_IAS_TEMP

[Save Response File](#)[< Back](#)[Next >](#)[Create](#)[Cancel](#)[Help](#)

Welcome - Step 8 of 8

Repository Creation Utility

ORACLE®
FUSION MIDDLEWARE

- Welcome
- Create Repository
- Database Connection Details
- Select Components
- Schema Passwords
- Map Tablespaces
- Summary

Completion Summary

Database details:

Host Name	162.1.115.81
Port	1521
Service Name	ORCL
Connected As	sys
Operation	System and Data Load concurrently
Execution Time	1 minute 50 seconds

RCU Logfile: /tmp/RCU2017-02-15_20-12_576277979/logs/rcu.log
Component Log Directory: /tmp/RCU2017-02-15_20-12_576277979/logs
View Log: rcu.log

Prefix for (prefixable) Schema Owners: OBIEE

Component	Status	Time	LogFile(Click to view)
Common Infrastructure Services	Success	00:09.278(sec)	stb.log
Oracle Platform Security Services	Success	00:13.813(sec)	opss.log
Business Intelligence Platform	Success	00:13.066(sec)	biplatform.log
User Messaging Service	Success	00:11.204(sec)	ucsums.log
Audit Services	Success	00:11.472(sec)	iau.log
Audit Services Append	Success	00:09.155(sec)	iau_append.log
Audit Services Viewer	Success	00:09.157(sec)	iau_viewer.log
Metadata Services	Success	00:10.969(sec)	mds.log
Weblogic Services	Success	00:10.938(sec)	wls.log

Help < Back Next > Create Close

配置BI Server

- 执行配置

```
cd /Oracle/Middleware/Oracle_Home/bi/bin
./config.sh
```

```
[oracle@obiee bin]$ ./config.sh
Starting Fusion Middleware Configuration Wizard for BIEE
ORACLE_HOME set as /Oracle/Middleware/Oracle_Home
BI_PRODUCT_HOME set as /Oracle/Middleware/Oracle_Home/bi
PATH set as /Oracle/Middleware/Oracle_Home/bi/bin:/usr/lib64/qt-3.3/bin:/usr/local/bin:/usr/bin:/bin:/usr/local/sbin:/usr/sbin:/sbin:/home/oracle/bin
LD_LIBRARY_PATH set as /Oracle/Middleware/Oracle_Home/bi/lib
INSTALL_PROPERTIES /Oracle/Middleware/Oracle_Home/bi/../oui/mw/bi/metadata/config.properties
INSTALL_INVOCATION /Oracle/Middleware/Oracle_Home/bi/bin/.../oui/bin/launch.sh
-clone ORACLE_HOME=/Oracle/Middleware/Oracle_Home -invPtrLoc /Oracle/Middleware/Oracle_Home/oraInst.loc -J-Doracle.as.install.engine.weblogic.config.mode=true
-J-Doracle.config.mode=true -J-Doracle.as.install.engine.install.properties.location=/Oracle/Middleware/Oracle_Home/bi/../oui/mw/bi/metadata/config.properties
-J-DSHIPHOME_STAGE_DIR=/Oracle/Middleware/Oracle_Home/bi/../oui/mw/bi
Launcher log file is /tmp/OraInstall2017-02-13_09-03-28PM/launcher2017-02-13_09-03-28PM.log.
Checking monitor: must be configured to display at least 256 colors. Actual 65536 Passed
Checking swap space: must be greater than 500 MB. Actual 6143 MB Passed
Checking if this platform requires a 64-bit JVM. Actual 64 Passed
```

Oracle Business Intelligence 12c Configuration Assistant - Step 1 of 9

Welcome

- Welcome**
- [Prerequisite Checks](#)
- [Define New Domain](#)
- [Database Details](#)
- [Port Management](#)
- [Initial Application](#)
- [Summary](#)
- [Configuration Progress](#)
- [Configuration Complete](#)

Welcome to **Oracle Business Intelligence 12c 12.2.1.2.0 Configuration**.

You are about to configure the components contained in **Oracle Business Intelligence Enterprise Edition**. At any time during the configuration, you can view the [Release Notes](#) and [Quick Tour](#) for additional information. Context-sensitive help is available by clicking **Help**.

For more information, refer to the Oracle Business Intelligence configuration section in the *Oracle Fusion Middleware Installation Guide for Oracle Business Intelligence*.

Components to include

- Essbase
- Business Intelligence Enterprise Edition
- Business Intelligence Publisher

Oracle Business Intelligence 12c Configuration Assistant - Step 3 of 9

Define New Domain

- Define New Domain**
- [Prerequisite Checks](#)
- [Database Details](#)
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The domain is the basic unit of WebLogic administration. All BI components reside in one domain. The domain needs a place to store files, and initial administrator credentials.

The domain files include configuration files, log files, and data files.

The credentials define the initial administrator account. For security reasons no other default accounts are created. Use this initial account to create individual accounts for your users.

Location of new domain

Domains Directory [Browse](#)

Domain Name

Domain Home

Credentials for new domain

Username

Password

Confirm Password

Oracle Business Intelligence 12c Configuration Assistant - Step 4 of 9

Database Schema

- [Welcome](#)
- [Prerequisite Checks](#)
- [Define New Domain](#)
- Database Details**
- [Port Management](#)
- [Initial Application](#)
- [Summary](#)
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- [Configuration Complete](#)

Database schemas are required for storage of internal housekeeping information. These schemas are distinct from any data sources which you plan to analyse in BI.

The simplest option is to create new database schemas here. Alternatively you can use existing schemas you created earlier using the Repository Creation utility (RCU). Using RCU in advance gives you additional options, such as choosing tablespaces. RCU is available in directory /Oracle/Middleware/Oracle_Home/oracle_common/bin.

Create new schemas

Use existing schemas

Database type

Simple connect string

Prefix

Password

Port Range

- [Welcome](#)
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- [Define New Domain](#)
- [Database Details](#)
- Port Management**
- [Initial Application](#)
- [Summary](#)
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Choose the port range for BI and WLS processes to use.

Port Range

Port Range Starting Port **9500**

Port Range End Port **9999**

Initial Application

- [Welcome](#)
- [Prerequisite Checks](#)
- [Define New Domain](#)
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- Initial Application**
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Choose the application that will be installed into your initial service instance. This can be a default sample application, an application archive exported from another BI installation, or you can choose to start with a clean slate.

- Oracle sample application (SampleAppLite)
- Your own existing BI Application from export bundle (jar file)
- Clean Slate (no predefined application)



Summary

- [Welcome](#)
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- Summary**

- [Configuration Progress](#)
- [Configuration Complete](#)

Essbase

- BIEE**
 - OBIPS (Port 9507)
 - Cluster controller (Main port 9508, monitor 9509)
 - Java host (Port 9510)
 - Scheduler (Main port 9511, monitor 9512, script 9513)
- BIP**
- Domain**
 - BI Domain Name: bi
 - Domains Directory: /Oracle/Middleware/Oracle_Home/user_projects/domains
 - Admin server (HTTP port 9500, HTTPS 9501, internal 9504)
 - Managed server (HTTP port 9502, HTTPS 9503, internal 9505)
- Database**
 - Existing schemas**
 - Database type: ORACLE
 - Connect string: obiee:1521:obieetest
 - Existing RCU prefix: OBIEE
- Port Management**
 - Port range**
 - Port range start: 9500
 - Port range end: 9999
- Application**
 - SampleAppLite
 - Service Instance Key: ssi
 - Service Instance Limit: 1

Entry pointsSave Response File:

Click Save to generate a response file used for silent installation.

Oracle Business Intelligence 12c Configuration Assistant - Step 7 of 9

Summary

- Welcome
- Prerequisite Checks
- Define New Domain
- Database Details
- Port Management
- Initial Application
- Summary**
- Configuration Progress
- Configuration Complete

Managed server (HTTP port 9502, HTTPS 9503, internal 9505)

- Database**
 - Existing schemas

Database type: ORACLE
Connect string: obiee:1521:orcl
Existing RCU prefix: OBIEE
- Port Management**
 - Port range

Port range start: 9500
Port range end: 9999
- Application**
 - SampleAppLite
 - Service Instance Key: ssi
 - Service Instance Limit: 1
- Entry points**
 - WebLogic Console
<http://obiee:9500/console>
 - Fusion Middleware Control
<http://obiee:9500/em>
 - BI Publisher
<http://obiee:9502/xmlpserver>
 - BI Analytics
<http://obiee:9502/analytics>

Save Response File:

Click Save to generate a response file used for silent installation.

Oracle Business Intelligence 12c Configuration Assistant - Step 8 of 9

Configuration Progress

- Welcome
- Prerequisite Checks
- Define New Domain
- Database Details
- Port Management
- Initial Application
- Summary
- Configuration Progress**
- Configuration Complete

Configuration Tools

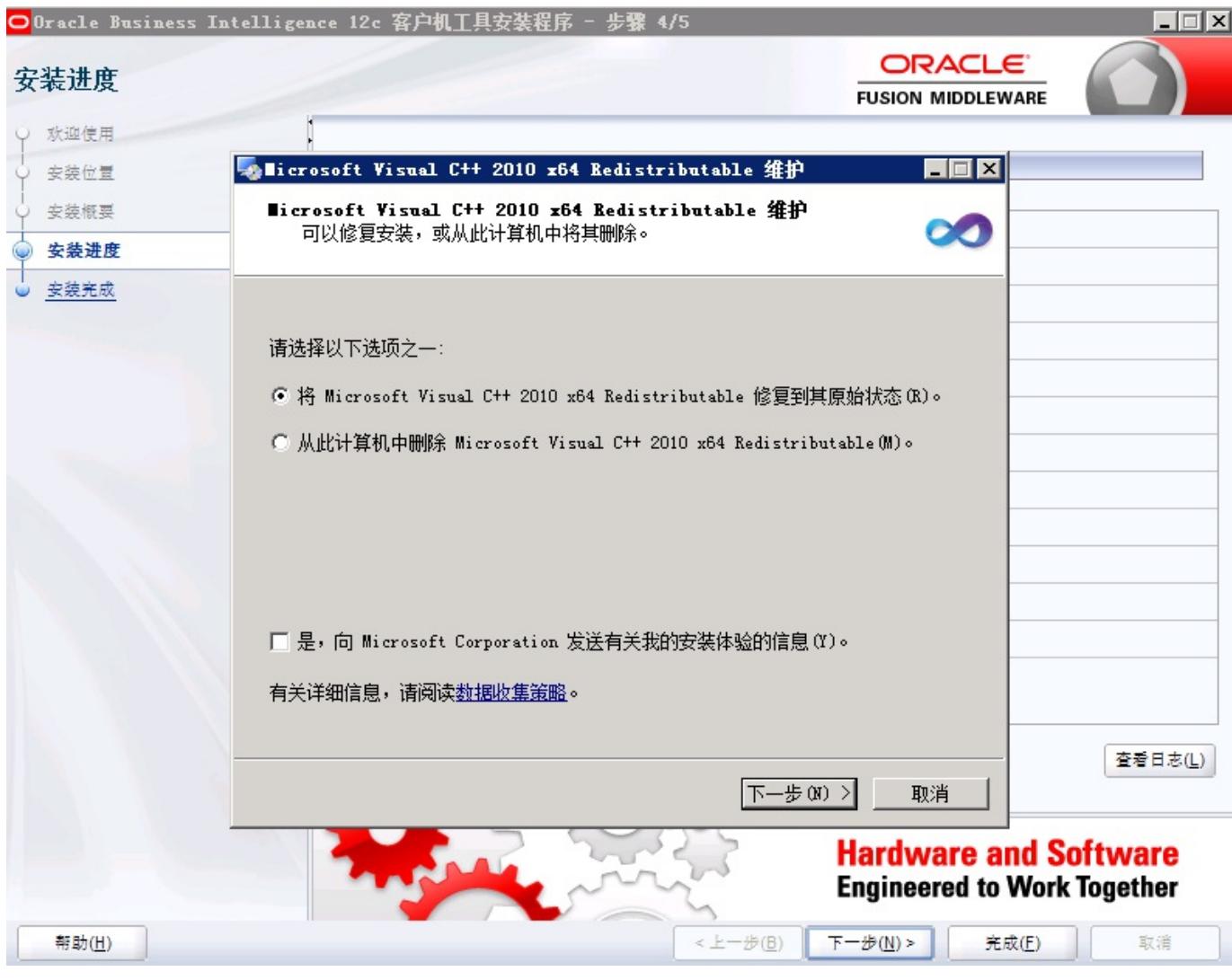
Name	Progress
Complete domain	Success
Store port range	Success
Create SSL certificates	Success
Create internal channels	Success
Sync mid tier database	Success
Create system components	Success
Add default service instance	Success
SampleAppLite	Success
Store JMS credential	Success
BI Startup	100%
Start all Servers	Success
BI Epilogue	100%
Collect logs	Success

Configuration Log Location: /home/oracle/oralInventory/logs/install2017-02-13_09-03-28PM.log

[+] BI Configuration
[+] BI Startup
[+] BI Epilogue

- 在Win7(64 bit)系统上安装BI Client





对接Hive

配置客户端系统DSN

- 配置Kerberos认证

从<http://web.mit.edu/kerberos/>下载安装kfw-4.1

3. 设置Kerberos的配置文件。

向FusionInsight HD集群管理员获取集群Kerberos的krb5.conf文件，把相应的krb5.conf文件重命名为krb5.ini，并放到“C:\ProgramData\MIT\Kerberos5”目录中。

说明:

“C:\ProgramData”目录一般是隐藏的，需要设置显示隐藏文件。

4. 设置Kerberos票据的缓存文件。

a. 创建存放票据的目录，例如“C:\temp”。

b. 设置Windows的系统环境变量，变量名为“KRB5CCNAME”，变量值为“C:\temp\krb5cache”。

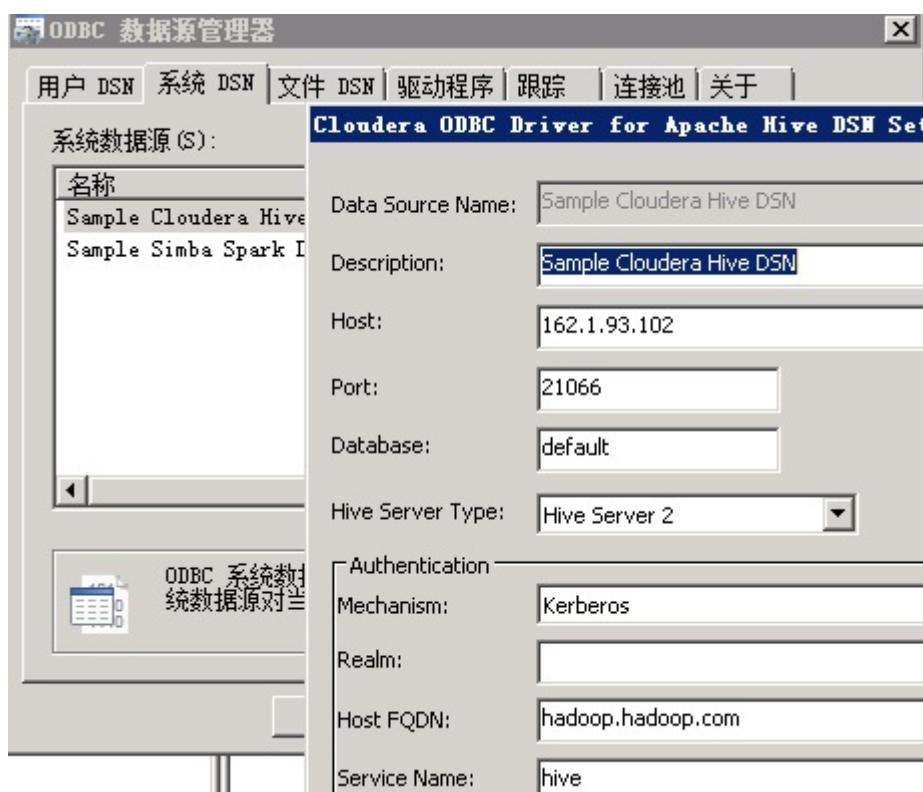
c. 重启机器。



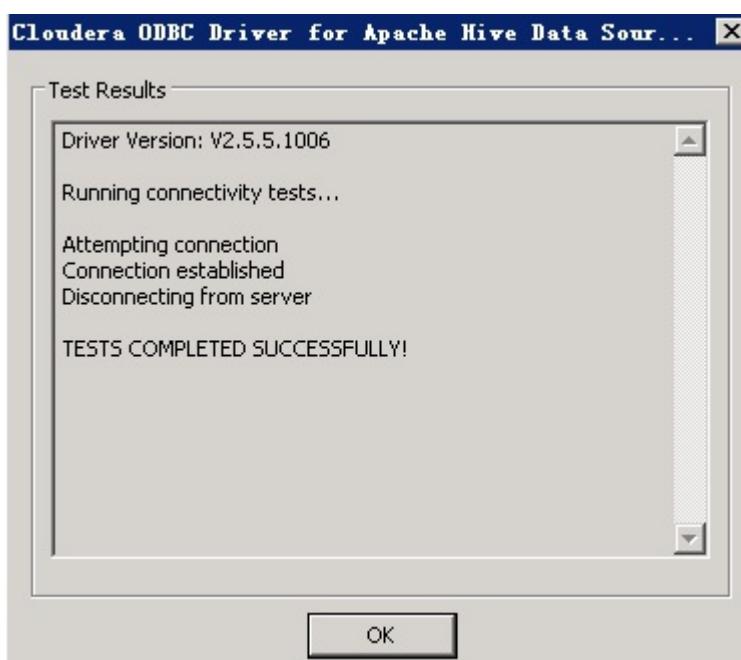
- 安装配置Hive ODBC Driver

下载安装Hive ODBC Driver（Windows版本），[下载地址](#)

在BI客户端所在的Windows机器上配置系统DSN



测试ODBC连接



BI 管理工具新建RDP

- Client端打开Oracle BI 管理工具



创建新资料档案库 - 资料档案库信息

1 资料档案库信息

2 选择数据源

3 选择元数据类型

4 选择元数据对象

5 映射到逻辑模型

6 发布到仓库

创建资料档案库: 二进制文件(I) MDS XML 文档(M)

名称(N): obiee-hive

位置(L): E:\Oracle\Middleware\Oracle_Home\bi\bifoundation\server\

导入元数据: 是(Y) 否(O) MDS XML

资料档案库口令(E): [REDACTED]

重新键入口令(P): [REDACTED]

- 选择上一步配置的DSN，用户名口令任意输入，但不能为空

创建新资料档案库 - 选择数据源

1 资料档案库信息

2 选择数据源

3 选择元数据类型

4 选择元数据对象

5 映射到逻辑模型

6 发布到仓库

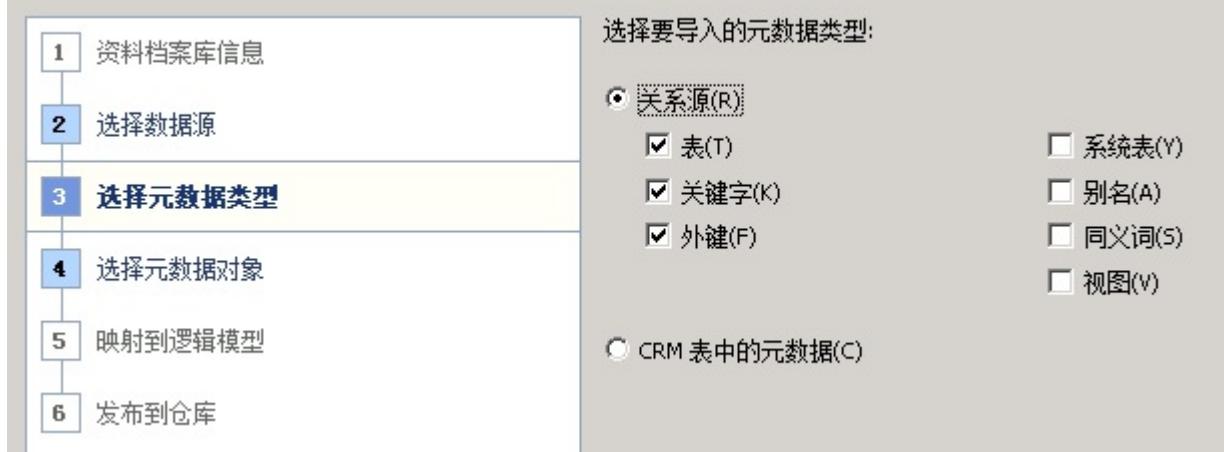
连接类型(C): ODBC 3.5

DSN	驱动程序
Sample Cloudera Hive DSN	Cloudera ODBC Driver for Apache Hive
Sample Simba Spark DSN	Simba Spark ODBC Driver

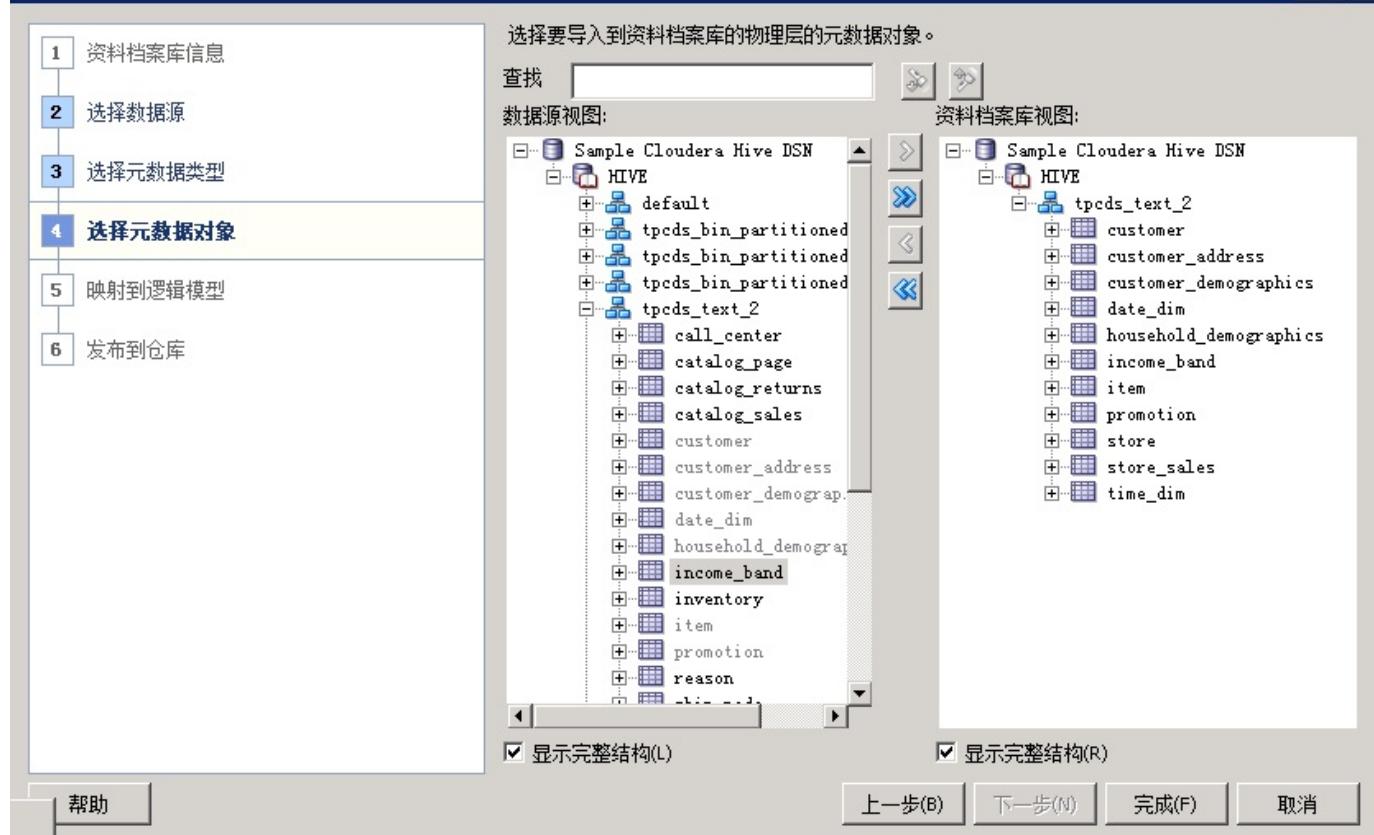
用户名(U): a

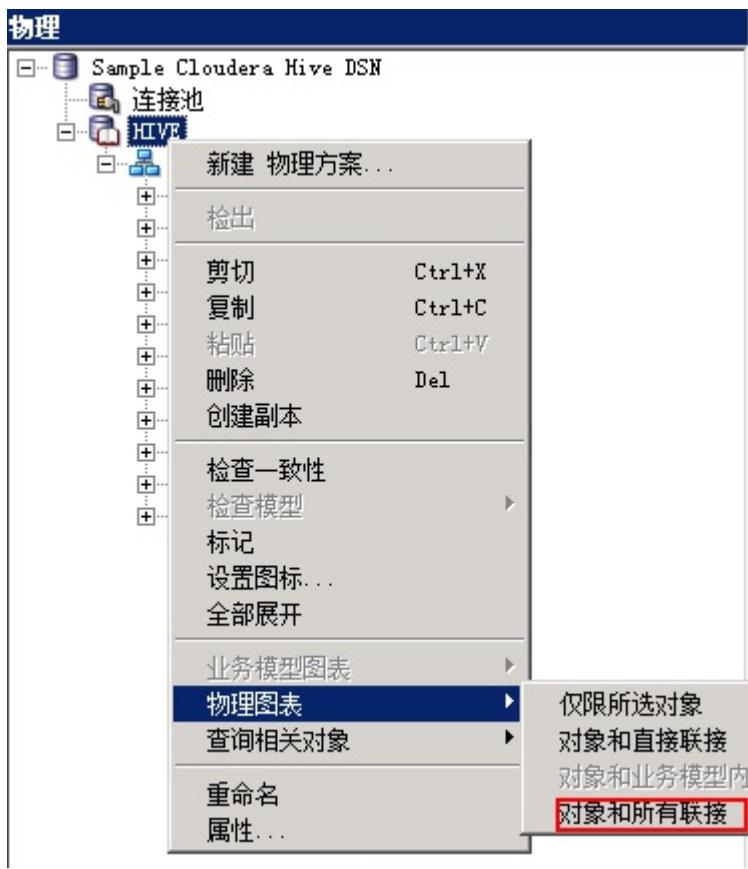
口令(A): *

创建新资料档案库 - 选择元数据类型



创建新资料档案库 - 选择元数据对象





Oracle BI 管理工具 - obiee-hive.rpd

文件 (F) 编辑 (E) 查看 (V) 管理 (M) 工具 (T) 图表 (D) 窗口 (W) 帮助 (H)

表示

物理图表

customer

Columns	Types	Length	Nullable
c_customer_sk	DOUBLE	19	真
c_customer_id	VARCHAR	255	真
c_current_cdemo_sk	DOUBLE	19	真
c_current_hdemo_sk	DOUBLE	19	真

customer_address

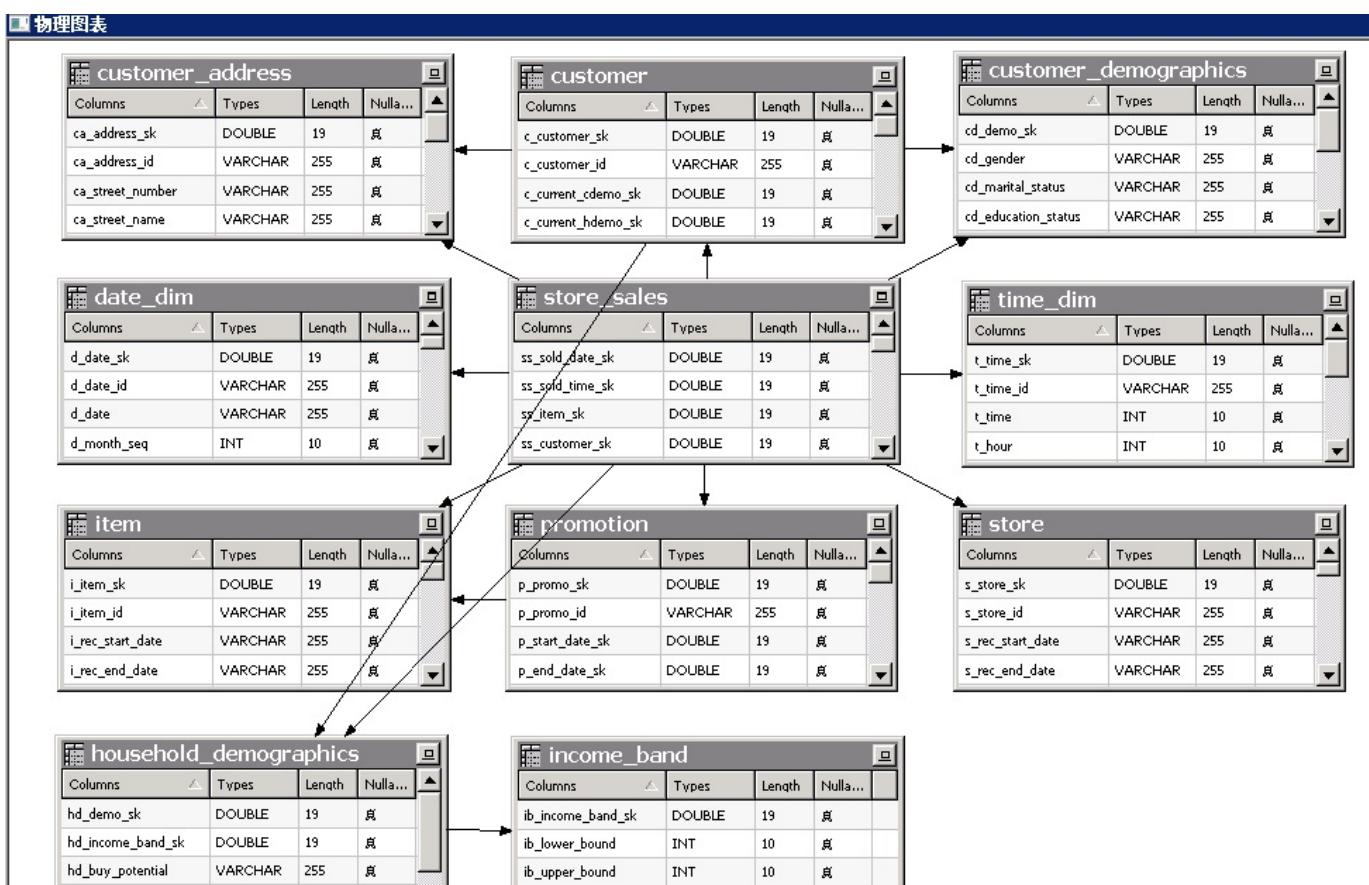
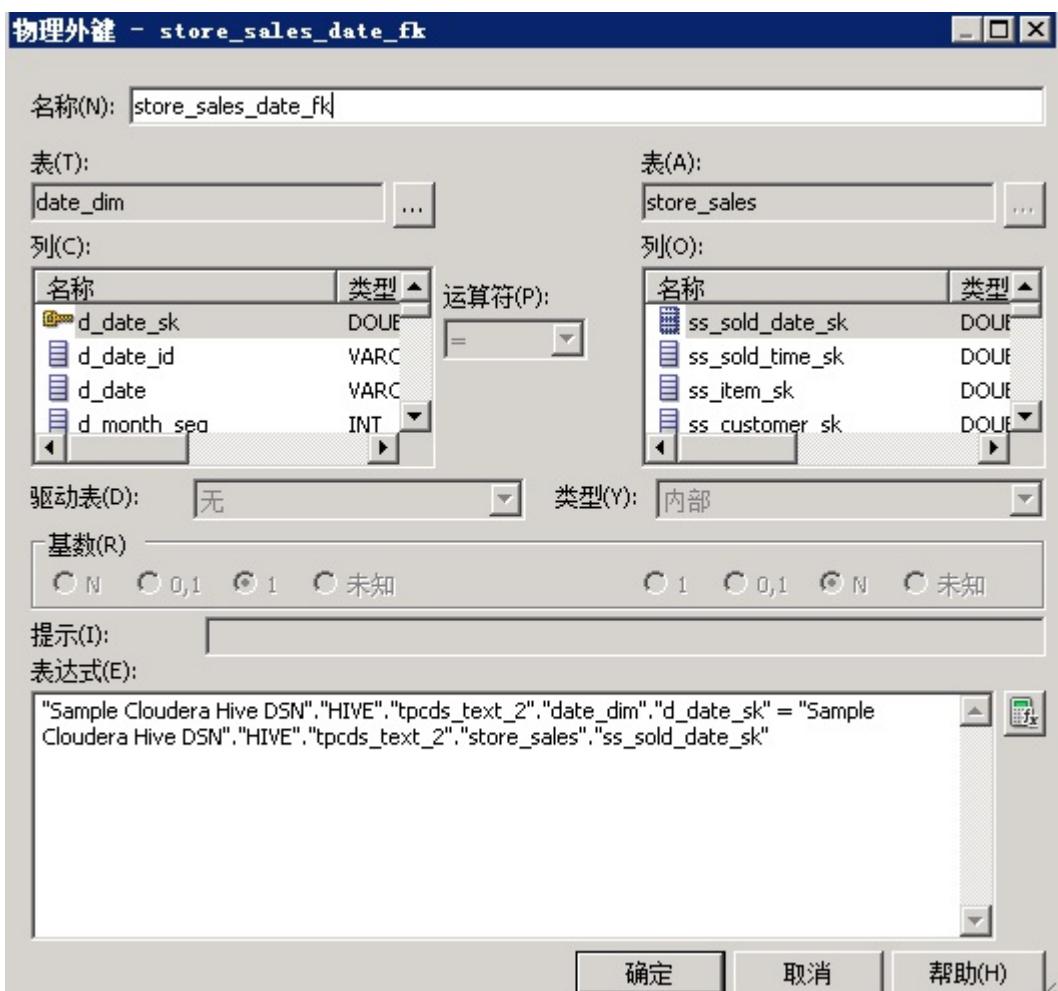
Columns	Types	Length	Nullable
ca_address_sk	DOUBLE	19	真
ca_address_id	VARCHAR	255	真
ca_street_number	VARCHAR	255	真
ca_street_name	VARCHAR	255	真

date_dim

Columns	Types	Length	Nullable
d_date_sk	DOUBLE	19	真
d_date_id	VARCHAR	255	真
d_date	VARCHAR	255	真
d_month_seq	INT	10	真

household_demographics

Columns	Types	Length	Nullable
hd_demo_sk	DOUBLE	19	真
hd_income_band_sk	DOUBLE	19	真
hd_buy_potential	VARCHAR	255	真
hd_dep_count	INT	10	真



业务模型和映射



业务模型和映射



逻辑表 - store_sales_1

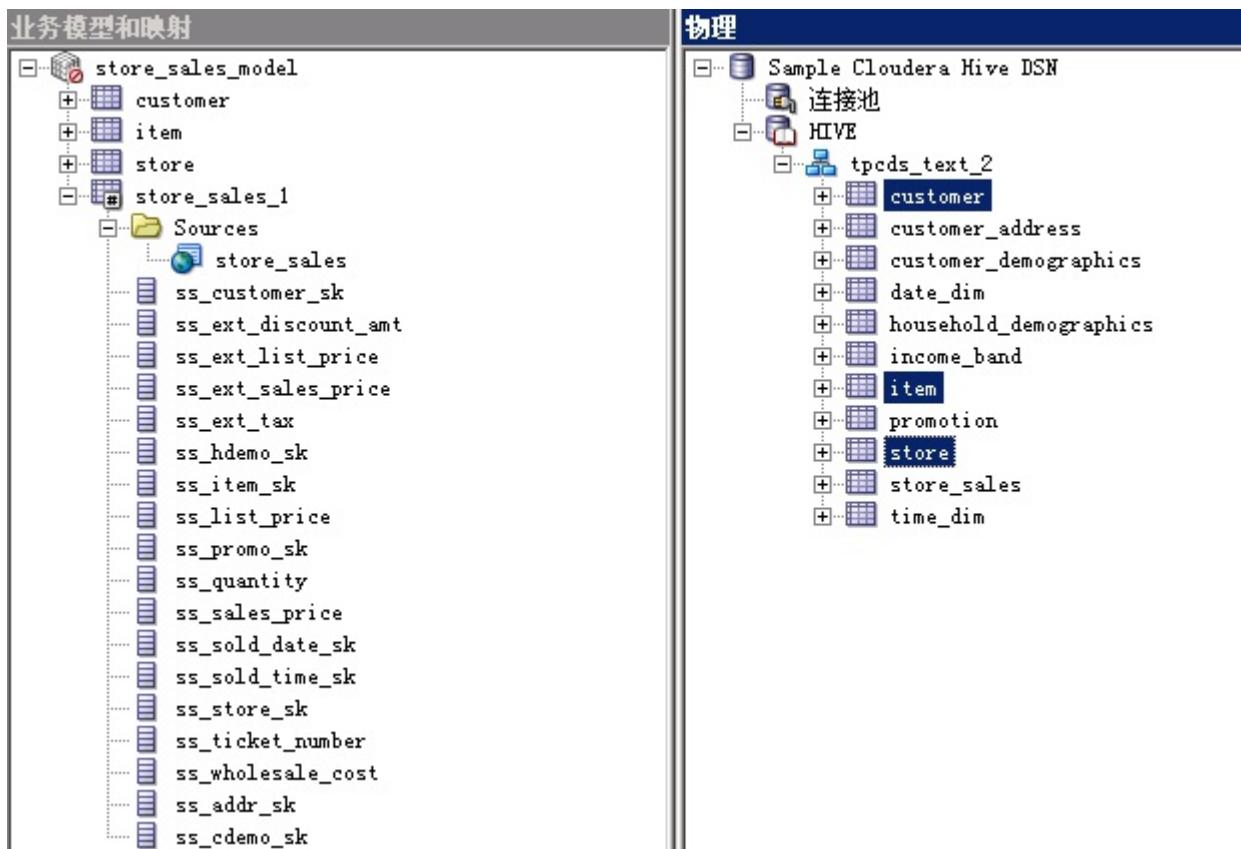
名称	类型	长度	可为空值

业务模型和映射

- store_sales_model
 - store_sales_1
 - Sources
 - ss_customer_sk
 - ss_ext_discount_amt
 - ss_ext_list_price
 - ss_ext_sales_price
 - ss_ext_tax
 - ss_hdemo_sk
 - ss_item_sk
 - ss_list_price
 - ss_promo_sk
 - ss_quantity
 - ss_sales_price
 - ss_sold_date_sk
 - ss_sold_time_sk
 - ss_store_sk
 - ss_ticket_number
 - ss_wholesale_cost
 - ss_addr_sk
 - ss_cdemo_sk

物理

- Sample Cloudera Hive DSN
 - 连接池
 - HIVE
 - tpcds_text_2
 - customer
 - customer_address
 - customer_demographics
 - date_dim
 - household_demographics
 - income_band
 - item
 - promotion
 - store
 - store_sales
 - ss_addr_sk
 - ss_cdemo_sk
 - ss_coupon_amt
 - ss_customer_sk
 - ss_ext_discount_amt
 - ss_ext_list_price
 - ss_ext_sales_price
 - ss_ext_tax
 - ss_ext_wholesale_cost
 - ss_hdemo_sk
 - ss_item_sk
 - ss_list_price
 - ss_net_paid
 - ss_net_paid_inc_tax
 - ss_net_profit
 - ss_promo_sk
 - ss_quantity
 - ss_sales_price
 - ss_sold_date_sk
 - ss_sold_time_sk
 - ss_store_sk
 - ss_ticket_number
 - ss_wholesale_cost
 - time_dim



Oracle BI 管理工具 - obiee-hive.rpd

文件 (F) 编辑 (E) 查看 (V) 管理 (M) 工具 (T) 图表 (D) 窗口 (W) 帮助 (H)

表示

业务模型和映射

Oracle BI 管理工具 - obiee-hive.rpd

文件 (F) 编辑 (E) 查看 (V) 管理 (M) 工具 (T) 图表 (D) 窗口 (W) 帮助 (H)

新建资料档案库 (N)... Ctrl+N

打开 (O)

多用户 (M)

源控件 (R)

关闭 (C)

保存 (S) Ctrl+S

另存为 (A)

复制为 (Y)

更改口令 (W)...

加载 Java 数据源 (L)...

打印预览 (V)...

打印 (P)

导入元数据 (I)...

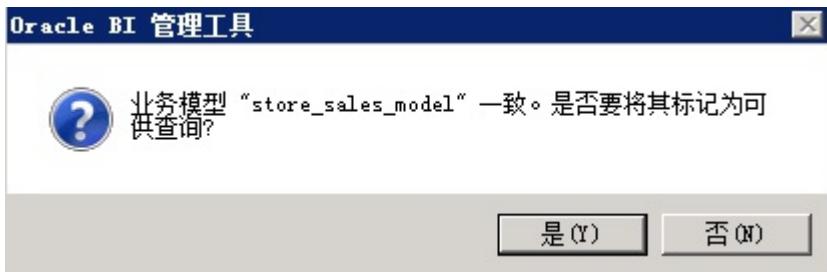
比较 (P)...

关闭比较模式 (F)

合并 (G)...

检查全局一致性 (K) Ctrl+K

业务模型和映射



一致性检查管理器

显示: 错误(0)(E) 警告(1)(W)

消息:

消息类型	对象类型	对象	错误编号	错误说明
警告	数据库	Sample Cloudera Hi	39028	数据库 'Sample Cloudera Hive DSN' 中的功能与默认值不匹配。这可能导致查询出现问题。

显示限定名(Q)

已执行全局一致性检查。找到了 0 个错误(显示了 0 个), 1 个警告(显示了 1 个)和 0 个最佳实践违规(显示了 0)。

禁用BI Server高速缓存

- 登录Weblogic域管理界面<http://162.1.115.81:9500/em>



域 Domain_bi

* 用户名

* 口令

登录分区

← → ⌂ ① 162.1.115.81:9500/em/faces/ai/bi/instance?type=oracle.bi_instance&target=%2FDomain_bi%2Fbi%2FBus

ORACLE® Enterprise Manager Fusion Middleware Control 12c

目标导航

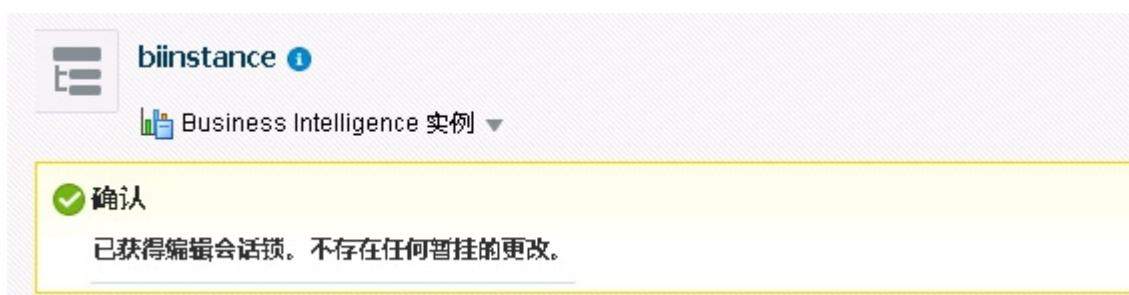
查看 ▾

- ▶ 应用程序部署
- ◀ WebLogic 域
 - ◀ bi
 - ▶ AdminServer
 - ▶ bi_cluster
- ◀ Business Intelligence
 - ▶ biinstance
- ▶ Coherence 集群
- ▶ 元数据资料档案库



▶ 启动所选项 ■ 停止所选项 ⏪ 重新启动所选项

	端口	注释
	9507	



- 配置中禁用高速缓存

The screenshot shows the '性能选项' (Performance Options) section of the BI instance configuration. It includes settings for the BI Server cache and session timeout. The '启用 BI Server 高速缓存' (Enable BI Server Cache) checkbox is unchecked. The '失效时间' (Timeout) is set to 210 minutes. The '应用' (Apply) button is highlighted with a red box.

设置	值
启用 BI Server 高速缓存	<input type="checkbox"/> 高速缓存已启用
最大高速缓存条目大小	20 MB
最大高速缓存条目数	1000
失效时间	210

呈现表视图时处理的最大行数
此设置限制从 BI Server 中检索并处理的数据量。默认值为 65000。减少处理的最大行数后，能够减少指定用户会话可使用的系统资源，从而显著提供性能。





上传RPD文件到服务端

- 客户端 cmd 切换到 E:\Oracle\Middleware\Oracle_Home\bi\bitools\bin 目录
 - 执行命令上传RPD

```
datamodel.cmd uploadrpd -U weblogic -P Huawei123 -I E:\Oracle\Middleware\Oracle_Home\bi\bifoundation\server\obiee-hive.rpd -W Huawei@123 -S 162.1.115.81 -N 9502 -SI ssi
```

```
E:\Oracle\Middleware\Oracle_Home\bi\bitools\bin>datamodel.cmd uploadrpdb -U weblogic -P Huawei123 -I E:\Oracle\Middleware\Oracle_Home\bi\bifoundation\server\obiee-hive.rpd -W Huawei@123 -S 162.1.115.81 -N 9502 -SI ssi  
WARNING: Trust store is not defined. SSL connections will not be available.  
服务实例: ssi
```

操作成功。
RPD 上载已成功完成。

配置服务端系统DSN

- 配置Kerberos认证

```
mv /etc/krb5.conf /etc/krb5.conf.bak
```

将FusionInsight集群的krb5.conf上传到/etc目录下

kerberos认证

```
su oracle  
kinit test cn
```

- 安裝配置Cloudera Hive ODBC Driver

```
yum install -y unixODBC
```

[下载Hive ODBC Driver \(Linux版本\)](#) [下载地址](#)

安装Hive ODBC Driver

```
rpm -Uvh ClouderaHiveODBC-2.5.5.1006-1.el6.x86_64.rpm
```

修改DSN配置，与Client端生成的RPD文件的DSN名称和配置保持一致

```
mv /etc/odbc.ini /etc/odbc.ini.bak  
cp /opt/cloudera/hiveodbc/Setup/odbc.ini /etc/  
vi /etc/odbc.ini
```

[ODBC]

```
[ODBC Data Sources]  
Sample Cloudera Hive DSN=Cloudera ODBC Driver for Apache Hive 64-bit  
  
[Sample Cloudera Hive DSN]  
Driver=/opt/cloudera/hiveodbc/lib/64/libclouderahiveodbc64.so  
HOST=162.1.93.101  
PORT=21066  
Schema=tpcds_text_2  
FastSQLPrepare=0  
UseNativeQuery=0  
HiveServerType=2  
AuthMech=1  
KrbHostFQDN=hadoop.hadoop.com  
KrbServiceName=hive  
ID=test_cn
```

修改odbc配置文件

```
vi /opt/cloudera/hiveodbc/Setup/cloudera.hiveodbc.ini
```

```
DriverManagerEncoding=UTF-16  
ErrorMessagesPath=/opt/cloudera/hiveodbc/ErrorMessages/  
LogLevel=0  
LogPath=  
  
## - Uncomment the ODBCInstLib corresponding to the Drive  
## - Note that the path to your ODBC Driver Manager must  
## - Note that AIX has a different format for specifying  
  
# Generic ODBCInstLib  
# iODBC  
#ODBCInstLib=libiodbcinst.so  
  
# SimbaDM / unixODBC  
ODBCInstLib=libodbcinst.so
```

```
mv /etc/odbcinst.ini /etc/odbcinst.ini.bak  
cp /opt/cloudera/hiveodbc/Setup/odbcinst.ini /etc/
```

配置环境变量 `vi /etc/profile`

```
export LD_LIBRARY_PATH=/usr/lib64:/opt/cloudera/hiveodbc/lib/64  
export ODBCINI=/etc/odbc.ini  
export ODBC SYSINI=/etc  
export SIMBAINI=/opt/cloudera/hiveodbc/Setup/cloudera.hiveodbc.ini
```

导入环境变量 `source /etc/profile`

测试ODBC连接

```
su oracle  
isql -v 'Sample Cloudera Hive DSN'
```

```
[oracle@obiee Setup]$ isql -v 'Sample Cloudera Hive DSN'
+-----+
| Connected!
|
| sql-statement
| help [tablename]
| quit
|
+-----+
SQL> 
```

- BI域配置系统ODBC

```
cd /Oracle/Middleware/Oracle_Home/user_projects/domains/bi/config/fmwconfig/bienv/core
cp odbc.ini odbc.ini.bak
vi odbc.ini
```

```
[ODBC]
Trace=0
TraceFile=/Oracle/Middleware/Oracle_Home/user_projects/domains/bi/odbc.log
TraceDll=/Oracle/Middleware/Oracle_Home/bi/modules/oracle.bi.datadirec.dll
InstallDir=/Oracle/Middleware/Oracle_Home/bi/modules/oracle.bi.datadirec
UseCursorLib=0
IANAAppCodePage=4

[ODBC Data Sources]
AnalyticsWeb=Oracle BI Server
opss_datasource=Oracle 7.1 Oracle Wire Protocol
biplatform_datasource=Oracle 7.1 Oracle Wire Protocol
Sample Cloudera Hive DSN=Cloudera ODBC Driver for Apache Hive 64-bit

[Sample Cloudera Hive DSN]
Driver=/opt/cloudera/hiveodbc/lib/64/libclouderahiveodbc64.so
HOST=162.1.93.101
PORT=21066
Schema=tpcds_text_2
FastSQLPrepare=0
UseNativeQuery=0
HiveServerType=2
AuthMech=1
KrbHostFQDN=hadoop.hadoop.com
KrbServiceName=hive
UID=test_ci

[AnalyticsWeb]
```

重启OBIS

```
su oracle
cd /Oracle/Middleware/Oracle_Home/user_projects/domains/bi/bitools/bin
./stop.sh
./start.sh
```

服务端分析Hive数据

- 打开BI Analytics界面<http://162.1.115.81:9502/analytics>
- 创建分析

ORACLE® Business Intelligence**主页****创建...**

数据浏览和搜索

可视分析器项目



选择主题区域



store_sales_model



创建直接数据库查询

创建将直接发送到数据库的新 SQL 查询。

从简单的逻辑 SQL 创建分析
通过在 Oracle BI Server 中输入简单的逻辑 SQL 来创建分析。代理 操作
性能管理
记分卡 KPI KPI 监视列表**最近****仪表盘**

我的仪表盘 - 页 1

打开 编辑 更多 ▾



Product Pricing

编辑 更多 ▾

当前没有可用建议案。当结果变得可用时，将通知您。

下载 BI 桌面工具 ▾

ORACLE® Business Intelligence**无标题****标准****结果 提示 高级****主题区域**

store_sales_model

- ▶ store_sales_1
- ▶ customer
- ▶ store
- ▶ item

xyz

所选列

选择待分析的列拖到右侧区域

无标题

标准 结果 提示 高级

▲ 主题区域

store_sales_model

store_sales_1

- ss_customer_sk
- ss_ext_discount_amt
- ss_ext_list_price**
- ss_ext_sales_price
- ss_ext_tax
- ss_hdemo_sk
- ss_item_sk
- ss_list_price
- ss_promo_sk
- ss_quantity

▲ 所选列

store_sales_1

ss_ticket_number ss_quantity ss_list_price ss_sales_price

▲ 过滤器

点击“结果”页签，检索所选列数据

ORACLE® Business Intelligence

无标题

标准 结果 提示 高级

▲ 主题区域

- store_sales_model
- store_sales_1
- customer
- store
- item



复合布局



正在搜索..., 要取消, 请单击[此处](#)。

无标题

标准 结果 提示 高级

主题区域

store_sales_model

- store_sales_1
- customer
- store
- item

复合布局

标题

表

ss_sold_qty	ss_ext_sales_price	ss_ext_discount_amt	c_first_name	c_last_name	s_company_name	s_city	s_store_id
1	1	0	Ralph	Woodward	Unknown	Midway	cally
1	1	0	Randall	Treat	Unknown	Midway	ought
0	0	0	Johnny	Jones	Unknown	Midway	able
0	0	0	Michael	Harris	Unknown	Midway	pri
0	0	0	Rodney	Dugan	Unknown	Fairview	eing
0	0	0	Robert	Dodd	Unknown	Midway	ation
0	0	0	James	Smith	Unknown	Midway	cally
1	1	0	Rex	Haines	Unknown	Midway	ation
1	1	0	Brian	Lowman	Unknown	Midway	ought
1	1	0	Larry	Robles	Unknown	Midway	pri
1	1	0	Jaime	Seymour	Unknown	Fairview	n st
0	0	0	Deborah	Smith	Unknown	Midway	bar

点击右上角的保存按钮，保存查询结果

另存为

文件夹

- 我的文件夹
- 共享文件夹
- Components
- Sample Lite
- 主题区域内容
- 仪表盘
- KPIs
- Published Reports
- Sample Reports
- Sample Scorecard
- VA Projects

保存位置

/共享文件夹/Sample Lite/主题区域内容

Sample Sales Lite

名称

query-1

说明

确定 取消

- 创建可视分析器项目

主页

创建...



数据浏览和搜索

可视分析器项目



分析和交互式报表

分析 仪表盘 更多 ▾



移动应用程序

移动应用程序

最近

仪表盘



我的仪表盘 - 页 1

打开 编辑 更多 ▾



QuickStart - Product Pricing

打开 编辑 更多 ▾

其他

添加数据源

← → C ⓘ 162.1.115.81:9502/va/project.jsp?pageid=visualAnalyzer

ORACLE® 可视分析器

无标题

添加数据源 创建新数据源

主题区域 | 数据集

搜索

store_sales_model

添加到项目 取消

The screenshot shows the Oracle Visual Analyzer interface. At the top, there's a URL bar with the address '162.1.115.81:9502/va/project.jsp?pageid=visualAnalyzer'. Below it is the title 'ORACLE® 可视分析器' and a tab labeled '无标题'. A sidebar on the left contains icons for database, document, search, chart, and lightbulb. The main area has tabs for '添加数据源' (Add Data Source) and '创建新数据源' (Create New Data Source). It includes a search bar and a list with one item: 'store_sales_model'. At the bottom right are buttons for '添加到项目' (Add to Project) and '取消' (Cancel).

选取数据显示形式

store

- A s_ci
- A s_cl
- A s_co
- A s_co
- A s_co
- A s_county
- A s_division_id

创建最佳显示形式
选取显示形式...
创建筛选器

store

- A s_ci
- A s_cl
- A s_co
- A s_co
- A s_co
- A s_co
- A s_di
- A s_di
- A s_floor_space

数据透视表
旭日图
树状图
地图
标记云
表

地图

格状图列
格状图行
类别 (地理)
A s_city
颜色 (地图形状)
颜色 (气泡图)
大小 (气泡图)

s_city

添加计算

ORACLE 可视分析器

搜索

无标题

store_sales_model

- store_sales_1
- customer
- store
- item

我的计算
值标签
添加计算...

单击此处或拖动数据元素以添加筛选器

对接Spark SQL

配置客户端系统DSN

- Kerberos认证

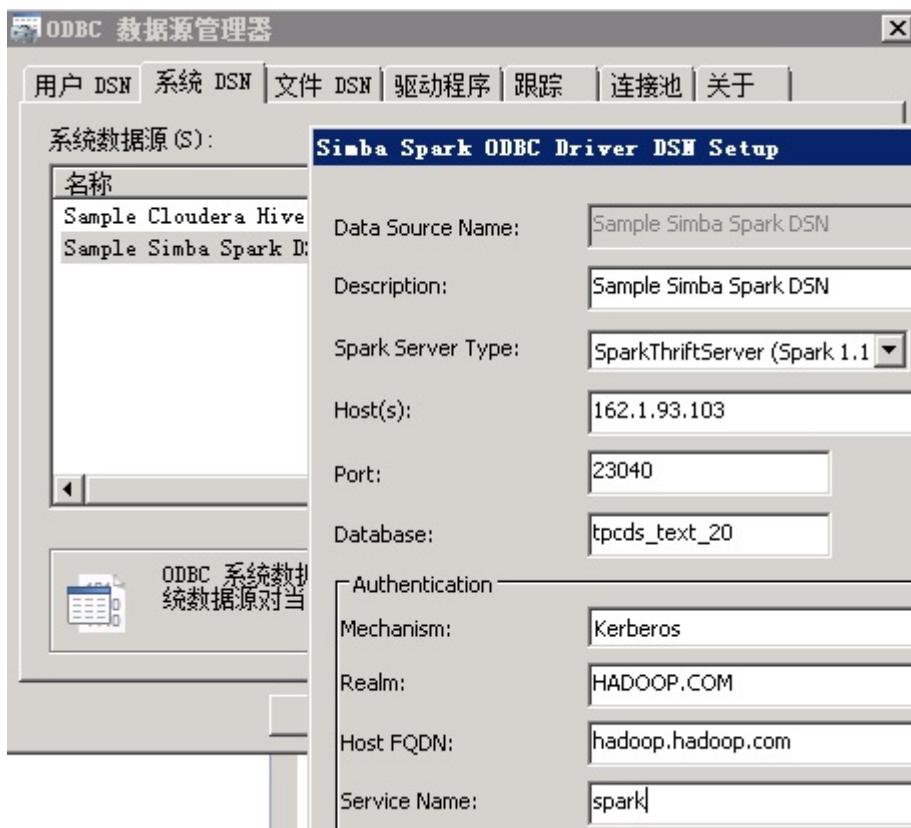
Kerberos获取认证票据



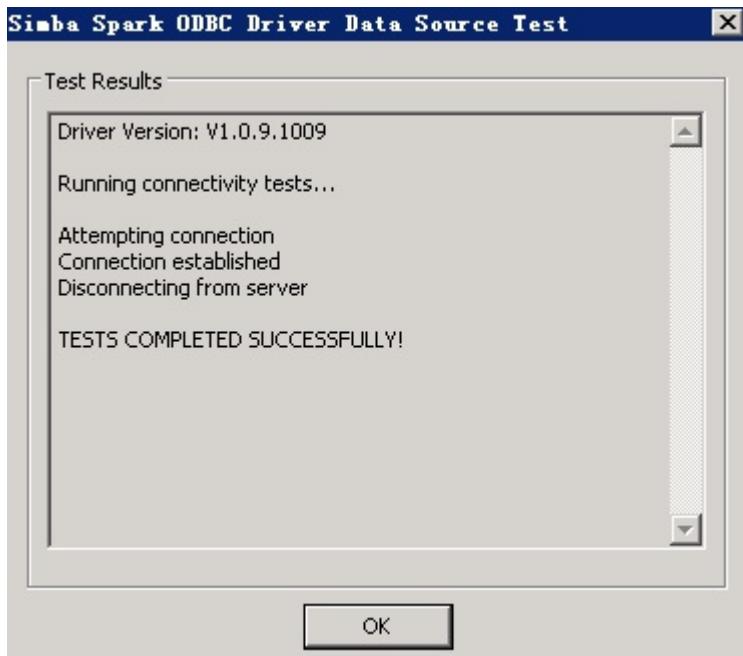
- 安装配置Simba Spark ODBC Driver

下载安装 Simba Spark ODBC Driver: [下载地址](#)

配置DSN:



测试ODBC连接:



BI管理工具新建RDP

- 新建obiee-spark.rdp, DSN选择上一步配置的 Sample Simba Spark DSN

The screenshot shows a BI management tool interface. On the left, there is a window titled '查看表 "Sample Simba Spark DSN". "SPARK". "tpcds_text_2"' displaying a table with 8 rows. The columns are labeled 'cc_call_center_id', 'cc_call_center_sk', and 'cc'. The data in the table is as follows:

	cc_call_center_id	cc_call_center_sk	cc
0	AAAA,AAAAABA,AAAAAA	1.0	Midway
1	AAAA,AAAAACAA,AAAAAA	2.0	Midway
2	AAAA,AAAAACAA,AAAAAA	3.0	Midway
3	AAAA,AAAAEAAA,AAAAAA	4.0	Midway
4	AAAA,AAAAEAAA,AAAAAA	5.0	Midway
5	AAAA,AAAAEAAA,AAAAAA	6.0	Midway
6	AAAA,AAAAAHAAA,AAAAAA	7.0	Midway

On the right, there is a '物理' (Physical) navigation pane listing various database objects:

- 连接池
- SPARK
 - tpcds_text_2
 - call_center
 - catalog_page
 - catalog_returns
 - catalog_sales
 - customer
 - customer_address
 - customer_demographics
 - date_dim
 - household_demographics
 - income_band
 - inventory
 - item
 - promotion
 - reason
 - ship_mode
 - store
 - store_returns
 - store_sales
 - time_dim
 - warehouse
 - web_page
 - web_returns
 - web_sales
 - web_site

上传RDP文件到服务端

- 上传RDP

```
E:\Oracle\Middleware\Oracle_Home\bi\bitools\bin> datamodel.cmd uploadrpd -U weblogic -P Huawei123 -I E:\Oracle\Middleware\Oracle_Home\bi\bifoundation\server\obi -ee-spark.rpd -W Huawei@123 -S 162.1.115.81 -N 9502 -SI ssi
WARNING: Trust store is not defined. SSL connections will not be available.
服务实例: ssi

操作成功。
RPD 上载已成功完成。
```

配置服务端系统DSN

- Kerberos认证

```
su oracle
kinit test_cn
```

```
[oracle@obiee Setup]$ klist
Ticket cache: FILE:/tmp/krb5cc_500
Default principal: test_cn@HADOOP.COM

Valid starting     Expires            Service principal
02/16/17 10:55:13  02/17/17 10:55:13  krbtgt/HADOOP.COM@HADOOP.COM
                  renew until 02/16/17 11:25:13
```

- 安装配置Simba Spark ODBC Driver

下载Simba Spark ODBC Driver: [下载地址](#)

```
rpm -Uvh SimbaSparkODBC-1.2.2.1002-1.el6.x86_64.rpm
```

```
[root@obiee tmp]# rpm -Uvh SimbaSparkODBC-1.2.2.1002-1.el6.x86_64.rpm
Preparing... ################################################ [100%]
1:SimbaSparkODBC          ##### [100%]
```

修改DSN配置，增加Sample Simba Spark DSN，与Client端配置相同 [vi /etc/odbc.ini](#)

```
[ODBC]
[ODBC Data Sources]
Sample Cloudera Hive DSN=Cloudera ODBC Driver for Apache Hive 64-bit
Sample Simba Spark DSN=Simba Spark ODBC Driver 64-bit

[Sample Cloudera Hive DSN]
Driver=/opt/cloudera/hiveodbc/lib/64/libclouderahiveodbc64.so
HOST=162.1.93.101
PORT=21066
Schema=tpcds_text_2
FastSQLPrepare=0
UseNativeQuery=0
HiveServerType=2
AuthMech=1
KrbHostFQDN=hadoop.hadoop.com
KrbServiceName=hive
UID=test_cn

[Sample Simba Spark DSN]
Description=Simba Spark ODBC Driver (64-bit) DSN
Driver=/opt/simba/spark/lib/64/libsparkodbc_sb64.so
HOST=162.1.93.103
PORT=23040
Schema=tpcds_text_20
SparkServerType=3
AuthMech=1
ThriftTransport=1
UseNativeQuery=0
UID=
KrbHostFQDN=hadoop.hadoop.com
KrbServiceName=spark
KrbRealm=HADOOP.COM
SSL=0
TwoWaySSL=0
ClientCert=
ClientPrivateKey=
ClientPrivateKeyPassword
```

修改odbcinst.ini, `vi /etc/odbcinst.ini`

```
[ODBC Drivers]
Cloudera ODBC Driver for Apache Hive 64-bit=Installed
Simba Spark ODBC Driver 64-bit=Installed

[Cloudera ODBC Driver for Apache Hive 64-bit]
Description=Cloudera ODBC Driver for Apache Hive (64-bit)
Driver=/opt/cloudera/hiveodbc/lib/64/libclouderahiveodbc64.so

[Simba Spark ODBC Driver 64-bit]
Description=Simba Spark ODBC Driver (64-bit)
Driver=/opt/simba/spark/lib/64/libsparkodbc_sb64.so
##
## The option below is for using unixODBC when compiled with -DSQL_WCHAR_CONVERT.
## Execute 'odbc_config --cflags' to determine if you need to uncomment it.
# IconvEncoding=UCS-4LE
```

配置环境变量 `vi /etc/profile`

```
export LD_LIBRARY_PATH=/usr/lib64:/opt/cloudera/hiveodbc/lib/64:/opt/simba/spark/lib/64
export ODBCINI=/etc/odbc.ini
export ODBCSYSINI=/etc
export SIMBAINI=/opt/cloudera/hiveodbc/Setup/cloudera.hiveodbc.ini
export SIMBASPARKINI=/opt/simba/spark/lib/64/simba.sparkodbc.ini
```

导入环境变量 `source /etc/profile`

测试ODBC连接

```
su oracle  
isql -v 'Sample Simba Spark DSN'
```

```
[oracle@obiee lib]$ isql -v 'Sample Simba Spark DSN'  
+-----+  
| Connected!  
|  
| sql-statement  
| help [tablename]  
| quit  
|  
+-----+
```

- BI域配置系统ODBC

```
cd /Oracle/Middleware/Oracle_Home/user_projects/domains/bi/config/fmwconfig/bienv/core  
vi odbc.ini
```

```
[ODBC Data Sources]  
AnalyticsWeb=Oracle BI Server  
opss_datasource=Oracle 7.1 Oracle Wire Protocol  
biplatform_datasource=Oracle 7.1 Oracle Wire Protocol  
Sample Cloudera Hive DSN=Cloudera ODBC Driver for Apache Hive 64-bit  
Sample Simba Spark DSN=Simba Spark ODBC Driver 64-bit  
  
[Sample Simba Spark DSN]  
Description=Simba Spark ODBC Driver (64-bit) DSN  
Driver=/opt/simba/spark/lib/64/libsparkodbc_sb64.so  
HOST=162.1.93.103  
PORT=23040  
Schema=tpcds_text_20  
SparkServerType=3  
AuthMech=1  
ThriftTransport=1  
UseNativeQuery=0  
UID=  
KrbHostFQDN=hadoop.hadoop.com  
KrbServiceName=spark  
KrbRealm=HADOOP.COM  
SSL=0  
TwoWaySSL=0  
ClientCert=  
ClientPrivateKey=  
ClientPrivateKeyPassword=  
  
[Sample Cloudera Hive DSN]  
Driver=/opt/cloudera/hiveodbc/lib/64/libclouderahiveodbc64.so  
HOST=162.1.93.101  
PORT=21066  
Schema=tpcds_text_2  
FastSQLPrepare=0
```

重启OBIS

```
su oracle  
cd /Oracle/Middleware/Oracle_Home/user_projects/domains/bi/bitools/bin  
.stop.sh  
.start.sh
```

服务端分析Spark数据

参考[服务端分析Hive数据](#)

对接LibrA/ELK

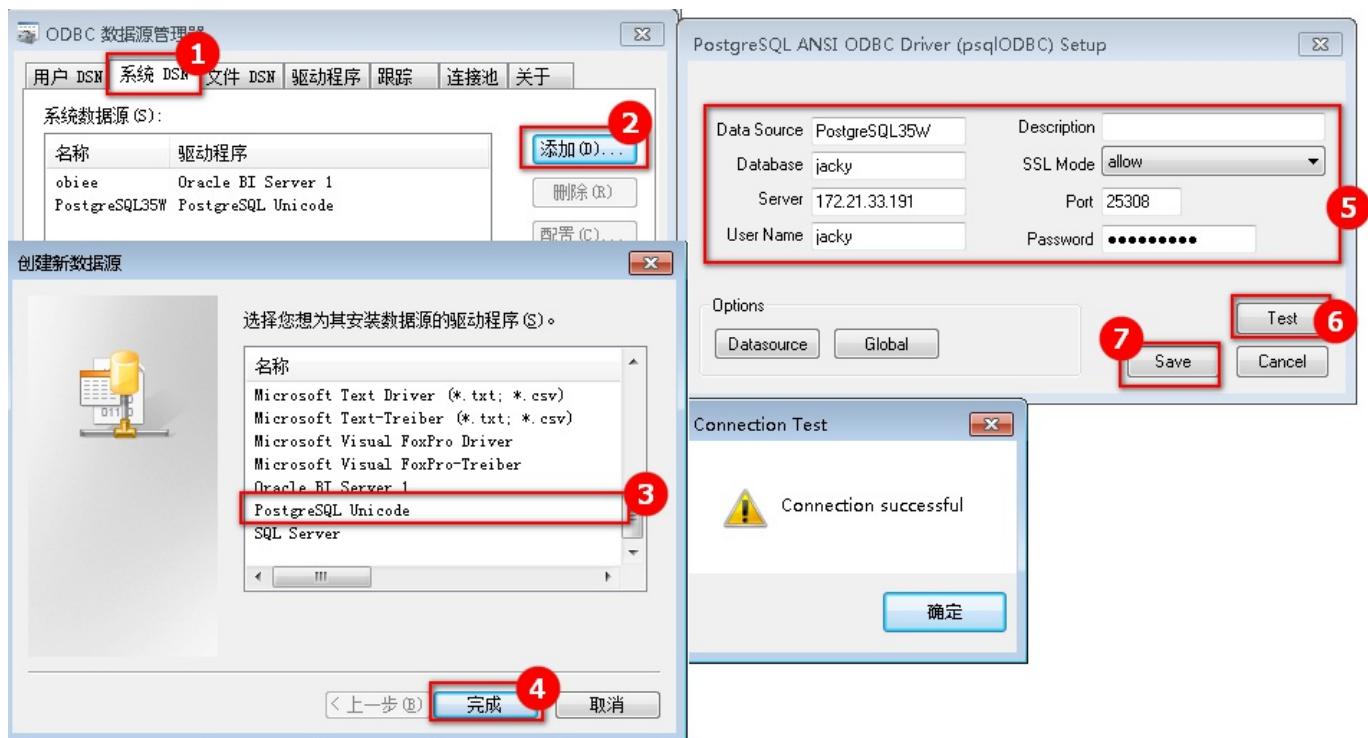
配置LibrA与ELK的方式没有区别，以下以对接ELK为例进行操作

配置客户端系统DSN

- 配置obiee客户端的ODBC驱动

按照ELK的产品文档的指导安装配置ELK的windows驱动

配置DSN，测试ODBC连接，保存ODBC连接



BI管理工具新建RDP

- 新建obiee-elk.rdp，DSN选择上一步配置的 PostgreSQL35W

The image shows a BI management tool interface. On the left is a '业务模型和映射' (Business Model and Mapping) window. It displays a table titled '查看表 "PostgreSQL35W"."jacky"."tpcds_row"."customer" 中的...' (View table "PostgreSQL35W"."jacky"."tpcds_row"."customer"...) with 100000 rows. The table has columns: 'c_birth_country', 'c_birth_day', and 'c_birth'. The data shows various countries like UNITED ARAB EMIRATES, TOGO, RWANDA, etc., with their corresponding birth day numbers. On the right is a '物理' (Physical) schema browser. It shows a tree structure of databases, schemas, and tables. The 'PostgreSQL35W' database contains a '连接池' (Connection Pool) and a 'jacky' schema. The 'jacky' schema contains a 'tpcds_row' table, which in turn contains a 'customer' table. The 'customer' table has many columns: c_birth_country, c_birth_day, c_birth_month, c_birth_year, c_current_addr_sk, c_current_cdemo_sk, c_current_hdemo_sk, c_customer_id, c_customer_sk, c_email_address, c_first_name, c_first_sales_date_sk, c_first_shipto_date_sk, c_last_name, c_last_review_date, c_login, c_preferred_cust_flag, c_salutation, and customer_address.

上传RDP文件到服务端

- 上传RDP

```
E:\Oracle\Middleware\Oracle_Home\bi\bitools\bin> datamodel.cmd uploadrpd -U weblogic -P Huawei123 -I E:\Oracle\Middleware\Oracle_Home\bi\bifoundation\server\obi -ee-elk.rpd -W Huawei@123 -S 162.1.115.81 -N 9502 -SI ssi
WARNING: Trust store is not defined. SSL connections will not be available.
服务实例: ssi
```

操作成功。
RPD 上载已成功完成。

配置服务端系统DSN

- 参考LibrA/ELK的产品文档的Linux下配置数据源章节，完成obiee节点下的ODBC驱动的安装

文档大小：10.49M

导航

- 文档包信息
- 产品描述
- 软件安装
- 管理员指南
- 开发者指南
 - 数据库使用
 - 管理数据库安全
 - 应用程序开发教程
 - 基于JDBC开发
 - 基于ODBC开发
 - ODBC包及依赖的库和头
 - Linux下配置数据源** (当前页)
 - Windows下配置数据源
 - 开发流程
 - 示例
 - ODBC接口参考

Elk 产品文档 : 开发者指南 > 应用程序开发教程 > 基于ODBC开发

Linux下配置数据源

将Elk提供的ODBC DRIVER (psqlodbcw.so) 配置到数据源中便可使用。配置数据源需要配置“odbc.”。

操作步骤

1. 获取unixODBC源码包。
获取参考地址：<http://sourceforge.net/projects/unixodbc/files/unixODBC/2.3.0/>
2. 目前不支持unixODBC-2.2.1版本。以unixODBC-2.3.0版本为例，在客户端执行如下命令

```
tar zxvf unixODBC-2.3.0.tar.gz
cd unixODBC-2.3.0
./configure --enable-gui=no
make
make install
```
3. 替换客户端Elk驱动程序。
安装unixODBC。如果机器上已经安装了其他版本的unixODBC，可以直接覆盖安装。

测试ODBC连接，确保ODBC驱动安装成功

```
isql -v PostgreSQL35W

[root@obiee logs]# su oracle
[oracle@obiee logs]$ isql -v PostgreSQL35W
+-----+
| Connected!
|
| sql-statement
| help [tablename]
| quit
|
+-----+
SQL>
```

- BI域配置系统ODBC

```
cd /Oracle/Middleware/Oracle_Home/user_projects/domains/bi/config/fmwconfig/bienv/core
vi odbc.ini
```

在ODBC Data Sources部分增加PostgreSQL35W的DSN

```
[ODBC Data Sources]
AnalyticsWeb=Oracle BI Server
opss_datasource=Oracle 7.1 Oracle Wire Protocol
biplatform_datasource=Oracle 7.1 Oracle Wire Protocol
Sample Cloudera Hive DSN=Cloudera ODBC Driver for Apache Hive 64-bit
Sample Simba Spark DSN=Simba Spark ODBC Driver 64-bit
PostgreSQL35W=PostgreSQL Unicode
```

在文件末尾增加PostgreSQL35W的DSN的详细配置

```
[PostgreSQL35W]
Driver=/usr/local/lib/pgsqlodbcw.so
Servername=172.21.33.191
Database=jacky
Username=jacky
Password=Jacky@123
Port=25308
Sslmode=allow
DriverUnicodeType=1
```

PostgreSQL35W的DSN的详细配置最后一行DriverUnicodeType=1需要加上，否则obiee查询的时候会报错[nQSError: 12010] Communication error connecting to remote end point: address = obiee; port = 9514. (HY000)

重启OBIS

```
su oracle
cd /Oracle/Middleware/Oracle_Home/user_projects/domains/bi/bitools/bin
./stop.sh
./start.sh
```

服务端分析Spark数据

参考[服务端分析Hive数据](#)