Guide for Deploying Cognos BI With Informix Dynamic Server

Environment:

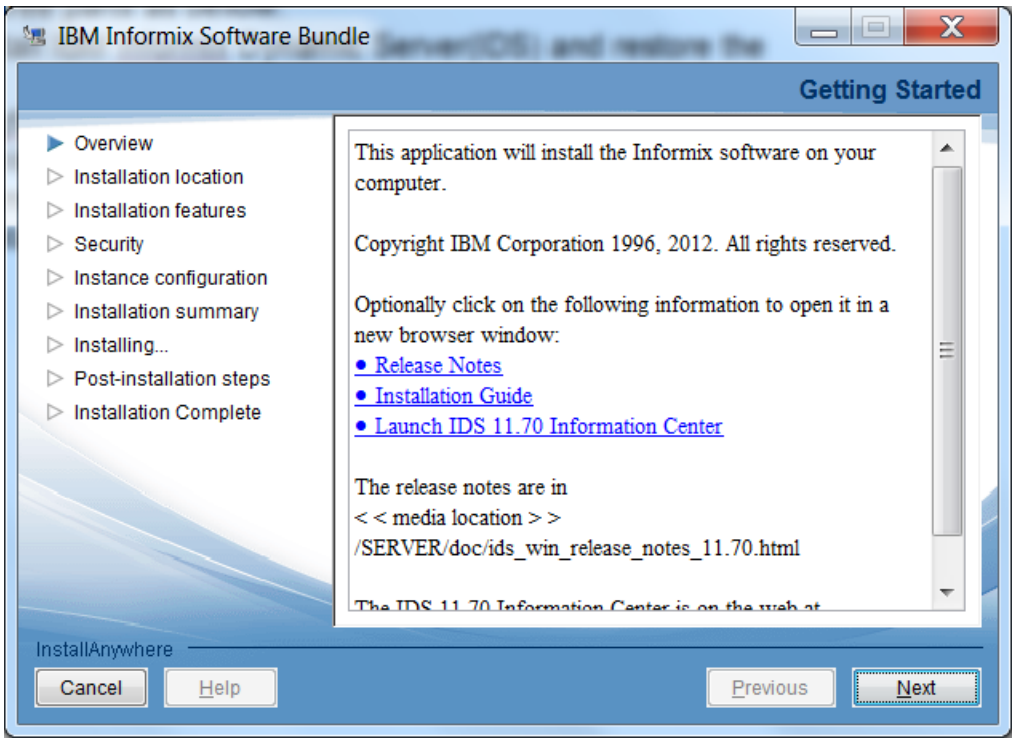
Windows 7 64 bit
Cognos BI Server 10.2.1
Informix Dynamic Server 11.70

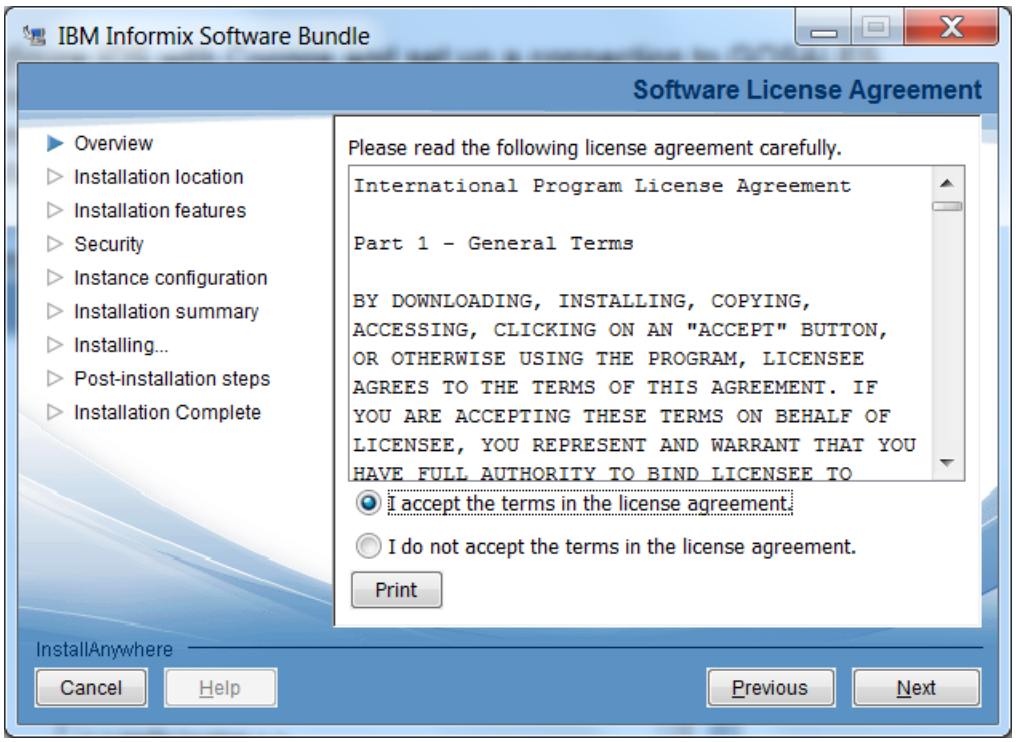
This article will give a guide to show using IDS as the content store and data source for Cognos BI server. There are three parts as bellow:
Part One – Install Informix Dynamic Server 11.70
Part Two – Set IDS as the content store for Cognos BI
Part Three – Set IDS as the data source for Cognos BI

Part One – Install Informix Dynamic Server 11.70

1. Download and install IBM Informix Dynamic Server
   You can search IBM Informix Dynamic Server 11.7 from:
   http://w3-103.ibm.com/software/xl/download/ticket.do

2. The install process is as below screen shot:




IBM Informix Software Bundle
Software License Agreement
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Please read the following license agreement carefully.
International Program License Agreement
Part 1 - General Terms
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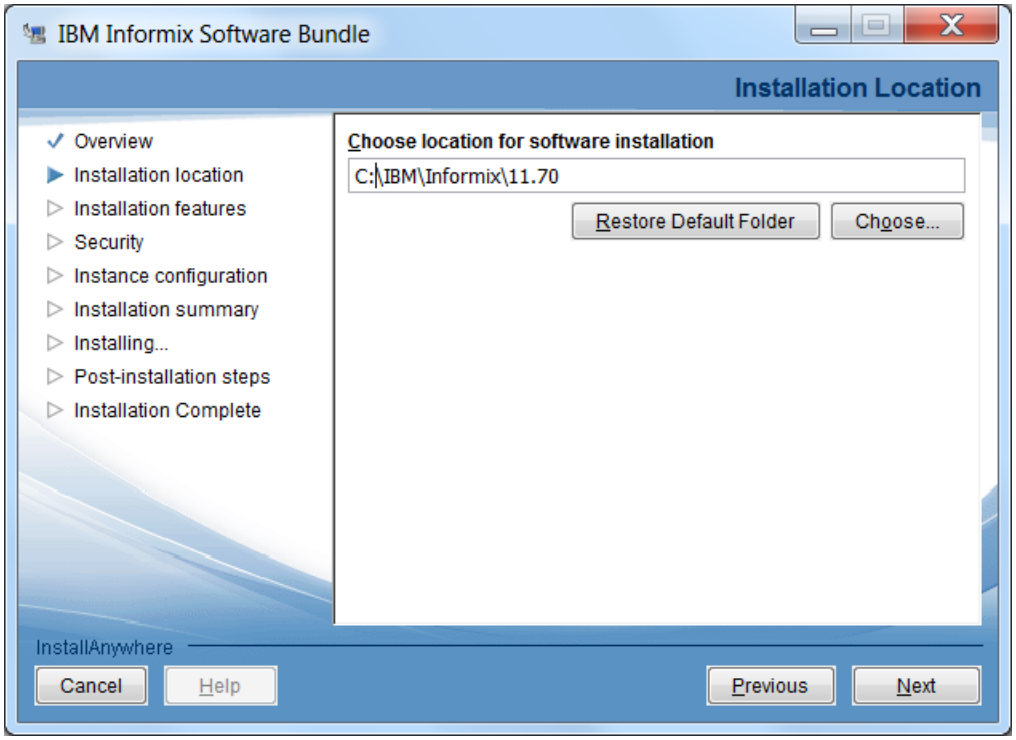
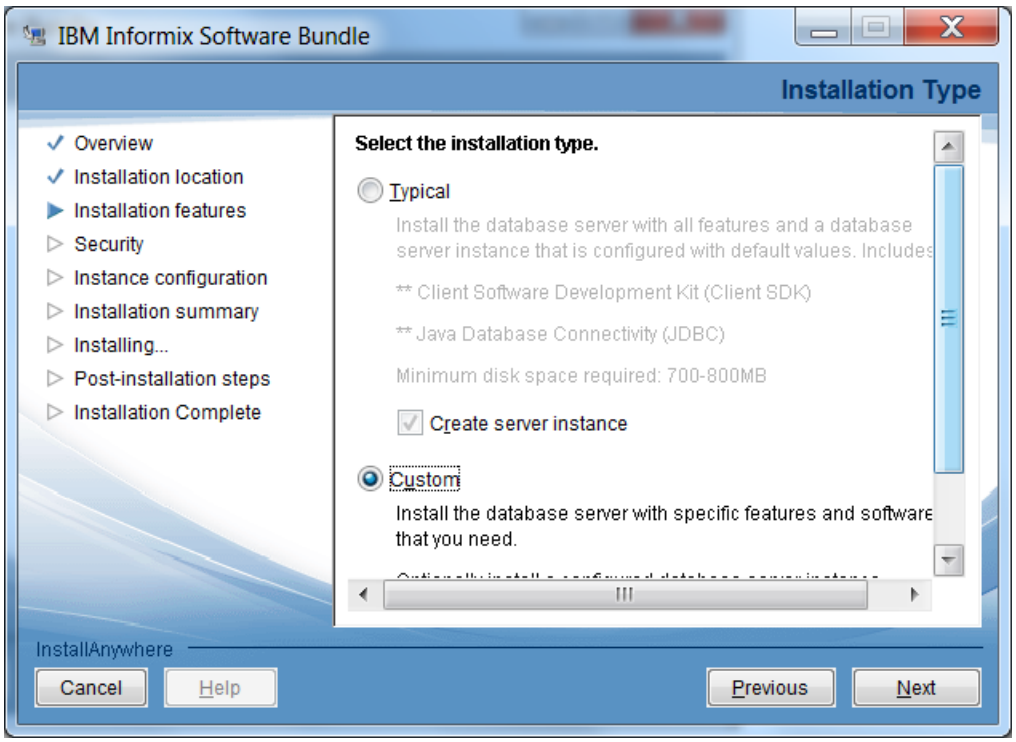
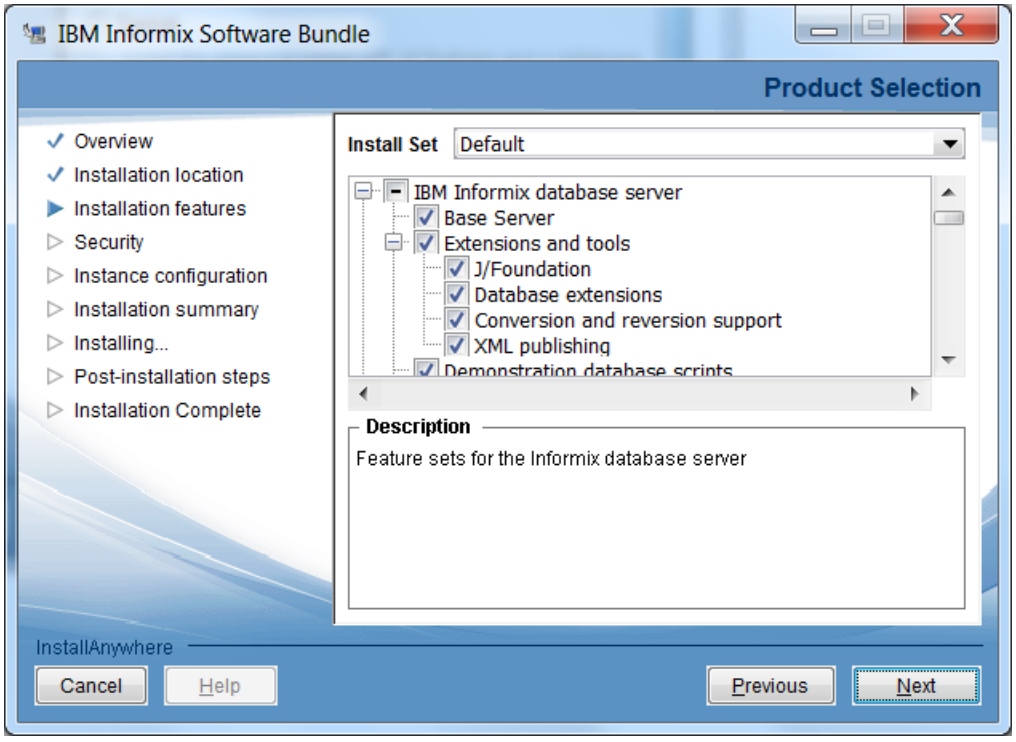
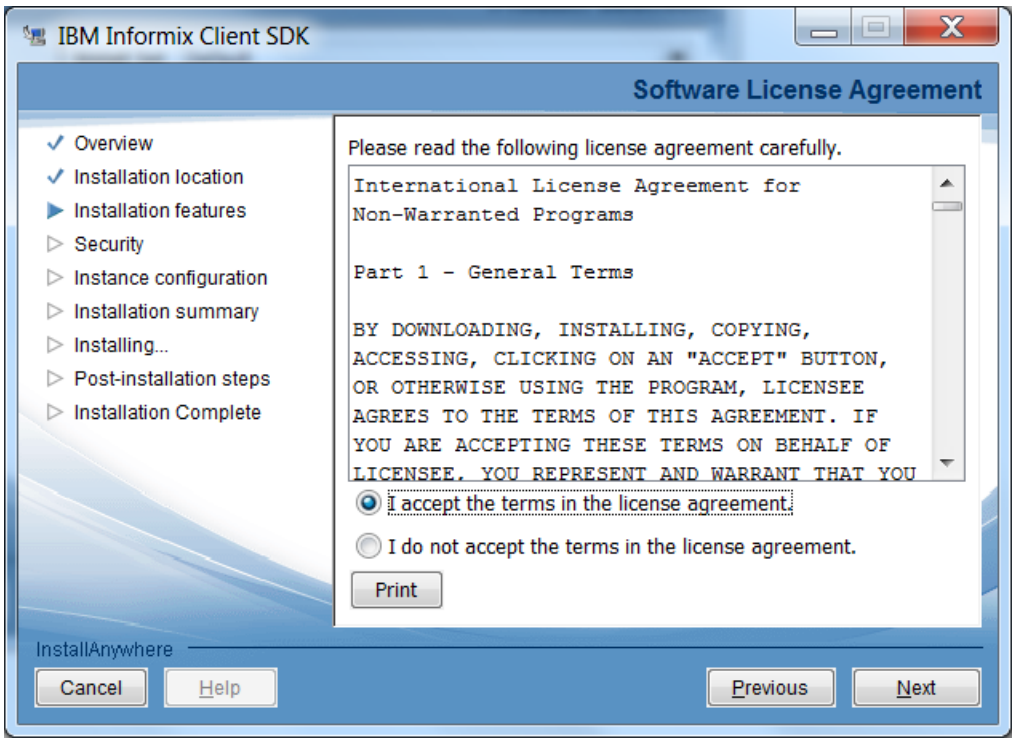
Print
InstallAnywhere
Cancel
Help
Previous
Next


IBM Informix Software Bundle
Installation Location
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Choose location for software installation
C:\IBM\Informix\11.70
Restore Default Folder
Choose...
InstallAnywhere
Cancel
Help
Previous
Next


IBM Informix Software Bundle
Installation Type
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Select the installation type.
Typical
Install the database server with all features and a database server instance that is configured with default values. Includes
** Client Software Development Kit (Client SDK)
** Java Database Connectivity (JDBC)
Minimum disk space required: 700-800MB
Create server instance
Custom
Install the database server with specific features and software that you need.
InstallAnywhere
Cancel
Help
Previous
Next


IBM Informix Software Bundle
Product Selection
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Install Set
Default
IBM Informix database server
Base Server
Extensions and tools
J/Foundation
Database extensions
Conversion and reversion support
XML publishing
Demonstration database scripts
Description
Feature sets for the Informix database server
InstallAnywhere
Cancel
Help
Previous
Next


IBM Informix Client SDK
Software License Agreement
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
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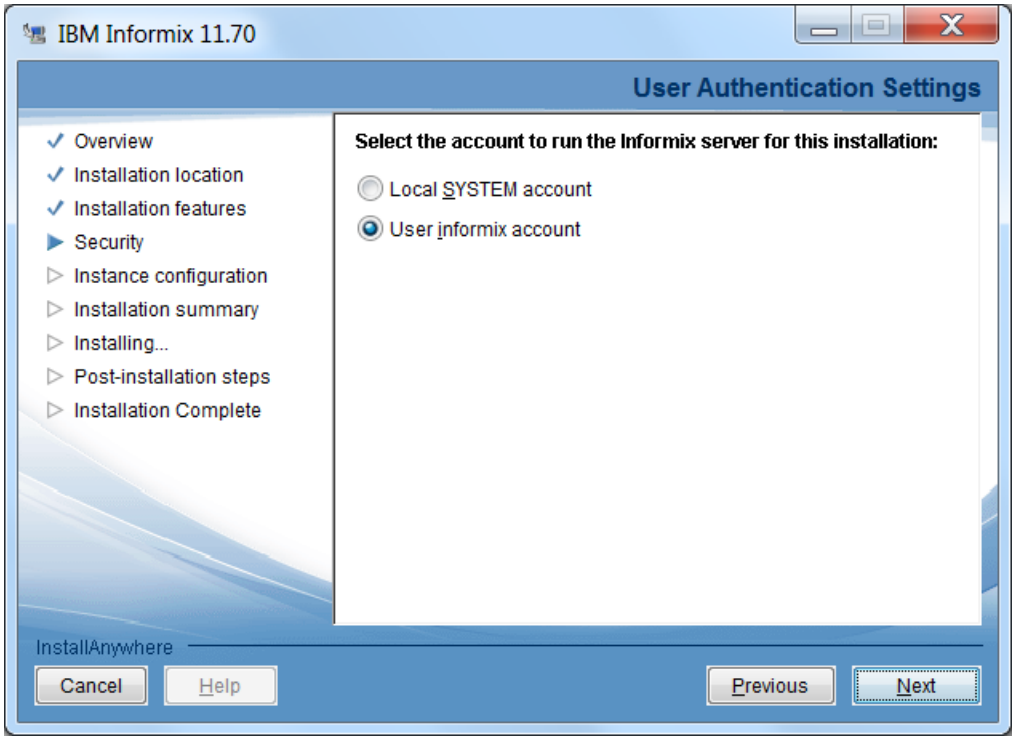
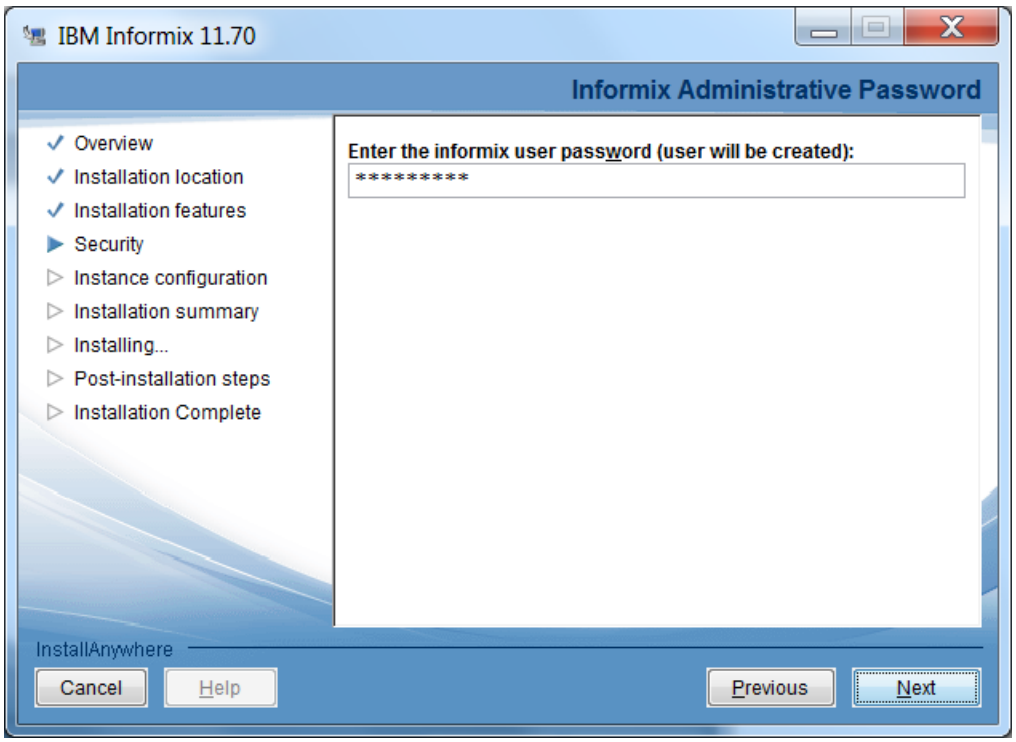
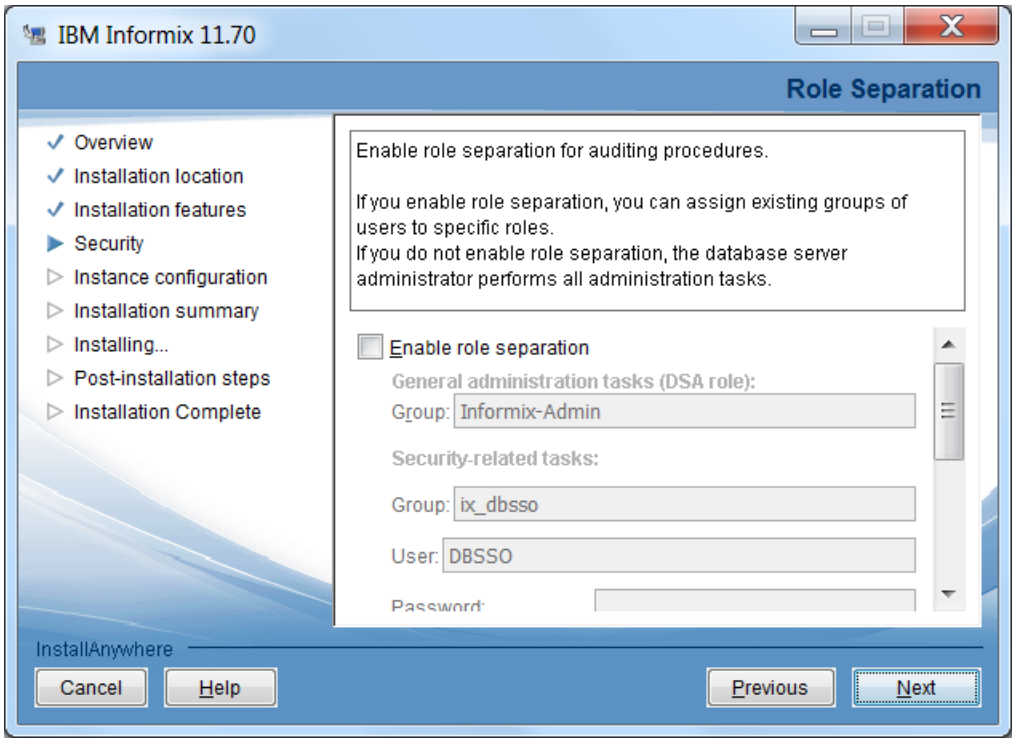
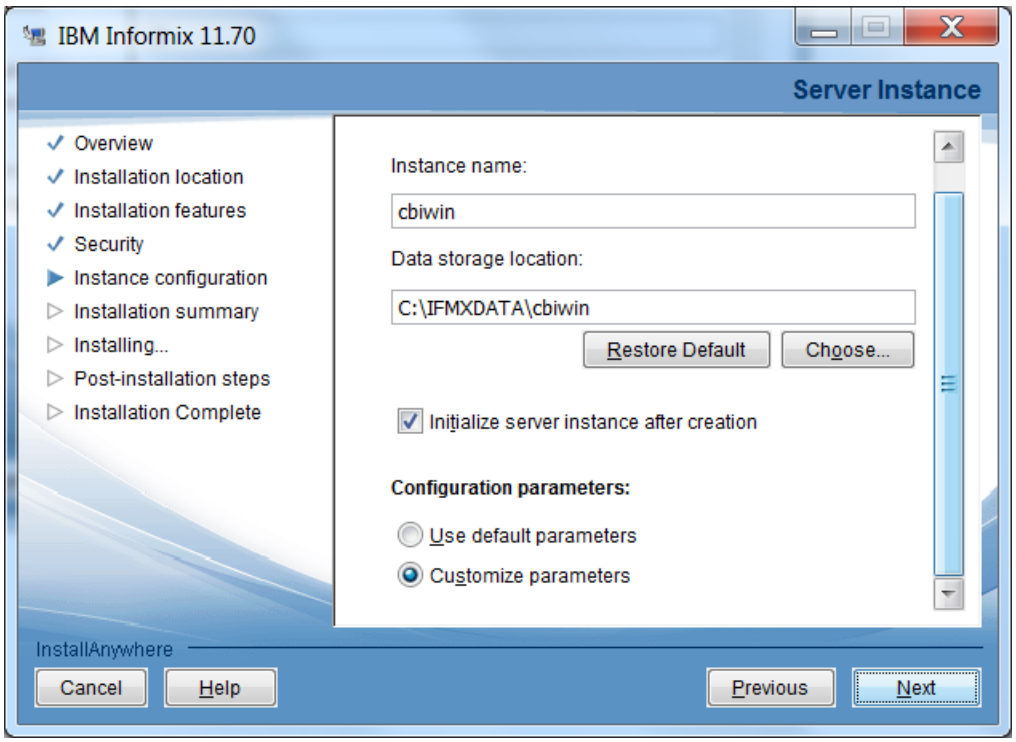
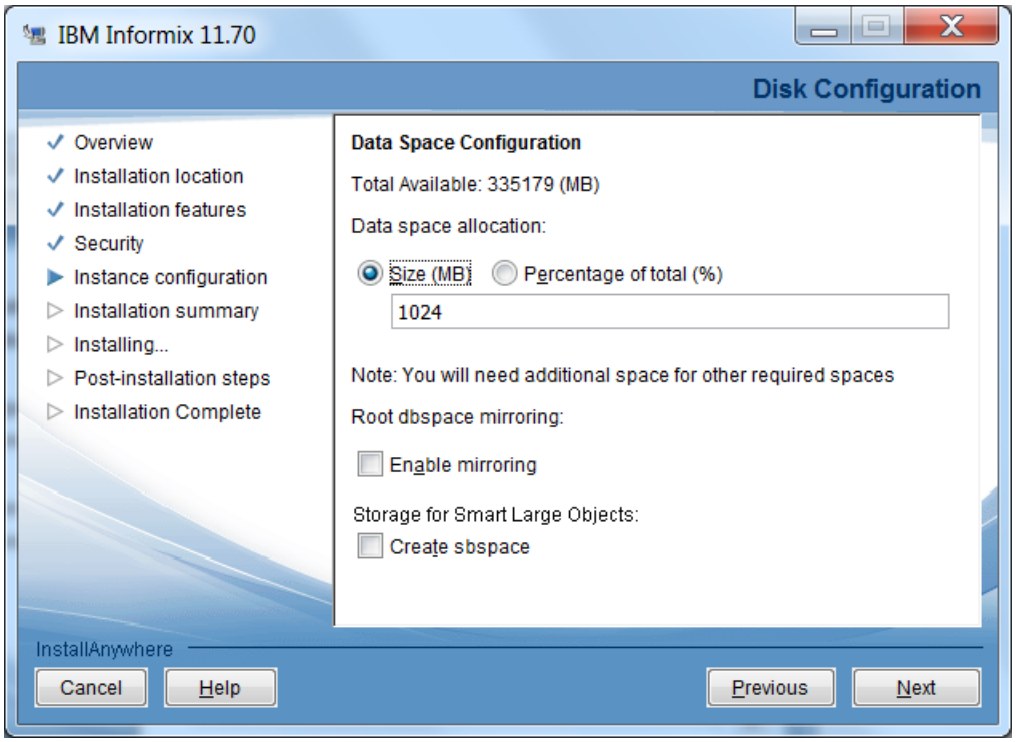
Print
InstallAnywhere
Cancel
Help
Previous
Next

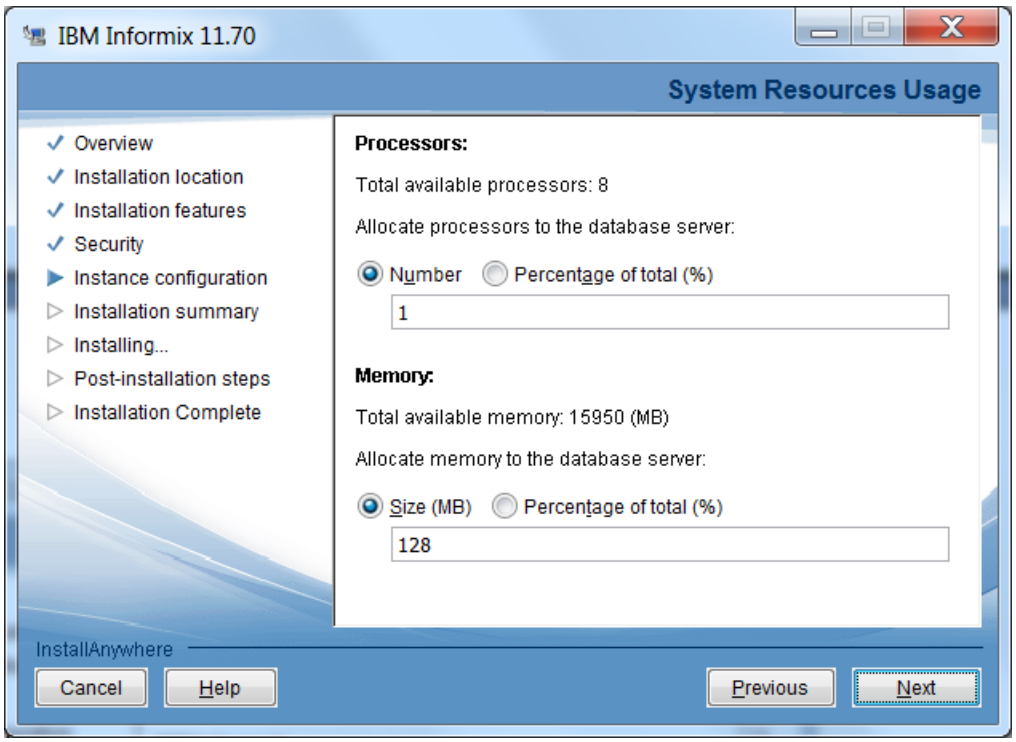

IBM Informix 11.70
User Authentication Settings
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Select the account to run the Informix server for this installation:
Local SYSTEM account
User informix account
InstallAnywhere
Cancel
Help
Previous
Next

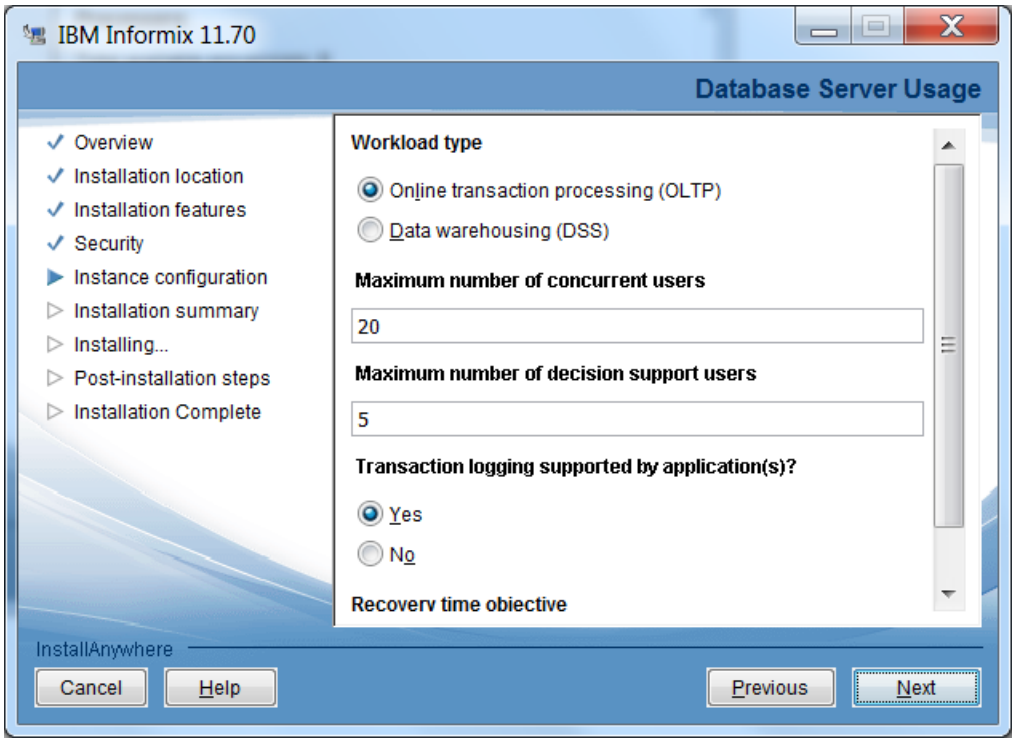

IBM Informix 11.70
Informix Administrative Password
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Enter the informix user password (user will be created):
****
InstallAnywhere
Cancel
Help
Previous
Next


IBM Informix 11.70
Role Separation
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Enable role separation for auditing procedures.
If you enable role separation, you can assign existing groups of users to specific roles.
If you do not enable role separation, the database server administrator performs all administration tasks.
Enable role separation
General administration tasks (DSA role):
Group: Informix-Admin
Security-related tasks:
Group: ix_dbsso
User: DBSSO
Password:
InstallAnywhere
Cancel
Help
Previous
Next

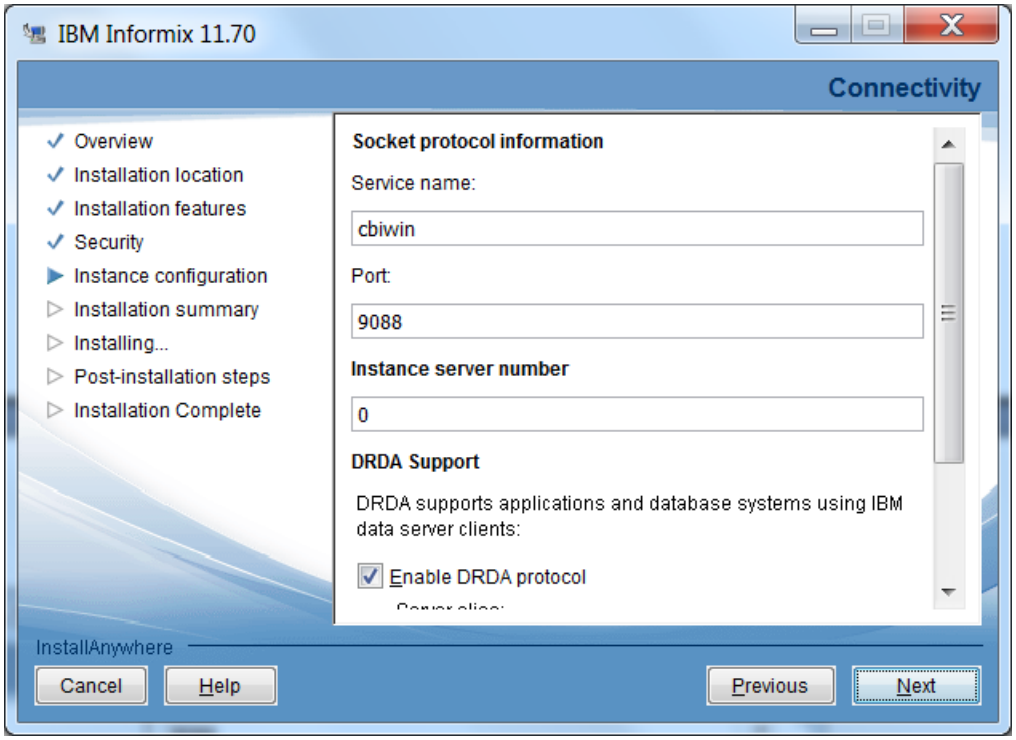

IBM Informix 11.70
Server Instance
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Instance name:
cbiwin
Data storage location:
C:\IFMXDATA\cbiwin
Restore Default
Choose...
Initialize server instance after creation
Configuration parameters:
Use default parameters
Customize parameters
InstallAnywhere
Cancel
Help
Previous
Next

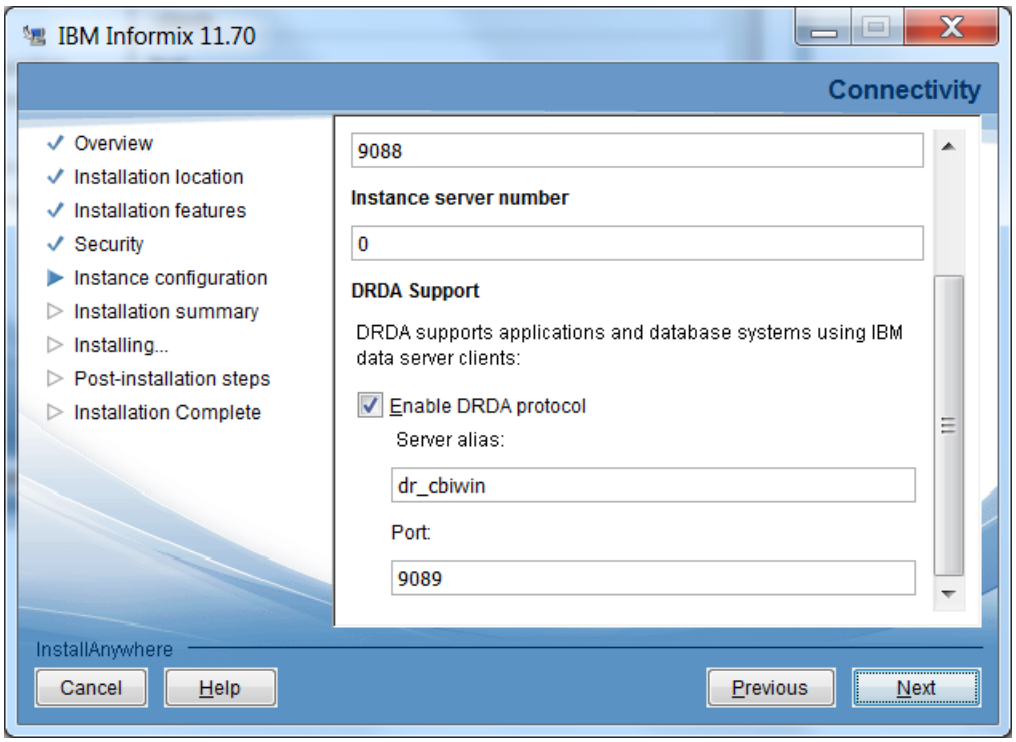

IBM Informix 11.70
Disk Configuration
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Data Space Configuration
Total Available: 335179 (MB)
Data space allocation:
Size (MB)
Percentage of total (%)
1024
Note: You will need additional space for other required spaces
Root dbspace mirroring:
Enable mirroring
Storage for Smart Large Objects:
Create sbspace
InstallAnywhere
Cancel
Help
Previous
Next

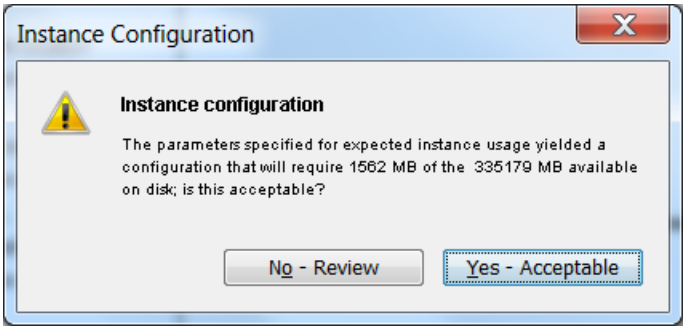

IBM Informix 11.70
System Resources Usage
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Processors:
Total available processors: 8
Allocate processors to the database server:
Number
Percentage of total (%)
1
Memory:
Total available memory: 15950 (MB)
Allocate memory to the database server:
Size (MB)
Percentage of total (%)
128
InstallAnywhere
Cancel
Help
Previous
Next

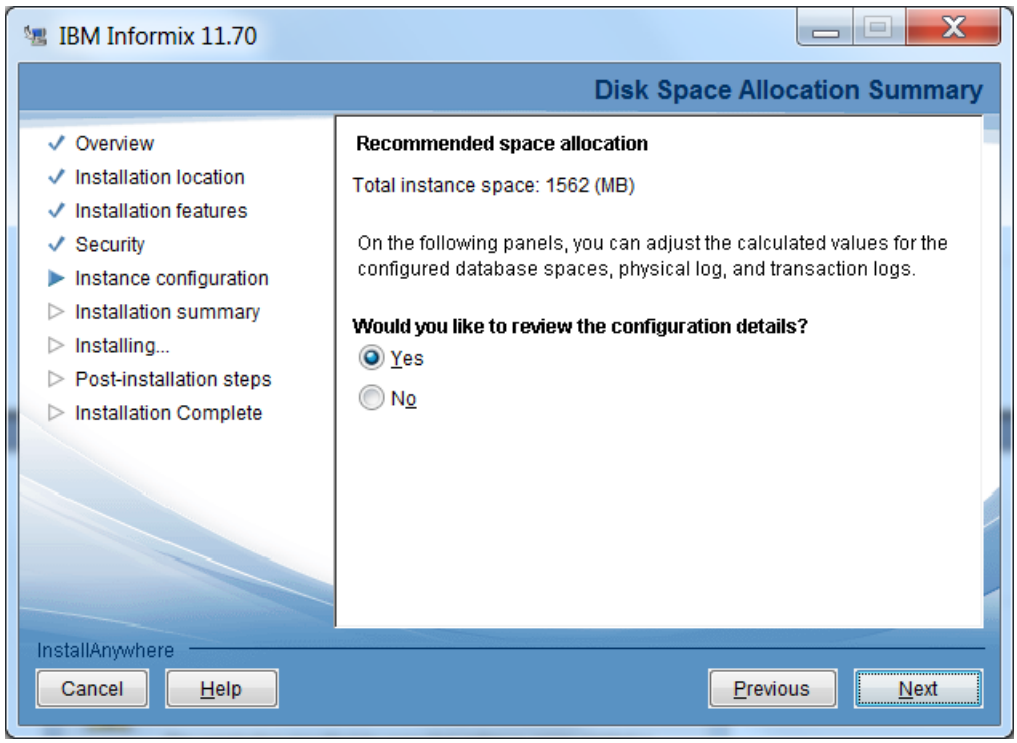

IBM Informix 11.70
Database Server Usage
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Workload type
Online transaction processing (OLTP)
Data warehousing (DSS)
Maximum number of concurrent users
20
Maximum number of decision support users
5
Transaction logging supported by application(s)?
Yes
No
Recovery time objective
InstallAnywhere
Cancel
Help
Previous
Next

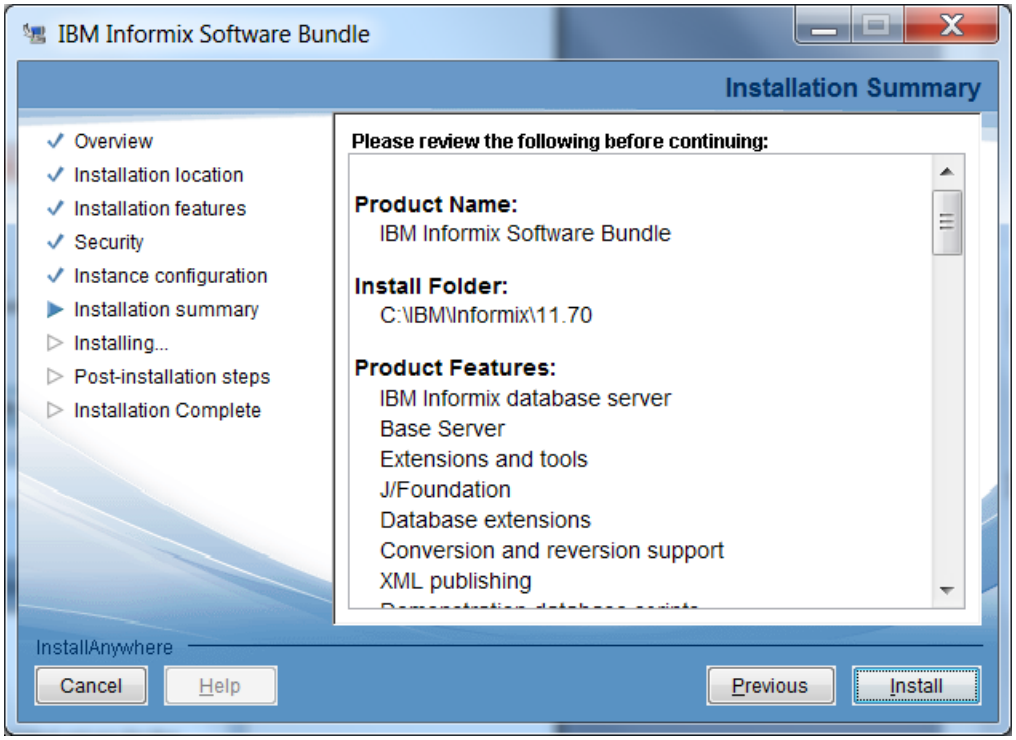
Next step is very important, Cognos content store must use DRDA protocol to connect with Informix database.
The Service name and Port you can change to what you like.

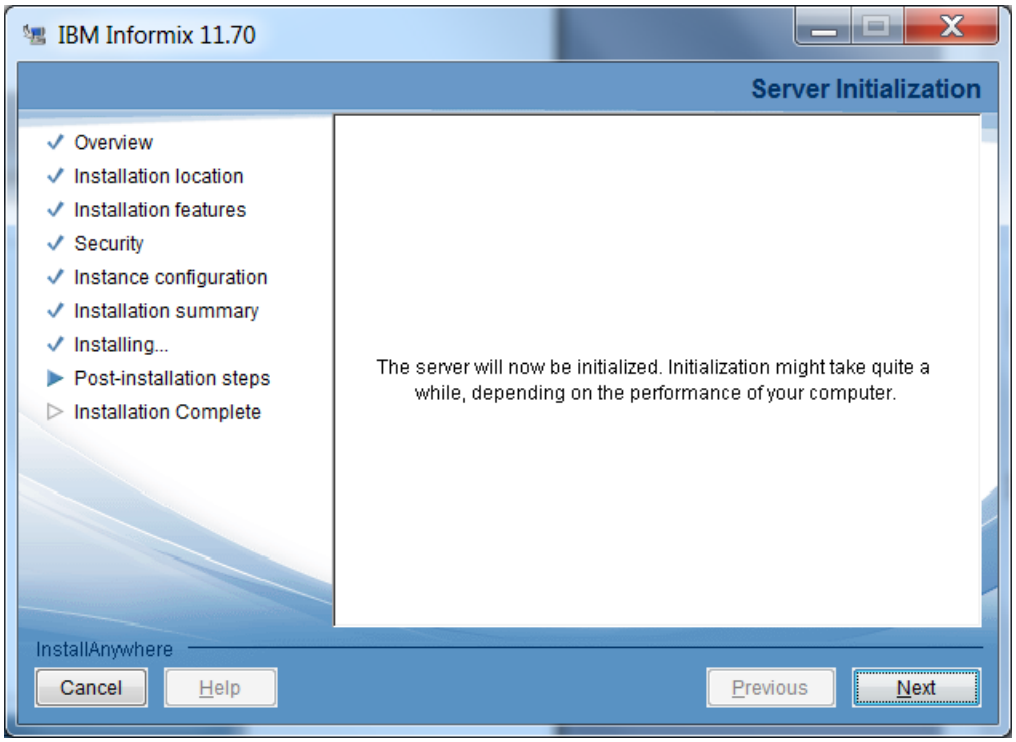


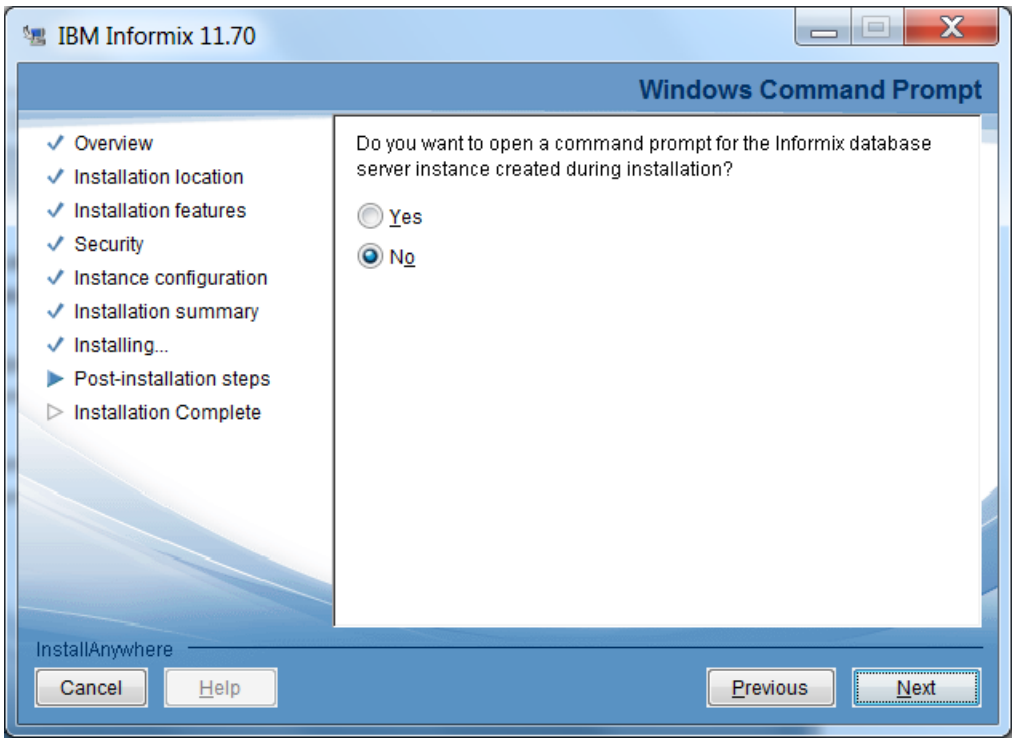

IBM Informix 11.70
Connectivity
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
9088
Instance server number
0
DRDA Support
DRDA supports applications and database systems using IBM data server clients:
Enable DRDA protocol
Server alias:
dr_cbiwin
Port:
9089
InstallAnywhere
Cancel
Help
Previous
Next

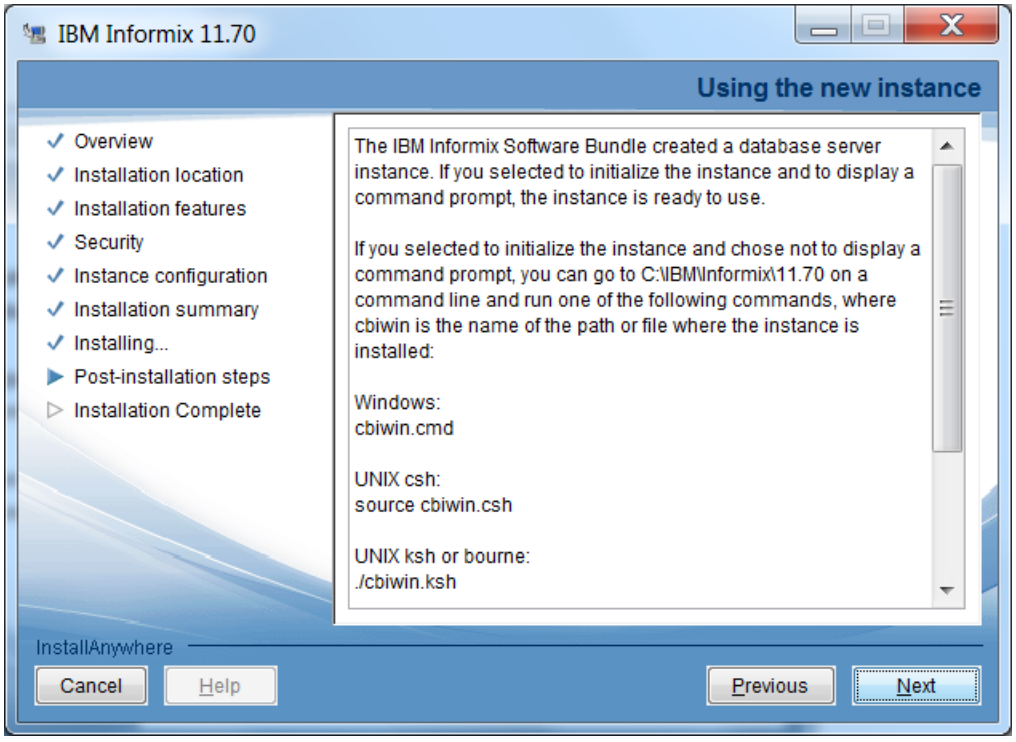

Instance Configuration
Instance configuration
The parameters specified for expected instance usage yielded a configuration that will require 1562 MB of the 335179 MB available on disk; is this acceptable?
No - Review
Yes - Acceptable

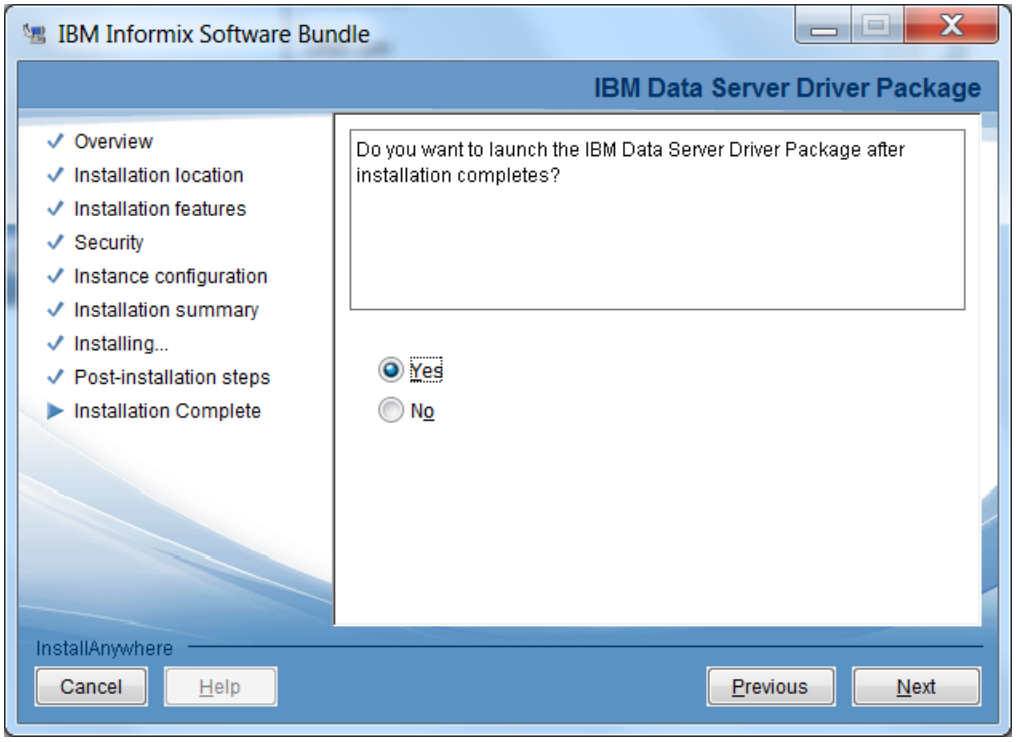

IBM Informix 11.70
Disk Space Allocation Summary
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Recommended space allocation
Total instance space: 1562 (MB)
On the following panels, you can adjust the calculated values for the configured database spaces, physical log, and transaction logs.
Would you like to review the configuration details?
Yes
No
InstallAnywhere
Cancel
Help
Previous
Next

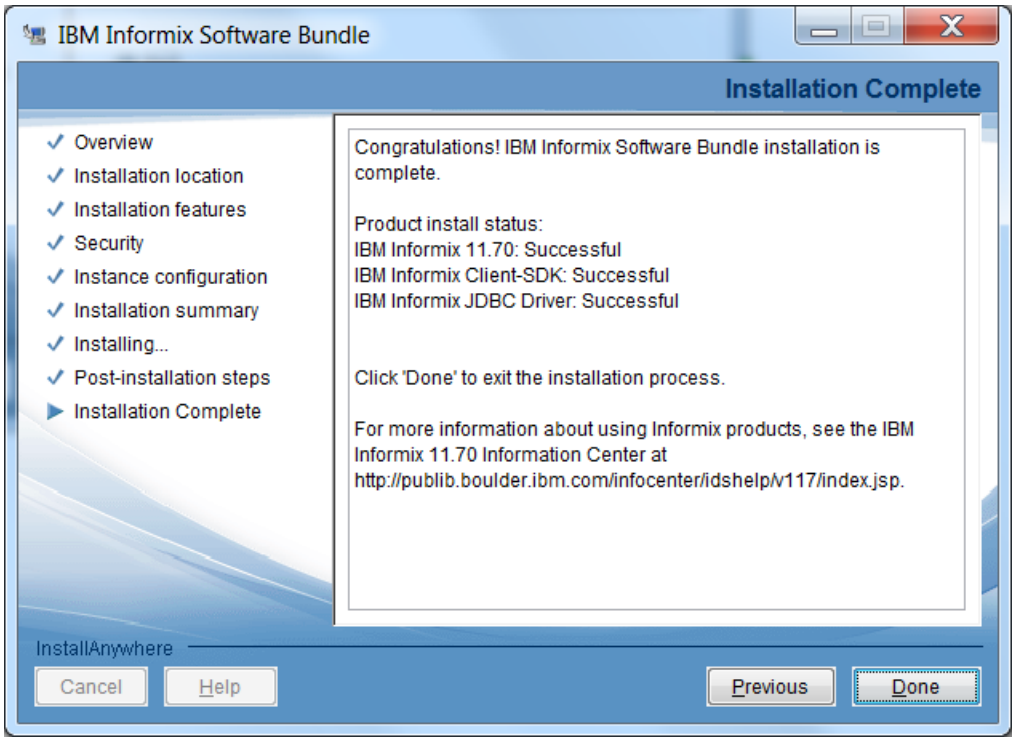

IBM Informix Software Bundle
Installation Summary
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Please review the following before continuing:
Product Name:
IBM Informix Software Bundle
Install Folder:
C:\IBM\Informix\11.70
Product Features:
IBM Informix database server
Base Server
Extensions and tools
J/Foundation
Database extensions
Conversion and reversion support
XML publishing
InstallAnywhere
Cancel
Help
Previous
Install


IBM Informix 11.70
Server Initialization
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
The server will now be initialized. Initialization might take quite a while, depending on the performance of your computer.
InstallAnywhere
Cancel
Help
Previous
Next


IBM Informix 11.70
Windows Command Prompt
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Do you want to open a command prompt for the Informix database server instance created during installation?
Yes
No
InstallAnywhere
Cancel
Help
Previous
Next


IBM Informix 11.70
Using the new instance
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
The IBM Informix Software Bundle created a database server instance. If you selected to initialize the instance and to display a command prompt, the instance is ready to use.
If you selected to initialize the instance and chose not to display a command prompt, you can go to C:\IBM\Informix\11.70 on a command line and run one of the following commands, where cbiwin is the name of the path or file where the instance is installed:
Windows:
cbiwin.cmd
UNIX csh:
source cbiwin.csh
UNIX ksh or bourne:
./cbiwin.ksh
InstallAnywhere
Cancel
Help
Previous
Next


IBM Informix Software Bundle
IBM Data Server Driver Package
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Do you want to launch the IBM Data Server Driver Package after installation completes?
Yes
No
InstallAnywhere
Cancel
Help
Previous
Next


IBM Informix Software Bundle
Installation Complete
Overview
Installation location
Installation features
Security
Instance configuration
Installation summary
Installing...
Post-installation steps
Installation Complete
Congratulations! IBM Informix Software Bundle installation is complete.
Product install status:
IBM Informix 11.70: Successful
IBM Informix Client-SDK: Successful
IBM Informix JDBC Driver: Successful
Click 'Done' to exit the installation process.
For more information about using Informix products, see the IBM Informix 11.70 Information Center at http://publib.boulder.ibm.com/infocenter/idshelp/v117/index.jsp.
InstallAnywhere
Cancel
Help
Previous
Done

Now the install process has finished.

The information of new IDS instance as below:

Server Name: cbiwin

Service Name for SQLI connections: cbiwin

Port number for SQLI: 9088

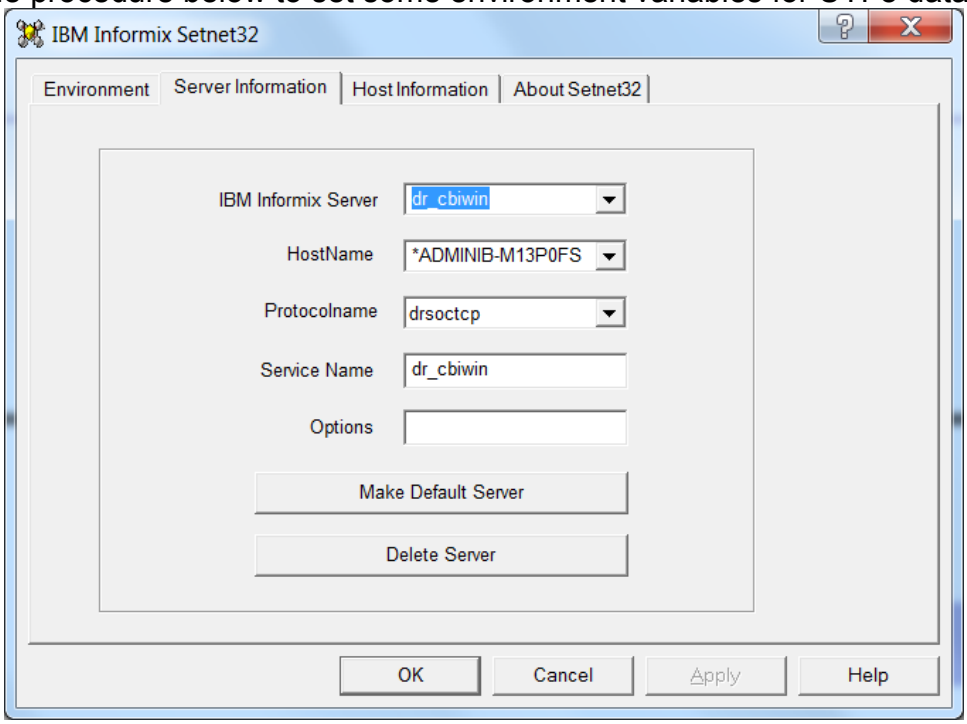
Server number: 0

Server Alias for DRDA support: dr_cbiwin

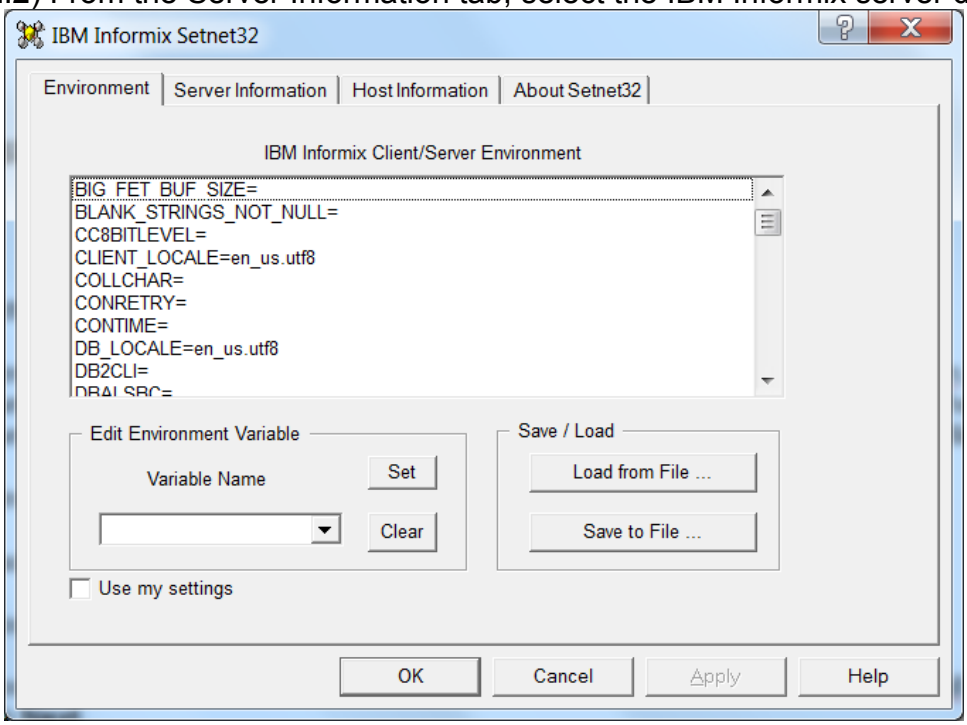
Port number for DRDA support: 9089

Part Two – Set IDS as the content store for Cognos BI

1. Set Informix database environment
   Follow the procedure below to set some environment variables for UTF8 databases.



1) Start Setnet32 by clicking Start -> All Programs -> IBM Informix Clinet SDK 11.70 -> Setnet32.2) From the Server Information tab, select the IBM Informix server dr_cbiwin.



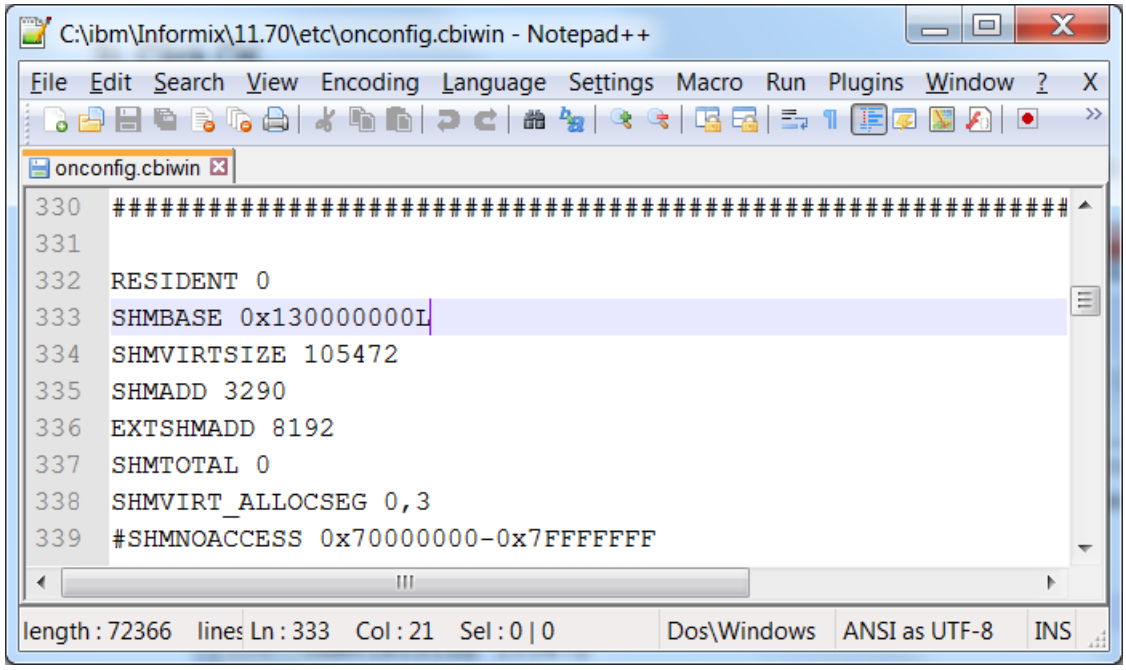
3). Click the Environment tab and set the following environment variables:

Set the value for below parameters:
CLIENT_LOCALE=en_us.utf8

DB_LOCALE=en_us.utf8
GL_USEGLU=1
INFORMIXSERVER=cbiwin

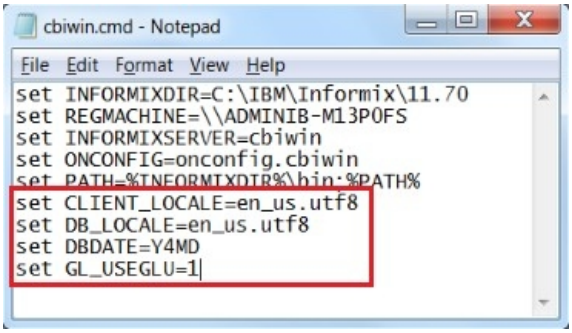
3). Click OK.

2. As Cognos recommendations, in the ONCONFIG.cbiwin file (%INFORMIXDIR%\etc\%ONCONFIG%), set the property SHMBASE to at least 0x13000000L.



3. Restart the Informix instance service (Informix IDS –cbiwin) in the windows services.

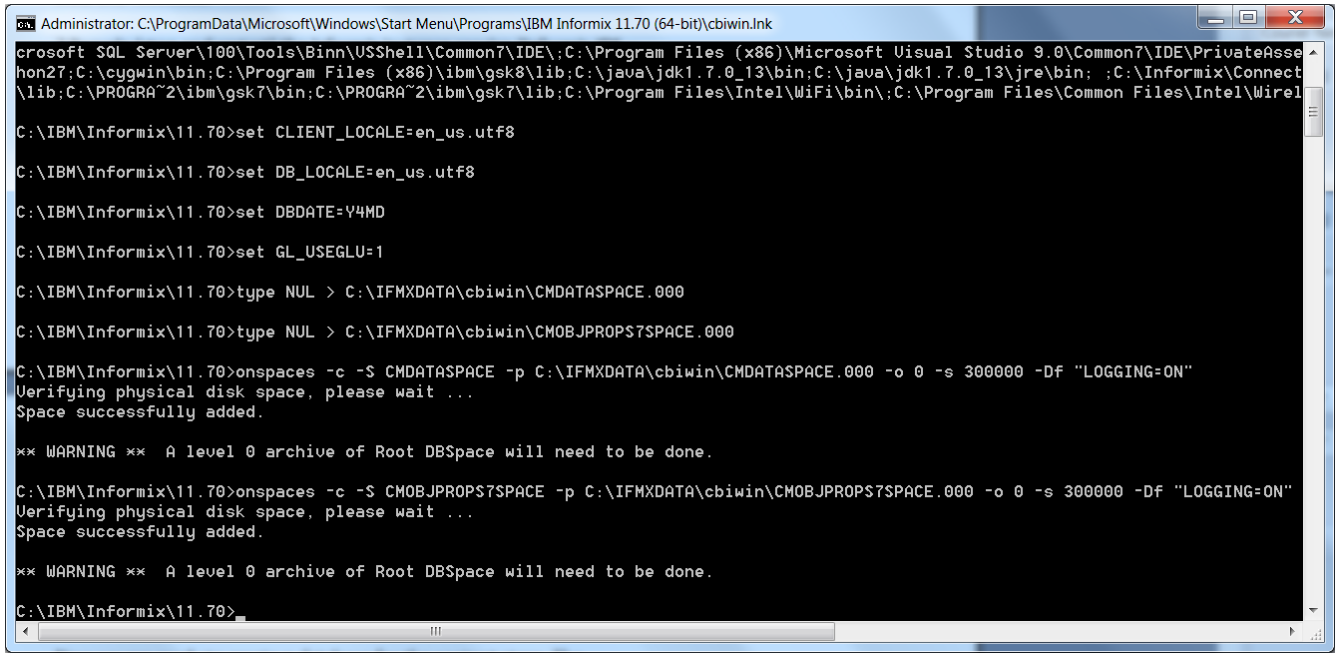
4. As Cognos recommendations, create two sbspaces namely CMDATASPACE and CMOBJPROPS7SPACE, with the logging turned on.
Follow the below procedure:
1) Set up cbiwin environment, using notepad open %INFORMIXDIR%\cbiwin.cmd, enter below parameters:



2) Start cbiwin by clicking Start -> All Programs -> IBM Informix 11.70 -> cbiwin.

Input below commands:

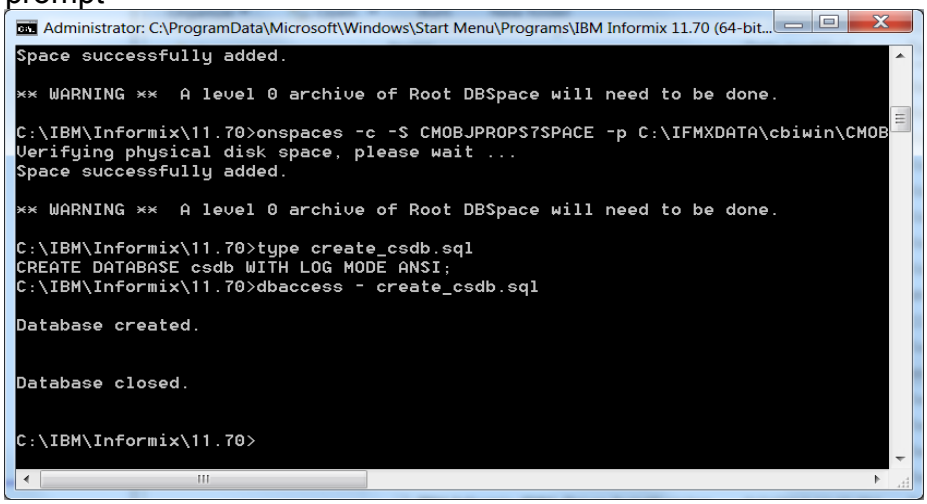
```
type NUL > C:\IFMXDATA\cbiwin\CMDATASPACE.000
type NUL > C:\IFMXDATA\cbiwin\CMOBJPROPS7SPACE.000

onspaces -c -S CMDATASPACE -p C:\IFMXDATA\cbiwin\CMDATASPACE.000 -o 0 -s
300000 -Df "LOGGING=ON"
onspaces -c -S CMOBJPROPS7SPACE -p C:\IFMXDATA\cbiwin\CMOBJPROPS7SPACE.000 -o
0 -s 300000 -Df "LOGGING=ON"
```



3) Now we are ready to create a database for the content store. The content store database has to be created with “log mode ANSI”. Save the following “CREATE DATABASE” SQL statement into a file called create_csdb.sql at %INFORMIXDIR%

```
CREATE DATABASE csdb WITH LOG MODE ANSI;
```

4) Run the create_csdb.sql script with the following command at the cbiwin command prompt



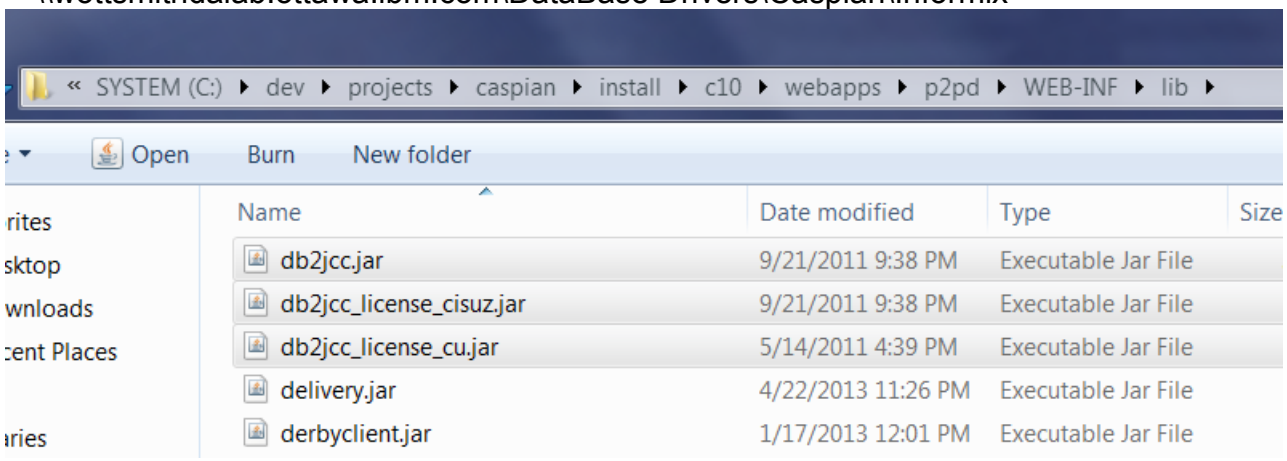

```
dbaccess - create_csdb.sql
```

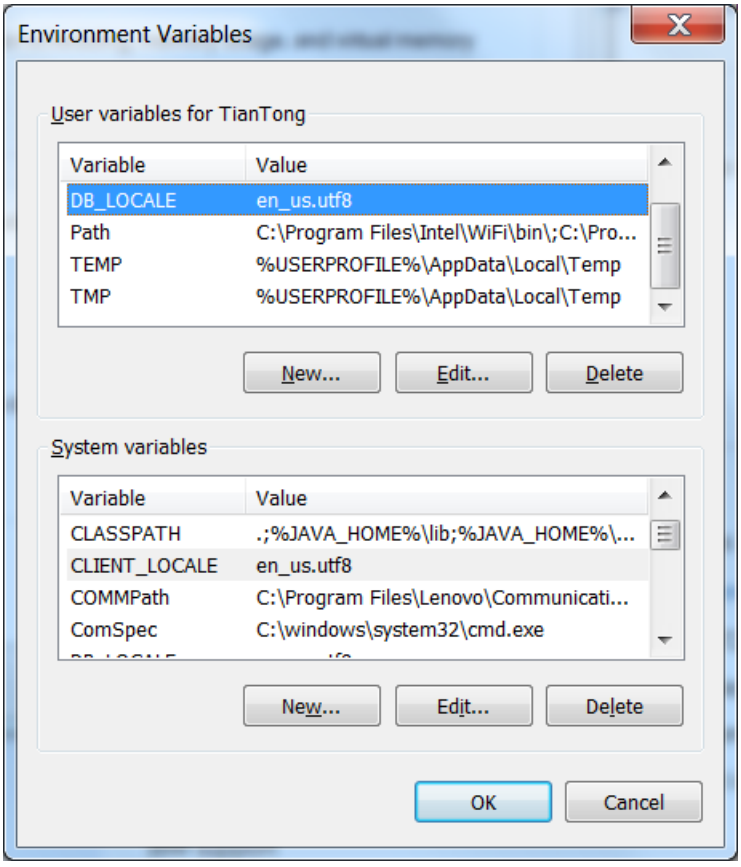
5. Set the following system environment variables:

```
DB_LOCALE to en_us.utf8            (User)
```

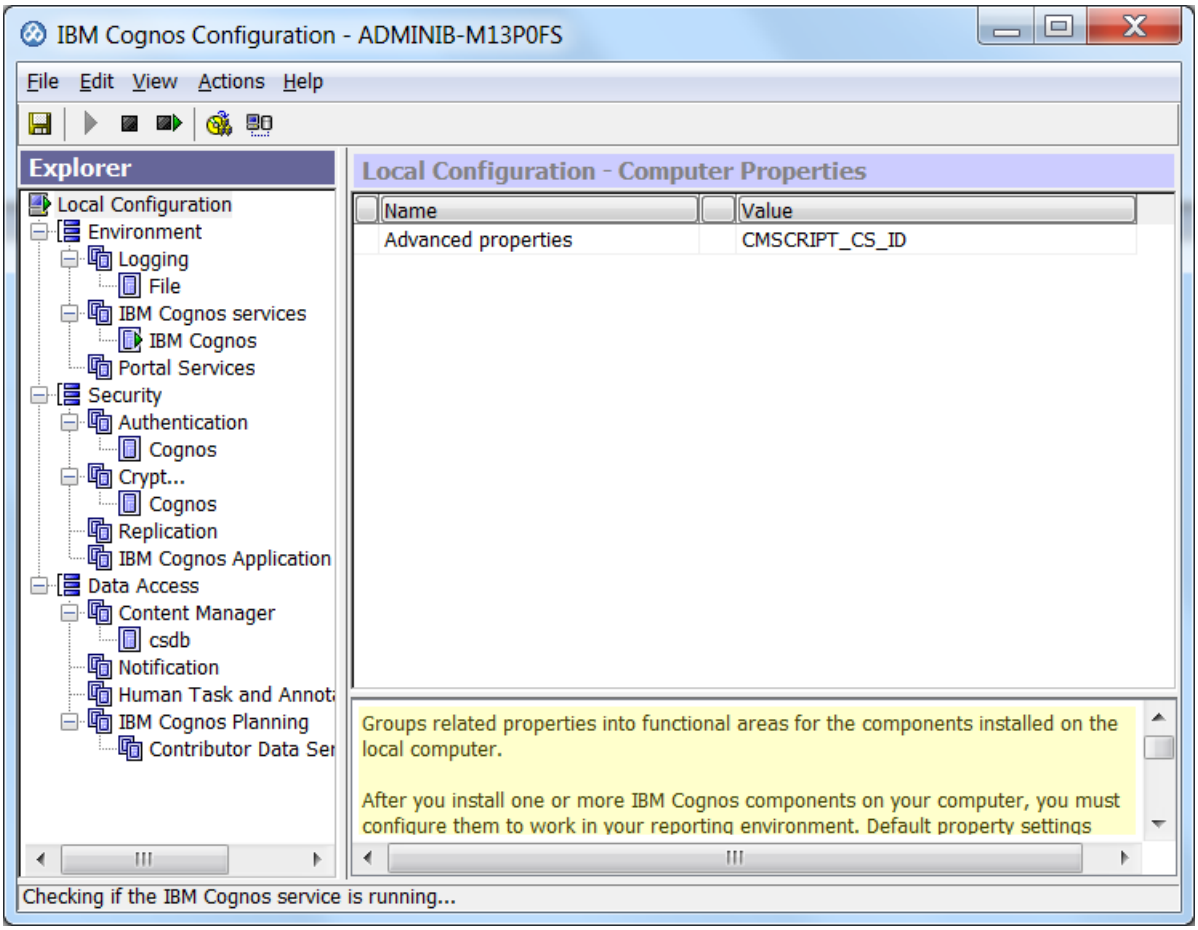
```
CLIENT_LOCALE to en_us.utf8          (System)
GL_USEGLU to 1                       (System)
```

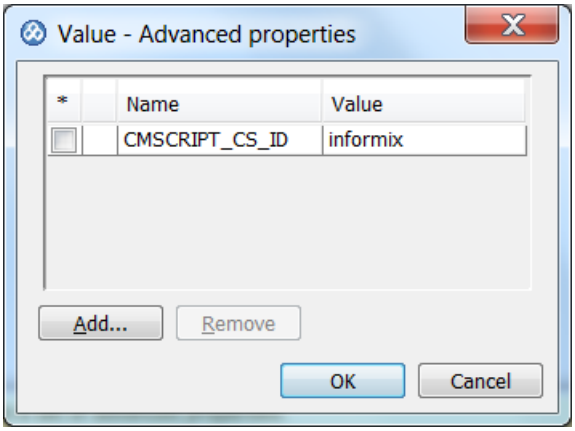
6. We have already installed IBM Data Server Driver for JDBC. Copy `db2jcc.jar` file from `<DataServerDriver_location>\java` to `<c10_location>\webapps\p2pd\WEB-INF\lib` folder.
   If you do not have drivers you can find them bellow
   \\wottsmithdalab.ottawa.ibm.com\DataBase Drivers\Caspian\Informix



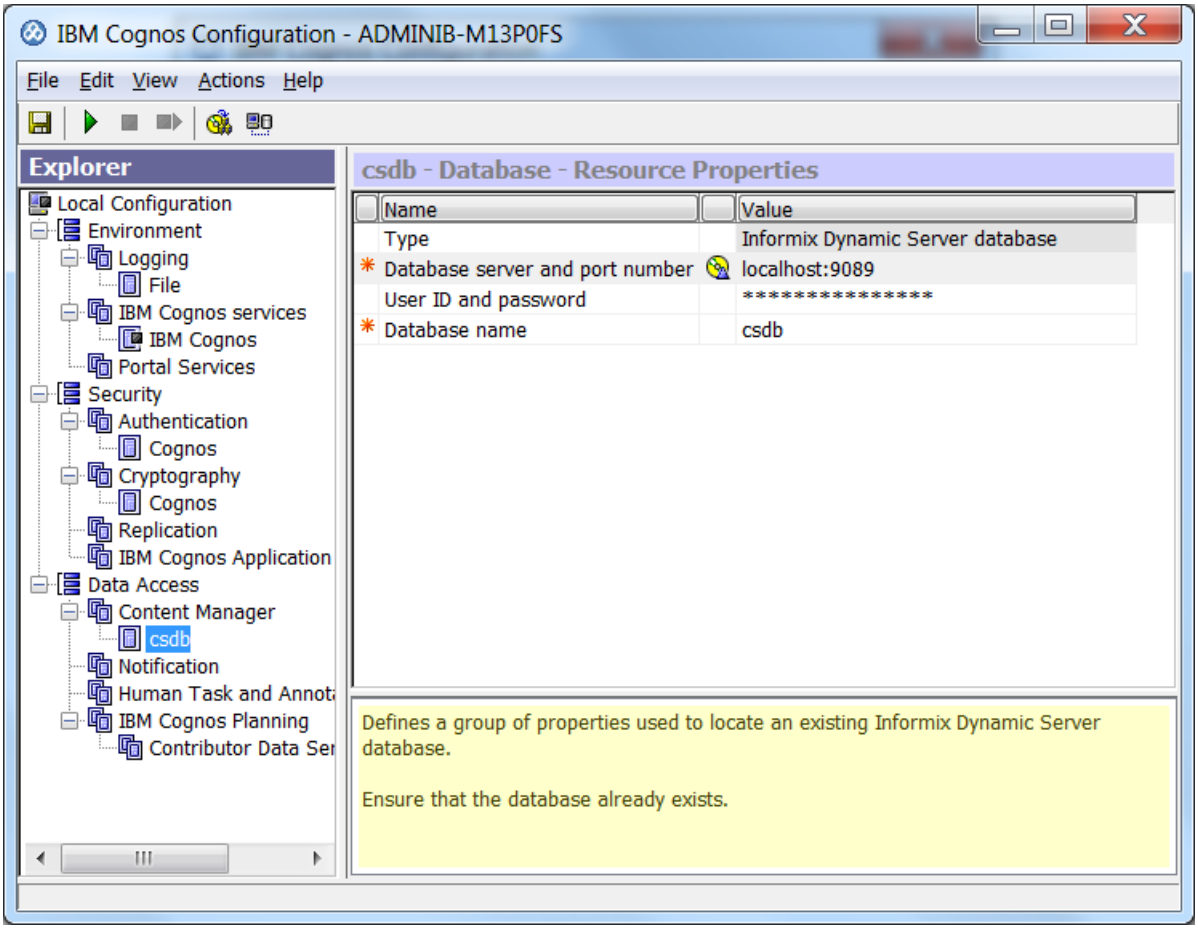


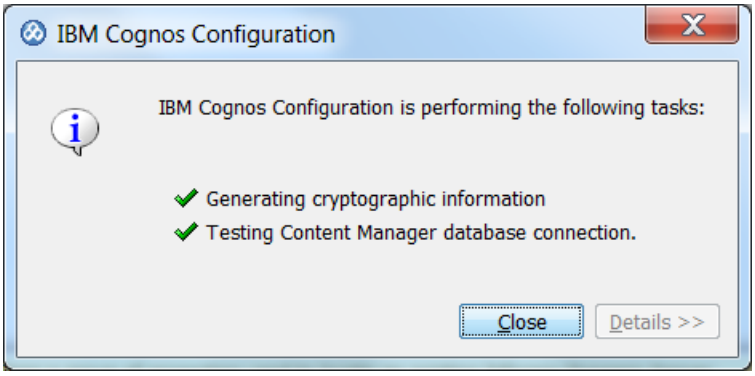
7. Set Advanced properties in Cognos Configuration:





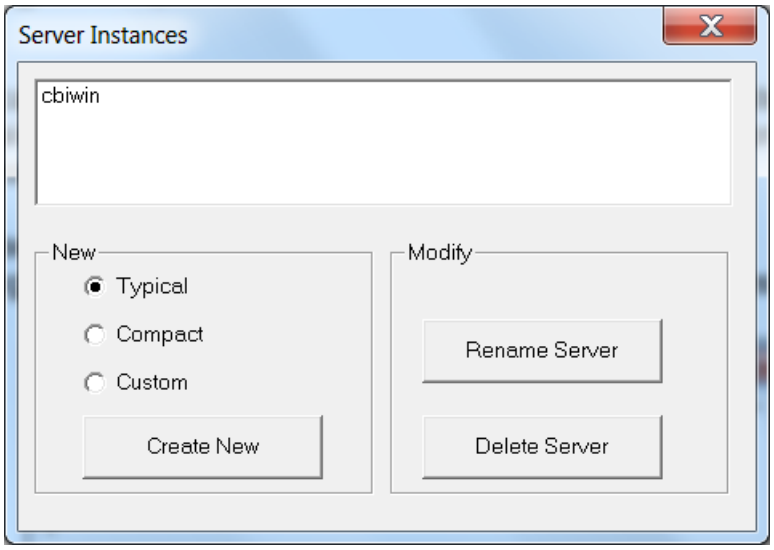
8. Set Informix as content store as below and test it.

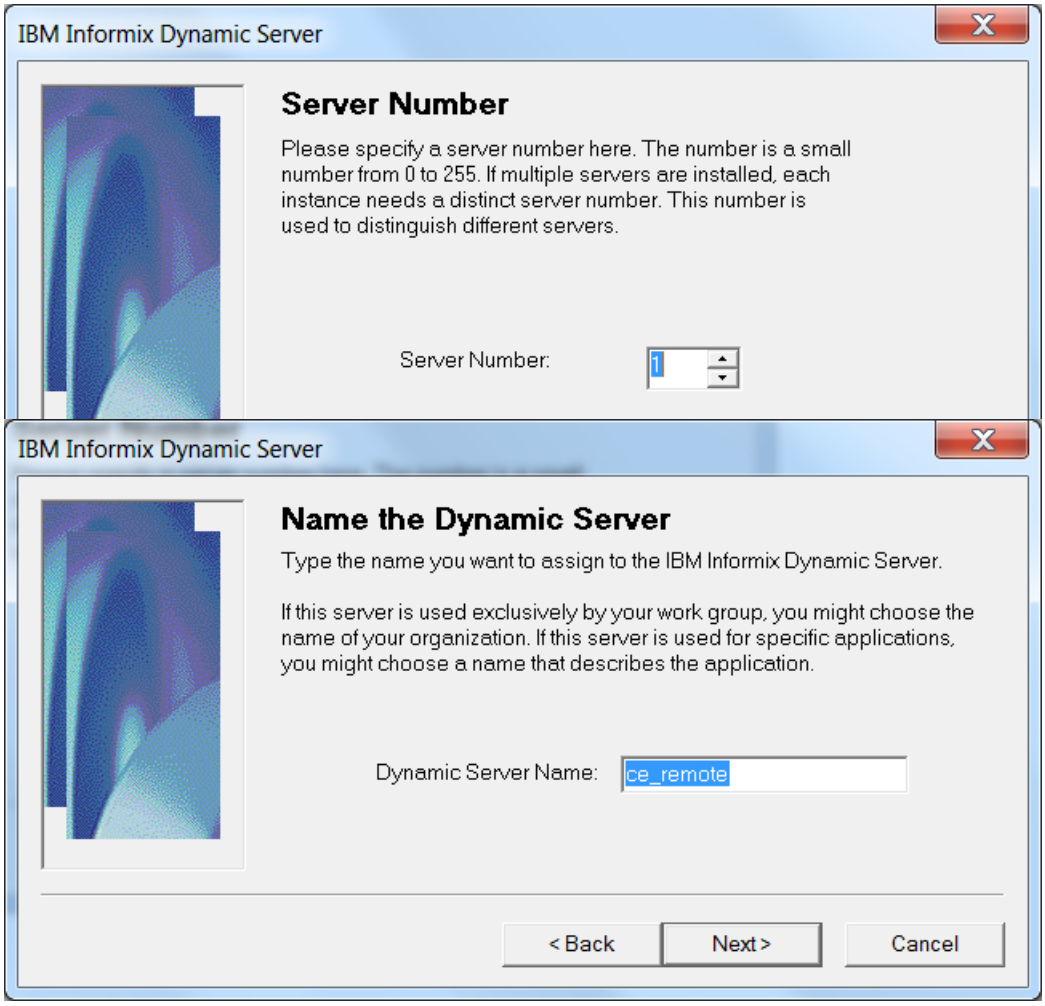

IBM Cognos Configuration - ADMINIB-M13P0FS
File Edit View Actions Help
Explorer
Local Configuration
Environment
Logging
File
IBM Cognos services
IBM Cognos
Portal Services
Security
Authentication
Cognos
Cryptography
Cognos
Replication
IBM Cognos Application
Data Access
Content Manager
csdb
Notification
Human Task and Annot
IBM Cognos Planning
Contributor Data Ser
csdb - Database - Resource Properties
Name
Value
Type
Informix Dynamic Server database
Database server and port number
localhost:9089
User ID and password
****
Database name
csdb
Defines a group of properties used to locate an existing Informix Dynamic Server database.
Ensure that the database already exists.

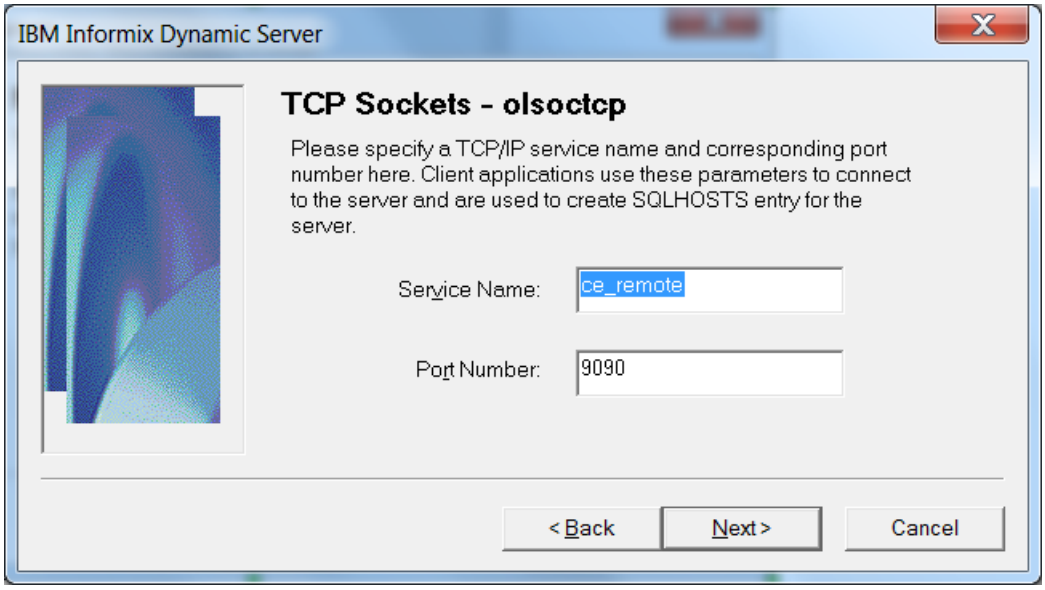

IBM Cognos Configuration
IBM Cognos Configuration is performing the following tasks:
Generating cryptographic information
Testing Content Manager database connection.
Close
Details >>

Part Three – Set IDS as the data source for Cognos BI

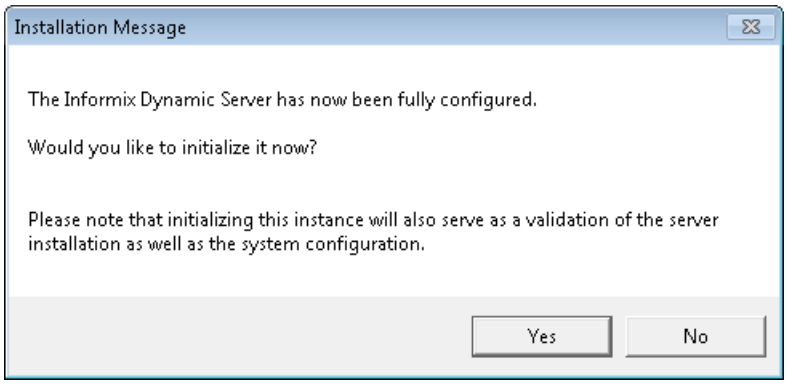
1. Create a new server instance.
   Start -> All Programs -> Informix Dynamic Server 11.70 -> Server Instance Manager
   Click create new, the process as below screen shot:



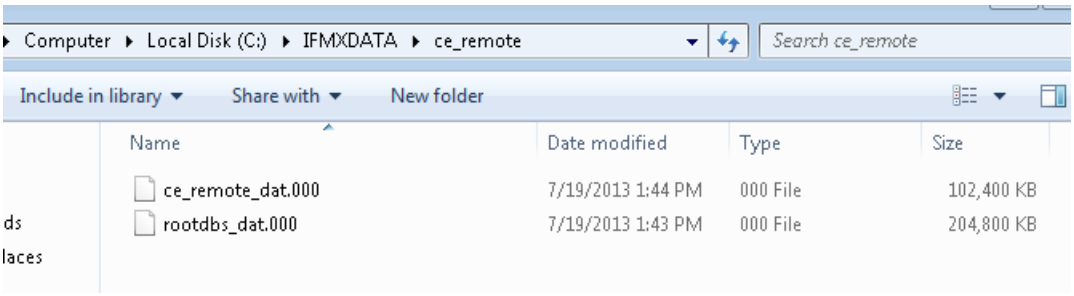




Click next, you need to input you password, and then click yes for initialize it now



2. Extend table Dbspace and restore database.



The default size of ce_remote_dat.000 is 100M, we should extend the space, the method as below:

1) Create new files named ce_remote_dat.001 and ce_remote_dat.002 under %IFMXDATA%\ce_remote directory.
2) Start -> All Programs -> Informix Dynamic Server 11.70 -> ce_remote
   Input below command:

onspaces -a ce_remote -p c:\IFMXDATA\ce_remote\ce_remote_dat.001 -s 300000 -o 0

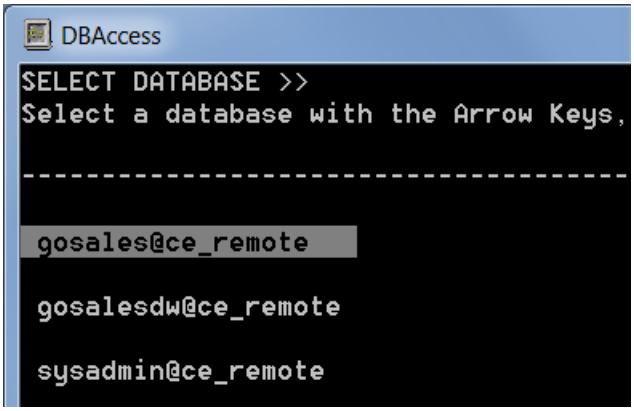
```
onspaces -a ce_remote -p c:\IFMXDATA\ce_remote\ce_remote_dat.002 -s 300000 -o
0
```

3) Copy gosales.exp and gosalesdw.exp to %INFORMIXDIR%. You can search Cognos Informix Sample from:http://w3-103.ibm.com/software/xl/download/ticket.do

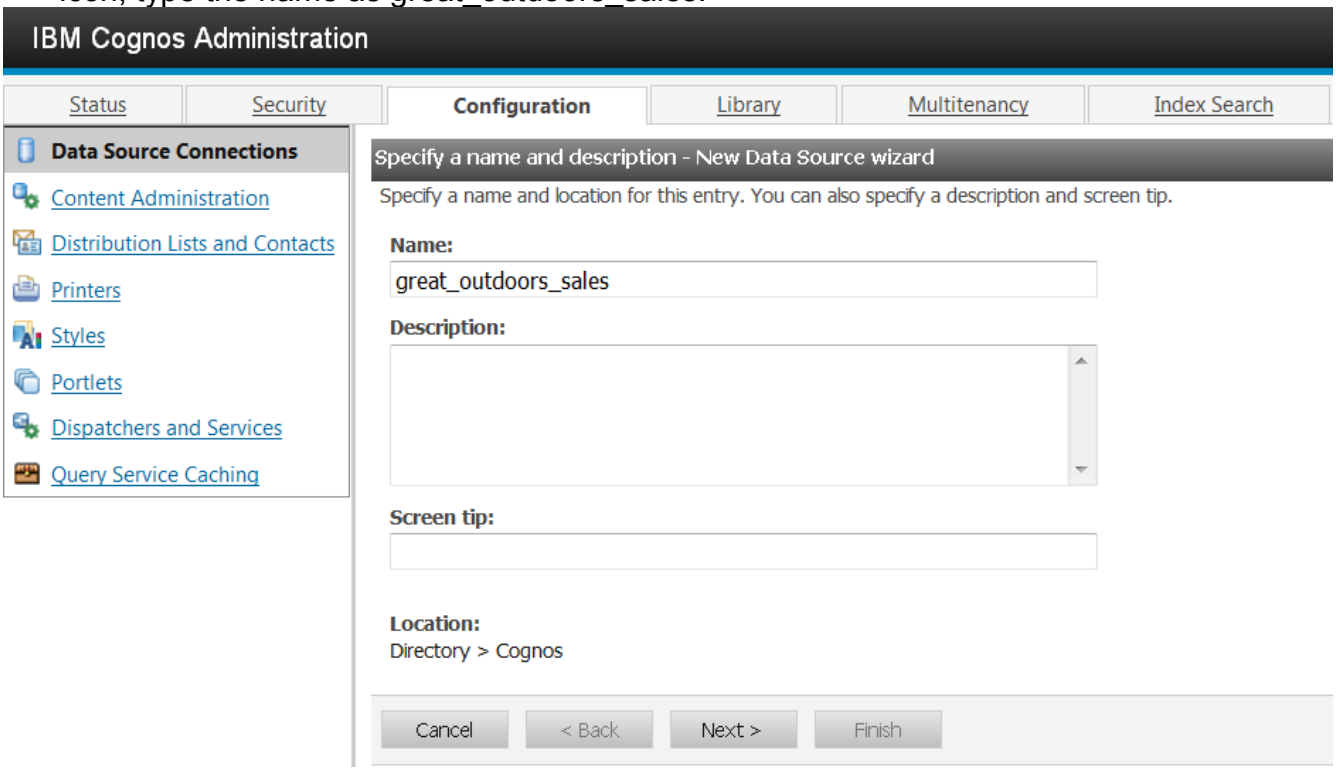
4) Restore GOSALES and GOSALESDW database. Input the command as below:

```
dbimport -ci gosales -d ce_remote
dbimport -ci gosalesdw -d ce_remote
```

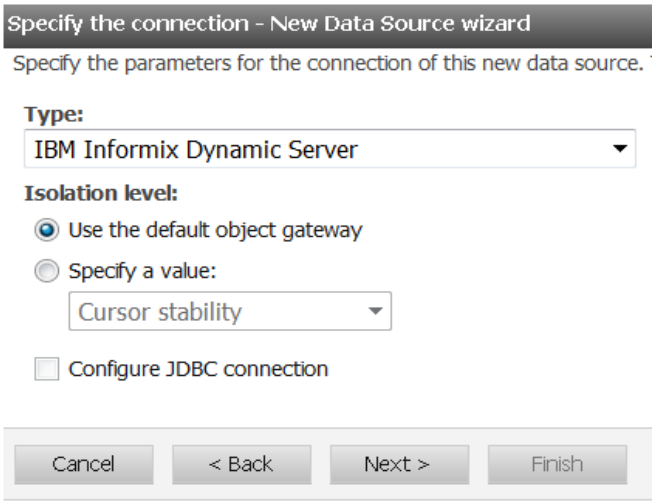
When finished , you can input command ： `dbaccess` and select database. You can see the two database.



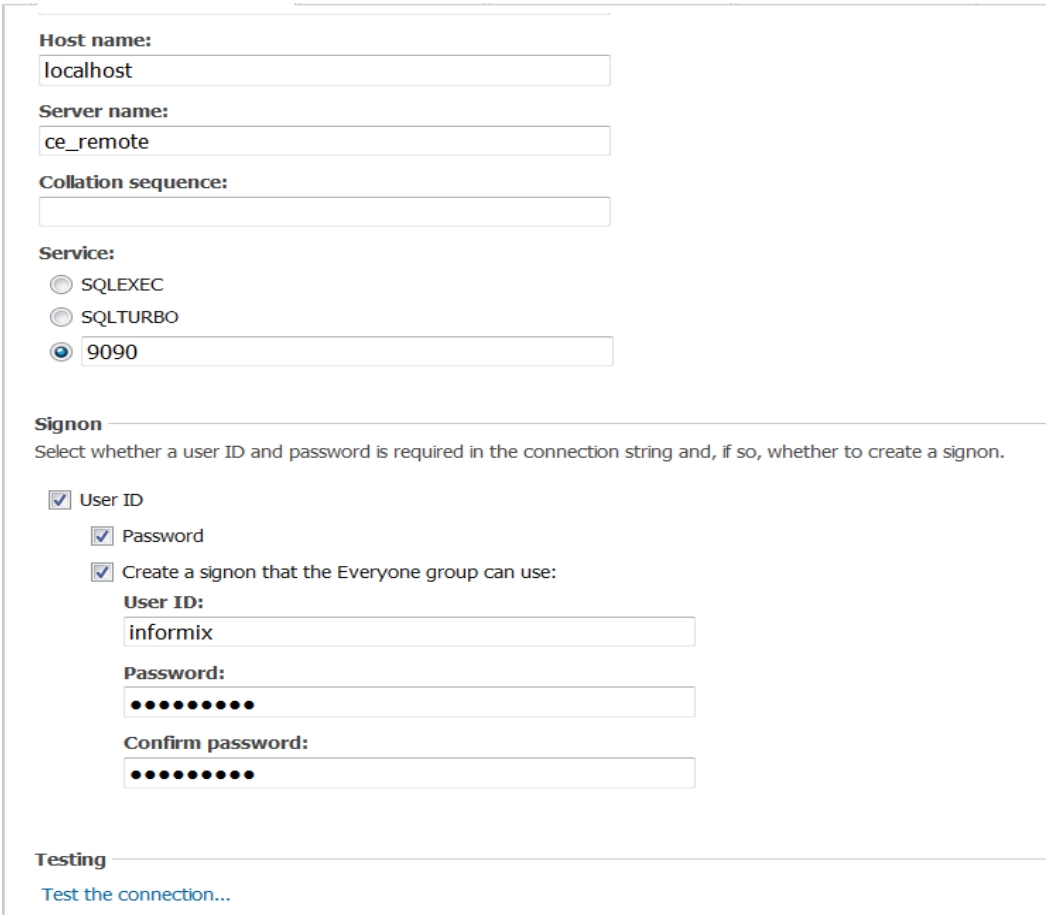
3. Add new data source connection for Cognos.
   1) In IBM Cognos Administration, select Configuration table, click add new data source icon, type the name as great_outdoors_sales.



2) Select type as IBM Informix Dynamic Server



3) Input Informix database parameters as below:



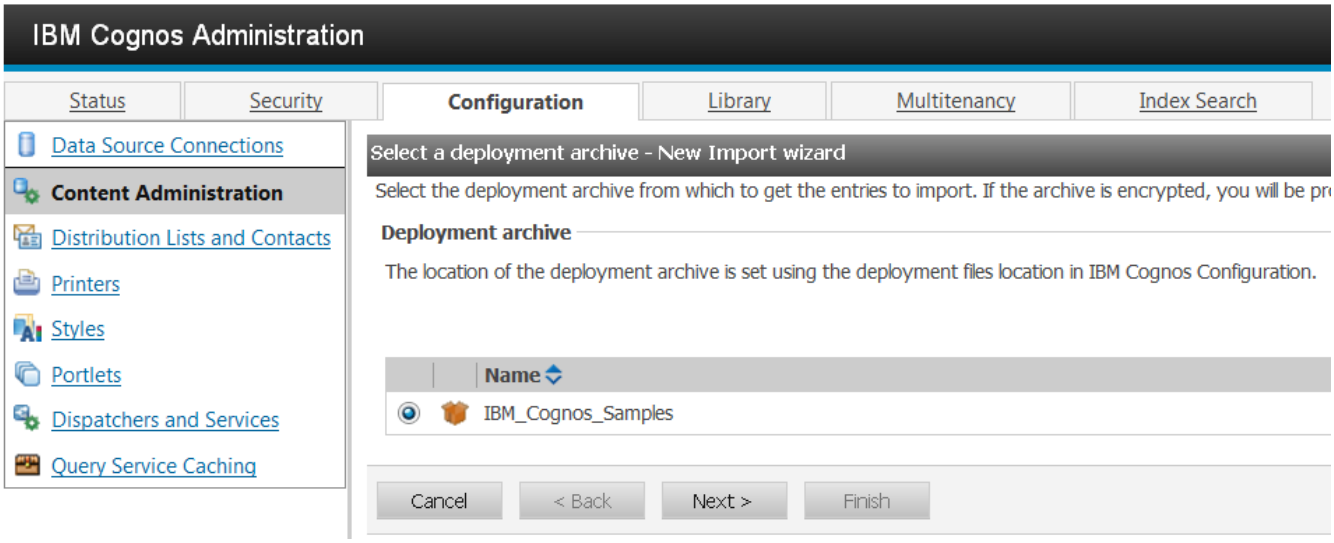
4) Click test the connection

5) Do the same process add new great_outdoors_warehouse connection with informix

database gosalesdw.

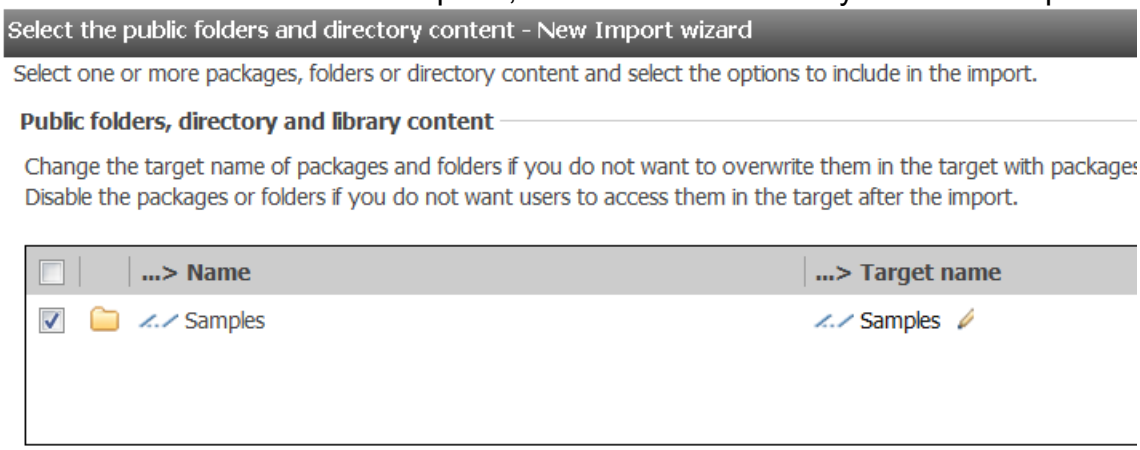
4. Import sample package
   1) Copy the IBM_Cognos_Samples.zip file from the c10_location/webcontent/samples/content directory to the c10_location/deployment directory.

   2) On the Welcome page, click Administer IBM Cognos Content. On the Configuration tab, click Content Administration. On the toolbar, click New Import.



   3) Click next ,type a unique name and an optional description and screen tip for the deployment archive, select the folder where you want to save it, and then click Next.

   4) In the Public Folders Content pane, select the folders that you want to import.



   5) Click next, Review the summary information and click Next. To run once now or later, click Save and run once. Click Finish.

   6) Select run options, and click run.