

*Install IBM Connections 4.5 Cognos on  
RedHat using Oracle Database  
step-by-step Guide  
part 2.*

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## Authors

Andrea Fontana  
IBM Champion for WebSphere  
DeveloperWorks Contributor Author  
can be contact ed at : a.fontana@net2action.com

## Abstract

This document is second part of “[\*Install IBM Connections 4.5 Cognos on RedHat using Oracle Database step-by-step Guide Part1\*](#)”, in this document I talk about:

- Install Cognos BI Fix Pack 1
- Configuring Cognos LDAP Security
- Install and configure Metrics
- Building the power cubes on Cognos

well, now we begin

## Content

How to install and configure Cognos Business Intelligence , in a dedicate server into the same cell of IBM Connections Cluster. This document is picked up after installing Connections from the connections wiki install doc:

[http://www-10.lotus.com/ldd/lcwiki.nsf/xpDocViewer.xsp?lookupName=IBM+Connections+4.5+Documentation#action=openDocument&res\\_title=Installing\\_Cognos\\_Business\\_Intelligence\\_ic45&content=pdcontent](http://www-10.lotus.com/ldd/lcwiki.nsf/xpDocViewer.xsp?lookupName=IBM+Connections+4.5+Documentation#action=openDocument&res_title=Installing_Cognos_Business_Intelligence_ic45&content=pdcontent)

# Install Cognos Business Intelligence 10.1.1 Fix Pack 1

To install Fix Pack you must unpack the fixPack into a directory and run appropriate Wizard. After unpack the fix, you must update cognos-setup.properties file, and set *cognos.biserver.issetup* parameter to point a new installation files.

In my case

```
cognos.biserver.issetup=/opt/ibm/setup/BIFp01/linuxi38664h/issetup
```

On RedHat 6, be sure `LD_PRELOAD=/usr/lib64/libfreebl3.so` is set before proceeding. Move to directory where you unpack "CognosSetup", and running the `./cognos-setup-update.sh` script. This task updates the Cognos ear application and when complete, you should see something like the following result:

```
CMcheck:

gen_war_without_docsamples:
  [war] Building war: /opt/ibm/CognosBI/temp/war/p2pd.war

ear_without_docsamples:
  [delete] Deleting: /opt/ibm/CognosBI/cognos.ear
  [copy] Copying 1 file to /opt/ibm/CognosBI/war/p2pd
  [ear] Building ear: /opt/ibm/CognosBI/temp/war/p2pd.ear
  [move] Moving 1 files to /opt/ibm/CognosBI

clean_jboss:

clean_sap:

clean_war:
  [delete] Deleting directory /opt/ibm/CognosBI/temp/war/p2pd
  [delete] Deleting: /opt/ibm/CognosBI/temp/war/p2pd.war

clean:

BUILD SUCCESSFUL
Total time: 1 minute 44 seconds
popd
... generating Cognos EAR completed
```

Next, you must update the application on the admin console.

Before Update we must remove Oracle JDBC Driver from .ear to not have the same problem when we install it first time.

To do this you must expand .ear file and remove ojdbc6.jar from Cognos.ear/p2pd.war/WEB-INF/lib

you can use EARExpander.sh script find it in <WAS\_Home>/profiles/<profilesName>/bin.

In my case:

```
[root] mkdir temp
[root] mkdir temp/Cognos.ear -p
[root] cd temp/Cognos.ear -p
[root] <Profile_home>/bin/EARExpander.sh -ear cognos_save.ear
-operationDir ./Cognos.ear -operation expand -expansionFlags war
ADMA4006I: Expanding enterprise archive (EAR) file cognos_save.ear to
directory ./Cognos.ear
[root] cd Cognos.ear/p2pd.war/WEB-INF/lib/
[root] rm -f ojdbc6.jar
[root] cd /opt/ibm/setup/cognos/
[root] <Profile_home>/bin/EARExpander.sh -ear cognos.ear -operationDir
./Cognos.ear -operation collapse
ADMA4007I: Collapsing the contents of directory ./Cognos.ear to enterprise
archive (EAR) file cognos.ear.
ADMA4007I: Collapsing the contents of directory ./Cognos.ear to enterprise
archive (EAR) file cognos.ear
[root]
```

Now we can update Cognos Application.

Log in to your admin console (ICS) and go to

**Applications > Application Types > Enterprise Applications.**

Preparing for the application update

Specify the EAR, WAR, JAR, RAR, or SAR module to upload and update.

Application to be updated:  
Cognos

**Application update options**

- Replace the entire application  
Upload an enterprise archive (\*.ear) to replace the entire installed application.  
**Specify the path to the replacement ear file.**
  - Local file system  
Full path  
Browse... No file selected.
  - Remote file system  
Full path  
/opt/ibm/CognosBI/cognos.ear Browse...
- Replace or add a single module  
If the path to the new module matches an existing path to a module in the installed application, the new module replaces the existing module. If the path to the module does not exist in the installed application, the new module is added to the application.
- Replace or add a single file  
If the path to the new file matches an existing path to a file in the installed application, the new file replaces the existing file. If the path to the file does not exist in the installed application, the new file is added to the application.
- Replace, add, or delete multiple files  
Use a compressed file format such as .zip or .gzip. The compressed file is unzipped into the installed application directory. If the uploaded files exist in the application with the same paths and file names, the uploaded files replace the existing files. If the uploaded files do not exist, the files are added to the application. You can remove existing files from the installed application by specifying metadata in the compressed file.

Next Cancel

Then click Next to continue

For all of the remaining screens, select the defaults.

On the summary page, click **Finish** to update the application. When complete, the following result is displayed:

```
ADMIN5013: Application Cognos installed successfully.
Application Cognos installed successfully.
To start the application, first save changes to the master configuration.
The application might not be immediately available while being started on all servers.
Changes have been made to your local configuration. You can:
• Save directly to the master configuration.
• Review changes before saving or discarding.
To work with installed applications, click the "Manage Applications" link
```

Click **Save** to save the application.

Synch the nodes.

Start the Cognos server.

It is important to start the Cognos server before the next task is run.

To looking that find CGSServer process in your environment

```
[root] ps -edaf | grep cgs
root 15089 15079 3 07:14 ? 00:00:04
/opt/ibm/WebSphere/AppServer/java/bin/java -Xmx1g -DuseNonAsync
-classpath ../webapps/p2pd/WEB-INF/lib/p2pd.jar:../webapps/p2pd/WEB-
INF/lib/commons-httpclient-3.1.jar:../webapps/p2pd/WEB-INF/lib/logkit-
1.2.jar:../webapps/p2pd/WEB-INF/lib/dom4j-1.6.1.jar:../webapps/p2pd/WEB-
INF/lib/jcam_crypto.jar:../webapps/p2pd/WEB-INF/lib/commons-pool-
1.3.jar:../webapps/p2pd/WEB-INF/lib/commons-logging-
1.1.jar:../webapps/p2pd/WEB-INF/lib/commons-codec-
1.3.jar:../webapps/p2pd/WEB-INF/lib/commons-logging-api-
1.1.jar:../webapps/p2pd/WEB-INF/lib/commons-logging-adapters-
1.1.jar:../webapps/p2pd/WEB-INF/lib/cognosipf.jar:../webapps/p2pd/WEB-
INF/lib/log4j-1.2.8.jar:../webapps/p2pd/WEB-
INF/lib/cclcfgapi.jar:../webapps/p2pd/WEB-
INF/lib/CognosIPF.jar:../webapps/p2pd/WEB-INF/lib/bcprov-jdk14-
145.jar:../bin/jcam_jni.jar:../webapps/p2pd/WEB-
INF/lib/./classes:../webapps/p2pd/WEB-
INF/lib/cgsService.jar:cgsJava.jar:openviz2.jar:particles-cognos.jar
com.ibm.cgsBus.CGSServer
```

Run the following command to update cognos configurations.

```
[root] ./cognos-configure-update.sh
```

This task customizes the Cognos application for Connections.

When complete, you should see something like the following result:

```
Using Cognos setup properties file:
/opt//ibm/setup/cognosSetup/cognos-setup.properties
Performing validation check ...
JAR file(s) found in JDBC driver directory:
/opt//ibm/setup/cognosSetup/BI-Customization/JDBC
was.install.path: WebSphere Application Server exists
Using profile: AppCognos
cognos.was.node.name: Found node [broomIcCognos]
cognos.biserver.issetup: Will use issetup to install
Cognos BI Server
/opt//ibm/setup/BIFp01/linuxi38664h/issetup
cognos.transformer.issetup: Will use issetup to install
Cognos Transformer
/opt//ibm/setup/trasformer1011/linuxi38632/issetup
Using cognos.locale: EN
All properties provided for Cognos database
All properties provided for Metrics database
/opt//ibm/setup/cognosSetup/lib
/opt//ibm/setup/cognosSetup
/opt//ibm/setup/cognosSetup
JDBC Connection Success
Success to verify the JDBC connection to Cognos Content
Store database.
JDBC Connection Success
Success to verify the JDBC connection to Metrics
database.
... performing validation check completed
Configuring Cognos BI Server ...
/opt//ibm/setup/cognosSetup/bin/configBI.sh
-setupProp=/opt//ibm/setup/cognosSetup/cognos-
setup.properties -wasPath=/opt//ibm/WebSphere/AppServer
-cognosDBPassword="***" -adminUser=xxxxxxx
-adminPassword="***" -update=true
... configuring Cognos BI Server completed

Configuring Cognos Transformer ...
/opt//ibm/setup/cognosSetup/bin/configTransformer.sh
-setupProp=/opt//ibm/setup/cognosSetup/cognos-
setup.properties
-cognosSrvLink=http://myserver.ondemand.com:9081/cognos
-cognosCubePath="/opt//ibm/PowerCubes"
-metricsDBType=oracle -metricsDBName=<oracle SID>
-metricsDBLocalName=LXCONPRD
-metricsDBHost=dbStore.xxxxxxx.xxxx:1521
-metricsDBUser=METRICS -metricsDBPassword="***"
-cognosAdminUserName="xxxxxxx"
-cognosAdminUserNS=Colloaboration
-cognosAdminUserPW="***" -update=true
... configuring Cognos Transformer completed
```

## ***Verify Fix isntall Successful***

- 1) Open a browser to `http://Host_Name:Port/Context_Root/servlet`
- 2) This should return the following page

---

**IBM Cognos**

## **Content Manager**

**Build:** 10.1.6235.621

**Start time:** Tuesday, October 15, 2013 7:30:20 AM EDT

**Current time:** Tuesday, October 15, 2013 7:39:54 AM EDT

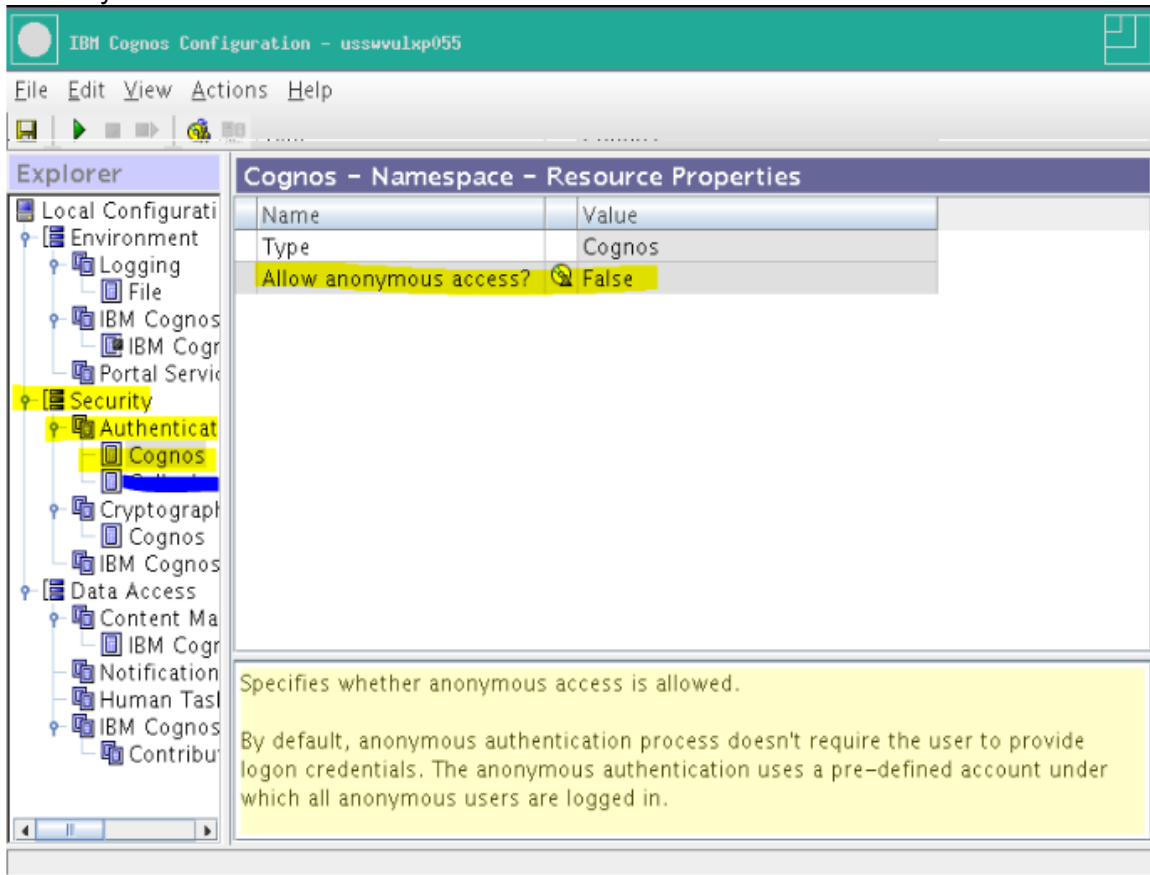
**State:** Running

Notice the Build is now 10.1.6235.621 (before applying fp1 it was 601).

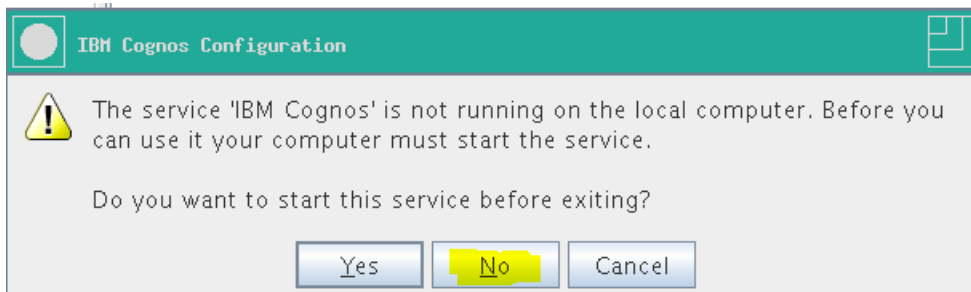
# Configuring Cognos LDAP Security

Next, you must add the LDAP security information into the Cognos configuration tool.

1. Open VNC terminal
2. export JAVA\_HOME. It must be exported before it can be run (export JAVA\_HOME=/opt/IBM/WebSphere/AppServer/java)
3. Run Cognos Configuration Tool /opt/ibm/CognosBI/bin64/cogconfig.sh
4. Select **Local Configuration > Security > Authentication > Cognos** and set Allow anonymous access to "False"



5. Close the configuration tool
6. **Important:** When exiting the Cognos Configuration tool, a window appears and asks if you want to start the service before exiting. Click **No**.



7. Login to your deployment manager and go to **Servers > Server Types > WebSphere Application Servers**
8. Start the **cognos\_server** application. It should start cleanly.
9. If you have HTTP configured against your system, generate the plug-in, start up the HTTP server, and go to the URL <http://myAppServer.example.com/cognos/servlet>. You should see



the following result, which confirms that Cognos is set up and running correctly

10. You can also go to <http://myAppServer.ibm.com/cognos/servlet/dispatch> to confirm that it is working.

---

## **IBM Cognos**

### **Content Manager**

**Build:** 10.1.6235.621

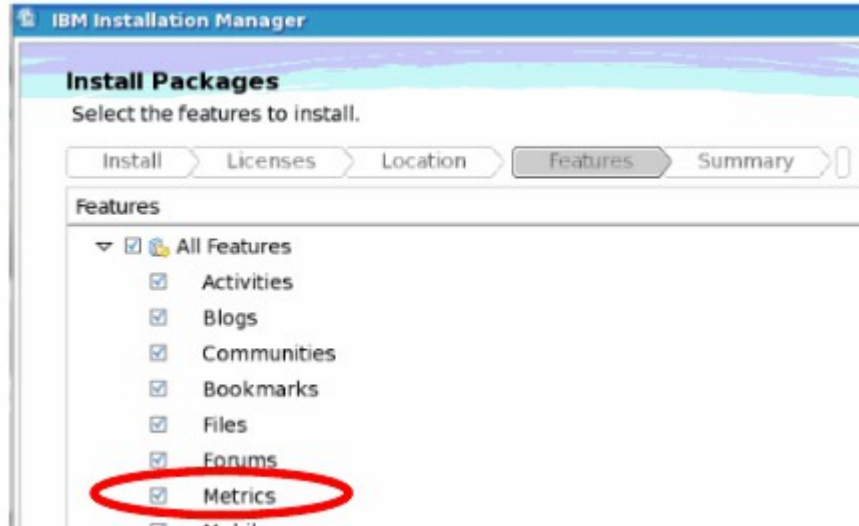
**Start time:** Tuesday, October 15, 2013 7:30:20 AM EDT

**Current time:** Tuesday, October 15, 2013 7:39:54 AM EDT

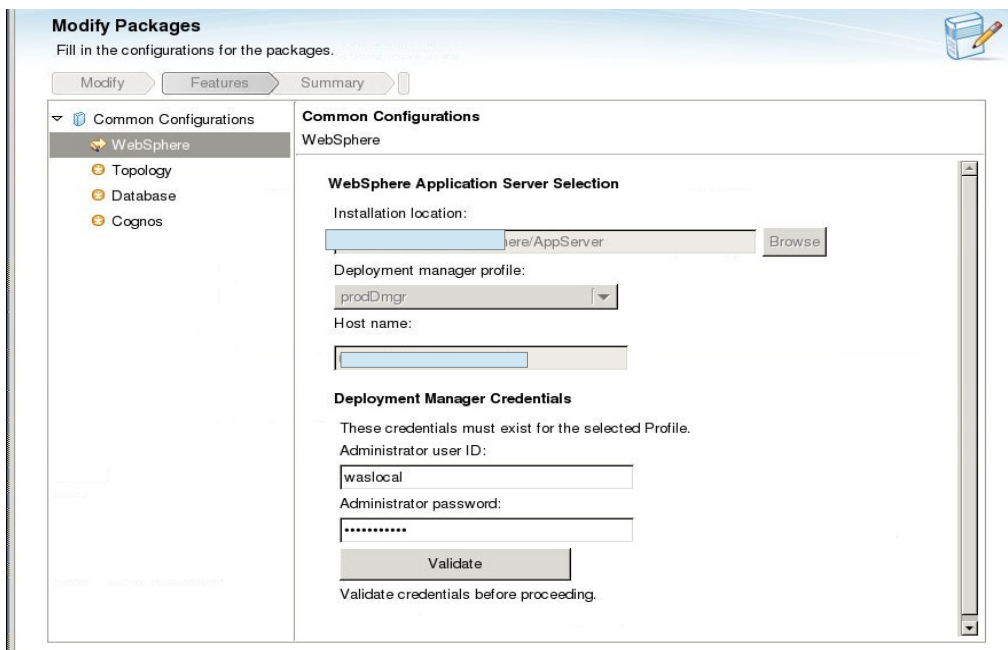
**State:** Running

## Install and configure Metrics

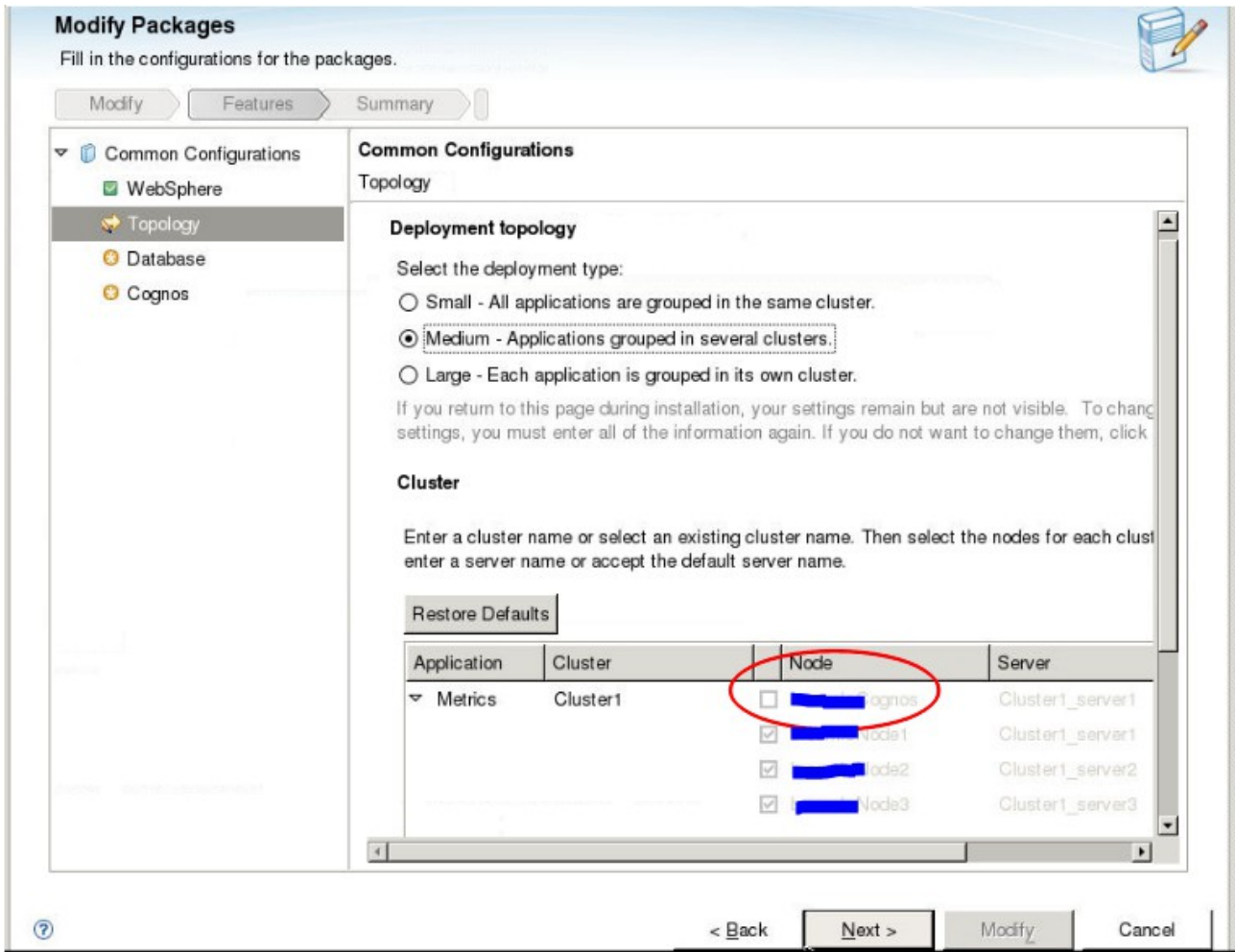
1. Run Installation Manager on Deploy Manager
2. **Important:** On the installation packages screen, verify that **Metrics** is selected to be installed. It is important, because the Cognos installation screen does not display if this item is not selected.



3. Insert and validate data to verify connections to DMGR



4. **Important:** Continue through the installation until you get to the Connections Topology screen.



- On this screen, you see a WebSphere Application Server profile that contains cognos\_server. Verify that this node is not selected.
- On the database screen, you should see metrics that are listed. Make sure to include the database information here and validate when it is done.

Database

Oracle Enterprise Edition

**Database Server**

Host name: [REDACTED]

Port: 1521

JDBC driver location: [REDACTED] JDBC Browse

**Database Credentials**

Use the same password for all applications.

Application	Database Name	User ID	Password
Metrics	[REDACTED]	METRICS	.....

Validate

7. **Important:** On the Cognos screen, you must use your Cognos admin user that you used earlier and that is part of the LDAP. The local wasadmin user does not work.
8. Select the node information and complete the details as in the following screen:
  - For the Cognos credentials:
    - Administrator user ID: wpsbind
    - Administrator passwords: wpsbind
  - For the node:
    - Name: myAppServerNodexxx
    - Host name: xxxxxx
    - Server name: cognos\_server
    - Port: 80
    - Web context root: cognos
9. Click **Validate**. If it fails, you see a red error on the top bar. If it is successful, no message is displayed.

### Common Configurations

Cognos

#### Select when to configure connection to Cognos application

- Do now  
 Do later (manual steps needed; consult Information Center for further details)

#### Cognos Credentials

Enter credential details for the Cognos administrator.

Administrator user ID:

wpsadmin

Administrator password:

.....

#### Node

Select the node where the Cognos BI Server is installed.

Name:

████████ Cognos Load node info

Host name:

████████████████████

Server name:

cognos\_server

Web context root:

cognos

Validate

Please click the "Validate" button to continue.

10. Click **Next** to continue and finish the installation as normal.
11. Perform any post-installation steps that are specific to Connections that you would normally do, such as configuring Search, HTTP, LotusConnections-config.xml, oAuth)

## Changing URLs for metrics in LotusConnections-config.xml

The file LotusConnections-config.xml has URLs and ports hardcoded. They must be changed to your WebServer URL for the HTTP fronting your Cognos server.

```
<sloc:serviceReference bootstrapHost="" bootstrapPort=""
clusterName="LCCluster" enabled="true"
serviceName="metrics"
ssl_enabled="true">
<sloc:href>
<sloc:hrefPathPrefex>/metrics</sloc:hrefPathPrefix>
<sloc:static href="http://myAppServer.example.com"
ssl_href="https://myAppServer.example.com"/>
<slock:interService
href="https://myAppServer.example.com"/>
</sloc:href>
</sloc:serviceReference>

<sloc:serviceReference bootstrapHost="" bootstrapPort=""
clusterName=""
enabled="true" serviceName="cognos" ssl_enabled="true">
<sloc:href>
<sloc:hrefPathPrefix>/cognos</sloc:hrefPathPrefix>
<sloc:static href="http://myAppServer.example.com"
ssl_href="https://myAppServer.example.com"/>
<sloc:interService href="https://myAppServer.example.com"/>
</sloc:href>
</sloc:serviceReference>
```

When it is finished, synch the change to your nodes.

# Adding users ACL to Metrics application

Now you must add users who can generate metrics.

1. Log in to your admin console and select **Applications > Application Types > WebSphere enterprise applications**.
2. Click **Metrics**.
3. Click **Security role to user/group mapping** and add the users to the admin and metrics-report-run roles.

**Enterprise Applications > Metrics > Security role to user/group mapping**

Security role to user/group mapping

Each role that is defined in the application or module must map to a user or group from the domain user registry. accessIds: The accessIds are required only when using cross realm communication in a multi domain scenario. For all other scenarios the accessId will be determined during the application start based on the user or group name. The accessIds represent the user and group information that is used for Java Platform, Enterprise Edition authorization when using the WebSphere default authorization engine. The format for the accessIds is user:realm/uniqueUserID, group:realm/uniqueGroupID. Entering wrong information in these fields will cause authorization to fail. AllAuthenticatedInTrustedRealms: This indicates that any valid user in the trusted realms be given the access. AllAuthenticated: This indicates that any valid user in the current realm be given the access.

Map Users... Map Groups... Map Special Subjects ▾

Select	Role	Special subjects	Mapped users	Mapped groups
<input type="checkbox"/>	everyone	Everyone		
<input type="checkbox"/>	person	All Authenticated in Application's Realm		
<input type="checkbox"/>	reader	Everyone		
<input type="checkbox"/>	everyone-authenticated	All Authenticated in Application's Realm		
<input type="checkbox"/>	community-metrics-run	All Authenticated in Application's Realm		
<input type="checkbox"/>	admin	None	wpsAdmin	
<input type="checkbox"/>	metrics-report-run	None	wpsAdmin	

OK Cancel

4. Save and Sync nodes

# Building the power cubes on Cognos

Now we have complete all configuration task, now we can create for a first time a Power Cube.

1. Go to the /opt/IBM/CognosTR/metricsmodel/ directory
2. If you are on RedHat 6, you must export LD\_PRELOAD=/usr/lib/libfreebl3.so, **not** /usr/lib64/libfreebl3.so. The reason is that the transformer for Cognos is a 32-bit application and the 64-bit binary files do not work
3. Catalog your server, node, and databases by using the following commands. Make sure taht your User have a correct setting to execute sqlplus and connect to database

```
[redacted@redacted ~]$ /u01/app/oracle/home # sqlplus metrics@redacted

SQL*Plus: Release 11.2.0.3.0 Production on Wed Oct 16 11:05:51 2013

Copyright (c) 1982, 2011, Oracle. All rights reserved.

Enter password:

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production
With the Partitioning, Automatic Storage Management, OLAP, Data Mining
and Real Application Testing options

[redacted@redacted ~]$ METRICS>
```

4. When done, run the build-all.sh/bat to build the cubes.
5. Check the file trxschelog.log file under <cognosTrafsormer\_Home>/metricsmodel for errors and success. If it goes well, you should see **build all data success**.
6. When done, done restart everything and log in to Connections
7. Create some content and then go to metrics. You should see the graphs and metrics for your deployment

