
Part VI WebSphere Business Monitor

Chapter 16 WebSphere Business Monitor Cluster installation and configuration

16.1 WebSphere Business Monitor Cluster installation and configuration primer

On a high level, the following steps are necessary to create a clustered WebSphere Business Monitor (WBM) environment by making use of a clustered WebSphere Business Process Server (WPS) environment. Those steps are described in detail in the following chapters (A checklist can be found in Appendix):

- Product installation
 - Installation of the WBM binaries (including available fix packs and all iFixes (for WAS ND 6.1 and WPS 6.2.0))
- Installation of the database system and database creation
 - Augment WPS server deployment manager profile with WBM capabilities
 - Create the WBM tablespaces, users and schema objects
 - Create WBM custom profiles
 - Federate the WBM custom nodes
- Cluster configuration
 - Configure monitor messaging on the MECluster
 - Configure the monitor emitter factory on the SupportCluster
 - Create the Monitor Support Cluster (MonSupportCluster)
 - Configure the action services application and the monitor data services scheduler application on the MonSupportCluster
 - Create the Monitor Application Cluster (MonApplicationCluster)
 - Create the Web Dashboard Cluster (WebDashboardCluster)
 - Configure the WBM REST services on the WebDashboardCluster
 - Configure Business Space on the WebDashboardCluster
 - Configure Business Space endpoint XML files
 - Install and configure Alphablox on the WebDashboardCluster
- Optional: Install and configure the IBM HTTP Server

16.2 Installing WebSphere Business Monitor binaries

Note: The steps shown here have to be executed on each node that is supposed to contain WBM functionality; In this case this are the machines W6201L3M, W6201LN3 and W6201LN4. Make sure to execute this step as user `root`.

If you are installing from the product DVD, mount the DVD and change to the `mount_point` directory.

If you are installing from a downloaded image from Passport Advantage extract the image and change to the extract directory. There are two options on how to install the WBM binaries:

1. graphical wizard
2. silent mode

Note: Installing the WBM binaries in silent mode is not described within this document

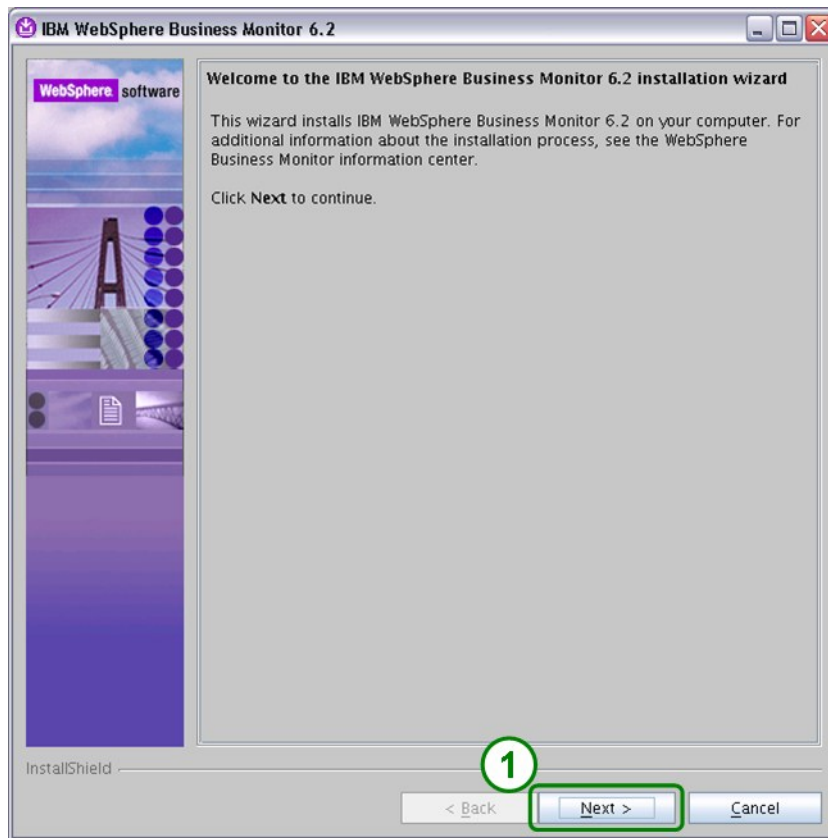
Note: Before starting the installation of the WBM binaries and the deployment manager augmentation shut down all clusters, the node agents and the deployment manager.

To start the installation with graphical wizard , enter the following (if you are not locally working on the machine, make sure X11 tunneling is activated and a X server is running on your system).

```
cd /<WBM62_EXTRACT_ROOT>/WBM
./install
```

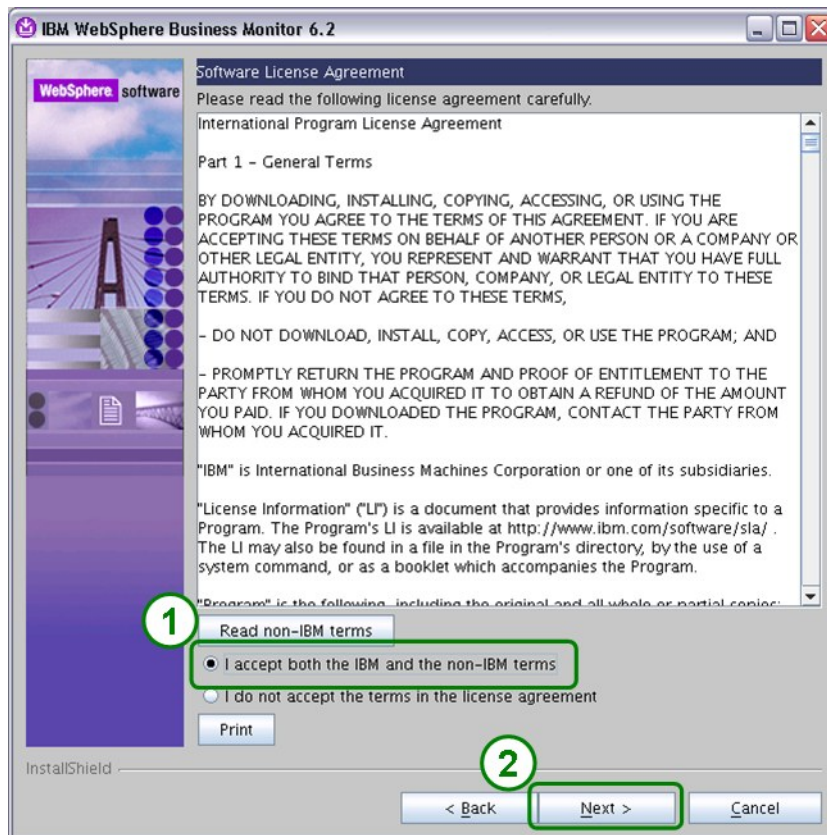
Now the graphical wizard starts

The "WebSphere Business Monitor 6.2 Welcome" panel is displayed:



1. Press **Next** .

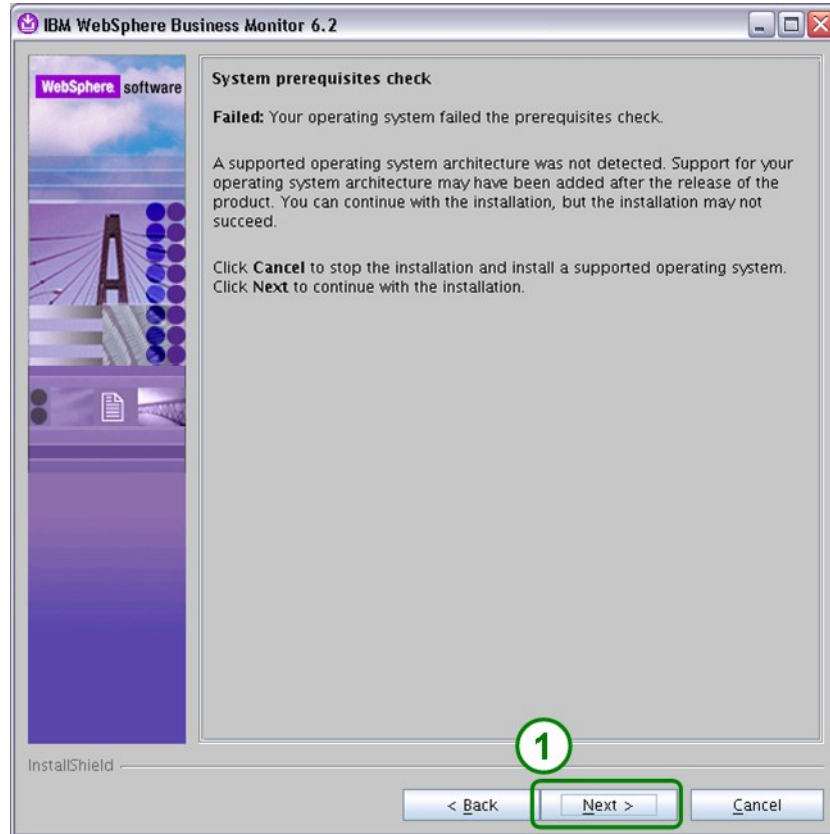
The "Software License Agreement" panel is displayed:



1. Select "I accept both the IBM and the non-IBM terms" to accept the license agreement.

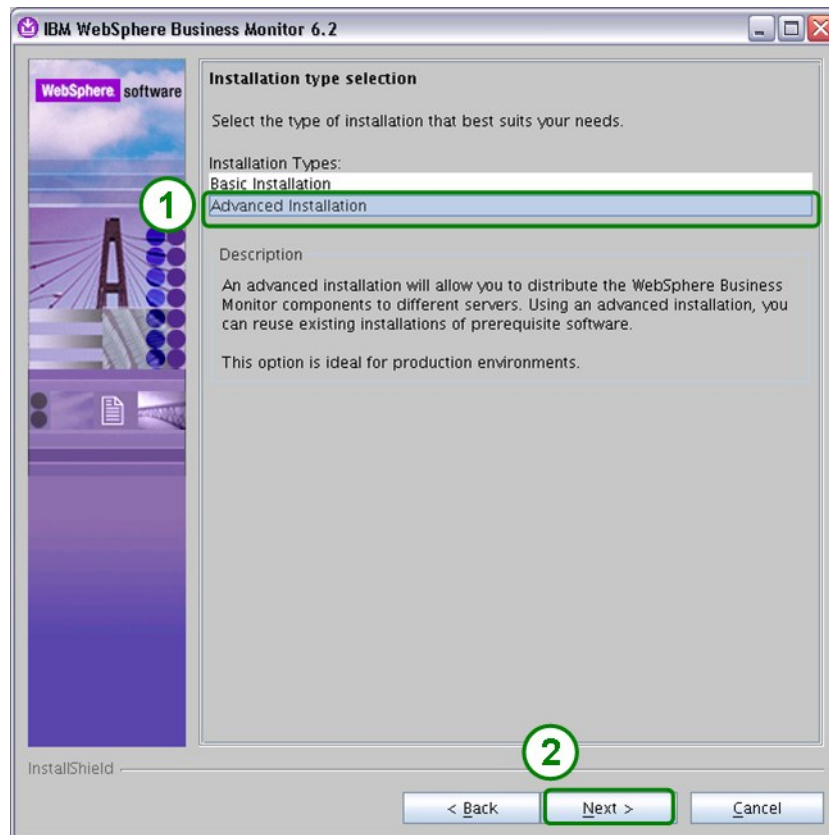
2. Press **Next**.

The System prerequisites check is displayed. **Ignore the message that the operating system failed the prerequisites check failed.**



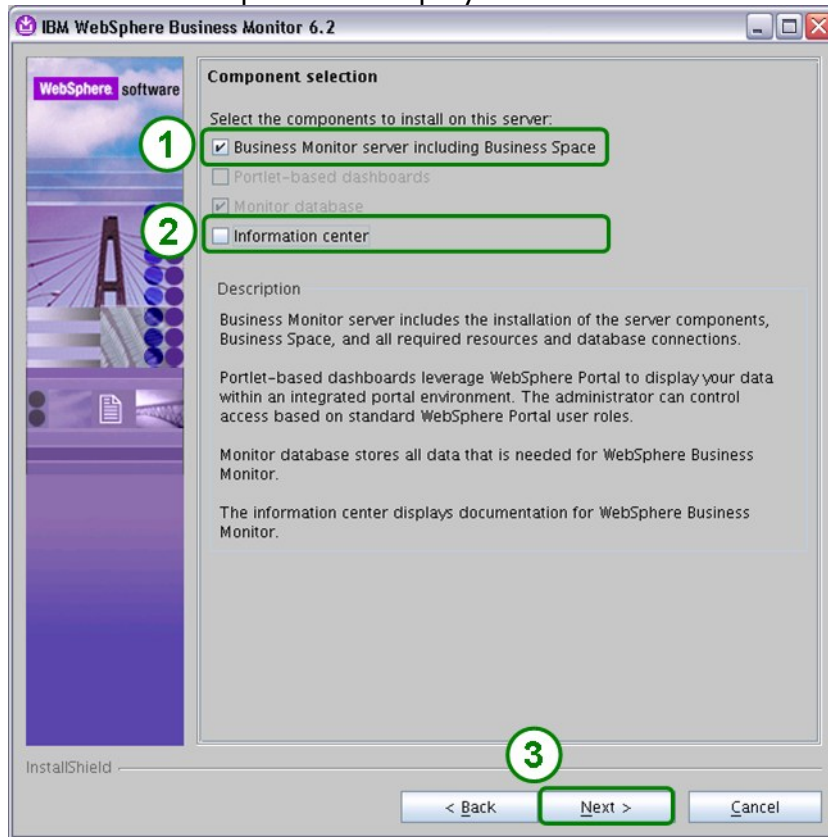
1. Press **Next**.

The "Installation Type Selection" panel is displayed:



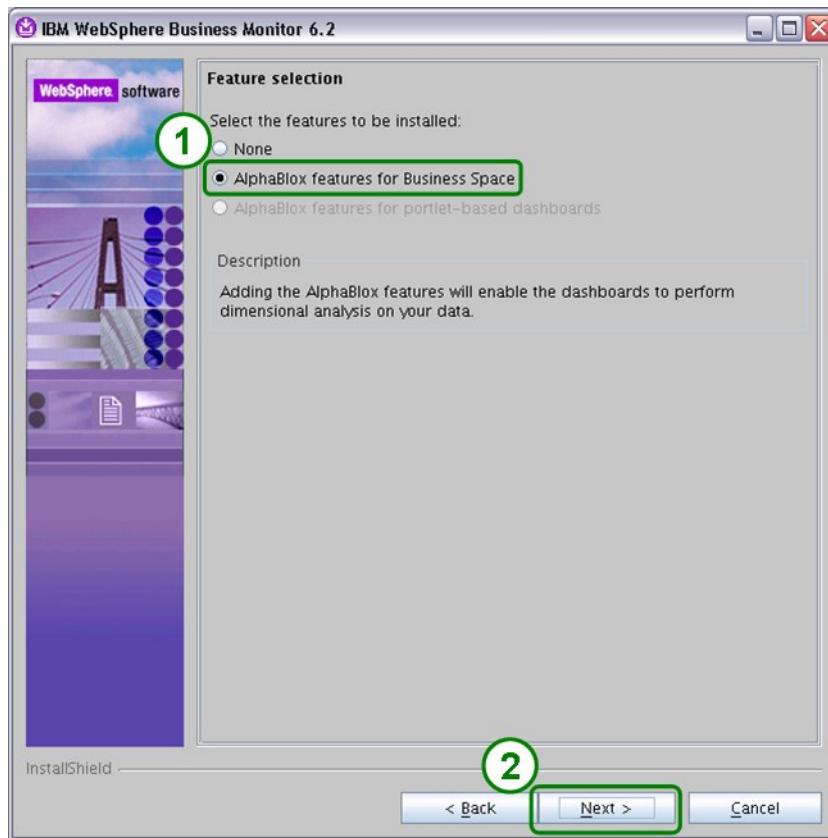
1. Select "Advanced Installation" in the Installation Types selection box
2. Press **Next**.

The "Component selection panel" is displayed



1. Select "Business Monitor server including Business Space"
2. Un-Select "Information center"
3. Press **Next**.

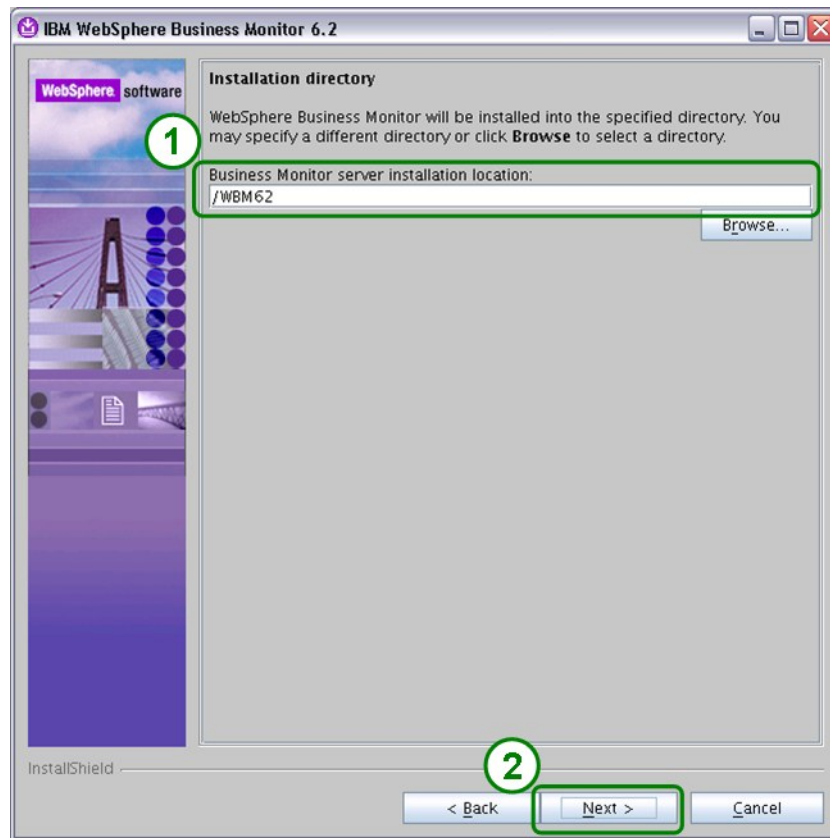
The "Feature selection" panel is displayed:



1. Select "AlphaBlox features for Business Space"

2. Press **Next**.

The "Installation directory" panel is displayed:

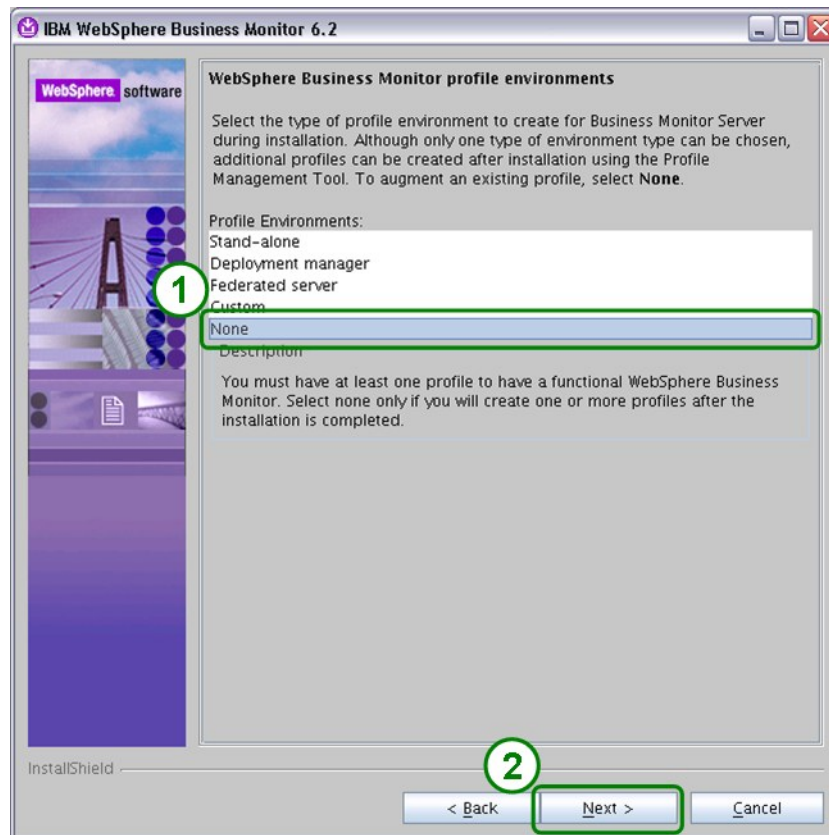


1. Choose **/WBM62** as the installation directory.

Note: On the deployment manager host choose the already existing **/WPS62** directory for installation.

2. Press **Next**.

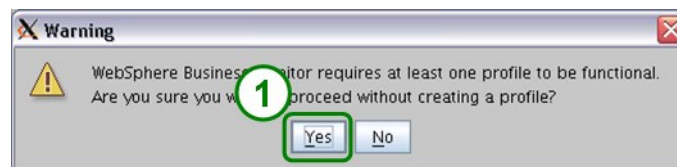
The "WBM profile environments" panel is displayed:



1. Select "None"

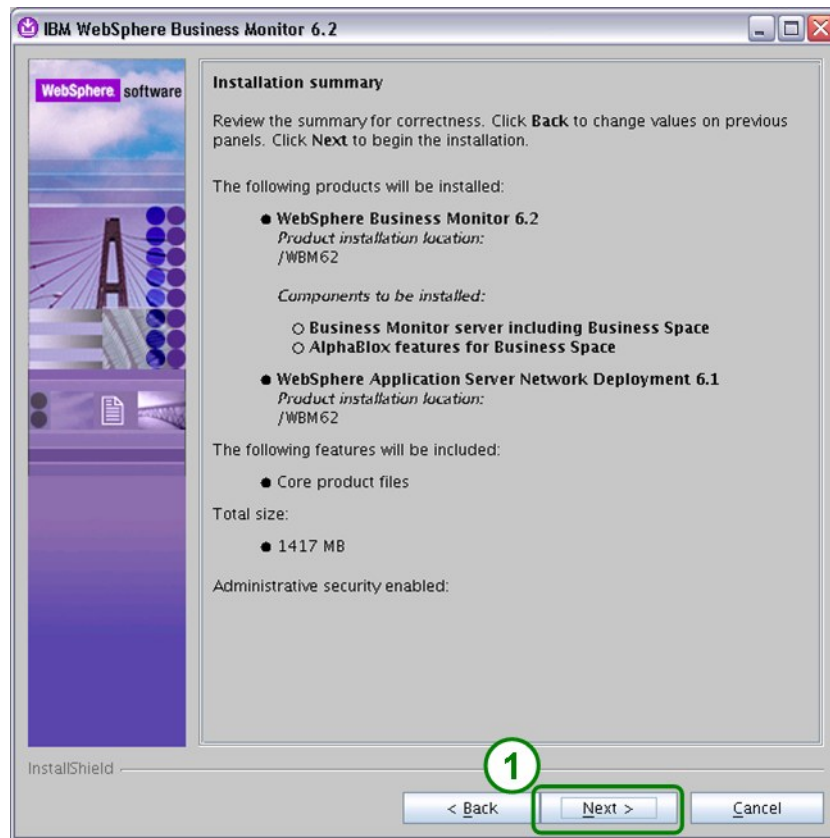
2. Press **Next**.

A Warning pops up:



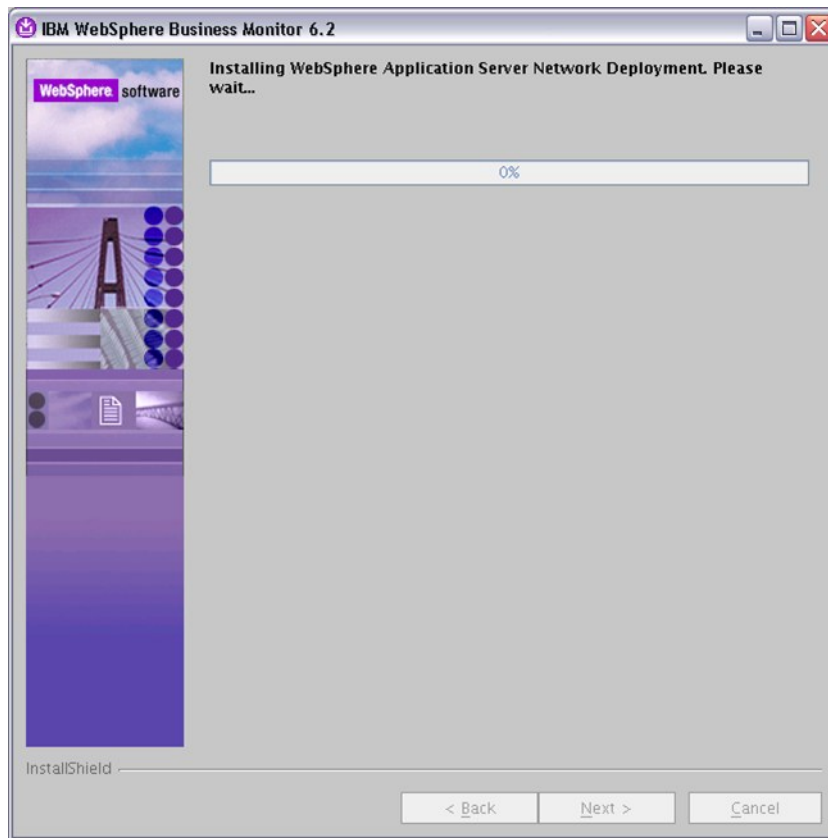
1. Press **Yes**.

The "Installation summary" panel is displayed:



1. Press **Next**.

The "Installation progress bar" is displayed:



Wait until the installation has finished.

16.3 Installing the latest UpdateInstaller

Please refer to Chapter Install WPS binaries in order to get information on how to install the latest Update Installer (if not already installed).

16.3.1 Installing mandatory fixes

Get the latest mandatory iFixes for the WebSphere Business Monitor, in this case it is the WebSphere Business Monitor V6.2 Fix Pack 1 (6.2.0.1)

```
http://www.ibm.com/support/docview.wss?uid=swg24022453&rs=0&cs=utf-8&context=SW600&dc=D400&q1=6.2.0.1&loc=en\_US&lang=en&cc=US
```

and extract them into the Update Installer maintenance directory

```
{UpdateInstaller_Home}/maintenance.
```

The selected "Launch IBM Update Installer in exit" has started the IBM Update Installer for WebSphere Software wizard.

16.4 Verify WebSphere Business Monitor binary installation

Verify the success of the binary installation by examining the WebSphere Process Server log files. If the last line of the file contains the word **INSTCONFSUCCESS**, the selected WebSphere Process Server features were installed successfully. The log file is located as follows:

```
/WPS62/logs/install/log.txt
```

The log file of each fix can be found under in directory:

```
/WPS62/logs/update/install/updatelog.txt
```

You can also use the IVT (Installation Verification Tool) to check if the binaries have been installed correctly. See the infos on how to do that here:

```
http://publib.boulder.ibm.com/infocenter/dmndhelp/v6r2mx/index.jsp?topic=/com.ibm.websphere.wps.62.doc/doc/tins\_ivt.html
```

16.5 Augmenting the Deployment Manager profile

This section describes how to augment the WPS deployment manager profile with the WebSphere Business Monitor profile.

There are two approaches to augment the WPS deployment manager:

1. Use the profile management tool (graphical approach).
2. Use the manage profiles script and a response file.

This document will describe the second approach, using the manage profiles script.

You find more information on how to create a profile in both ways by inspecting the information provided here:

http://publib.boulder.ibm.com/infocenter/dmndhelp/v6r2mx/index.jsp?topic=/com.ibm.websphere.wps.620.doc/doc/iins_config_post_install.html

Regardless of which way you choose to augment the deployment manager profile, use the following configuration parameters to create the profile:

```
augment
profileName=W6201L3MBPMDmgr
profilePath=/WPS62/profiles/W6201L3MBPMDmgr
templatePath=/WPS62/profileTemplates/wbmonitor/dmgr
adminUserName=vmmuser
adminPassword=<password>
dbType=Oracle10g
dbName=ORCL
dbCreateNew=false
dbDelayConfig=true
dbUserId=WPS_MONITORDB
dbSchemaName=WPS_MONITORDB
dbPassword=<password>
dbHostName=W6201L30.boeblingen.de.ibm.com
dbServerPort=1521
dbJDBCClasspath=/opt/oracle/driver
```

In order to create the deployment manager profile silently a response file which contains the configuration information for the deployment manager needs to be created. Navigate to the root folder (/) and create a folder **profileRespFiles**. In that folder create file and name it **dmgrAugRespFile.txt**. Add the entries from the previous page to that file, then save the file.

Execute the following commands as user **root** on the deployment manager host:

```
cd /WPS62/bin
./manageprofiles.sh -response /profileRespFiles/dmgrAugRespFile.txt
```

```
INSTCONFSUCCESS: Profile augmentation succeeded.
```

16.5.1 Verify deployment manager augmentation

To verify the deployment manager augmentation check the log in /WPS62/logs/manageprofiles: augment.log and W6201L3MBPMDmgr_augment.log for INSTCONFSUCCESS return code.

```
<record>
  <date>2009-05-18T13:10:58</date>
  <millis>1242645058416</millis>
  <sequence>2821</sequence>
  <logger>com.ibm.wsspi.profile.WSProfileCLI</logger>
  <level>INFO</level>
  <class>com.ibm.wsspi.profile.WSProfileCLI</class>
  <method>invokeWSProfile</method>
  <thread>10</thread>
  <message>Returning with return code: INSTCONFSUCCESS</message>
</record>
```

Part Database System

Chapter 17 Creating Oracle users and tables for WebSphere Business Monitor

This chapter describes the creation of the Oracle users, tablespaces and tables for WebSphere Business Monitor Server (WBM).

17.1 WebSphere Business Monitor Server tablespaces

This section describes how to create the Oracle tablespaces needed by WBM. WBM provides a set of scripts that can be used to create mandatory tablespaces. It is recommended to add additional tablespaces for the message engines and the Alphablox db.

A SQL script to create the recommended tablespaces can be found in the Section 17.1.3 Create WBM recommended tablespaces.

17.1.1 Predefined WBM tablespaces

The following tablespaces are defined in WBM database scripts for Oracle.

Tablespace Name	WBM data
MONDSTS	Business Monitor Server tablespace
MONDMSTS	Data Movement Service tablespace
MONIDXTS	Index tablespace
MONLOBTS	Large objects tablespace

17.1.2 Recommended user default tablespaces

The following tablespaces are recommendations for WPS data without tablespace definitions in the WPs db scripts.

Tablespace Name	Description
ABX_TBS	Tablespace for the Alphablox repository.
WBM_MEMON_TBS	Tablespace for the monitor bus message engine.

Note: The tablespace names are also only recommendations. Changing the tablespace name can be done in the createRecWBMoraTablespaces.sql script. If the tablespace names are changed, remember to change them also in the section 17.2 WebSphere Business Monitor Server users and privileges.

17.1.3 Create WBM recommended tablespaces

You can use the following script to create the recommended tablespaces from Section 17.1.2 Recommended user default tablespaces.

Create a file **01createRecWBMoraTablespaces.sql** with the editor of your choice

and paste in the lines from below:

```
REM *****
REM File: 01createRecWBMORA tablespaces.sql
REM Date: 2009-05-19
REM
REM Desc: Create all recommended tablespaces for WBM 6.2.0.1
REM
REM Usage:
REM 1. Define datafile paths as needed.
REM 2. Execute the sql script as user oracle on the database host.
REM *****

REM Define Oracle datafile paths for Alphablox
Define ABX_TbsPath = "/opt/oracle/oradata/ORCL"

REM Define Oracle datafile paths for the Monitor Bus Message Engine
Define MEMON_TbsPath = "/opt/oracle/oradata/ORCL"

REM *****
REM Create the Oracle tablespace for WPS
CREATE TABLESPACE WBM_ABX_TBS DATAFILE '&ABX_TbsPath/WBM_ABX.dbf' SIZE 150
M REUSE AUTOEXTEND ON NEXT 10 M;

REM *****
REM Create the Oracle tablespace for the Message Engines
CREATE TABLESPACE WBM_MEMON_TBS DATAFILE '&MEMON_TbsPath/WBM_MEMON.dbf'
SIZE 100 M REUSE AUTOEXTEND ON NEXT 10 M;

REM Commit work
COMMIT;
EXIT
```

Execute the **01createRecWBMoraTablespaces.sql** by typing the following command as user **oracle**:

```
sqlplus sys/<yourPassword>@ORCL AS SYSDBA @01createRecWBMoraTablespaces.sql

SQL*Plus: Release 11.1.0.7.0 - Production on Fri May 4 10:31:17 2009
Copyright (c) 1982, 2008, Oracle. All privileges reserved.
Connected to:
Oracle Database 11g Enterprise Edition Release 11.1.0.7.0 - 64bit
Production
With the Partitioning option
old 1: CREATE TABLESPACE WBM_ABX_TBS DATAFILE '&ABX_TbsPath/WBM_ABX.dbf'
SIZE 150 M REUSE AUTOEXTEND ON NEXT 10 M
new 1: CREATE TABLESPACE WBM_ABX_TBS DATAFILE
'/opt/oracle/oradata/ORCL/WBM_ABX.dbf' SIZE 150 M REUSE AUTOEXTEND ON NEXT
10 M
Tablespace created.
old 1: CREATE TABLESPACE WBM_MEMON_TBS DATAFILE
'&MEMON_TbsPath/WBM_MEMON.dbf' SIZE 100 M REUSE AUTOEXTEND ON NEXT 10 M
new 1: CREATE TABLESPACE WBM_MEMON_TBS DATAFILE
'/opt/oracle/oradata/ORCL/WBM_MEMON.dbf' SIZE 100 M REUSE AUTOEXTEND ON
NEXT 10 M
Tablespace created.
Commit complete.
Disconnected from Oracle Database 11g Enterprise Edition Release
11.1.0.7.0 - 64bit Production
With the Partitioning option
```

17.2 WebSphere Business Monitor Server users and privileges

This section describes the Oracle database users needed for WebSphere Business Monitor. The WPS common database role as described in the WPS Oracle database chapter will be used.

Scripts for creating the database users are also provided in a sub-section.

17.2.1 Needed WebSphere Business Monitor Server database users

The following database users are needed for WebSphere Process Server:

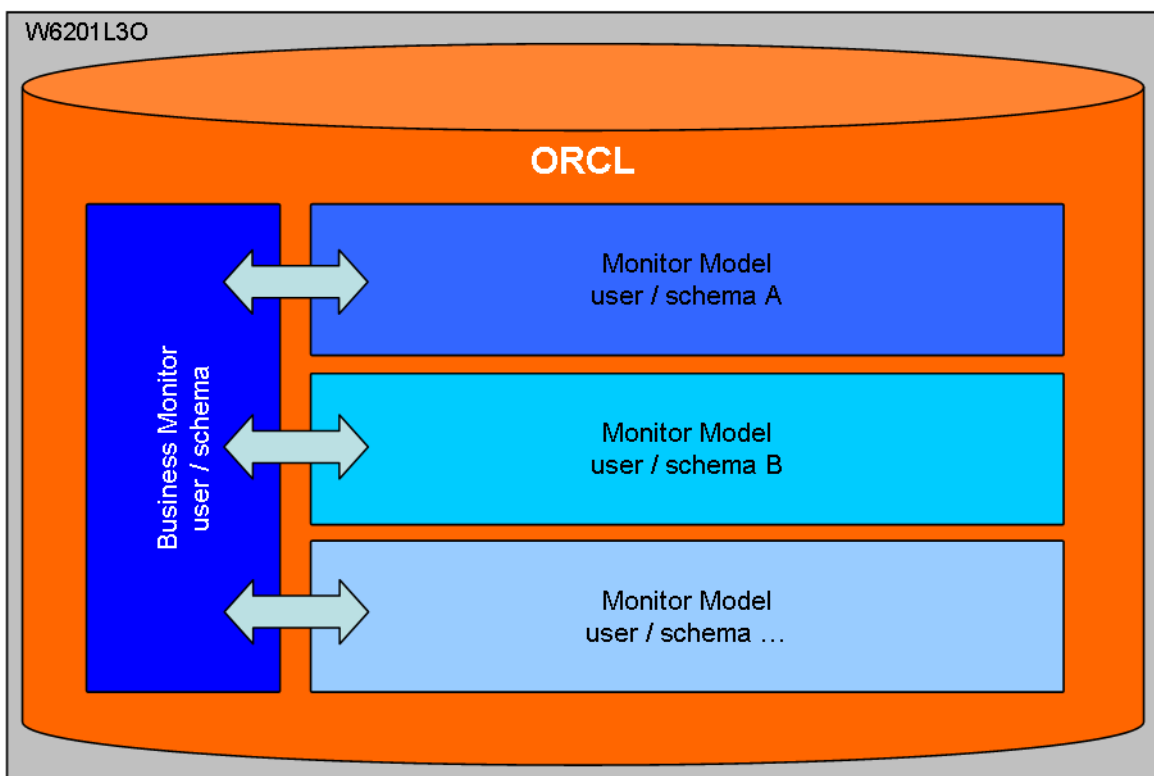
DB user	Description
WPS_MONITORDB	Business Monitor database user
WBM_ABXDB	Alphablox repository database user
WBM_MONMSG	Monitor bus message engine DB user

17.2.1.1 Business Monitor database user WPS_MONITORDB

The business monitor database user is used to store the monitor data in the Oracle database. This database user is also used to access the monitor model data which will be created during a monitor model deployment. The monitor model data is normally stored in a different schema than the business monitor database user and the monitor model schema has the same name as the monitor model application.

Oracle does not have a separate concept for users and schemas, which means that in an Oracle database a user always owns only one schema with the same name as the user itself. For example the user WPS_MONITORDB has only access to the schema WPS_MONITORDB.

An Oracle database user needs additional privileges to access data in an other schema because to access an other schema in Oracle means to access data from an other database user.



To make sure that all needed privileges are granted to the Business Monitor database and the Monitor Model users the WebSphere Business Monitor database scripts will grant "all privileges" to these users.

17.2.2 WebSphere Business Monitor Server database user roles

The following privileges are needed for Alphablox and the message engine database user:

Role	Description
CONNECT	Enables a user to connect to the database. Grant this role to any user or application that needs database access. If you create a user using Oracle Enterprise Manager Database Control, this role is automatically granted to the user.
RESOURCE	Enables a user to create, modify, and delete certain types of schema objects in the schema associated with that user. Grant this role only to developers and to other users that must create schema objects. This role grants a subset of the create object system privileges. For example, it grants the CREATE TABLE system privilege, but does not grant the CREATE VIEW system privilege. It grants only the following privileges: CREATE CLUSTER, CREATE INDEXTYPE, CREATE OPERATOR, CREATE PROCEDURE, CREATE SEQUENCE, CREATE TABLE, CREATE TRIGGER, CREATE TYPE. In addition, this role grants the UNLIMITED TABLESPACE system privilege, which effectively assigns a space usage quota of UNLIMITED on all tablespaces in which the user creates schema objects.
UNLIMITED TABLESPACE	Permits a user to use an unlimited amount of any tablespace in the database, grant the user the UNLIMITED TABLESPACE system privilege. This overrides all explicit tablespace quotas for the user. If you later revoke the privilege, then explicit quotas again take effect. You can grant this privilege only to users, not to roles.

Note: The **WPS_USER_ROLE** from the Oracle WPS chapter above has the same privileges and will be used in this documentation.

17.2.3 WebSphere Business Monitor XA recovery user privileges

The WebSphere Business Monitor database users will need the same XA recovery rights as described in the WPS Oracle chapter. This documentation will describe the approach using a separate user for XA recovery.

17.2.4 Create WBM users and assign needed privileges and roles

This section describes how to create the needed WBM database users: Once the users exist the previously created roles from the Oracle WPS chapter are assigned.

DB user	Description	Role(s)	Privilege(s)
WPS_MONITORDB	Business Monitor DB user	WPS_RECOVERY	ALL PRIVILEGES
WBM_ABXDB	Alphablox DB user	WPS_USER WPS_RECOVERY	UNLIMITED TABLESPACE
WBM_MONMSG	Monitor bus message engine DB user	WPS_USER WPS_RECOVERY	UNLIMITED TABLESPACE

Note: The Business Monitor database user WPS_MONITORDB will NOT be created with these script. It will be created within the WebSphere Business Monitor create tables script in chapter 17.3.1 Create Monitor DB tables.

You can use the following script to create the WPS database users from section 17.2.1 Needed WebSphere Business Monitor Server database users and grant the needed privileges and roles to the WPS database users from the sections above:

- 17.2.2 WebSphere Business Monitor Server database user roles
- 17.2.3 WebSphere Business Monitor XA recovery user privileges

Create a file **03createWBMoraUser.sql** with the editor of your choice and paste in the lines from below:

```

REM *****
REM File: 03createWBMoraUser.sql
REM Date: 2009-05-20
REM
REM Desc: Create all Oracle database user for WBM 6.2.0.1
REM
REM Usage:
REM 1. Define db user names
REM 2. Define db user passwords for all WBM user
REM 3. Optional: Adjust default tablespaces.
REM 4. Execute the sql script as user oracle on the database host.
REM *****

REM Create user for Alphablox repository
CREATE USER WBM_ABXDB IDENTIFIED BY <PASSWORD> DEFAULT TABLESPACE
WBM_ABX_TBS;
GRANT WPS_USER_ROLE TO WBM_ABXDB;

```

```

GRANT WPS_RECOVERY_ROLE TO WBM_ABXDB;
GRANT UNLIMITED TABLESPACE TO WBM_ABXDB;

REM Create user for monitor bus message engine
CREATE USER WBM_MONMSG IDENTIFIED BY <PASSWORD> DEFAULT TABLESPACE
WBM_MEMON_TBS;
GRANT WPS_USER_ROLE TO WBM_MONMSG;
GRANT WPS_RECOVERY_ROLE TO WBM_MONMSG;
GRANT UNLIMITED TABLESPACE TO WBM_MONMSG;

REM Commit work
COMMIT;
EXIT

```

Execute the **03createWBMoraUser.sql** by typing the following commands as user **oracle**:

```

sqlplus sys/<yourPassword>@ORCL AS SYSDBA @03createWBMoraUser.sql

SQL*Plus: Release 11.1.0.7.0 - Production on Fri May 6 10:52:39 2009
Copyright (c) 1982, 2008, Oracle. All privileges reserved.
Connected to:
Oracle Database 11g Enterprise Edition Release 11.1.0.7.0 - 64bit Produc-
tion
With the Partitioning option
User created.
Grant succeeded.
Grant succeeded.
Grant succeeded.
User created.
Grant succeeded.
Grant succeeded.
Grant succeeded.
Commit complete.
Disconnected from Oracle Database 11g Enterprise Edition Release
11.1.0.7.0 - 64bit Production
With the Partitioning option

```

17.3 WebSphere Business Monitor Server tables

This chapter describes how to create the different WebSphere Business Monitor tables in the Oracle database.

17.3.1 Create Monitor DB tables

1. Switch to the directory **/WPS62/profiles/W6201L3MBPMDmgr/dbscripts.wbm** on the deployment manager host, in this case the host **w6201l3m.boeblingen.de.ibm.com**.
2. Create a directory on the Oracle database host, e.g. **/home/oracle/WBMScripts**

3. Copy the `createDatabaseOracle.ddl` file from this directory to the created directory on the Oracle database host, in this case the host `w620113o.boeblingen.de.ibm.com`.

4. Open the file `createDatabaseOracle.ddl` on the db host in a editor:

4a. Change the datafile directories for the monitor tablespaces from:

```
-----  
-- Create tablespaces  
-----  
CREATE TABLESPACE MONDSTS  
  DATAFILE 'RMDEFAULTTS32S MONDSTS.dbf' SIZE 500M AUTOEXTEND ON NEXT 100M  
  MAXSIZE UNLIMITED LOGGING;  
  
CREATE TABLESPACE MONDMSTS  
  DATAFILE 'RMDEFAULTTS32S MONDMSTS.dbf' SIZE 100M AUTOEXTEND ON NEXT 20M  
  MAXSIZE UNLIMITED LOGGING;  
  
CREATE TABLESPACE MONIDXTS  
  DATAFILE 'RMDEFAULTTS32S MONIDXTS.dbf' SIZE 250M AUTOEXTEND ON NEXT 50M  
  MAXSIZE UNLIMITED LOGGING;  
  
CREATE TABLESPACE MONLOBTS  
  DATAFILE 'RMDEFAULTTS32S MONLOBTS.dbf' SIZE 200M AUTOEXTEND ON NEXT 40M  
  MAXSIZE UNLIMITED LOGGING;
```

to:

```
-----  
-- Create tablespaces  
-----  
CREATE TABLESPACE MONDSTS  
  DATAFILE '/opt/oracle/oradata/ORCL/MONDSTS.dbf' SIZE 500M AUTOEXTEND ON  
  NEXT 100M MAXSIZE UNLIMITED LOGGING;  
  
CREATE TABLESPACE MONDMSTS  
  DATAFILE '/opt/oracle/oradata/ORCL/MONDMSTS.dbf' SIZE 100M AUTOEXTEND ON  
  NEXT 20M MAXSIZE UNLIMITED LOGGING;  
  
CREATE TABLESPACE MONIDXTS  
  DATAFILE '/opt/oracle/oradata/ORCL/MONIDXTS.dbf' SIZE 250M AUTOEXTEND ON  
  NEXT 50M MAXSIZE UNLIMITED LOGGING;  
  
CREATE TABLESPACE MONLOBTS  
  DATAFILE '/opt/oracle/oradata/ORCL/MONLOBTS.dbf' SIZE 200M AUTOEXTEND ON  
  NEXT 40M MAXSIZE UNLIMITED LOGGING;
```

4b. Replace `DBPASS` with a password of your choice and add after `GRANT ALL PRIVILEGES` in the "Create schema owner" section:

```
-----  
-- Create schema owner --
```

```

-----
CREATE USER WPS_MONITORDB IDENTIFIED BY <password> DEFAULT TABLESPACE
MONDSTS;

GRANT ALL PRIVILEGES TO WPS_MONITORDB;
GRANT WPS_RECOVERY_ROLE TO WPS_MONITORDB;

```

5. Save the file again.

6. Start the Business Monitor script in the created directory on the Oracle host by executing the following command as user `oracle`:

```

sqlplus sys/<password>@ORCL AS SYSDBA @createDatabaseOracle.ddl

SQL*Plus: Release 11.1.0.7.0 - Production on Thu Jun 18 16:36:58 2009
Copyright (c) 1982, 2008, Oracle. All rights reserved.
Connected to:
Oracle Database 11g Enterprise Edition Release 11.1.0.7.0 - 64bit
Production
With the Partitioning, OLAP, Data Mining and Real Application Testing
options
...
...
Table created.
1 row created.
1 row created.
Table created.
1 CREATE FUNCTION WPS_MONITORDB.DAYS (TIME2 IN TIMESTAMP) RETURN NUMBER
DETERMINISTIC
2 AS
3 TIME1 TIMESTAMP;
4 DAYSRC NUMBER;
5 BEGIN
6 SELECT
TO_TIMESTAMP('01.01.0001:00:00:00','DD.MM.YYYY:HH24:MI:SS') INTO TIME1
FROM DUAL;
7 SELECT TRUNC(TO_NUMBER(SUBSTR((TIME2-TIME1),1,INSTR(TIME2-
TIME1,' ')))) INTO DAYSRC FROM DUAL;
8 RETURN DAYSRC;
9* END;
Function created.
1 CREATE FUNCTION WPS_MONITORDB.MIDNIGHT_SECONDS (TIME2 IN TIMESTAMP)
RETURN NUMBER DETERMINISTIC
2 AS
3 TIME1 TIMESTAMP;
4 HH NUMBER;
5 MM NUMBER;
6 SS NUMBER;
7 BEGIN
8 SELECT
TO_TIMESTAMP('01.01.0001:00:00:00','DD.MM.YYYY:HH24:MI:SS') INTO TIME1
FROM DUAL;
9 SELECT SUBSTR((TIME2-TIME1), INSTR((TIME2-TIME1),' ')+7,2) INTO
SS FROM DUAL;
10 SELECT SUBSTR((TIME2-TIME1), INSTR((TIME2-TIME1),' ')+4,2) INTO
MM FROM DUAL;

```

```
11      SELECT SUBSTR((TIME2-TIME1), INSTR((TIME2-TIME1),' ')+1,2) INTO
HH FROM DUAL;
12      RETURN (HH * 3600) + (MM * 60) + SS;
13*    END;
Function created.
Disconnected from Oracle Database 11g Enterprise Edition Release
11.1.0.7.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing
options
```

17.3.2 Create Alphablox tables

The Alphablox tables will be created during the Alphablox installation.

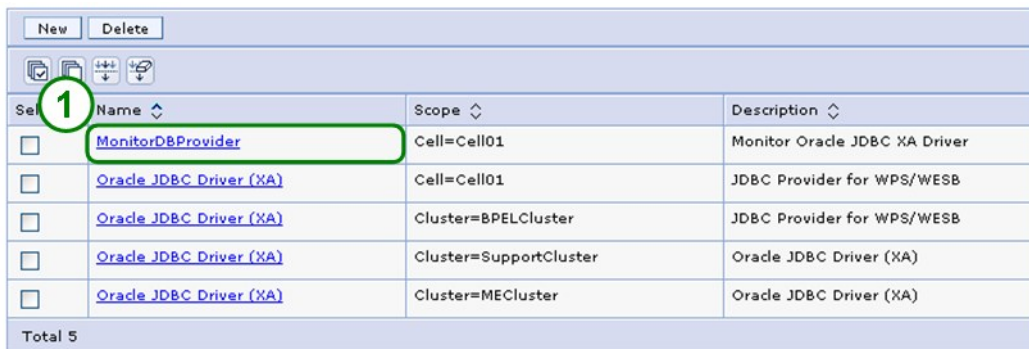
17.4 Modify the monitor data sources

17.4.1 Change the jdbc driver in the monitor jdbc provider for Oracle 11g

In the admin console, navigate to

```
Resources
-> JDBC
-> JDBC Providers
```

The "JDBC providers" page is displayed:



Sel.	Name	Scope	Description
<input type="checkbox"/>	MonitorDBProvider	Cell=Cell01	Monitor Oracle JDBC XA Driver
<input type="checkbox"/>	Oracle JDBC Driver (XA)	Cell=Cell01	JDBC Provider for WPS/WESB
<input type="checkbox"/>	Oracle JDBC Driver (XA)	Cluster=BPELCluster	JDBC Provider for WPS/WESB
<input type="checkbox"/>	Oracle JDBC Driver (XA)	Cluster=SupportCluster	Oracle JDBC Driver (XA)
<input type="checkbox"/>	Oracle JDBC Driver (XA)	Cluster=MECluster	Oracle JDBC Driver (XA)

Total 5

1. Press **MonitorDBProvider**

The "MonitorDBProvider Configuration" page is displayed:

1. Change the Class path to "\${WBM_JDBC_DRIVER_PATH}/ojdbc5.jar"

2. Click **OK**

Save and synchronize the changes.

17.4.2 Change the monitor data sources for Oracle 11g

In the admin console navigateto:

```
Resources
-> JDBC
  -> Data sources
    -> Switch Scope to "Cell=Cell01"
```

The "Data sources" page is displayed:

Data sources

Use this page to edit the settings of a data source that is associated with your selected JDBC provider. The data source object supplies application with connections for accessing the database. Learn more about this task in a [guided activity](#). A guided activity provides a steps and more general information about the topic.

Scope: Cell=Cell01

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, [see the scope settings help](#).

Cell=Cell01

Preferences

New Delete Test connection Manage state...

Select	Name	JNDI name	Scope	Provider	Description	C
<input type="checkbox"/>	ESBLoggerMediationDataSource	jdbq/mediation/messageLog	Cell=Cell01	Oracle JDBC Driver (XA)	Default data source for ESB Logger Mediation	
<input checked="" type="checkbox"/>	Monitor_Admin_Database	jdbq/wbm/MonitorAdminDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Admin Database	
<input type="checkbox"/>	Monitor_Cell01_Routing_Database	jdbq/wbm/Cell01/MonitorDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Routing Database	
<input type="checkbox"/>	Monitor_Database	jdbq/wbm/MonitorDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Database	
<input type="checkbox"/>	Monitor_ME_Database	jdbq/wbm/MonitorMEDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Messaging Engine Database	
<input type="checkbox"/>	WBI_DataSource	jdbq/WPSDB	Cell=Cell01	Oracle JDBC Driver (XA)	WBI_DataSource	

Total 6

1. Click **Monitor_Admin_Database**

The "Monitor_Admin_Database Configuration" is displayed:

Data store helper class name

Select a data store helper class

Data store helper classes provided by WebSphere Application Server

- Oracle9i and prior data store helper
(com.ibm.websphere.rsadapter.OracleDataStoreHelper)
- Oracle10g data store helper
(com.ibm.websphere.rsadapter.Oracle10gDataStoreHelper)
- Oracle11g data store helper**
(com.ibm.websphere.rsadapter.Oracle11gDataStoreHelper)

Specify a user-defined data store helper

Enter a package-qualified data store helper class name

Component-managed authentication alias

Component-managed authentication alias

Monitor_JDBC_Alias

Container-managed authentication

Container-managed authentication alias (deprecated in V6.0, use resource reference authentication settings instead)

Monitor_JDBC_Alias

Mapping-configuration alias (deprecated in V6.0, use resource reference authentication settings instead)

DefaultPrincipalMapping

Oracle data source properties

* URL

jdbc:oracle:thin:@W6201L3O.boeblingen.de.ibm.com:1

Apply OK Reset Cancel

1. Select "Oracle11g data store helper".

2. Click **Ok**

Save and synchronize the changes.

In the "Data sources" page:

Data sources

Data sources

Use this page to edit the settings of a data source that is associated with your selected JDBC provider. The data source object supplies application with connections for accessing the database. Learn more about this task in a [guided activity](#). A guided activity provides a steps and more general information about the topic.

Scope: Cell=Cell01

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, [see the scope settings help](#)

Cell=Cell01

Preferences

New Delete Test connection Manage state...

Select	Name	JNDI name	Scope	Provider	Description	C
<input type="checkbox"/>	ESBLoggerMediationDataSource	jdbq/mediation/messageLog	Cell=Cell01	Oracle JDBC Driver (XA)	Default data source for ESB Logger Mediation	
<input type="checkbox"/>	Monitor_Admin_Database	jdbq/wbm/MonitorAdminDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Admin Database	
<input type="checkbox"/>	Monitor_Cell01_Routing_Database	jdbq/wbm/Cell01/MonitorDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Routing Database	
<input type="checkbox"/>	Monitor_Database	jdbq/wbm/MonitorDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Database	
<input type="checkbox"/>	Monitor_ME_Database	jdbq/wbm/MonitorMEDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Messaging Engine Database	
<input type="checkbox"/>	WBI DataSource	jdbq/WPSDB	Cell=Cell01	Oracle JDBC Driver (XA)	WBI_DataSource	

Total 6

1. Repeat the steps above with the "Monitor_Cell01_Routing_Database" and the "Monitor_Database".

Chapter 18 WBM custom profiles

NOTE: This step has to be executed on the machines hosting the servers of this cluster, in this case this are the machines w6201ln3 and w6201ln4. Make sure to execute this step with **root** user id.

18.1 WBM custom profile creation

The next step in the setup of a cell/cluster is to create profiles on the other machines which should host the servers that are later on created in the cell. To create a WPS profile there are two options:

- graphical creation via profile creation tool
- silent creation (via response files, as you have seen it in the prior chapter)

You find more information on how to create a profile in both ways by inspecting the information provided here:

http://publib.boulder.ibm.com/infocenter/dmndhelp/v6r2mx/index.jsp?topic=/com.ibm.btools.help.monitor.install.doc/install/pmt_custom_adv.html

Use the following configuration parameters to create the profile:

For w6201ln3:

```
create
profileName=W6201LN3WBMCustom01
profilePath=/WBM62/profiles/W6201LN3WBMCustom01
templatePath=/WBM62/profileTemplates/wbmonitor/managed
nodeName=W6201LN3WBMLNode01
hostName=w6201ln3.boeblingen.de.ibm.com
dbType=Oracle10g
dbJDBCClasspath=/opt/oracle/driver
federateLater=true
```

For w6201ln4:

```
create
profileName=W6201LN4WBMCustom01
profilePath=/WBM62/profiles/W6201LN4WBMCustom01
templatePath=/WBM62/profileTemplates/wbmonitor/managed
nodeName=W6201LN4WBMLNode01
hostName=w6201ln4.boeblingen.de.ibm.com
dbType=Oracle10g
dbJDBCClasspath=/opt/oracle/driver
federateLater=true
```

In order to create the custom profiles silently a response file which contains the configuration information needs to be created. Navigate to the root folder (/) and create a folder **profileRespFiles**. In that folder create file and name it **CustomWBMRespFile.txt**. Add the entries from the previous page to that file, then

save the file.

root:

```
/WBM62/bin/manageprofiles.sh -response <responsefilename>
```

```
INSTCONFSUCCESS: Success: Profile W6201LN3WBMCustom01 now exists. Please consult /WBM62/profiles/W6201LN3WBMCustom01/logs/AboutThisProfile.txt for more information about this profile.
```

Federate the custom node to the deployment manager:

root:

```
cd /WBM62/profiles/W6201LN3WBMCustom01/bin/  
./addNode.sh w620113m.boeblingen.de.ibm.com 8879 -username vmmuser  
-password <password>
```

```
ADMU0116I: Tool information is being logged in file  
          /WBM62/profiles/W6201LN3WBMCustom01/logs/addNode.log  
ADMU0128I: Starting tool with the W6201LN3WBMCustom01 profile  
CWPKI0308I: Adding signer alias "CN=W6201L3M.boeblingen.de.ibm.com, O=IBM,  
          C=US" to local keystore "ClientDefaultTrustStore" with the  
following  
          SHA digest:  
          1A:DA:45:7C:A6:94:D8:C9:55:94:97:49:9D:81:8D:FA:CE:81:59:DB  
CWPKI0308I: Adding signer alias "dummyclientsigner" to local keystore  
          "ClientDefaultTrustStore" with the following SHA digest:  
          0B:3F:C9:E0:70:54:58:F7:FD:81:80:70:83:A6:D0:92:38:7A:54:CD  
CWPKI0308I: Adding signer alias "default_2" to local keystore  
          "ClientDefaultTrustStore" with the following SHA digest:  
          68:63:1A:FD:62:B7:73:F9:52:5C:3F:94:71:F3:B7:5C:A1:6B:82:EB  
CWPKI0308I: Adding signer alias "default_3" to local keystore  
          "ClientDefaultTrustStore" with the following SHA digest:  
          7E:BF:DF:97:DD:A7:92:0C:2C:2F:A8:D2:5F:D0:83:6C:18:80:8A:7F  
CWPKI0308I: Adding signer alias "dummyserversigner" to local keystore  
          "ClientDefaultTrustStore" with the following SHA digest:  
          FB:38:FE:E6:CF:89:BA:01:67:8F:C2:30:74:84:E2:40:2C:B4:B5:65  
CWPKI0308I: Adding signer alias "default_1" to local keystore  
          "ClientDefaultTrustStore" with the following SHA digest:  
          80:90:B5:48:A6:1B:D9:C9:B0:56:F1:B0:52:47:03:98:71:99:DE:5A  
ADMU0001I: Begin federation of node W6201LN3WBMCNode01 with Deployment  
Manager  
          at w620113m.boeblingen.de.ibm.com:8879.  
ADMU0001I: Begin federation of node W6201LN3WBMCNode01 with Deployment  
Manager  
          at w620113m.boeblingen.de.ibm.com:8879.  
ADMU0009I: Successfully connected to Deployment Manager Server:  
          w620113m.boeblingen.de.ibm.com:8879  
ADMU0507I: No servers found in configuration under:  
          /WBM62/profiles/W6201LN3WBMCustom01/config/cells/w6201ln3Node01  
Cell/nodes/W6201LN3WBMCNode01/servers  
ADMU2010I: Stopping all server processes for node W6201LN3WBMCNode01  
ADMU0024I: Deleting the old backup directory.  
ADMU0015I: Backing up the original cell repository.  
ADMU0012I: Creating Node Agent configuration for node: W6201LN3WBMCNode01  
ADMU0014I: Adding node W6201LN3WBMCNode01 configuration to cell: Cell01  
ADMU0016I: Synchronizing configuration between node and cell.  
ADMU0018I: Launching Node Agent process for node: W6201LN3WBMCNode01  
ADMU0020I: Reading configuration for Node Agent process: nodeagent
```

```
ADMU0022I: Node Agent launched. Waiting for initialization status.
ADMU0030I: Node Agent initialization completed successfully. Process id
is:
           2390
ADMU9990I:
ADMU0300I: The node W6201LN3WBMNode01 was successfully added to the Cell01
cell.
ADMU9990I:
ADMU0306I: Note:
ADMU0302I: Any cell-level documents from the standalone Cell01
configuration
           have not been migrated to the new cell.
ADMU0307I: You might want to:
ADMU0303I: Update the configuration on the Cell01 Deployment Manager with
values from the old cell-level documents.
ADMU9990I:
ADMU0306I: Note:
ADMU0304I: Because -includeapps was not specified, applications installed
on
           the standalone node were not installed on the new cell.
ADMU0307I: You might want to:
ADMU0305I: Install applications onto the Cell01 cell using wsadmin
$AdminApp or
           the Administrative Console.
ADMU9990I:
ADMU0003I: Node W6201LN3WBMNode01 has been successfully federated.
```

Note: Make sure the deployment manager is running before federating the custom node.

Repeat the custom profile creation and federation on host w6201ln4.

18.2 Verify the custom profile creation

1. List existing profiles with the following command:

```
cd /WBM62/bin/  
./manageprofiles.sh -listProfiles
```

```
[W6201LN3WBMCustom01]
```

```
cd /WBM62/bin/  
./manageprofiles.sh -listProfiles
```

```
[W6201LN4WBMCustom01]
```

2. Check the following files for return code **"INSTCONFSUCCESS"**:

```
cd /WBM62/logs/manageprofiles  
grep INSTCONFSUCCESS W6201LN3WBMCustom01_create.log
```

```
<message>Returning with return code: INSTCONFSUCCESS</message>  
<message>Returning with return code: INSTCONFSUCCESS</message>  
<message>Returning with return code: INSTCONFSUCCESS</message>  
<message>Returning with return code: INSTCONFSUCCESS</message>  
<message>INSTCONFSUCCESS: Success: Profile W6201LN3WBMCustom01 now  
exists. Please consult  
/WBM62/profiles/W6201LN3WBMCustom01/logs/AboutThisProfile.txt for more  
information about this profile.</message>  
<message>Returning with return code: INSTCONFSUCCESS</message>
```

```
cd /WBM62/logs/manageprofiles  
grep INSTCONFSUCCESS W6201LN4WBMCustom01_create.log
```

```
<message>Returning with return code: INSTCONFSUCCESS</message>  
<message>Returning with return code: INSTCONFSUCCESS</message>  
<message>Returning with return code: INSTCONFSUCCESS</message>  
<message>Returning with return code: INSTCONFSUCCESS</message>  
<message>INSTCONFSUCCESS: Success: Profile W6201LN4WBMCustom01 now  
exists. Please consult  
/WBM62/profiles/W6201LN4WBMCustom01/logs/AboutThisProfile.txt for more  
information about this profile.</message>  
<message>Returning with return code: INSTCONFSUCCESS</message>
```

Unlike the deployment manager profile creation, the creation of a WPS profile does not create a startable server. A server is created later on when the clusters are created.

On both machines (w6201ln3 and w6201ln4) check the nodeagent logs.

These logs are located in:

- /WBM62/profiles/W6201LN3WBMCustom01/logs/nodeagent
- /WBM62/profiles/W6201LN4WBMCustom01/logs/nodeagent

Check that they do not contain any errors.

Further check the following files for errors:

- /WBM62/profiles/W6201LN3WBMCustom01/logs/addNode.log

- /WBM62/profiles/W6201LN4WBMCustomer01/logs/addNode.log

Login to the deployment manager admin console and navigate to:

System Administration
-> **Node agents.**

and verify existence and status of the node agents:

Select	Name	Node	Version	Status
<input type="checkbox"/>	nodeagent	W6201LN4WBMCustomer01	ND 6.1.0.23 WBM 6.2.0.1	➔
<input type="checkbox"/>	nodeagent	ProxyNode01	ND 6.1.0.23 Process Choreographer 6.2.0.1 WPS 6.2.0.1 WS FEP 6.1.0.23	➔
<input type="checkbox"/>	nodeagent	W6201LN2WPSNode01	ND 6.1.0.23 Process Choreographer 6.2.0.1 WPS 6.2.0.1 WS FEP 6.1.0.23	➔
<input type="checkbox"/>	nodeagent	W6201LN3WBMCustomer01	ND 6.1.0.23 WBM 6.2.0.1	➔
<input type="checkbox"/>	nodeagent	W6201LN1WPSNode01	ND 6.1.0.23 Process Choreographer 6.2.0.1 WPS 6.2.0.1 WS FEP 6.1.0.23	➔

Total 5

Chapter 19 WBM messaging engine and event emitter factory configuration

19.1 Configure monitor messaging on the MECluster

19.1.1 Create the authentication alias for the monitor messaging engine

In the admin console, navigate to

```
Security
-> Secure administration, applications, and infrastructure
-> Java Authentication and Authorization Service
-> J2C authentication data
-> [New]
```

The "JAAS - J2C authentication data > New" page is displayed:

Secure administration, applications, and infrastructure

[Secure administration, applications, and infrastructure](#) > [JAAS - J2C authentication data](#) > New

Specifies a list of user identities and passwords for Java(TM) 2 connector security to use.

Configuration

1 General Properties

* Alias
MonitorMEAuthAlias

* User ID
WBM_MONMSG

* Password

Description
essaging engine data source

Ap **2** OK Reset Cancel

1. Type in Alias, User ID, Password and Description for the authentication alias:

Alias: MonitorMEAuthAlias
User ID: WBM_MONMSG

Password: <password>

Description: Authentication for the monitor messaging engine data source

2. Press **OK**

Save changes and synchronize Nodes.

Please refer to the Appendix "Save changes and synchronize Nodes" how to do this.

19.1.2 Configure the datasource for the monitor messaging engine

In the admin console, navigate to

```
Resources
-> JDBC
  -> Data sources
    -> Switch scope to "Cell=Cell01"
```

The "Data sources" page is displayed:

Data sources

Data sources
Use this page to edit the settings of a data source that is associated with your selected JDBC provider. The data source object supplies application with connections for accessing the database. Learn more about this task in a [guided activity](#). A guided activity provides a steps and more general information about the topic.

☐ Scope: Cell=Cell01

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, [see the scope settings help](#)

Cell=Cell01

☐ Preferences

New Delete Test connection Manage state...

Select	Name	JNDI name	Scope	Provider	Description	C
<input type="checkbox"/>	ESBLoggerMediationDataSource	jdbq/mediation/messageLog	Cell=Cell01	Oracle JDBC Driver (XA)	Default data source for ESB Logger Mediation	
<input type="checkbox"/>	Monitor_Admin_Database	jdbq/wbm/MonitorAdminDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Admin Database	
<input type="checkbox"/>	Monitor_Cell01_Routing_Database	jdbq/wbm/Cell01/MonitorDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Routing Database	
<input checked="" type="checkbox"/>	Monitor_Database	jdbq/wbm/MonitorDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Database	
<input type="checkbox"/>	Monitor_ME_Database	jdbq/wbm/MonitorMEDatabase	Cell=Cell01	MonitorDBProvider	XA DataSource for Monitor Messaging Engine Database	
<input type="checkbox"/>	WBI DataSource	jdbq/WPSDB	Cell=Cell01	Oracle JDBC Driver (XA)	WBI_DataSource	

Total 6

1. Press **Monitor_ME_Database**

The "Monitor_ME_Database Configuration" page is displayed:

The screenshot shows a configuration page with the following sections and steps:

- Data store helper class name**
 - Select a data store helper class
 - Data store helper classes provided by WebSphere Application Server
 - Oracle9i and prior data store helper (com.ibm.websphere.rsadapter.OracleDataStoreHelper)
 - 1** Oracle10g data store helper (com.ibm.websphere.rsadapter.Oracle10gDataStoreHelper)
 - 1** Oracle11g data store helper (com.ibm.websphere.rsadapter.Oracle11gDataStoreHelper)
 - Specify a user-defined data store helper
 - Enter a package-qualified data store helper class name
- 2** **Component-managed authentication alias**
 - Component-managed authentication alias
 - W6201L3MBPMDmgr/MonitorMEAuthAlias
- 3** **Container-managed authentication**
 - Container-managed authentication alias (deprecated in V6.0, use resource reference authentication settings instead)
 - W6201L3MBPMDmgr/MonitorMEAuthAlias
 - Mapping-configuration alias (deprecated in V6.0, use resource reference authentication settings instead)
 - DefaultPrincipalMapping
- Oracle data source properties**
 - * URL
 - jdbc:oracle:thin:@W6201L3O.boeblingen.de.ibm.com:1
- 4** **OK** button

1. Select "Oracle11g data store helper" class
2. Select "<DMGR_Hostname>/MonitorMEAuthAlias"
3. Select "<DMGR_Hostname>/MonitorMEAuthAlias"
4. Press **OK**

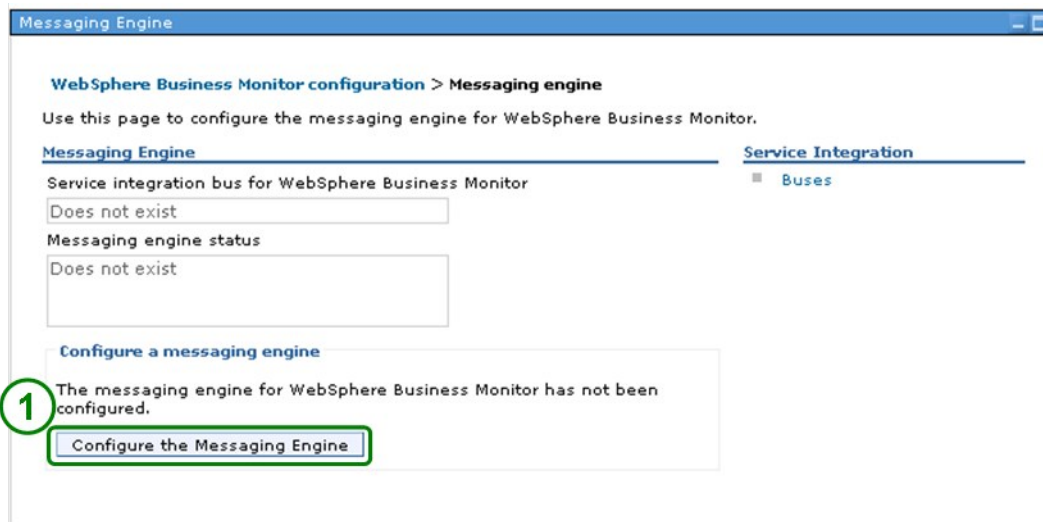
Save changes and synchronize Nodes.

19.1.3 Configure the monitor messaging engine

In the admin console, navigate to

Servers
-> WebSphere Business Monitor configuration
-> Messaging engine

The "Messaging engine" page is displayed:



1. Press **Configure the Messaging Engine**

The "Step 1: Select a bus member" page is displayed:

Create a new messaging engine

→ Step 1: Select a bus member
Step 2: Select the type of message store
Step 3: Confirm

Select a bus member

A service integration bus named *MONITOR.Cell01.Bus w*
Choose the server or cluster to add to the bus. The cluster.

Cluster
MECluster

Server
Select...

Next Cancel

1. Select Cluster -> MECluster

2. Press **Next**

The "Step 2: Select the type of message store" page is displayed:

Create a new messaging engine

Step 1: Select a bus member
→ Step 2: Select the type of message store
Step 3: Confirm

Select the type of message store

Choose the type of message store for the persistence of message state.

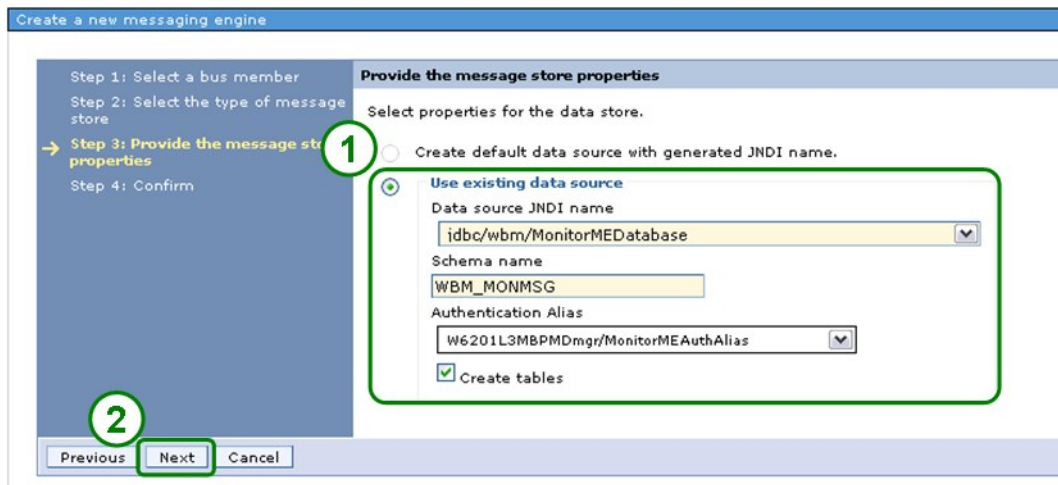
Data store
 File store

Previous Next Cancel

1. Select "Data store"

2. Press **Next**

The "Step 3: Provide the message store properties" page is displayed:

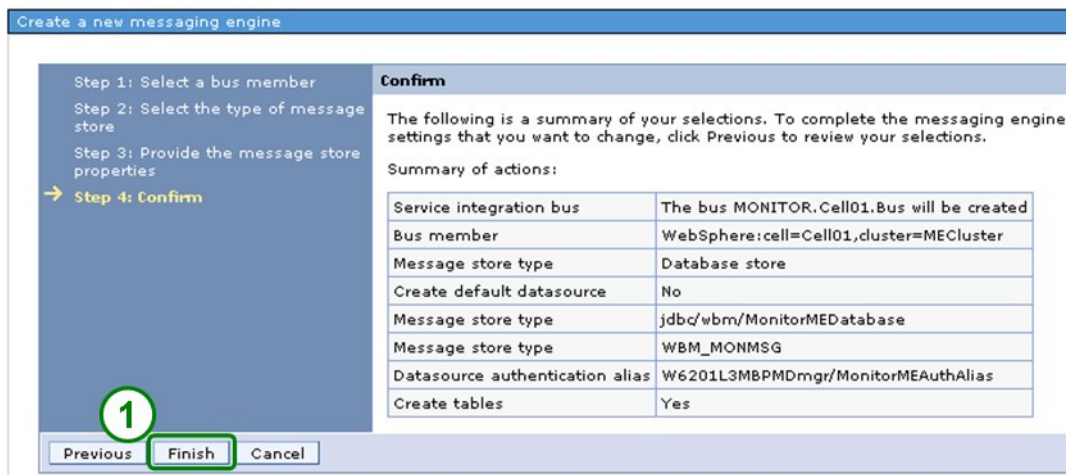


1. Type in / Select the following information:

Data source JNDI name: jdbc/wbm/MonitorMEDatabase
 Schema name: WBM_MONMSG
 Authentication Alias: "<DMGR_Hostname>/MonitorMEAuthAlias"

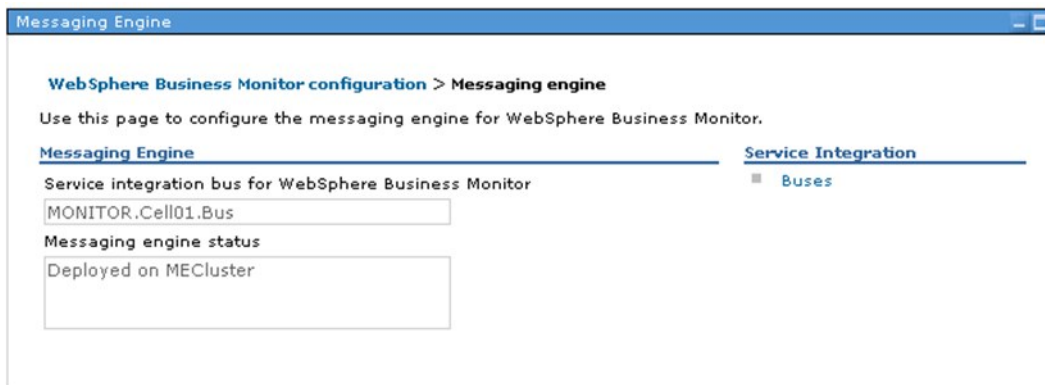
2. Press **Next**

The "Step 4: Confirm" page is displayed:



1. Press **Finish**

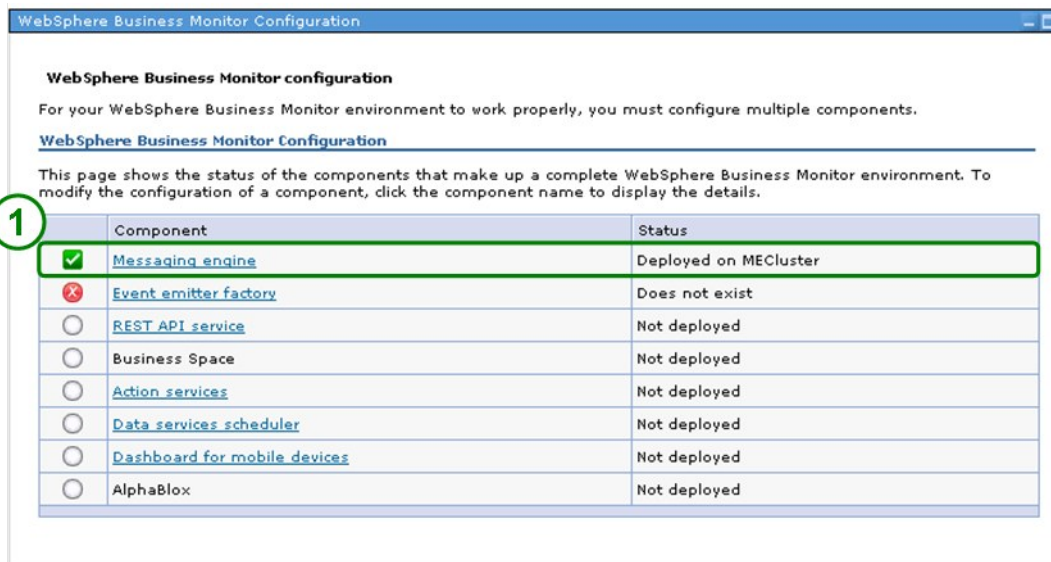
The "Messaging engine" page is displayed:



In the admin console, navigate to

Servers
-> WebSphere Business Monitor configuration

The "WebSphere Business Monitor configuration" page is displayed:



1. The Messaging engine has now the Status: "Deployed on MECluster".

19.2 Configure the monitor emitter factory on the SupportCluster

In the admin console, navigate to

Servers
-> WebSphere Business Monitor configuration

The "WebSphere Business Monitor configuration" page is displayed:

WebSphere Business Monitor configuration

For your WebSphere Business Monitor environment to work properly, you must configure multiple components.

WebSphere Business Monitor Configuration

This page shows the status of the components that make up a complete WebSphere Business Monitor environment. To modify the configuration of a component, click the component name to display the details.

Component	Status
Messaging engine	Deployed on MECluster
<input checked="" type="checkbox"/> Event emitter factory	Does not exist
<input type="checkbox"/> REST API service	Not deployed
<input type="checkbox"/> Business Space	Not deployed
<input type="checkbox"/> Action services	Not deployed
<input type="checkbox"/> Data services scheduler	Not deployed
<input type="checkbox"/> Dashboard for mobile devices	Not deployed
<input type="checkbox"/> AlphaBlox	Not deployed

1. Press **Event emitter factory**

The "Event emitter factory" page is displayed:

Event Emitter Factory

WebSphere Business Monitor configuration > Event emitter factory

WebSphere Business Monitor uses an event emitter factory to emit outbound events. The event emitter factory must be configured to emit events to an event service.

Event Emitter Factory

Event emitter factory status
Not deployed

The event emitter factory for WebSphere Business Monitor has not been configured.

Configure an event emitter factory

1 Select the server or cluster to which contains the event service you want to configure the event emitter factory to use

2 SupportCluster

Configure the Event Emitter Factory

1. Select "SupportCluster"

2. Press **Configure the Event Emitter Factory**

The "Event emitter factory" page is displayed:

Event Emitter Factory

Messages
CWMTW1306I: The event emitter factory has been successfully configured to use the event service on SupportCluster.

WebSphere Business Monitor configuration > Event emitter factory

WebSphere Business Monitor uses an event emitter factory to emit outbound events. The event emitter factory must be configured to emit events to an event service.

Event Emitter Factory

Event emitter factory status
Configured using the event service on SupportCluster

Applications

- Enterprise applications

Common Event Infrastructure

- Event services
- Event emitter factories

In the admin console, navigate to

Servers
-> WebSphere Business Monitor configuration

The "WebSphere Business Monitor configuration" page is displayed:

Component	Status
<input checked="" type="checkbox"/> Messaging engine	Deployed on MECluster
<input checked="" type="checkbox"/> Event emitter factory	Configured using the event service on SupportCluster
<input type="checkbox"/> REST API service	Not deployed
<input type="checkbox"/> Business Space	Not deployed
<input type="checkbox"/> Action services	Not deployed
<input type="checkbox"/> Data services scheduler	Not deployed
<input type="checkbox"/> Dashboard for mobile devices	Not deployed
<input type="checkbox"/> AlphaBlox	Not deployed

1. The Event emitter factory has now the Status: "Configured using the event service on SupportCluster".

Chapter 20 Configure the Monitor Support Cluster

20.1 Create the Monitor Support Cluster (MonSupportCluster)

In the admin console, navigate to:

```
Servers  
-> Clusters  
-> [New]
```

The "Create a new cluster Step 1" page is displayed:

1. Type in the Cluster name in this case "MonSupportCluster".

2. Click **Next**

The "Create a new Cluster Step 2" page is displayed:

The screenshot shows a web-based wizard titled "Create a new cluster". The left sidebar indicates the current step is "Step 2: Create first cluster member". The main content area is titled "Create first cluster member" and includes a descriptive paragraph. Below the text are several input fields and a radio button selection. The fields are: "Member name" (text input with value "onSupportCluster_member01"), "Select node" (dropdown menu with value "W6201LN3WBMNode01(ND 6.1.0.23)"), "Weight" (text input with value "2" and a range "(0..20)"), and a checked checkbox "Generate unique HTTP ports". Below these is a section "select basis for first cluster member:" with four radio button options. The first option, "Create the member using an application server template.", is selected and has a dropdown menu with value "default_defaultWBM". The other three options are "Create the member using an existing application server as a template.", "Create the member by converting an existing application server.", and "None. Create an empty cluster.", each with a "(none)" dropdown. At the bottom, there are "Previous", "Next", and "Cancel" buttons. The "Next" button is highlighted with a green box.

1. Type in the Member name in this case "MonSupportCluster_member01".
2. Select node "W6201LN3WBMNode01" from the drop-down-box.
3. Type in the Weight in this case "2".
4. Select the Template "default_defaultWBM" from the drop-down-box.
5. Click **Next**

The "Create a new cluster Step:3" page is displayed:

Create a new cluster

Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

→ Step 3: Create additional cluster members

Step 4: Summary

Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

* Member name

Select node
ProxyNode01(ND 6.1.0.23)

* Weight
2 (0..20)

Generate unique HTTP ports

Add Member

Use the Edit function to edit the properties of a cluster member that is already included in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member or an already existing cluster member.

Edit Delete

Select	Member name	Nodes	Version	Weight
<input type="checkbox"/>	MonSupportCluster_member01	W6201LN3WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	2

Previous **Next** Cancel

1. Click **Next**

Note: For now there will be only one member for the cluster created and proceeded with the configuration of the cluster. After verifying that the cluster works, an additional cluster member will be created.

The "Create a new cluster Step:4" page is displayed:

1

Options	Values
Cluster Name	MonSupportCluster
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Prefer local	true
Configure HTTP session memory-to-memory replication	false
Server name	MonSupportCluster_member01
Node	W6201LN3WBMNode01(ND 6.1.0.23 WBM 6.2.0.1)
Weight	2
Clone Template	default_defaultWBM
Clone Type	default
Generate unique HTTP ports	true

1. Click **Finish**

Save and **synchronize** the configuration.

20.2 Configure the action services application on the MonSupportCluster

In the admin console, navigate to

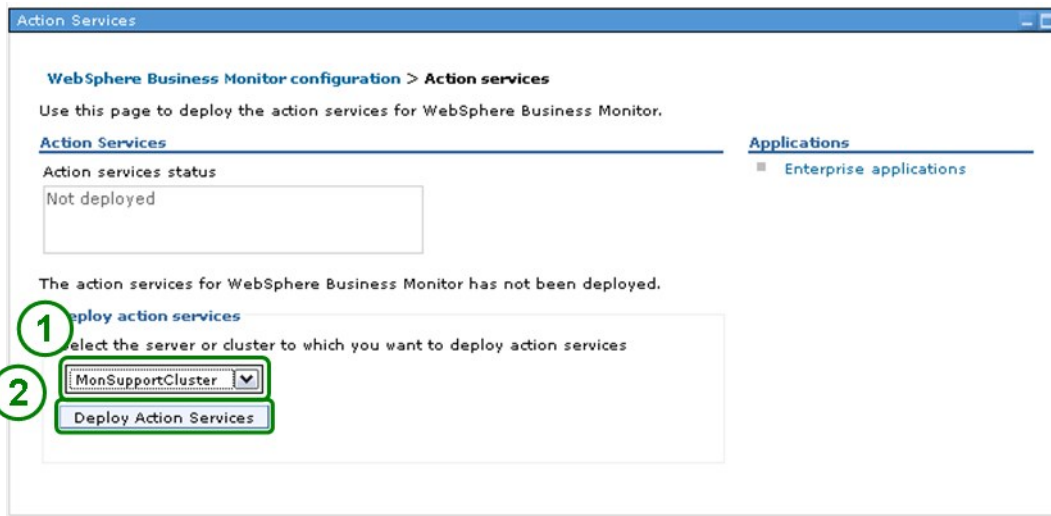
Servers
-> WebSphere Business Monitor configuration

The "WebSphere Business Monitor configuration" page is displayed:

	Component	Status
<input checked="" type="checkbox"/>	Messaging engine	Deployed on MECluster
<input checked="" type="checkbox"/>	Event emitter factory	Configured using the event service on SupportCluster
<input type="checkbox"/>	REST API service	Not deployed
<input type="checkbox"/>	Business Space	Not deployed
<input checked="" type="checkbox"/>	Action services	Not deployed
<input type="checkbox"/>	Data services scheduler	Not deployed
<input type="checkbox"/>	Dashboard for mobile devices	Not deployed
<input type="checkbox"/>	AlphaBlox	Not deployed

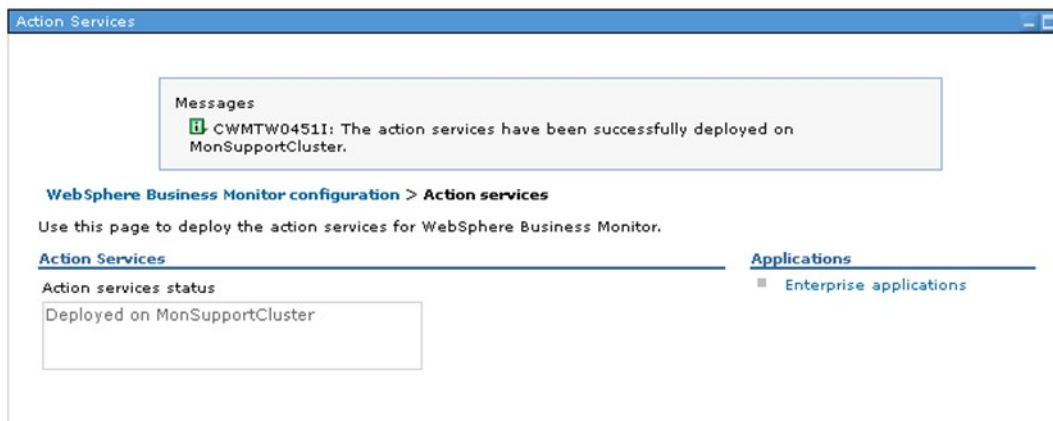
1. Press **Action services**

The "Action Services" page is displayed:



1. Select "MonSupportCluster"
2. Press **Deploy Action Services**

The "Action Services" page is displayed again:



In the admin console, navigate to

Servers
-> WebSphere Business Monitor configuration

The "WebSphere Business Monitor configuration" page is displayed:

Component	Status
<input checked="" type="checkbox"/> Messaging engine	Deployed on MECluster
<input checked="" type="checkbox"/> Event emitter factory	Configured using the event service on SupportCluster
<input type="checkbox"/> REST API service	Not deployed
<input type="checkbox"/> Business Space	Not deployed
<input checked="" type="checkbox"/> Action services	Deployed on MonSupportCluster
<input type="checkbox"/> Data services scheduler	Not deployed
<input type="checkbox"/> Dashboard for mobile devices	Not deployed
<input type="checkbox"/> AlphaBlox	Not deployed

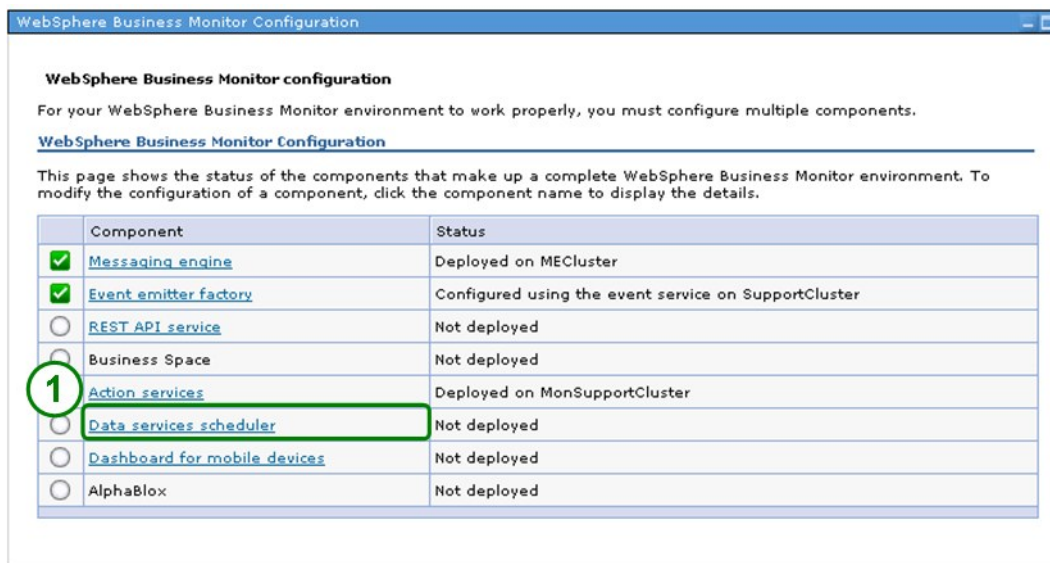
1. The Action services is now in Status: "Deployed on MonSupportCluster"

20.3 Configure the data services scheduler on the MonSupportCluster.

In the admin console, navigate to

Servers
-> WebSphere Business Monitor configuration

The "WebSphere Business Monitor configuration" page is displayed:



WebSphere Business Monitor configuration

For your WebSphere Business Monitor environment to work properly, you must configure multiple components.

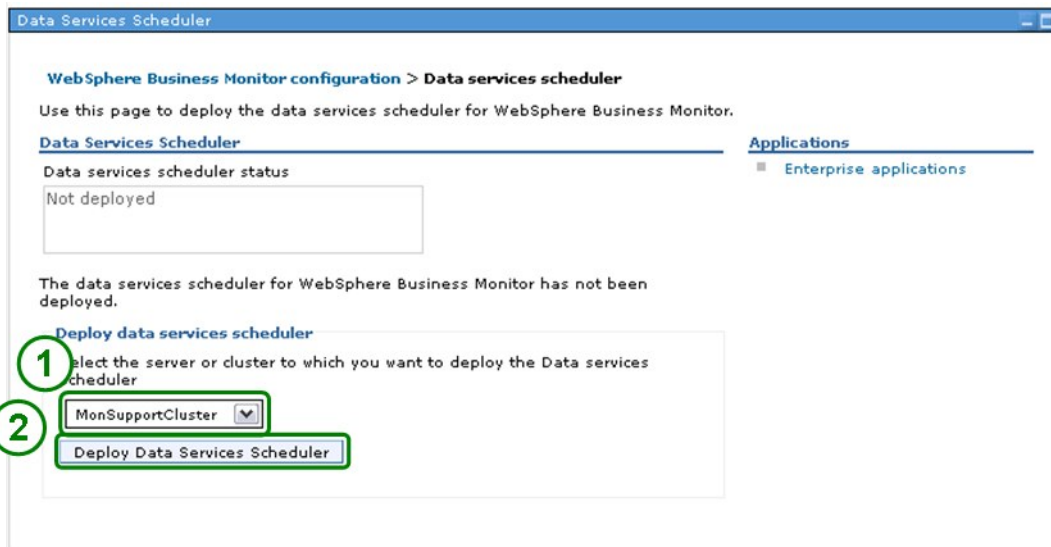
WebSphere Business Monitor Configuration

This page shows the status of the components that make up a complete WebSphere Business Monitor environment. To modify the configuration of a component, click the component name to display the details.

	Component	Status
<input checked="" type="checkbox"/>	Messaging engine	Deployed on MECluster
<input checked="" type="checkbox"/>	Event emitter factory	Configured using the event service on SupportCluster
<input type="checkbox"/>	REST API service	Not deployed
<input type="checkbox"/>	Business Space	Not deployed
<input type="checkbox"/>	Action services	Deployed on MonSupportCluster
<input type="checkbox"/>	Data services scheduler	Not deployed
<input type="checkbox"/>	Dashboard for mobile devices	Not deployed
<input type="checkbox"/>	AlphaBlox	Not deployed

1. Press **Data services scheduler**

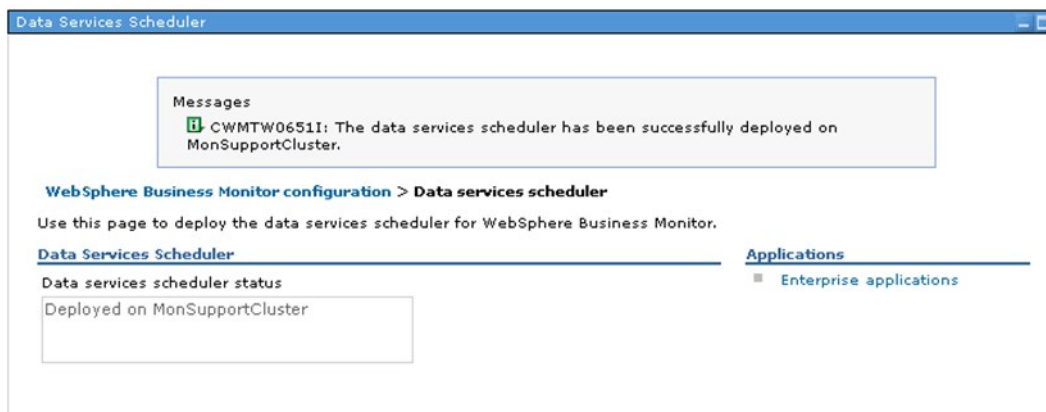
The "Data Services Scheduler" page is displayed:



1. Select "MonSupportCluster"

2. Press **Deploy Data Services Scheduler**

The "Data Services Scheduler" page is displayed:



In the admin console, navigate to

Servers
-> WebSphere Business Monitor configuration

The "WebSphere Business Monitor configuration" page is displayed:

	Component	Status
<input checked="" type="checkbox"/>	Messaging engine	Deployed on MECluster
<input checked="" type="checkbox"/>	Event emitter factory	Configured using the event service on SupportCluster
<input type="checkbox"/>	REST API service	Not deployed
<input type="checkbox"/>	Business Space	Not deployed
<input checked="" type="checkbox"/>	Action services	Deployed on MonSupportCluster
<input checked="" type="checkbox"/>	Data services scheduler	Deployed on MonSupportCluster
<input type="checkbox"/>	Dashboard for mobile devices	Not deployed
<input type="checkbox"/>	AlphaBlox	Not deployed

1. The Data services scheduler is now in Status: "Deployed on MonSupportCluster"

20.4 Verify cluster start-up

In the admin console, navigate to:

Servers
-> Clusters.

Select **MonSupportCluster** and click **Start**.

Check log file **SystemOut.log** for MonSupportCluster_member01 in directory:

```
<inst_root>/profiles/W6201LN3WBMCcustom01/logs/MonSupportCluster_member01
```

for errors.

20.5 Create an additional cluster member

In the admin console, navigate to:

```
Servers  
-> Clusters.
```

Select **MonSupportCluster** and click **Stop**. Wait until the MonSupportCluster is stopped. Navigate to:

```
Servers  
-> Clusters  
-> MonSupportCluster  
-> Cluster Members
```

and click **New**.

The "Create new cluster members" page is displayed:

Use this page to add application servers to a cluster.

Step 1: Create first cluster member
→ Step 2: Create additional cluster members
Step 3: Summary

Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

1

* Member name
MonSupportCluster_member02

Select node
W6201LN4WBMNode01(ND 6.1.0.23) ↓

* Weight
2 (0..20)

2

Generate unique HTTP ports

Add Member

Use the Edit function to edit the properties of a cluster member that is already included in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member or an already existing cluster member.

Edit Delete

Select	Member name	Nodes	Version	Weight
	MonSupportCluster_member01	W6201LN3WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	2

Previous Next Cancel

1. Enter the following values:

- Member name: MonSupportCluster_member02
- Select node: W6201LN4WBMNode01
- Weight: 2

2. Click **Add Member**

The "Create new cluster members" page is displayed:

Use this page to add application servers to a cluster.

Step 1: Create first cluster member
→ Step 2: Create additional cluster members
Step 3: Summary

Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

* Member name

Select node
W6201LN4WBMNode01(ND 6.1.0.23) ▼

* Weight
2 (0..20)

Generate unique HTTP ports

Add Member

Use the Edit function to edit the properties of a cluster member that is already included in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member or an already existing cluster member.

Edit Delete

Select	Member name	Nodes	Version	Weight
<input type="checkbox"/>	MonSupportCluster_member02	W6201LN4WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	2
<input type="checkbox"/>	MonSupportCluster_member01	W6201LN3WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	2

1
Previous Next Cancel

1. Click **Next**

The "Create new cluster members Summary" page is displayed:

Use this page to add application servers to a cluster.

Step 1: Create first cluster member
Step 2: Create additional cluster members
→ Step 3: Summary

1

Previous Finish Cancel

Summary

Summary of actions:

Options	Values
Cluster Name	MonSupportCluster
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Server name	MonSupportCluster_member02
Node	W6201LN4WBNode01(ND 6.1.0.23 WBM 6.2.0.1)
Weight	2
Clone Template	Cell01/W6201LN3WBNode01(ND 6.1.0.23)/MonSupportCluster_member01
Clone Type	existing
Generate unique HTTP ports	true

1. Click **Finish**

Save and **synchronize** the configuration.

Chapter 21 Create Monitor Application Cluster

21.1 Create the Monitor Application Cluster (MonApplicationCluster)

In the admin console, navigate to:

```
Servers  
-> Clusters  
-> [New]
```

The "Create a new cluster Step 1" page is displayed:

1

2

1. Type in the Cluster name in this case "MonApplicationCluster".

2. Click **Next**

The "Create a new Cluster Step 2" page is displayed:

The screenshot shows the 'Create a new cluster' wizard. The sidebar on the left indicates the current step is 'Step 2: Create first cluster member'. The main area is titled 'Create first cluster member' and contains the following fields and options:

- Member name:** applicationCluster_member01
- Select node:** W6201LN3WBMNode01 (ND 6.1.0.23)
- Weight:** 2 (range 0..20)
- Generate unique HTTP ports
- Select basis for first cluster member:**
 - Create the member using an application server template. default_defaultWBM
 - Create the member using an existing application server as a template. Cell01/W6201LN3WBMNode01/MonSupportCluster_member01
 - Create the member by converting an existing application server. (none)
 - None. Create an empty cluster.

At the bottom, there are 'Previous', 'Next', and 'Cancel' buttons. The 'Next' button is highlighted with a green box.

1. Type in the Member name in this case "MonApplicationCluster_member01".
2. Select node "W6201LN3WBMNode01" from the drop-down-box.
3. Type in the Weight in this case "2".
4. Select the Template "default_defaultWBM" from the drop-down-box.
5. Click **Next**

The "Create a new cluster Step:3" page is displayed:

Create a new cluster

Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

→ Step 3: Create additional cluster members

Step 4: Summary

Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

* Member name

Select node

ProxyNode01(ND 6.1.0.23)

* Weight

2 (0..20)

Generate unique HTTP ports

Add Member

Use the Edit function to edit the properties of a cluster member that is already included in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member or an already existing cluster member.

Edit Delete

Select	Member name	Nodes	Version	Weight
	MonApplicationCluster_member01	W6201LN3WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	2

Previous **Next** Cancel

1. Click **Next**

Note: For now there will be only one member for the cluster created and proceeded with the configuration of the cluster. After verifying that the cluster works, an additional cluster member will be created.

The "Create a new cluster Step:4" page is displayed:

1

Options	Values
Cluster Name	MonApplicationCluster
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Prefer local	true
Configure HTTP session memory-to-memory replication	false
Server name	MonApplicationCluster_member01
Node	W6201LN3WBMMNode01(ND 6.1.0.23 WBM 6.2.0.1)
Weight	2
Clone Template	default_defaultWBM
Clone Type	default
Generate unique HTTP ports	true

1. Click **Finish**

Save and **synchronize** the configuration.

21.2 Verify cluster start-up

In the admin console, navigate to:

Servers
-> **Clusters**.

Select **MonApplicationCluster** and click **Start**.

Check log file **SystemOut.log** for MonApplicationCluster_member01 in directory:

```
<inst_root>/profiles/W6201LN3WBMCust01/logs/MonApplicationCluster_member01
```

for errors.

21.3 Create an additional cluster member

In the admin console, navigate to:

```
Servers
-> Clusters.
```

Select **MonSupportCluster** and click **Stop**. Wait until the MonSupportCluster is stopped. Navigate to:

```
Servers
-> Clusters
-> MonApplicationCluster
-> Cluster Members
```

and click **New**.

The "Create new cluster members" page is displayed:

Use this page to add application servers to a cluster.

Step 1: Create first cluster member
→ Step 2: Create additional cluster members
Step 3: Summary

Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

1

* Member name
applicationCluster_member02

Select node
W6201LN4WBMNode01(ND 6.1.0.23)

* Weight
2 (0..20)

2

Generate unique HTTP ports

Add Member

Use the Edit function to edit the properties of a cluster member that is already included in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member or an already existing cluster member.

Edit Delete

Select	Member name	Nodes	Version	Weight
<input type="checkbox"/>	MonApplicationCluster_member01	W6201LN3WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	2

Previous Next Cancel

1. Enter the following values:

- Member name: MonApplicationCluster_member02
- Select node: W6201LN4WBMNode01
- Weight: 2

2. Click **Add Member**

The "Create new cluster members" page is displayed:

Create new cluster members ? -

Use this page to add application servers to a cluster.

Step 1: Create first cluster member
→ **Step 2: Create additional cluster members**
Step 3: Summary

Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

* Member name

Select node
W6201LN4WBMNode01(ND 6.1.0.23) ▼

* Weight
 (0..20)

Generate unique HTTP ports

Use the Edit function to edit the properties of a cluster member that is already included in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member or an already existing cluster member.

Select	Member name	Nodes	Version	Weight
<input type="checkbox"/>	MonApplicationCluster_member02	W6201LN4WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	2
<input type="checkbox"/>	MonApplicationCluster_member01	W6201LN3WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	2

1

1. Click **Next**

The "Create new cluster members Summary" page is displayed:

Use this page to add application servers to a cluster.

Step 1: Create first cluster member
Step 2: Create additional cluster members
→ Step 3: Summary

Summary

Summary of actions:

Options	Values
Cluster Name	MonApplicationCluster
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Server name	MonApplicationCluster_member02
Node	W6201LN4WBMNode01(ND 6.1.0.23 WBM 6.2.0.1)
Weight	2
Clone Template	Cell01/W6201LN3WBMNode01(ND 6.1.0.23)/MonApplicationCluster_member01
Clone Type	existing
Generate unique HTTP ports	true

Previous Finish Cancel

1. Click **Finish**

Save and **synchronize** the configuration.

Chapter 22 Create Monitor Web Dashboard

22.1 Create the Monitor Web Dashboard Cluster (WebDashboardCluster)

In the admin console, navigate to:

```
Servers  
-> Clusters  
-> [New]
```

The "Create a new cluster Step 1" page is displayed:

2

1

1. Type in the Cluster name in this case "WebDashboardCluster".

2. Click **Next**

The "Create a new Cluster Step 2" page is displayed:

The screenshot shows the 'Create a new cluster' wizard. The sidebar on the left indicates the current step is 'Step 2: Create first cluster member'. The main form area is titled 'Create first cluster member' and contains the following fields and options:

- Member name:** WebDashboardCluster_Member01
- Select node:** W6201LN3WBMNode01 (ND 6.1.0.23)
- Weight:** 2 (range 0..20)
- Generate unique HTTP ports
- Select basis for first cluster member:**
 - Create the member using an application server template. default_defaultWBM
 - Create the member using an existing application server as a template. Cell01/W6201LN3WBMNode01/MonApplicationCluster_member
 - Create the member by converting an existing application server. (none)
 - None. Create an empty cluster.

At the bottom of the form, there are three buttons: 'Previous', 'Next', and 'Cancel'. The 'Next' button is highlighted with a green box.

1. Type in the Member name in this case "WebDashboardCluster_member01".
2. Select node "W6201LN3WBMNode01" from the drop-down-box.
3. Type in the Weight in this case "2".
4. Select the Template "default_defaultWBM" from the drop-down-box.
5. Click **Next**

The "Create a new cluster Step:3" page is displayed:

Create a new cluster

Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

→ Step 3: Create additional cluster members

Step 4: Summary

Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster configuration template is created from the first member and stored as part of the cluster this template.

* Member name

Select node

ProxyNode01 (ND 6.1.0.23)

* Weight

2 (0..20)

Generate unique HTTP ports

Add Member

Use the Edit function to edit the properties of a cluster member that is already included in cluster member from this list. You are not allowed to edit or remove the first cluster member.

Edit Delete

Select	Member name	Nodes
<input type="checkbox"/>	WebDashboardCluster_Member01	W6201LN3WBMNode01

Previous Next Cancel

1. Click **Next**

Note: For now there will be only one member for the cluster created and proceeded with the configuration of the cluster. After verifying that the cluster works, an additional cluster member will be created.

The "Create a new cluster Step:4" page is displayed:

1

Options	Values
Cluster Name	WebDashboardCluster
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Prefer local	true
Configure HTTP session memory-to-memory replication	false
Server name	WebDashboardCluster_Mem
Node	W6201LN3WBMMember01(ND WBM 6.2.0.1)
Weight	2
Clone Template	default_defaultWBM
Clone Type	default
Generate unique HTTP ports	true

1. Click **Finish**

Save and **synchronize** the configuration.

22.2 Verify cluster start-up

In the admin console, navigate to:

```
Servers  
-> Clusters
```

Select **WebDashboardCluster** and click **Start**.

Check log file **SystemOut.log** for WebDashboardCluster_member01 in directory:

```
<inst_root>/profiles/W6201LN3WBMCustomer01/logs/WebDashboardCluster_member01
```

for errors.

22.3 Create Business Space authentication alias

To create the BSpace authentication alias navigate to:

```
Security
-> Secure administration, applications, and infrastructure
-> JAAS - J2C authentication data
-> New
```

The "JAAS - J2C authentication data New" page is displayed:

Secure administration, applications, and infrastructure > JAAS - J2C authentication data > New

Specifies a list of user identities and passwords for Java(TM) 2 connector security to use.

Configuration

1 General Properties

* Alias
BSPACE_Auth_Alias

* User ID
WPS_BSPACE

* Password

Description

Apply **2** OK Reset Cancel

1. Type in the following values for:

- a.) Alias: BSPACE_Auth_Alias
- b.) UserID: WPS_BSPACE
- c.) Password: <password>
- d.) Description

2. Click **Ok**, save and synchronize

22.4 Install Business Space applications

Navigate to the WBI datasource and change the datastore helper to Oracle 10g.

```
Resources
-> JDBC
  -> Data sources
    -> WBI_DataSource
```

The "WBI_DataSource configuration" panel is displayed:

Data store helper class name

Select a data store helper class

Data store helper classes provided by WebSphere Application Server

1 Oracle9i and prior data store helper
(com.ibm.websphere.rsadapter.OracleDataStoreHelper)

Oracle10g data store helper
(com.ibm.websphere.rsadapter.Oracle10gDataStoreHelper)

Oracle11g data store helper
(com.ibm.websphere.rsadapter.Oracle11gDataStoreHelper)

Specify a user-defined data store helper

Enter a package-qualified data store helper class name

1. Select "Oracle10g data store helper"

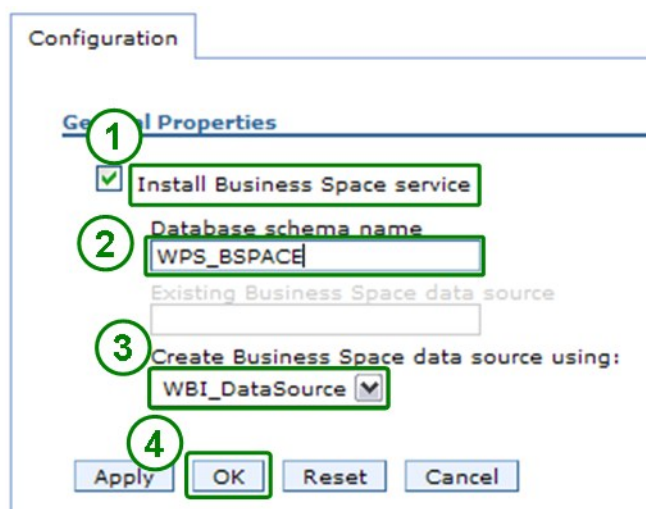
Press Ok, save and synchronize

Not changing the data store helper class to Oracle10g will lead to a Null Pointer Exception during the installation of the Business Space applications.

To install the Business Space applications navigate to:

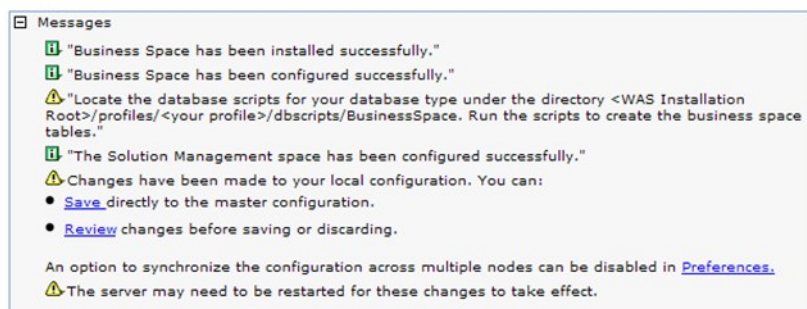
```
Servers
-> Cluster
  -> WebDashboardCluster
    -> Business Space Configuration
```

The "Business Space Configuration" page is displayed:



1. Select "Install Business Space service".
2. Type in the database schema name, in this case **WPS_BSPACE**.
3. Select "WBI_Datasource".
4. Click **Ok**

You will get the following message:



Save and synchronize the configuration

Navigate to the WBI datasource and change the datastore helper back to Oracle 11g.

```
Resources
-> JDBC
  -> Data sources
    -> WBI_DataSource
```

The "WBI_DataSource configuration" panel is displayed:

Data store helper class name

Select a data store helper class

Data store helper classes provided by WebSphere Application Server

Oracle9i and prior data store helper
(com.ibm.websphere.rsadapter.OracleDataStoreHelper)

Oracle10g data store helper
(com.ibm.websphere.rsadapter.Oracle10gDataStoreHelper)

Oracle11g data store helper
(com.ibm.websphere.rsadapter.Oracle11gDataStoreHelper)

Specify a user-defined data store helper

Enter a package-qualified data store helper class name

1. Select "Oracle11g data store helper"

Press Ok, save and synchronize

Navigate to the "Business Space Datasource" to change the datastore helper to Oracle 11g and the authentication alias to "<hostname>/BSPACE_Auth_Alias".

Resources
-> JDBC
-> Data sources
-> Business Space Datasource

The "Business Space Datasource configuration" panel is displayed:

Data store helper class name

Select a data store helper class

Data store helper classes provided by WebSphere Application Server

1 Oracle9i and prior data store helper
(com.ibm.websphere.rsadapter.OracleDataStoreHelper)

Oracle10g data store helper
(com.ibm.websphere.rsadapter.Oracle10gDataStoreHelper)

Oracle11g data store helper
(com.ibm.websphere.rsadapter.Oracle11gDataStoreHelper)

Specify a user-defined data store helper

Enter a package-qualified data store helper class name

2 Component-managed authentication alias

Component-managed authentication alias

W6201L3MBPMDmgr/BSPACE_Auth_Alias

3 Authentication alias for XA recovery

Use component-managed authentication alias

Specify:

W6201L3MBPMDmgr/WPS_Recovery_Auth_Alias

1. Select "Oracle11g data store helper"
2. Select "<hostname>/BSPACE_Auth_Alias"
3. Select specify and then "<hostname>/WPS_Recovery_Auth_Alias"

Press Ok, save and synchronize

22.5 Enable business rules for Business Space

In the admin console navigate to:

```
Servers
-> Clusters
    -> SupportCluster
        -> System REST Service Endpoints
```

The "System REST Service Endpoints" panel is displayed:

Configuration

System REST Service Endpoints

Protocol:

Host name or virtual host in a load-balanced environment:

Port:

Context root:

Type	Description	URL
Time Tables	WBI Business Calendar REST API	https://w6201n1.boeblingen.de.ibm.com/rest/bpm/businesscalendar
Business Rules	WBI Business Rule REST API	System internal
Direct Deploy	Internal REST service for directly deploying SCA module	System internal
Health Monitor	The Health Monitor REST is an application programming interface	System internal
User Membership	User Membership REST API	https://w6201n1.boeblingen.de.ibm.com/rest/ws/um
Security	WBI Security REST API	System internal
SCA Administration	SCA application module administration	System internal

Buttons:

1. Type in the proxy host, in this case "w6201l3m.boeblingen.de.ibm.com".
2. Type in the proxy port, in this case "444".
3. Click **Ok**

Save and synchronize the configuration

Recycle the entire cell (clusters, nodes and deployment manager) and verify output messages for successful startup.

22.6 Deploy WBM Rest service API on WebDashboardCluster

In the admin console, navigate to

Servers
-> WebSphere Business Monitor configuration

The "WebSphere Business Monitor configuration" page is displayed:

	Component	Status
<input checked="" type="checkbox"/>	Messaging engine	Deployed on MECluster
1 <input checked="" type="checkbox"/>	Event emitter factory	Configured using the event service on SupportCluster
<input type="checkbox"/>	REST API service	Not deployed
<input checked="" type="checkbox"/>	Business Space	Deployed on WebDashboardCluster
<input checked="" type="checkbox"/>	Action services	Deployed on MonSupportCluster
<input checked="" type="checkbox"/>	Data services scheduler	Deployed on MonSupportCluster
<input type="checkbox"/>	Dashboard for mobile devices	Not deployed
<input type="checkbox"/>	AlphaBlox	Not deployed

1. Select **REST API service**

The "REST API service" page is displayed:

REST API Service

WebSphere Business Monitor configuration > REST API service

Use this page to deploy the REST API service for WebSphere Business Monitor.

REST API Service

REST API service status
Not deployed

The REST API service for WebSphere Business Monitor has not been deployed.

1 **Deploy REST API service**
Select the server or cluster to which you want to deploy the REST API service

2

1. Select "WebDashboardCluster"

2. Press **Deploy REST API Service**

The "REST API Service" page is displayed again:

REST API Service

REST API Service

Messages

CWMTW0353I: The REST API service has been successfully deployed on WebDashboardCluster.

WebSphere Business Monitor configuration > REST API service

Use this page to deploy the REST API service for WebSphere Business Monitor.

REST API Service

REST API service status

Deployed on WebDashboardCluster

In the admin console, navigate to

Servers
-> WebSphere Business Monitor configuration

The "WebSphere Business Monitor configuration" page is displayed:

WebSphere Business Monitor Configuration

This page shows the status of the components that make up a complete WebSphere Business Monitor environment. To modify the configur

Component	Status
<input checked="" type="checkbox"/> Messaging engine	Deployed on MECluster
<input checked="" type="checkbox"/> Event emitter factory	Configured using the event service on SupportCluster
<input checked="" type="checkbox"/> REST API service	Deployed on WebDashboardCluster
<input checked="" type="checkbox"/> Business Space	Deployed on WebDashboardCluster
<input checked="" type="checkbox"/> Action services	Deployed on MonSupportCluster
<input checked="" type="checkbox"/> Data services scheduler	Deployed on MonSupportCluster
<input type="checkbox"/> Dashboard for mobile devices	Not deployed
<input type="checkbox"/> AlphaBlox	Not deployed

1. The "REST API service" is now in Status: "Deployed on WebDashboard-Cluster"

22.7 Verify cluster start-up

1. In the admin console, navigate to:

```
Servers  
-> Clusters.
```

2. Select **WebDashboardCluster** and click **Start**.

3. Check log file **SystemOut.log** for MonSupportCluster_member01 in directory:

```
<inst_root>/profiles/W6201LN3WBMCustom01/logs/WebDashboardCluster_member01
```

for errors.

4. In the admin console, navigate to:

```
Servers  
-> Clusters.
```

5. Select **WebDashboardCluster** and click **Stop**.

6. Check log file **SystemOut.log** for MonSupportCluster_member01 in directory:

```
<inst_root>/profiles/W6201LN3WBMCustom01/logs/WebDashboardCluster_member01
```

for errors.

22.8 Create an additional cluster member

in den admin console, navigate to:

```
Servers
-> Clusters
   -> WebDashboardCluster
       -> Cluster Members
```

and click **New**.

The "Create new cluster members" page is displayed:

Use this page to add application servers to a cluster.

Step 1: Create first cluster member
→ Step 2: Create additional cluster members
Step 3: Summary

1

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

Member name
WebDashboardCluster_Member1

Select node
W6201LN4WBMNode01(ND 6.1.0.23)

Weight
2 (0..20)

Generate unique HTTP ports

2

Add Member

Use the Edit function to edit the properties of a cluster member that is already included in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member or an already existing cluster member.

Edit Delete

Select	Member name	Nodes	Version	Weight
	WebDashboardCluster_Member01	W6201LN3WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	2

Previous Next Cancel

1. Enter the following values:

- Member name: WebDashboardCluster_member02
- Select node: W6201LN4WBMNode01
- Weight: 2

2. Click **Add Member**

The "Create new cluster members" page is displayed:

Create new cluster members

Use this page to add application servers to a cluster.

Step 1: Create first cluster member
→ Step 2: Create additional cluster members
Step 3: Summary

Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member and stored as part of the cluster data. Additional cluster members are copied from this template.

* Member name

Select node
W6201LN4WBMNode01 (ND 6.1.0.23) ▼

* Weight
 (0..20)

Generate unique HTTP ports

Use the Edit function to edit the properties of a cluster member that is already included in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member or an already existing cluster member.

Select	Member name	Nodes	Version	Weight
<input type="checkbox"/>	WebDashboardCluster_Member02	W6201LN4WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	2
<input type="checkbox"/>	WebDashboardCluster_Member01	W6201LN3WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	2

1. Click **Next**

The "Create new cluster members Summary" page is displayed:

Create new cluster members

Use this page to add application servers to a cluster.

Step 1: Create first cluster member
Step 2: Create additional cluster members
→ Step 3: Summary

1

Options	Values
Cluster Name	WebDashboardCluster
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Server name	WebDashboardCluster_Member02
Node	W6201LN4WBMNode01(ND 6.1.0.23 WBM 6.2.0.1)
Weight	2
Clone Template	Cell01/W6201LN3WBMNode01(ND 6.1.0.23)/WebDashb
Clone Type	existing
Generate unique HTTP ports	true

Previous **Finish** Cancel

1. Click **Finish**

Save and **synchronize** the configuration.

22.9 Install Alphablox on the WebDashbordCluster

22.9.1 Oracle JDBC driver for Alphablox

1. Create the directory `/opt/oracle/abx_driver` on each WBM host, in this case on the hosts w6201ln3 and w6201ln4.
2. Locate the jdbc driver files in the directory “`$ORACLE_HOME/jdbc/lib`” on the host where Oracle was installed.
3. Copy **only** the file **ojdbc5.jar** from the lib directory into the directory `/opt/oracle/abx_driver` on each WBM host.
4. If a non-root WBM installation is done, make sure the driver directory is readable by the used WBM user.

22.9.2 Shut Down all Java Processes within the cell

Before installing and configuring Alphablox all Java Processes need to be stopped (Except the WebServer). Shut down all clusters, the Proxy Server, all nodeagents and the deployment manager.

22.9.3 Install Alphablox on WebSphere Business Node 1 (W6201LN3WBMNode01)

Navigate to the folder where the WebSphere Business Monitor binaries have been extracted. Here, navigate to the Alphablox folder:

```
cd ABX/Linux
```

Start the Alphablox installation:

```
./install.bin
```

```
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...

Launching installer...

Preparing CONSOLE Mode Installation...

=====
Choose Locale...
-----

    1- Deutsch
    ->2- English
    3- EspaÃ±ol
    4- FranÃ§ais
    5- Italiano
    6- PortuguÃªs (Brasil)

CHOOSE LOCALE BY NUMBER: 2
```

Press Enter to select English as locale.

IBM Alphablox 9.5 (created with InstallAnywhere by Macrovision)

=====

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- DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, OR USE THE PROGRAM; AND

- PROMPTLY RETURN THE PROGRAM AND PROOF OF ENTITLEMENT TO THE PARTY FROM WHOM YOU ACQUIRED IT TO OBTAIN A REFUND OF THE AMOUNT YOU PAID. IF YOU DOWNLOADED THE PROGRAM, CONTACT THE PARTY FROM WHOM YOU ACQUIRED IT.

Press Enter to continue viewing the license agreement, or enter "1" to accept the agreement, "2" to decline it, "3" to print it, or "99" to go back to the previous screen.:

Enter **1** to accept the license agreement. Press Enter.

=====

IBM Alphablox 9.5 Installation

The IBM Alphablox Installer guides you through the installation of IBM Alphablox.
If you are upgrading a previous version of IBM Alphablox, shut down IBM Alphablox before proceeding with the installation.

PRESS <ENTER> TO CONTINUE:

Press Enter to continue.

```
=====  
Installation Location  
-----  
  
Enter the Instance Name for IBM Alphablox (the default is AlphabloxAnalyt-  
ics)  
and choose the directory to which IBM Alphablox will be installed. If you  
choose a directory in which an existing version of IBM Alphablox is in-  
stalled,  
the installation process will guide you through an upgrade to IBM Al-  
phablox.  
  
Destination Directory [/opt/Alphablox]::
```

Leave the default install location (/opt/Alphablox) and press Enter.

```
Server Instance Name [AlphabloxAnalytics]::
```

Leave the default Server Instance Name (AlphabloxAnalytics) and press Enter.

```
=====  
Select Installation Set  
-----  
  
Please choose the Install Set to be installed by this installer.  
  
1- Compact  
->2- Typical  
  
3- Customize...  
  
ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DE-  
FAULT  
:
```

Press Enter to choose Typical installation (accept the default).

```
=====  
Choose Application Server  
-----  
  
Choose an Application Server to use with IBM Alphablox.  
  
1- Tomcat  
->2- WebSphere  
  
PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT  
:
```

Press Enter to choose WebSphere (accept the default).

```
Before continuing, you must completely shutdown WebSphere.  
PRESS <ENTER> TO CONTINUE:
```

Press Enter.

```
Enter the WebSphere Application Server Directory.  
NOTE: For clustered servers, required applications must be manually de-  
ployed.  
See post-installation steps in the Installation Guide.  
  
WebSphere Root Directory []:: /WBM62
```

Enter **/WBM62** as WebSphere Root Directory. Press Enter.

```
Installing to a clustered server? (Y/N): Y
```

Enter **Y** to install Alphablox into a clustered environment. Press Enter.

```
Please select where to install the applications.  
Server:  
->1- MonSupportCluster_member01  
   2- MonApplicationCluster_member01  
   3- WebDashboardCluster_Member01  
   4- nodeagent  
  
PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT  
: 3
```

Enter the number that corresponds to WebDashboardCluster_Member01 (here 3).
Press Enter.

```
=====
Verify the following details used to make administrative connections to
the
WebSphere server.
HTTP Port: [9082]::
```

Leave the default http port value (9082). Press Enter.

```
SOAP Connector Port: [8881]::
```

Leave the default soap connector port value (8881). Press Enter.

```
WebSphere Administrator Name: []:: vmmuser
```

Enter the WebSphere administrative user (here: vmmuser). Press Enter.

```
WebSphere Administrator Password::
```

Enter the password for the WebSphere administrative user. Press Enter.

```
Telnet Console Port [20023]::
```

Leave the default telnet console port (20023). Press Enter.

```
Server Log File Name [Server.log]::
```

Leave the default server log file name (Server.log). Press Enter.

```
=====
Configure IBM Alphablox
-----

Enter values for the following configuration settings or accept the de-
faults.

Telnet Console Port [20023]::
Server Log File Name [Server.log]::
Console Message Level
  1- DEBUG
  2- VERBOSE
->3- INFO
  4- SYSTEM
  5- WARNING
  6- ERROR
  7- FATAL

PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 3
```

Press Enter to choose INFO (accept the default).

```
SMTP Server []::
```

Don't specify a SMTP Server. Leave the default and press Enter.

```
=====
Choose Java Location
-----

Enter the directory where a JRE or JDK of at least version 1.4 is in-
stalled.

Java Directory [/WBM62/java]::
```

Leave the default Java Directory (here: /WBM62/java) and press Enter.

```
=====
Enable Additional Drivers
-----

You may select a directory that contains additional drivers. The Alphablox
lib
directory must not be used.

Do you want to enable additional drivers for IBM Alphablox? (Y/N)
: Y
```

Enter **Y** to enable additional drivers for Alphablox. Press Enter.

```
Location of Additional Drivers []:: /opt/oracle/abx_driver
```

Enter the path where the oracle 11g drivers are located (here: /opt/oracle/abx_driver). Press Enter.

```
Driver Information:Enabled: Oracle
Is the driver information above correct? (Y/N): Y
```

The driver information is displayed. Enter **Y** confirm that the driver information is correct. Press Enter.

```
=====  
Configure Repository  
-----  
  
Select the repository type to use with this installation of IBM Alphablox.  
If  
you are running IBM Alphablox in a clustered environment, you must select  
the  
'Database Repository'.  
  
Database  
->1- DB2  
   2- Derby  
   3- Oracle  
  
PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT  
: 3
```

Enter **3** to select Oracle as repository database. Press Enter.

```
Server []:: W6201L30.boeblingen.de.ibm.com
```

Enter the host name of the database server (here: W6201L30.boeblingen.de.ibm.com). Press Enter.

```
Port []:: 1521
```

Enter the database port (here: 1521). Press Enter.

```
SID []:: ORCL
```

Enter **ORCL** as database name. Press Enter.

```
User []:: WBM_ABXDB
```

Enter **WBM_ABXDB** as database user. Press Enter.

```
Password:
```

Enter the password for the database user. Press Enter.

```
The installer will now run a database connection test using the information
that you have provided
PRESS <ENTER> TO CONTINUE:
```

Press Enter to run a database connection test.

```
Database Connection Test Successful
System Information
Database Name: Oracle
Database Version: Oracle Database 11g Enterprise Edition Release
11.1.0.7.0 -
64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
Driver Name: Oracle JDBC driver
Driver Version: 11.1
Connection URL: jdbc:oracle:thin:@W6201L30.boeblingen.de.ibm.com:1521:ORCL

Alphablox system table ABX_OBJECTS not found
Alphablox system table ABX_TYPES not found
Alphablox system table ABX_VERSION not found
Alphablox system table ABX_LOOKUP not found
Alphablox system table ABX_PROPERTY_MAP not found
Alphablox system table ABX_LOOKUP_VALUES not found
PRESS <ENTER> TO CONTINUE:
```

If the database connection test is successful press Enter.

```
=====
Configure Clustering
-----

Enter the configuration information for the clustering settings in your
configuration.

    1- Yes
    ->2- No

Enable Alphablox Clustering: 1
```

Enter **1** to enable Alphablox Clustering. Press Enter.

```
Cluster Port Number (DEFAULT: 7855):
```

Leave the default Cluster Port Number (7855). Press Enter.

```
Cluster Subnet Mask (DEFAULT: 255.255.255.0):
```

Leave the default Cluster Subnet Mask (255.255.255.0). Press Enter.

```
=====
Configure Conversion Utility
-----

The Conversion Utility is run when IBM Alphablox first starts up. The in-
staller
has selected the most common options for your environment.

Conversion Operation
->1- Copy
   2- Move

PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:
```

Accept the default (Copy) and press Enter.

```
Move Server Properties
->1- All
   2- Specific
   3- Global
   4- None

PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:
```

Accept the default (All) and press Enter.

```
User defined DDL schema file
  1- Yes
->2- No

PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:
```

Accept the default (No) and press Enter.

```
=====
Pre-Installation Summary
-----

Please Review the Following Before Continuing:

Install Set
  Typical

Product Components:
  Core,
  Tools,
```

```
FastForward,  
Examples,  
Relational Reporting,  
Applications,  
IBM Alphablox,  
Query Builder
```

Summary

```
Installation Directory: /opt/Alphablox  
Instance Name: AlphabloxAnalytics  
Application Server: WebSphere  
WebSphere Home: /WBM62  
WebSphere Product: IBM WebSphere Application Server - ND  
WebSphere Version: 6.1.0.23  
WebSphere Start File: setupCmdLine.sh  
WebSphere Cluster Install: true  
WebSphere Profile: W6201LN3WBMCustom01  
WebSphere Cell: Cell01  
WebSphere Node: W6201LN3WBMLNode01  
WebSphere Server: WebDashboardCluster_Member01  
HTTP Request Port: 9082  
SOAP Connector Port: 8881  
SOAP Admin User: vmmuser  
Telnet Console Port: 20023  
Server Log File Name: Server.log  
Console Message Level: INFO  
Java Directory: /WBM62/java  
Additional Driver Directory: /opt/oracle/abx_driver  
DB2 Driver Type:  
Drivers: Enabled: Oracle  
Repository Type: Database  
Database Type: Oracle  
Database Server: W6201L30.boeblingen.de.ibm.com  
Database Port: 1521  
Database SID: ORCL  
Database User: WBM_ABXDB  
  
CLUSTERING: Enabled:  
Port:: 7855  
Subnet Mask:: 255.255.255.0  
  
Repository Conversion Utility:  
Operation: Copy  
Existing Tables:  
  
Disk Space Information (for Installation Target):  
Required: 163,385,762  
Available: 51,955,326,976  
  
PRESS <ENTER> TO CONTINUE:
```

Verify the pre-installation summary and press Enter. This will install Alphablox.

```
=====
IBM Alphablox 9.5 Installation Complete
-----
```

```
IBM Alphablox successfully installed on your system!
```

```
To install the IBM Alphablox Information Center to your local system, use
the
IBM Alphablox Information Center Installer CD.
```

```
See the IBM Alphablox Installation Guide for post-installation tasks you
must
perform before starting IBM Alphablox. The PDF version of the Installation
Guide is available on this IBM Alphablox CD, under the documentation/pdf
directory.
```

```
Please check the installation log file for warnings, errors, and addition-
al
information important to running IBM Alphablox successfully. The installa-
tion
log file is located at: /opt/Alphablox/alphablox_install_log.html
```

```
PRESS <ENTER> TO CONTINUE:
```

Press enter upon successful completion of Alphablox. The next step is to install Alphablox on the second WebSphere Business Monitor node (W6201LN4WBMNode01)

22.9.4 Install Alphablox on WebSphere Business Monitor Node 2 (W6201LN4WBMNode01)

Navigate to the folder where the WebSphere Business Monitor binaries have been extracted. Here, navigate to the Alphablox folder:

```
cd ABX/Linux
```

Start the Alphablox installation:

```
./install.bin
```

```
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...

Launching installer...

Preparing CONSOLE Mode Installation...

=====
Choose Locale...
-----

    1- Deutsch
   ->2- English
    3- EspaÃ±ol
    4- FranÃ§ais
    5- Italiano
    6- PortuguÃªs (Brasil)

CHOOSE LOCALE BY NUMBER: 2
```

Press Enter to select English as locale.

IBM Alphablox 9.5 (created with InstallAnywhere by Macro-
vision)

=====

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Enter **1** to accept the license agreement. Press Enter.

=====

IBM Alphablox 9.5 Installation

The IBM Alphablox Installer guides you through the installation of IBM Alphablox.
If you are upgrading a previous version of IBM Alphablox, shut down IBM Alphablox before proceeding with the installation.

PRESS <ENTER> TO CONTINUE:

Press Enter to continue.

```
=====
Installation Location
-----

Enter the Instance Name for IBM Alphablox (the default is AlphabloxAnalyt-
ics)
and choose the directory to which IBM Alphablox will be installed. If you
choose a directory in which an existing version of IBM Alphablox is in-
stalled,
the installation process will guide you through an upgrade to IBM Al-
phablox.

Destination Directory [/opt/Alphablox]::
```

Leave the default install location (/opt/Alphablox) and press Enter.

```
Server Instance Name [AlphabloxAnalytics]::
```

Leave the default Server Instance Name (AlphabloxAnalytics) and press Enter

```
=====
Select Installation Set
-----

Please choose the Install Set to be installed by this installer.

    1- Compact
    ->2- Typical

    3- Customize...

ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DE-
FAULT
:
```

Press Enter to choose Typical installation (accept the default).

```
=====
Choose Application Server
-----

Choose an Application Server to use with IBM Alphablox.

    1- Tomcat
    ->2- WebSphere

PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:
```

Press Enter to choose WebSphere (accept the default).

```
Before continuing, you must completely shutdown WebSphere.  
PRESS <ENTER> TO CONTINUE:
```

Press Enter.

```
Enter the WebSphere Application Server Directory.  
NOTE: For clustered servers, required applications must be manually de-  
ployed.  
See post-installation steps in the Installation Guide.  
  
WebSphere Root Directory []:: /WBM62
```

Enter **/WBM62** as WebSphere Root Directory. Press Enter.

```
Installing to a clustered server? (Y/N): Y
```

Enter **Y** to install Alphablox into a clustered environment. Press Enter.

```
=====
Please select where to install the applications.
Server:
->1- MonSupportCluster_member02
   2- MonApplicationCluster_member02
   3- nodeagent
   4- WebDashboardCluster_Member02

PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 4
```

Enter the number that corresponds to WebDashboardCluster_Member02 (here 4). Press Enter.

```
=====
Verify the following details used to make administrative connections to
the
WebSphere server.
HTTP Port: [9082]::
```

Leave the default http port value (9082). Press Enter.

```
SOAP Connector Port: [8881]::
```

Leave the default soap connector port value (8881). Press Enter.

```
WebSphere Administrator Name: []:: vmmuser
```

Enter the WebSphere administrative user (here: vmmuser). Press Enter.


```
WebSphere Administrator Password::
```

Enter the password for the WebSphere administrative user. Press Enter.

```
Telnet Console Port [20023]::
```

Leave the default telnet console port (20023). Press Enter.

```
Server Log File Name [Server.log]::
```

Leave the default server log file name (Server.log). Press Enter.

```
=====
Configure IBM Alphablox
-----

Enter values for the following configuration settings or accept the de-
faults.

Telnet Console Port [20023]::
Server Log File Name [Server.log]::
Console Message Level
  1- DEBUG
  2- VERBOSE
->3- INFO
  4- SYSTEM
  5- WARNING
  6- ERROR
  7- FATAL

PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 3
```

Enter **3** to INFO as console message level. Press Enter.

```
SMTP Server []::
```

Don't specify a SMTP Server. Leave the default and press Enter.

```
=====
Choose Java Location
-----

Enter the directory where a JRE or JDK of at least version 1.4 is in-
stalled.

Java Directory [/WBM62/java]::
```

Leave the default Java Directory (here: /WBM62/java) and press Enter.

```
=====
Enable Additional Drivers
-----

You may select a directory that contains additional drivers. The Alphablox
lib
directory must not be used.

Do you want to enable additional drivers for IBM Alphablox? (Y/N)
: Y
```

Enter **Y** to enable additional drivers for Alphablox. Press Enter.

```
Location of Additional Drivers []:: /opt/oracle/abx_driver
```

Enter the path where the oracle 11g drivers are located (here: /opt/oracle/abx_driver). Press Enter.

```
Driver Information:Enabled: Oracle

Is the driver information above correct? (Y/N): Y
```

The driver information is displayed. Enter **Y** confirm that the driver information is correct. Press Enter.

```
=====
Configure Repository
-----

Select the repository type to use with this installation of IBM Alphablox.
If
you are running IBM Alphablox in a clustered environment, you must select
the
'Database Repository'.

Database
->1- DB2
   2- Derby
   3- Oracle

PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 3
```

Enter **3** to select Oracle as repository database. Press Enter.

```
Server []:: W6201L30.boeblingen.de.ibm.com
```

Enter the host name of the database server (here: W6201L3m.boeblingen.de.ibm.-com). Press Enter.

```
Port []:: 1521
```

Enter the database port (here: 1521). Press Enter.

```
SID []:: ORCL
```

Enter **ORCL** as database name. Press Enter.

```
User []:: WBM_ABXDB
```

Enter **WBM_ABXDB** as database user. Press Enter.

```
Password:
```

Enter the password for the database user. Press Enter.

```
The installer will now run a database connection test using the information
that you have provided
PRESS <ENTER> TO CONTINUE:
```

Press Enter to run a database connection test.

```
Database Connection Test Successful
System Information
Database Name: Oracle
Database Version: Oracle Database 11g Enterprise Edition Release
11.1.0.7.0 -
64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
Driver Name: Oracle JDBC driver
Driver Version: 11.1
Connection URL: jdbc:oracle:thin:@W6201L30.boeblingen.de.ibm.com:1521:ORCL

Alphablox system table ABX_OBJECTS not found
Alphablox system table ABX_TYPES not found
Alphablox system table ABX_VERSION not found
Alphablox system table ABX_LOOKUP not found
Alphablox system table ABX_PROPERTY_MAP not found
Alphablox system table ABX_LOOKUP_VALUES not found
PRESS <ENTER> TO CONTINUE:
```

If the database connection test is successful press Enter.

```
=====  
Configure Clustering  
-----
```

```
Enter the configuration information for the clustering settings in your  
configuration.
```

- 1- Yes
- >2- No

```
Enable Alphablox Clustering: 1
```

Enter **1** to enable Alphablox Clustering. Press Enter.

```
Cluster Port Number (DEFAULT: 7855):
```

Leave the default Cluster Port Number (7855). Press Enter.

```
Cluster Subnet Mask (DEFAULT: 255.255.255.0):
```

Leave the default Cluster Subnet Mask (255.255.255.0). Press Enter.

```
=====  
Configure Conversion Utility  
-----
```

```
The Conversion Utility is run when IBM Alphablox first starts up. The in-  
staller  
has selected the most common options for your environment.
```

```
Conversion Operation
```

- >1- Copy
- 2- Move

```
PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT  
:
```

Accept the default (Copy) and press Enter.

```
Move Server Properties
```

- >1- All
- 2- Specific
- 3- Global
- 4- None

```
PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT  
:
```

Accept the default (All) and press Enter.

```
User defined DDL schema file
  1- Yes
 ->2- No

PLEASE SELECT ONE OF THE ITEMS, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:
```

Accept the default (No) and press Enter.

```
=====
Pre-Installation Summary
-----
```

Please Review the Following Before Continuing:

Install Set
Typical

Product Components:
Core,
Tools,
FastForward,
Examples,
Relational Reporting,
Applications,
IBM Alphablox,
Query Builder

Summary

```
Installation Directory: /opt/Alphablox
Instance Name: AlphabloxAnalytics
Application Server: WebSphere
WebSphere Home: /WBM62
WebSphere Product: IBM WebSphere Application Server - ND
WebSphere Version: 6.1.0.23
WebSphere Start File: setupCmdLine.sh
WebSphere Cluster Install: true
WebSphere Profile: W6201LN4WBMCustom01
WebSphere Cell: Cell01
WebSphere Node: W6201LN4WBMLNode01
WebSphere Server: WebDashboardCluster_Member02
HTTP Request Port: 9082
SOAP Connector Port: 8881
SOAP Admin User: vmmuser
Telnet Console Port: 20023
Server Log File Name: Server.log
Console Message Level: INFO
Java Directory: /WBM62/java
Additional Driver Directory: /opt/oracle/abx_driver
DB2 Driver Type:
Drivers: Enabled: Oracle
Repository Type: Database
Database Type: Oracle
Database Server: W6201L30.boeblingen.de.ibm.com
Database Port: 1521
Database SID: ORCL
Database User: WBM_ABXDB
```

```
CLUSTERING: Enabled:
  Port:: 7855
  Subnet Mask:: 255.255.255.0

Repository Conversion Utility:
  Operation: Copy
  Existing Tables:

Disk Space Information (for Installation Target):
  Required: 163,385,762
  Available: 50,811,506,688
```

Verify the pre-installation summary and press Enter. This will install Alphablox.

```
=====
IBM Alphablox 9.5 Installation Complete
=====

IBM Alphablox successfully installed on your system!

To install the IBM Alphablox Information Center to your local system, use
the
IBM Alphablox Information Center Installer CD.

See the IBM Alphablox Installation Guide for post-installation tasks you
must
perform before starting IBM Alphablox. The PDF version of the Installation
Guide is available on this IBM Alphablox CD, under the documentation/pdf
directory.

Please check the installation log file for warnings, errors, and addition-
al
information important to running IBM Alphablox successfully. The installa-
tion
log file is located at: /opt/Alphablox/alphablox_install_log.html

PRESS <ENTER> TO CONTINUE:
```

Press enter upon successful completion of Alphablox.

22.9.5 Deploy Alphablox Applications

Before the Alphablox Applications can be installed the Deployment Manager, both WebSphere Business Monitor nodes and the WebDashboard Cluster have to be started.

Specify on the machine hosting the Deployment Manager:

```
cd /WPS62/profiles/W6201L3MBPMDmgr/bin/  
./startManager.sh
```

Specify on the machine hosting WebSphere Business Monitor Node 1 (W6201LN3WBMNode01):

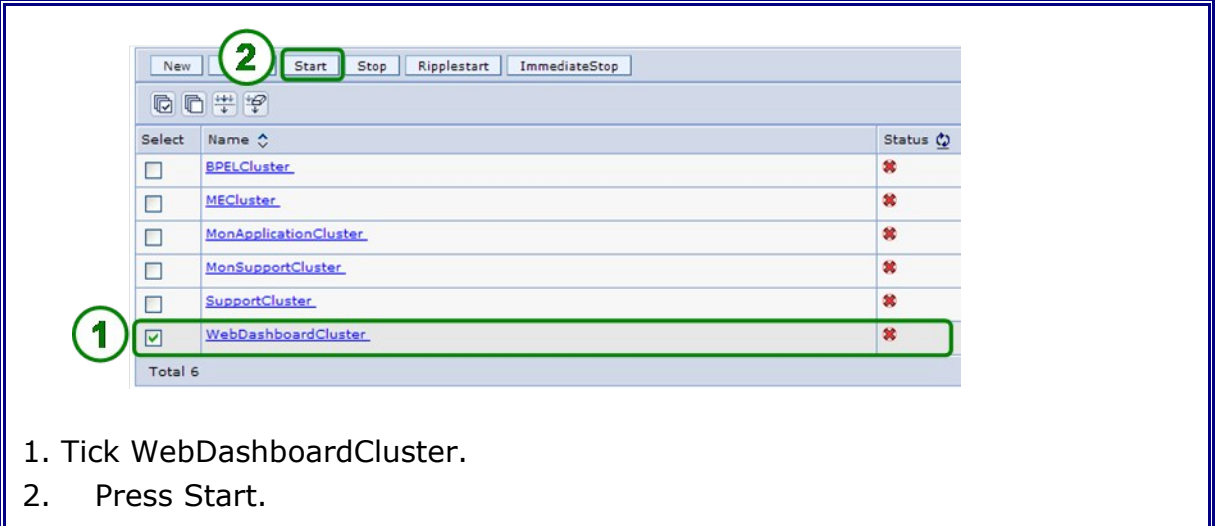
```
cd /WBM62/profiles/W6201LN3WBMCustom01/bin  
./startNode.sh
```

Specify on the machine hosting WebSphere Business Monitor Node 2 (W6201LN4WBMNode01):

```
cd /WBM62/profiles/W6201LN4WBMCustom01/bin/  
./startNode.sh
```

Start the WebDashboard Cluster. Navigate to:

```
--> Servers  
----> Clusters
```



The screenshot shows the WebSphere Administration Console interface. At the top, there are buttons for 'New', 'Start', 'Stop', 'Ripplestart', and 'ImmediateStop'. Below these are icons for selection and refresh. The main area is a table with columns 'Select', 'Name', and 'Status'. The table lists six clusters: BPELCluster, MECluster, MonApplicationCluster, MonSupportCluster, SupportCluster, and WebDashboardCluster. The 'WebDashboardCluster' row is selected, indicated by a checked checkbox in the 'Select' column. A green box highlights the 'WebDashboardCluster' row. Another green box highlights the 'Start' button at the top of the console. Below the screenshot, there are two numbered instructions:

1. Tick WebDashboardCluster.
2. Press Start.

Create a folder on the Deployment Manager host machine

```
cd /opt
mkdir abx
```

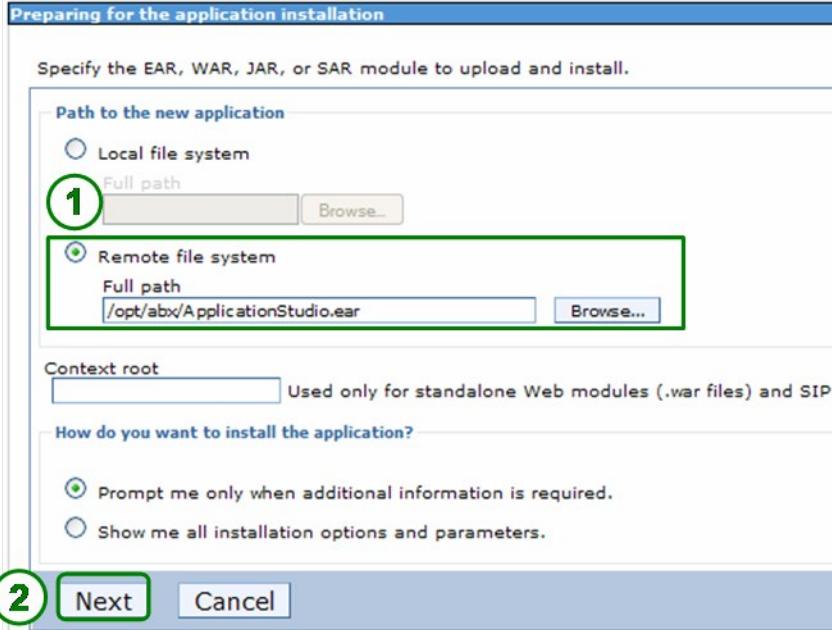
Following ear files have to be copied from any of the machines hosting the WebSphere Business Monitor Nodes to /opt/abx on the Deployment Manager host machine:

- AlphabloxPlatform.ear
- ApplicationStudio.ear

The Alphablox application files are located under **/opt/Alphablox/installableApps** They can be copied from any WebSphere Business Monitor node host machine.

Navigate to:

```
--> Applications
----> Enterprise Applications
-----> Install
```



Preparing for the application installation

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

Path to the new application

Local file system

1

Remote file system

Context root Used only for standalone Web modules (.war files) and SIP

How do you want to install the application?

Prompt me only when additional information is required.

Show me all installation options and parameters.

2

1. Browse to /opt/abx on the remote system (Deployment Manager host machine) and select ApplicationStudio.ear.
2. Press Next.

Install New Application

Specify options for installing enterprise applications and modules.

→ **Step 1: Select installation options**
Step 2: Map modules to servers
✦ Step 3: Map virtual hosts for Web modules
Step 4: Summary

Select installation options

Specify the various options that are available to prepare and install your applic

Precompile JavaServer Pages files

Directory to install application

Distribute application

Use Binary Configuration

Deploy enterprise beans

Application name

Create MBeans for resources

Enable class reloading

Reload interval in seconds

Deploy Web services

Validate Input off/warn/fail

Process embedded configuration

File Permission

Allow all files to be read but not written to
Allow executables to execute
Allow HTML and image files to be read by everyone

Set file permissions

Application Build ID

Allow dispatching includes to remote resources

Allow servicing includes from remote resources

1

Next Cancel

1. Leave the default values and press Next.

Install New Application

Specify options for installing enterprise applications and modules.

Step 1 Select installation options

Step 2: Map modules to servers

Step 3 Map virtual hosts for Web modules

Step 4 Summary

Map modules to servers

Specify targets such as application servers or clusters of application servers where you want to install the modules that are contained in your application. Modules can be installed on the same application server or dispersed among several application servers. Also, specify the Web servers as targets that serve as routers for requests to this application. The plug-in configuration file (plugin-cfg.xml) for each Web server is generated, based on the applications that are routed through.

Clusters and Servers:

- WebSphere:cell=Cell01,cluster=MonApplicationCluster
- WebSphere:cell=Cell01,cluster=WebDashboardCluster
- WebSphere:cell=Cell01,cluster=MECluster
- WebSphere:cell=Cell01,cluster=MonSupportCluster
- WebSphere:cell=Cell01,node=IHSNode,server=httserver

1 **2** **3**

Select	Module	URI	Server
<input checked="" type="checkbox"/>	IBM Alphablox Query Builder	Workbench/DHTMLQueryBuilder.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=BPELCluster
<input checked="" type="checkbox"/>	emailexample	Examples/Email.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=BPELCluster
<input checked="" type="checkbox"/>	Blox Sampler	Examples/BloxSampler.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=BPELCluster
<input checked="" type="checkbox"/>	Alphablox Reporting	Examples/AlphabloxReporting.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=BPELCluster
<input checked="" type="checkbox"/>	IBM Alphablox FastForward	FastForward.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=BPELCluster

Previous Next Cancel

1. Tick all Modules.
2. Select WebDashboardCluster and httpserver (multi-select).
3. Press Apply.

Select	Module	URI	Server
<input type="checkbox"/>	IBM Alphablox Query Builder	Workbench/DHTMLQueryBuilder.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=WebDashboardCluster WebSphere:cell=Cell01,node=IHSNode,server=httserver
<input type="checkbox"/>	emailexample	Examples/Email.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=WebDashboardCluster WebSphere:cell=Cell01,node=IHSNode,server=httserver
<input type="checkbox"/>	Blox Sampler	Examples/BloxSampler.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=WebDashboardCluster WebSphere:cell=Cell01,node=IHSNode,server=httserver
<input type="checkbox"/>	Alphablox Reporting	Examples/AlphabloxReporting.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=WebDashboardCluster WebSphere:cell=Cell01,node=IHSNode,server=httserver
<input type="checkbox"/>	IBM Alphablox FastForward	FastForward.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=WebDashboardCluster WebSphere:cell=Cell01,node=IHSNode,server=httserver

Previous **Next** Cancel

1. All modules have to be mapped to WebDashboardCluster and httpserver.

2. Press Next.

Install New Application

Specify options for installing enterprise applications and modules.

Step 1 Select installation options
Step 2 Map modules to servers
→ **Step 3: Map virtual hosts for Web modules**
Step 4 Summary

Map virtual hosts for Web modules

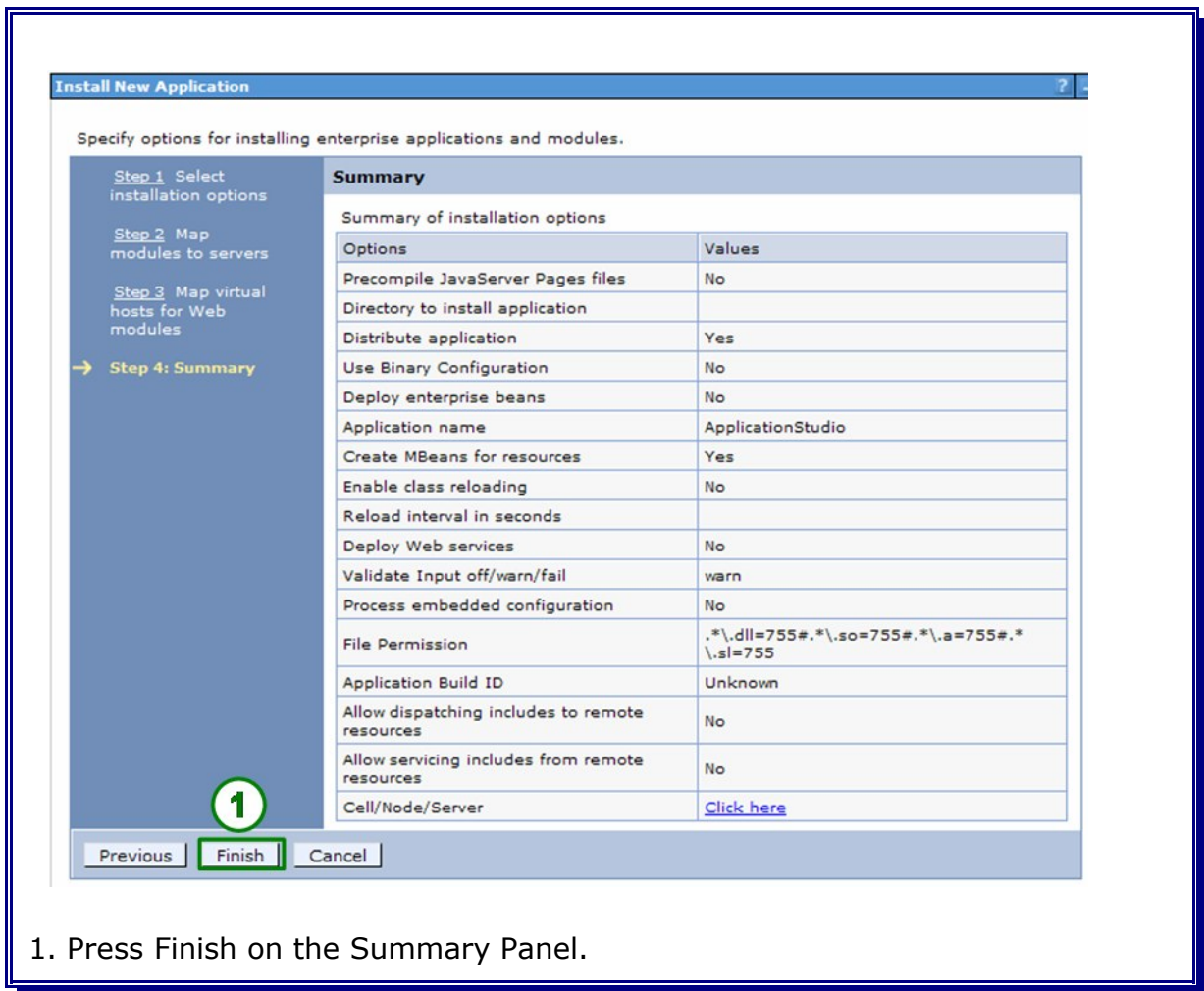
Specify the virtual host where you want to install the Web modules that are contained in your application. You can install Web modules on the same virtual host or disperse them among several hosts.

Apply Multiple Mappings

Select	Web module	Virtual host
<input type="checkbox"/>	IBM Alphablox Query Builder	default_host ▼
<input type="checkbox"/>	emailexample	default_host ▼
<input type="checkbox"/>	Blox Sampler	default_host ▼
<input type="checkbox"/>	Alphablox Reporting	default_host ▼
<input type="checkbox"/>	IBM Alphablox FastForward	default_host ▼

Previous **Next** Cancel

1. Leave the default values and press Next.



1. Press Finish on the Summary Panel.

Save and **synchronize** the configuration.

Navigate to:

```
--> Applications  
----> Enterprise Applications  
-----> Install
```

Preparing for the application installation

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

Path to the new application

Local file system

Remote file system

Full path Browse...

Context root Used only for standalone Web modules (.wa)

How do you want to install the application?

Prompt me only when additional information is required.

Show me all installation options and parameters.

Next Cancel

1. Browse to /opt/abx on the remote system (Deployment Manager host machine) and select AlphabloxPlatform.ear.

2. Press **Next**

Install New Application

Specify options for installing enterprise applications and modules.

→ **Step 1: Select installation options**

[Step 2: Map modules to servers](#)

✦ [Step 3: Map virtual hosts for Web modules](#)

[Step 4: Summary](#)

Select installation options

Specify the various options that are available to prepare and install your appli

Precompile JavaServer Pages files

Directory to install application

Distribute application

Use Binary Configuration

Deploy enterprise beans

Application name

Create MBeans for resources

Enable class reloading

Reload interval in seconds

Deploy Web services

Validate Input off/warn/fail

Process embedded configuration

File Permission

Allow all files to be read but not written to
Allow executables to execute
Allow HTML and image files to be read by everyone

Application Build ID

Allow dispatching includes to remote resources

Allow servicing includes from remote resources

1

1. Leave the default values and press **Next**

Install New Application

Specify options for installing enterprise applications and modules.

Step 1 Select installation options

→ **Step 2: Map modules to servers**

✦ **Step 3** Map virtual hosts for Web modules

Step 4 Summary

Map modules to servers

Specify targets such as application servers or clusters of application servers where you want to install the modules that are contained in your application. Modules can be installed on the same application server or dispersed among several application servers. Also, specify the Web servers as targets that serve as routers for requests to this application. The plug-in configuration file (plugin-cfg.xml) for each Web server is generated, based on the applications that are routed through.

Clusters and Servers:

WebSphere:cell=Cell01,cluster=MonApplicationCluster
 WebSphere:cell=Cell01,cluster=WebDashboardCluster
 WebSphere:cell=Cell01,cluster=MECluster
 WebSphere:cell=Cell01,cluster=MonSupportCluster
 WebSphere:cell=Cell01,node=IHSNode,server=httpserver

1

Select	Module	URI	Server
<input checked="" type="checkbox"/>	IBM Alphablox BloxBuilder Application Viewer	BloxBuilder.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=BPCLCluster
<input checked="" type="checkbox"/>	IBM Alphablox	AlphabloxServer.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=BPCLCluster
<input checked="" type="checkbox"/>	IBM Alphablox Blox Builder Web Service	AlphabloxTooling.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=BPCLCluster
<input checked="" type="checkbox"/>	IBM Alphablox Administration Application	AlphabloxAdmin.war,WEB-INF/web.xml	WebSphere:cell=Cell01,cluster=BPCLCluster

2

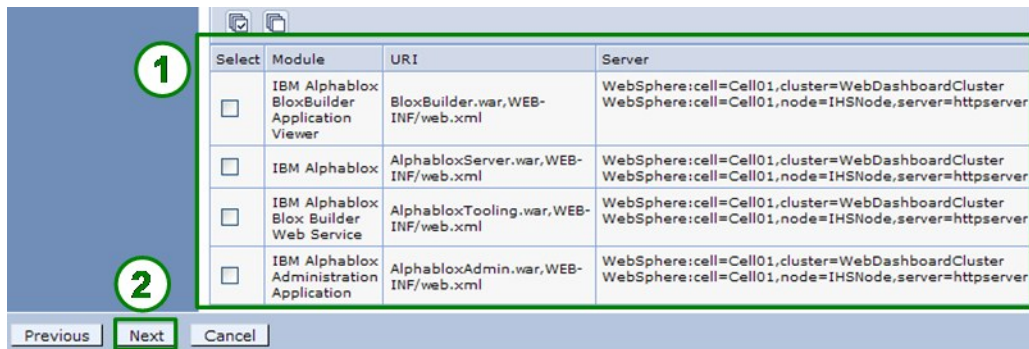
3 Apply

Previous Next Cancel

1. Tick all modules.

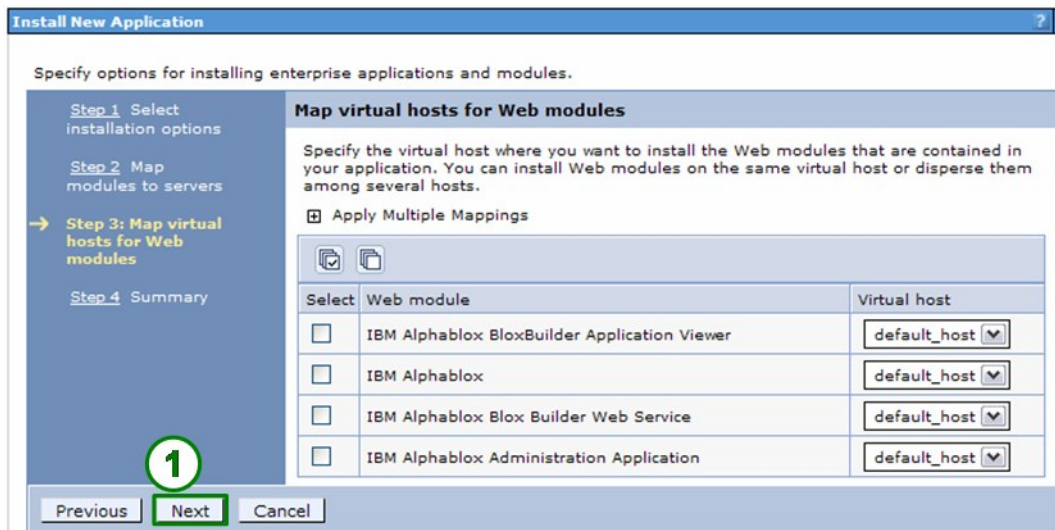
2. Select WebDashboardCluster and httpserver (multi-select).

3. Press **Apply**



1. All modules have to be mapped to WebDashboardCluster and httpserver.

2. Press **Next**



1. Leave the default values and press **Next**

Install New Application

Specify options for installing enterprise applications and modules.

[Step 1](#) Select installation options
[Step 2](#) Map modules to servers
[Step 3](#) Map virtual hosts for Web modules
 → **Step 4: Summary**

Summary

Summary of installation options

Options	Values
Precompile JavaServer Pages files	No
Directory to install application	
Distribute application	Yes
Use Binary Configuration	No
Deploy enterprise beans	No
Application name	AlphabloxPlatform
Create MBeans for resources	Yes
Enable class reloading	No
Reload interval in seconds	
Deploy Web services	No
Validate Input off/warn/fail	warn
Process embedded configuration	No
File Permission	.*\,dll=755#.*\,so=755#.*\,a=755#.*\,sl=755
Application Build ID	Unknown
Allow dispatching includes to remote resources	No
Allow servicing includes from remote resources	No
Cell/Node/Server	Click here

1. Press Finish on the Summary Panel.

Save and **synchronize** the configuration.

Navigate to:

```
--> Applications
----> Enterprise Applications
-----> AlphabloxPlatform
-----> Security role to user/group mapping
```

Enterprise Applications

Enterprise Applications > AlphabloxPlatform > 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 Active Directory.

Look up users Look up groups

Select	Role	Everyone?	All authenticated?	Map
<input checked="" type="checkbox"/>	AlphabloxAdministrator	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	AlphabloxUser	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	AlphabloxDeveloper	<input type="checkbox"/>	<input type="checkbox"/>	

1. Tick AlphabloxAdministrator.

2. Press **Look up users**

Enterprise Applications

Enterprise Applications > AlphabloxPlatform > Security role to user/group mapping > Look up users

Specifies whether to look up users or groups.

The following roles are mapped to the items in the selected list.

AlphabloxAdministrator

To search for users or groups, enter a limit (number) and a search pattern (such as a*) and

limit (number of items)
20

Search String
* **1** Search

Select users or groups in the Available list. Move them to the Selected list by clicking >>.

Available: >> Selected:

1. Press **Search**



1. Select vmmuser.

2. Press the **>>** button to select the vmmuser.



1. Verify that the vmmuser is in the list of selected users.

2. Press **OK**

Enterprise Applications

Enterprise Applications > AlphabloxPlatform > 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.

Look up users Look up groups

Select	Role	Everyone?	All authenticated?	Mapped users
<input type="checkbox"/>	AlphabloxAdministrator	<input type="checkbox"/>	<input type="checkbox"/>	vmmuser
<input type="checkbox"/>	AlphabloxUser	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	AlphabloxDeveloper	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

OK Cancel

1. Verify that vmmuser is selected as mapped user.
2. Tick All Authenticated for AlphabloxUser and AlphabloxDeveloper.
3. Press OK.

Save and **synchronize** the configuration.

22.9.6 Deploy Alphablox Shared Libraries

The Shared Libraries needed by Alphablox can be deployed from any machine hosting Alphablox (W6201LN3 or W6201LN4). Navigate to:

```
/opt/Alphablox/tools/was_shared_lib
```

Specify:

```
./DeployWebSphereLibraries -username vmmuser -password <password>
```

```
Please select from one of the following options
```

- 1) Install libraries
- 2) Uninstall libraries
- 3) Search for installed libraries
- 4) Toggle trace
-
- 5) Exit

```
Select (1-5):1
```

Enter **1** to install the libraries required by Alphablox. Press Enter.

```
Select the level you wish to deploy the libraries.
```

- 1) Cluster
- 2) Cell
- 3) Node
- 4) Server
-
- 5) Back

```
Select (1-5):1
```

Enter **1** to deploy the libraries on Cluster level. Press Enter.

```

Please select the Cluster you wish to target.
1*) WebDashboardCluster(cells/Cell01/clusters/WebDashboardCluster|
cluster.xml#ServerCluster_1245757613068)
2) MonSupportCluster(cells/Cell01/clusters/MonSupportCluster|
cluster.xml#ServerCluster_1245741265540)
3) MECluster(cells/Cell01/clusters/MECluster|
cluster.xml#ServerCluster_1241531384559)
4) BPELCluster(cells/Cell01/clusters/BPELCluster|
cluster.xml#ServerCluster_1241680216626)
5) SupportCluster(cells/Cell01/clusters/SupportCluster|
cluster.xml#ServerCluster_1241598331839)
6) MonApplicationCluster(cells/Cell01/clusters/MonApplicationCluster|
cluster.xml#ServerCluster_1245755162284)
-----
7) Back

Select (1-7):1

```

Enter **1** to deploy the libraries to the WebDashboardCluster. Press Enter.

```

The following servers have been found:
WebDashboardCluster_Member01(cells/Cell01/nodes/W6201LN3WBMNode01/servers/
WebDashboardCluster_Member01|server.xml#Server_1245757617568)
WebDashboardCluster_Member02(cells/Cell01/nodes/W6201LN4WBMNode01/servers/
WebDashboardCluster_Member02|server.xml#Server_1245760997715)
Do you wish to continue?[Y/N]:Y

```

Enter **Y** to confirm to deploy the libraries to the WebDashboardCluster cluster members. Press Enter.

```

Processing object
WebDashboardCluster_Member01(cells/Cell01/nodes/W6201LN3WBMNode01/servers/
WebDashboardCluster_Member01|server.xml#Server_1245757617568)...
Libraries successfully installed!
Processing object
WebDashboardCluster_Member02(cells/Cell01/nodes/W6201LN4WBMNode01/servers/
WebDashboardCluster_Member02|server.xml#Server_1245760997715)...
Libraries successfully installed!

Select the level you wish to deploy the libraries.

1) Cluster
2) Cell
3) Node
4) Server
-----
5) Back

Select (1-5):5

```

Enter **5** upon successful deployment of the libraries. Press Enter.

Please select from one of the following options

- 1) Install libraries
- 2) Uninstall libraries
- 3) Search for installed libraries
- 4) Toggle trace

5) Exit

Select (1-5):5

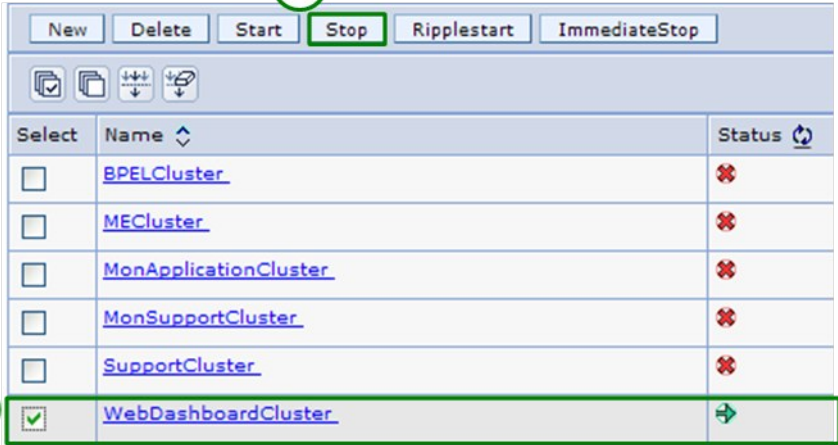
Enter **5** to exit the shared library deployment tool. Press Enter.

22.9.7 Finalize Alphablox Installation

The Alphablox repository tables do not exist yet. They are created the first time the Alphablox applications connect to the database.

Stop the WebDashboard Cluster. Navigate to:

```
--> Servers  
----> Clusters
```



Select	Name	Status
<input type="checkbox"/>	BPELCluster	✘
<input type="checkbox"/>	MECluster	✘
<input type="checkbox"/>	MonApplicationCluster	✘
<input type="checkbox"/>	MonSupportCluster	✘
<input type="checkbox"/>	SupportCluster	✘
<input checked="" type="checkbox"/>	WebDashboardCluster	➔

1. Tick WebDashboardCluster.
2. Press **Stop**

Once the cluster is stopped, start WebDashboard Cluster Member 1 **ONLY**. Navigate to:

```
--> Servers
----> Application Servers
```

1	<input checked="" type="checkbox"/>	WebDashboardCluster_Member01	W6201LN3WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	WebDashboardCluster	✘
	<input type="checkbox"/>	WebDashboardCluster_Member02	W6201LN4WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	WebDashboardCluster	✘

1. Tick WebDashboardCluster_Member01 and press **Start**

Open the SystemOut log file of WebDashboardCluster_Member01 once the server is started. Verify that following log entries exist:

```
...
Creating the destination repository...
Copying the source repository (this may take a few minutes)...
Updating the server to point to the destination repository...
Repository operation completed successfully
...
IBM Alphablox (AlphabloxAnalytics) started (06/24/09 12:42:28)
...
```

The repository tables have been created now.

Start WebDashboard Cluster Member 2. Navigate to:

```
--> Servers
----> Application Servers
```

1	<input type="checkbox"/>	WebDashboardCluster_Member01	W6201LN3WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	WebDashboardCluster	➔
	<input checked="" type="checkbox"/>	WebDashboardCluster_Member02	W6201LN4WBMNode01	ND 6.1.0.23 WBM 6.2.0.1	WebDashboardCluster	✘

1. Tick WebDashboardCluster_Member02 and press Start.

Open the SystemOut log file of WebDashboardCluster_Member02 once the server is started. Following log entry exists:

```
...  
Destination repository exists and OVERWRITE has not been specified  
...
```

This entry indicates that Alphablox on W6201LN4 was not able to register itself within the common destination repository since OVERWRITE or UPDATE were not be specified due to a missing Alphablox instance (the repository conversion tool which allows to specify UPDATE or OVERWRITE is only available when an Alphablox instance exists. In turn the Alphablox instance gets created the first time the Alphablox Applications starts).

In case Alphablox can't register to a destination repository a file based repository is used instead. In the next steps the Alphablox instance will be configured to use the common destination repository that is also used by the Alphablox installation which resides on W6201LN3.

In order to verify the Alphablox configuration later on both nodes the Alphablox Administrative Console is used. Therefore the corresponding HTTP ports have to be opened.

Navigate to:

```
--> Environment  
----> Virtual Hosts  
-----> default_host  
-----> Host Aliases
```

Create following entries:

<input type="checkbox"/>	w6201n3.boeblingen.de.ibm.com	9082
<input type="checkbox"/>	w6201n4.boeblingen.de.ibm.com	9082

Save and Synchronize

Stop the WebDashboard Cluster, both WebSphere Business Monitor nodes and the Deployment Manager again.

On WebSphere Business Monitor Node 2 (W6201LN4Node01) navigate to:

```
cd /opt/Alphablox/tools/convert
```

Note: In case the Alphablox instance name is not set the conversion can't be executed. In that case the Alphablox instance name has to be set first (Option 2). The name of the instance is **AlphabloxAnalytics**.

Start the convert repository tool:

```
./ConvertRepository
```

```
Please choose an option:
```

- 1) Set IBM Alphablox File Manager root [/opt/Alphablox/repository/]
- 2) Set IBM Alphablox instance name [AlphabloxAnalytics]
- 3) Convert one repository to another
- 4) Create an empty database repository
- 5) Verify and repair a repository
- 6) Change IBM Alphablox to use a different repository
- 7) Conversion Utility options
- 8) Configure Web Application Server Connection pooling
- 9) Exit

```
Select (1-9): 3
```

Specify **3** to convert one repository to another. Press Enter.

```
Please choose an option:
```

- 1) Convert from file to database
- 2) Convert from database to file
- 3) Convert from file to file
- 4) Convert from database to database
- 5) Go back to main menu

```
Select (1-5): 1
```

Specify **1** to convert from file to database. Press Enter.

```
Convert File To Database  
Source File System
```

```
Repository root [/opt/Alphablox/repository]:
```

Leave the repository root default (/opt/Alphablox/repository) and press Enter.

```
1) Continue, 2) Re-enter, 3) Go back to main menu  Select (1-3): 1
```

Specify **1** and press Enter.

```
Convert File To Database
  Destination Database

Please select the database type:

1) Oracle
2) Go back to main menu

Select (1-2): 1
```

Specify **1** to select Oracle. Press Enter.

```
Server: W6201L30.boeblingen.de.ibm.com
```

Enter the host name of the database (here: W6201L30.boeblingen.de.ibm.com). Press Enter.

```
Port [1521]:
```

Leave the default port value (1521) and press Enter.

```
SID []: ORCL
```

Specify **ORCL** as database name. Press Enter.

```
Schema (if different from user):
```

Don't specify a schema. Press Enter.

```
User: WBM_ABXDB
```

Specify **WBM_ABXDB** as user. Press Enter.

```
Password: <password>
```

Specify the password for the database.

```
1) Continue, 2) Re-enter, 3) Go back to main menu  Select (1-3):1
```

Specify **1** and press Enter to continue.

The following questions can be answered by using the first character in the selected option or press <ENTER> for the default.

Enter conversion operation (COPY, MOVE) [COPY]:

Leave the default (Copy) and press Enter.

Enter repository creation operation (NEW, UPDATE, OVERWRITE) [NEW]: UPDATE

Specify **UPDATE** and press Enter. This will keep the existing structure of the repository and update it with the data from this repository.

Update IBM Alphablox to use the destination repository [Y]: Y

Specify **Y** and press Enter.

Update IBM Alphablox properties in the destination repository (ALL, SPECIFIC, GLOBAL, NONE) [ALL]:

Leave the default (All) and press Enter.

Below is a description of the options selected:
* Copy source repository to destination repository. Update existing destination repository by placing source repository over destination repository.
* Set Alphablox to point to the destination repository.
* Copy all Alphablox server properties to the destination repository.
1) Continue, 2) Re-enter, 3) Go back to main menu Select (1-3): 1

Specify **1** and press Enter.

Copying the source repository (this may take a few minutes)...
Updating data types in TYPES table...
Creating any missing indexes...
Updating the server to point to the destination repository...
Do you want to move source Cluster Manager settings to the destination (Y/N) [Y]: Y

Specify **Y** and press Enter. This will start the repository conversion.

```
Repository operation completed successfully

Please choose an option:

1) Set IBM Alphablox File Manager root [/opt/Alphablox/repository/]
2) Set IBM Alphablox instance name [AlphabloxAnalytics]
3) Convert one repository to another
4) Create an empty database repository
5) Verify and repair a repository
6) Change IBM Alphablox to use a different repository
7) Conversion Utility options
8) Configure Web Application Server Connection pooling
9) Exit

Select (1-9): 9
```

Specify **9** and press Enter.

Start again the Deployment Manager, both WebSphere Business Monitor Nodes and then the WebDashboard Cluster.

Following entry should now exist in the SystemOut log files of both cluster members of the WebDashboard Cluster.

```
...
IBM Alphablox (AlphabloxAnalytics) started (06/24/09 12:42:28)
...
```

Following entry should not exist any longer within the log of WebDashboardCluster_Member2 (W6201LN4Node01):

```
...
Destination repository exists and OVERWRITE has not been specified
...
```

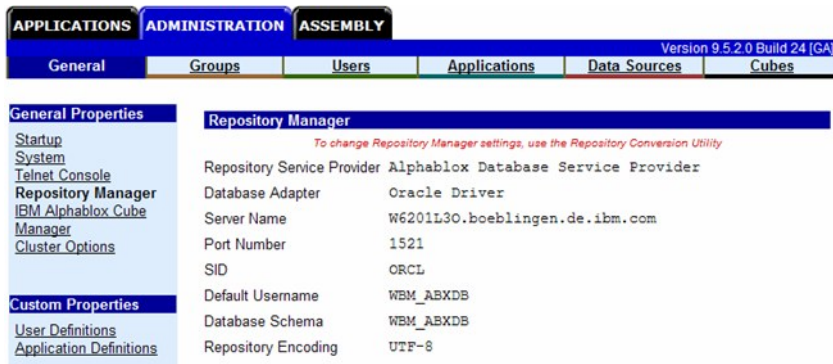
Open a browser and open the Alphablox Administrative Console on W6201LN3:

```
http://w6201ln3.boeblingen.de.ibm.com:9082/AlphabloxAdmin
```

Authenticate with vmmuser and the corresponding password.

Navigate to:

```
--> Administration
----> Repository Manager
```



The settings should point to the repository which was specified during installation.

Open a browser and open the Alphablox Administrative Console on W6201LN4:

`http://w6201ln4.boeblingen.de.ibm.com:9082/AlphabloxAdmin`

Authenticate with vmmuser and the corresponding password.

Navigate to:

```
--> Administration
----> Repository Manager
```

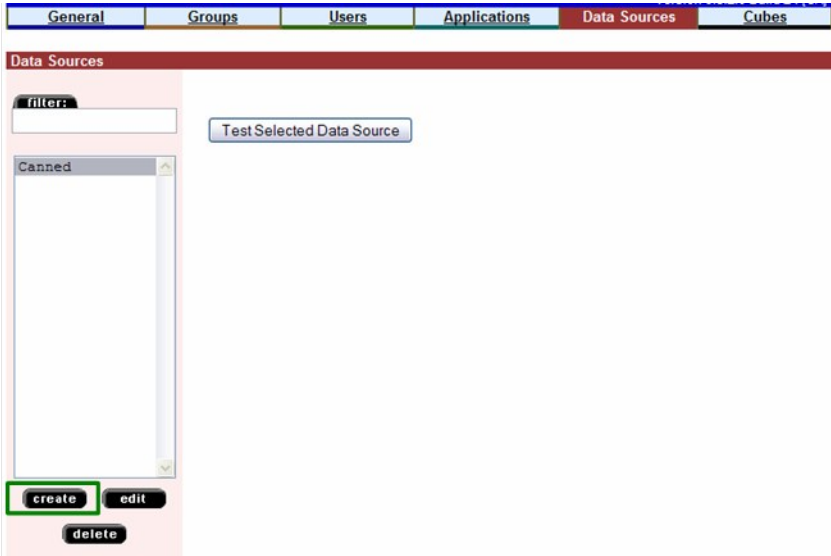
The settings should exactly be the same as in the Alphablox Administrative Console on W6201LN3.

Note: Installation and configuration of Alphablox is successful when **both** Alphablox instances point to the same database repository.

Stay in the Alphablox Administrative Console on W6201LN4.

Navigate to:

```
--> Administration  
----> Data Sources
```

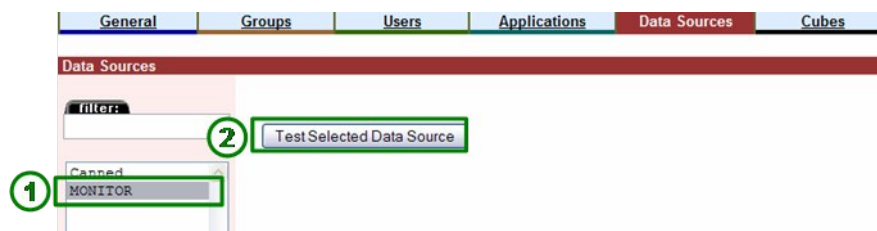


1. Press **Create**

The screenshot shows the 'Create Data Source' dialog box with the following fields and values:

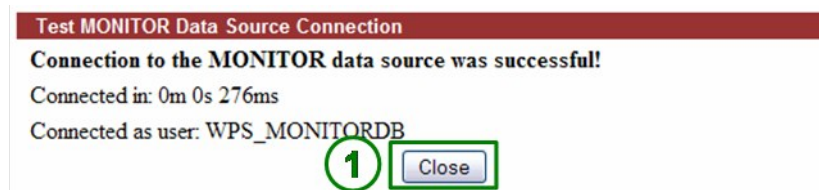
- Data Source Name:** MONITOR (1)
- Adapter:** Application Server Data Source (2)
- Application Server Data Source Name:** jdbc/wbm/MonitorDatabase (3)
- Default Username:** WPS_MONITORDB (4)
- Default Password:** (masked with dots) (5)
- Maximum Rows:** 10000
- Maximum Columns:** 1000
- Buttons:** SAVE (6), CANCEL, create, edit, delete

1. Enter MONITOR as Data Source Name.
2. Select Application Server Data Source.
3. Enter jdbc/wbm/MonitorDatabase as Application Data Source Name.
4. Enter WPS_MONITORDB as Default Username.
5. Enter the database password.
6. Press **Save**

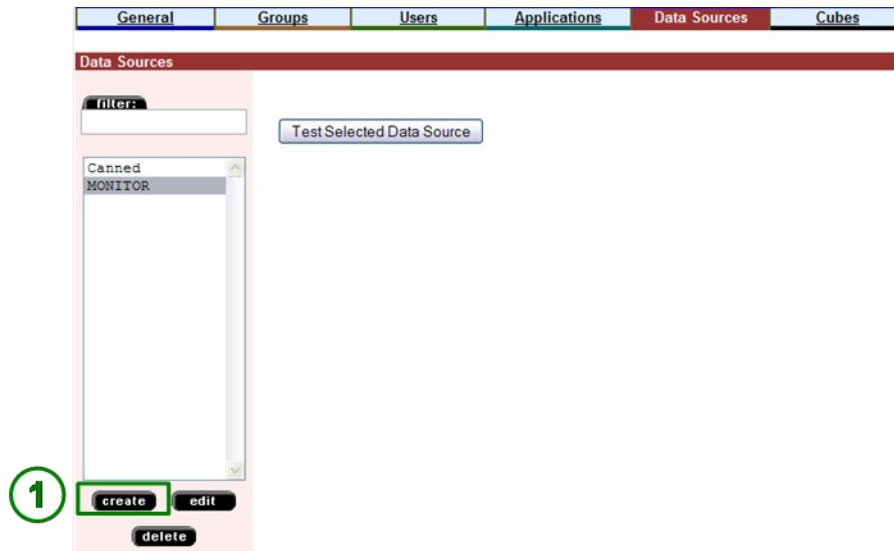


1. Select the MONITOR Data Source.
2. Press Test Selected Data Source

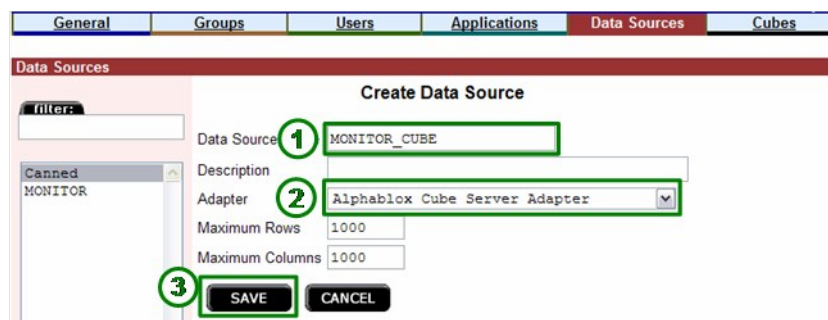
The Connection to the Monitor data source has to be successful.



1. Press **Close**



1. Press Create to create another data source.



1. Enter MONITOR_CUBE as Data source

2. Select Alphablox Cube Server Adapter

3. Press **Save**

22.10 Enable widgets in Business Space

Login to W6201LN3.boeblingen.de.ibm.com as user **root** and navigate to the following directory:

```
cd /WBM62/BusinessSpace/registryData
```

Edit:

```
bcmEndpoints.xml
```

Change all the <tns:url> tags to point to the default secure port of the proxy server
e.g.

```
<tns:url>https://<proxy-host>:444/rest/bpm/businesscalendar</tns:url>
```

Edit:

```
bpcEndpoints.xml
```

Change all the <tns:url> tags to point to the default secure port of the proxy server
e.g.

```
<tns:url>https://<proxy-host>:444/rest/bpm/htm</tns:url>  
<tns:url>https://<proxy-host>:444/rest/bpm/bfm</tns:url>
```

Edit:

```
monitorABXEndpoints.xml
```

Change all the <tns:url> tags to point to the default secure port of the proxy server
e.g.

```
<tns:url>https://<proxy-host>:444/rest/</tns:url>
```

Edit:

```
wpsEndpoints.xml
```

Change all the <tns:url> tags to point to the default secure port of the proxy server
e.g.

```
<tns:url>https://<proxy-host>:444/rest</tns:url>
```

Edit:

```
monitorEndpoints.xml
```

Change all the <tns:url> tags to point to the default secure port of the proxy server e.g.

```
<tns:url>https://<proxy-host>:444/rest/bpm/brules</tns:url>
```

Copy all xml files from

```
/WBM62/BusinessSpace/registryData
```

to the **W6201LN3WBMCustom01** profile in the directory

```
/WBM62/profiles/W6201LN3WBMCustom01/BusinessSpace/registryData
```

Note: Create the directory <profile_home>/BusinessSpace/registryData if it does not exist.

Do the same steps on the W6201LN4WBMNode01 server and copy it to the W6201LN4WBMCustom01 profile.

22.10.1 Map Business Space

Navigate to:

Applications
-> Enterprise Applications

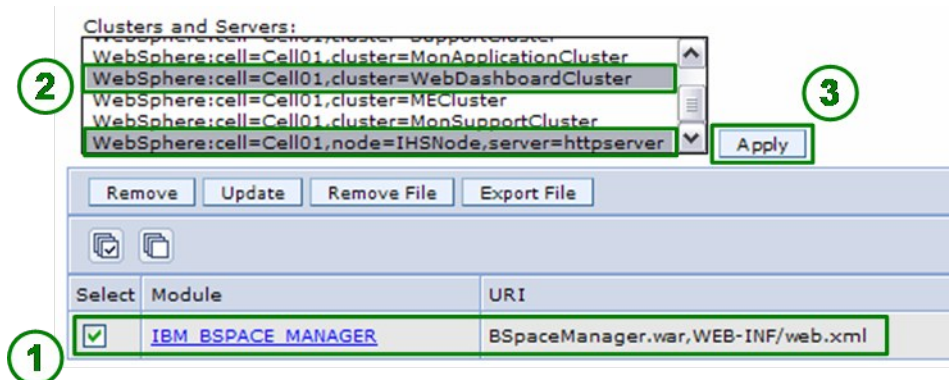
and select "BusinessSpaceManager".

The "BusinessSpaceManager configuration" panel is displayed:



1. Select "Manage Modules"

The "BusinessSpaceManager Manage Modules" panel is displayed:



1. Select Module "IBM_BSPACE_MANAGER".

2. Select both "WebDashboardCluster" and "httpserver".

3. Press **Apply**, then **OK** and then **Save**

The module should now be mapped to the WebDashboard Cluster and the HTTP server:

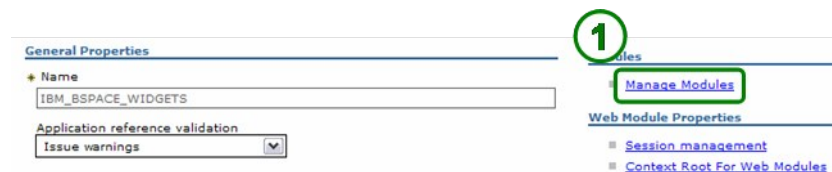
Select	Module	URI	Module Type	Server
<input type="checkbox"/>	IBM_BSPACE_MANAGER	BSpaceManager.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01,node=IHSNode,server=httpserver WebSphere:cell=Cell01,cluster=WebDashboardCluster

Open the deployment manager integration solution console, navigate to

Applications
-> Enterprise Applications

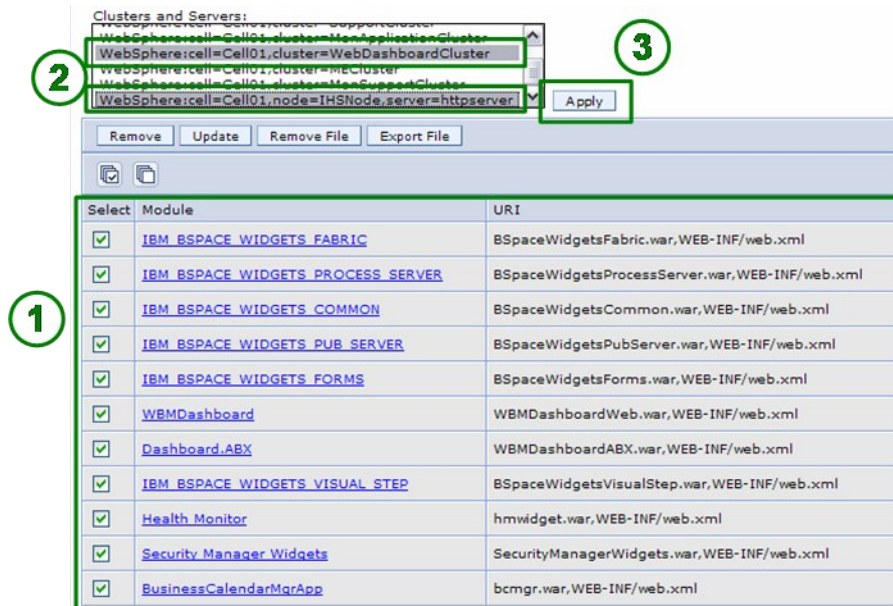
and select "IBM_BSPACE_WIDGETS".

The "IBM_BSPACE_WIDGETS configuration" panel is displayed:



1. Select "Manage Modules".

The "IBM_BSPACE_WIDGETS Manage Modules" panel is displayed:



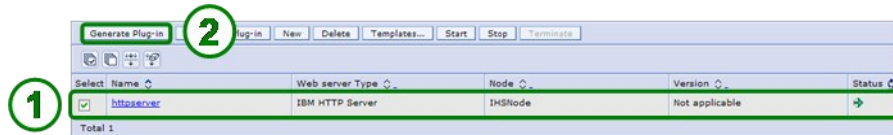
1. Select all modules.
2. Select both "WebDashboardCluster" and "httpserver".
3. Press **Apply**, then **OK** and then **Save**

All modules should now be mapped to the WebDashboard Cluster and the HTTP server:

Select	Module	URI	Module Type	Server
<input type="checkbox"/>	IBM_ESPACE_WIDGETS_FABRIC	BSpaceWidgetsFabric.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01.cluster=WebDashboardCluster WebSphere:cell=Cell01.node=IHSNode,server=httpserver
<input type="checkbox"/>	IBM_ESPACE_WIDGETS_PROCESS_SERVER	BSpaceWidgetsProcessServer.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01.cluster=WebDashboardCluster WebSphere:cell=Cell01.node=IHSNode,server=httpserver
<input type="checkbox"/>	IBM_ESPACE_WIDGETS_COMMON	BSpaceWidgetsCommon.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01.cluster=WebDashboardCluster WebSphere:cell=Cell01.node=IHSNode,server=httpserver
<input type="checkbox"/>	IBM_ESPACE_WIDGETS_PUB_SERVER	BSpaceWidgetsPubServer.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01.cluster=WebDashboardCluster WebSphere:cell=Cell01.node=IHSNode,server=httpserver
<input type="checkbox"/>	IBM_ESPACE_WIDGETS_FORMS	BSpaceWidgetsForms.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01.cluster=WebDashboardCluster WebSphere:cell=Cell01.node=IHSNode,server=httpserver
<input type="checkbox"/>	WBMDashboard	WBMDashboardWeb.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01.cluster=WebDashboardCluster WebSphere:cell=Cell01.node=IHSNode,server=httpserver
<input type="checkbox"/>	Dashboard.ABX	WBMDashboardABX.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01.cluster=WebDashboardCluster WebSphere:cell=Cell01.node=IHSNode,server=httpserver
<input type="checkbox"/>	IBM_ESPACE_WIDGETS_VISUAL_STEP	BSpaceWidgetsVisualStep.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01.cluster=WebDashboardCluster WebSphere:cell=Cell01.node=IHSNode,server=httpserver
<input type="checkbox"/>	Health Monitor	hmwidget.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01.cluster=WebDashboardCluster WebSphere:cell=Cell01.node=IHSNode,server=httpserver
<input type="checkbox"/>	Security Manager Widgets	SecurityManagerWidgets.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01.cluster=WebDashboardCluster WebSphere:cell=Cell01.node=IHSNode,server=httpserver
<input type="checkbox"/>	BusinessCalendarMgrApp	bcmgr.war,WEB-INF/web.xml	Web Module	WebSphere:cell=Cell01.cluster=WebDashboardCluster WebSphere:cell=Cell01.node=IHSNode,server=httpserver

22.11 Generate and propagate IHS Plug-in

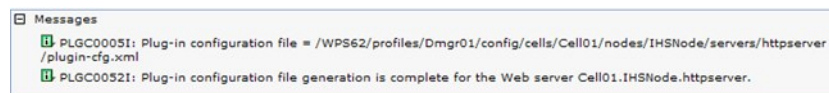
Navigate to "Servers → WebServers"



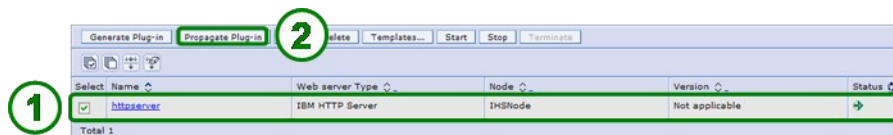
1. Select "httpserver".

Press **Generate Plug-in**

A message indicates that the plug-in (plugin-cfg.xml) was created:



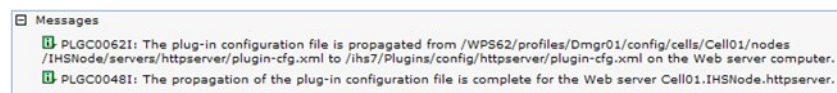
Navigate to "Servers → WebServers" (if not already there)



1. Select "httpserver".

2. Press **Propagate Plug-in**

A message indicates that the plug-in (plug-cfg.xml) was propagated.



Navigate to "Servers → WebServers" (if not already there)



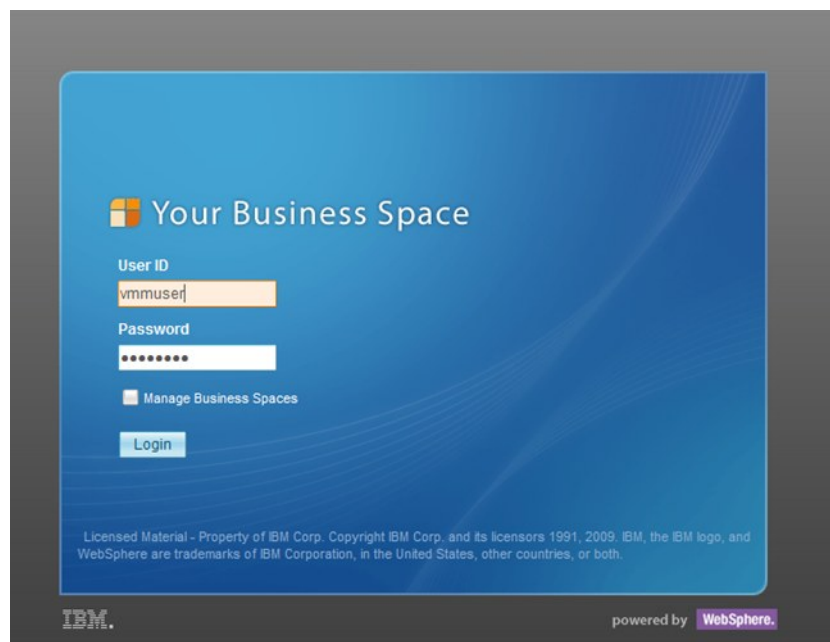
1. Select "httpserver".
2. Press **Stop** (wait until the server is stopped).
3. Press **Start** (wait until the server is started).

22.12 Verify the Business Space

Re-Start the WebSphere Business Monitor Nodes, the Deployment Manager and the WebDashboard Cluster. Additionally start the WebSphere Process Server Nodes, the Proxy Node, the MECluster, SupportCluster, BPELCluster, MonSupportCluster and MonApplicationCluster. Finally start the Proxy Server.

Open a http browser and navigate to the Business Space website, e.G.

`https://<webserver>/BusinessSpace`



Note: The WebSphere Process Server and WebSphere Business Monitor related widgets are only able to connect to their corresponding REST services if the proxy server is running.

Part VII Cell Verification

Chapter 23 Install the Claims Handling application

The sample application that should run on our cluster is **Claims Handling**. This application is one of the samples shipped with WebSphere Process Choreographer. Documentation and download files can be found at URL:

<http://publib.boulder.ibm.com/bpcsamp/index.html>

The application was installed using the admin console. Navigate to

```
--> Applications
----> Enterprise Applications
-----> Install
```

The “Enterprise Applications” panel is displayed:

1. Select **Local file system**
2. Type in the path to the **ClaimsHandlingApp.ear**
3. Click **Next** in the “Preparing for application installation” panel.

The "Select installation options" panel is displayed:

Install New Application

Install New Application

Specify options for installing enterprise applications and modules.

→ **Step 1: Select installation options**

[Step 2: Map modules to servers](#)

[Step 3: Summary](#)

Select installation options

Specify the various options that are available to prepare and install the application.

Precompile JavaServer Pages files

Directory to install application

Distribute application

Use Binary Configuration

Deploy enterprise beans

Application name

Create MBeans for resources

Enable class reloading

Reload interval in seconds

Deploy Web services

Validate Input off/warn/fail

Process embedded configuration

File Permission

Allow all files to be read but not written to
Allow executables to execute
Allow HTML and image files to be read by everyone

Application Build ID

Allow dispatching includes to remote resources

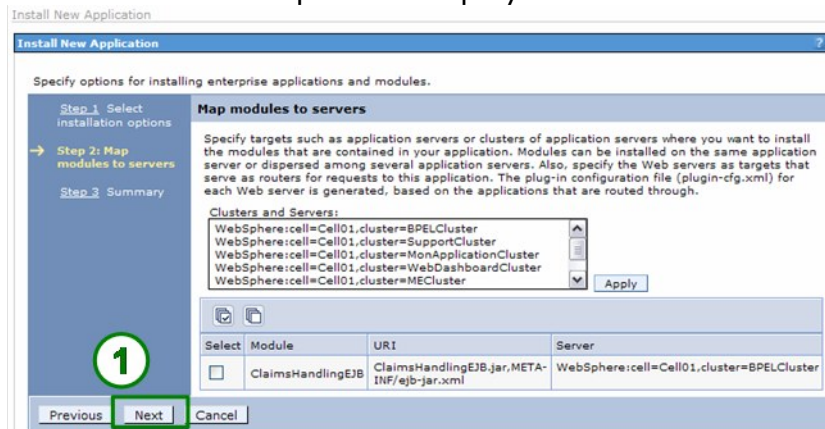
Allow servicing includes from remote resources

1

Accept the Defaults in the "Select installation options" panel.

1. Click **Next** .

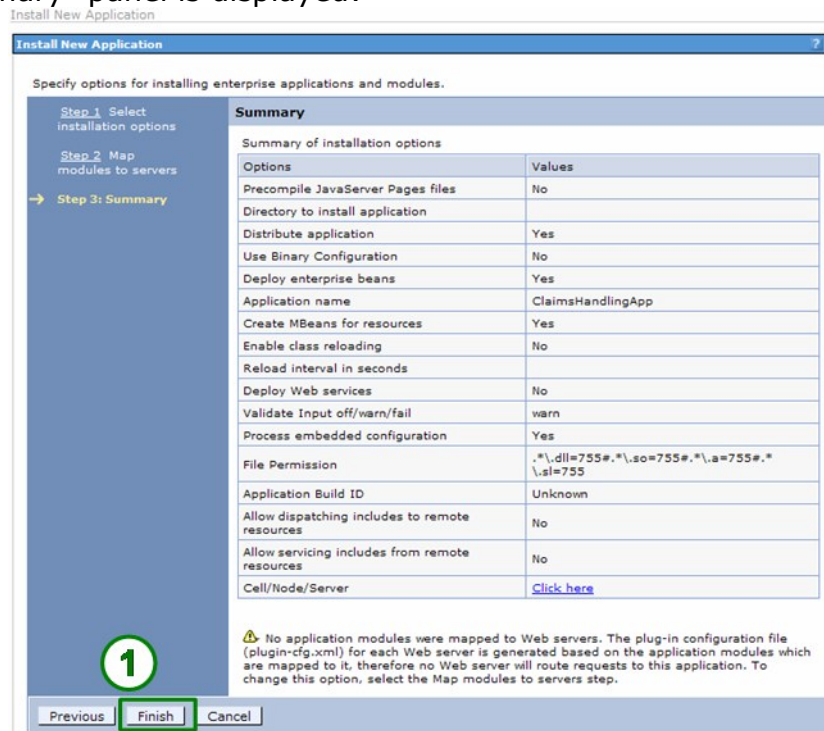
The "Map modules to servers" panel is displayed:



The application is already mapped to the BPELCluster by default.

1. Leave the **defaults** and click **Next**.

The "Summary" panel is displayed:



1. Click **Finish**.

The "Application ClaimsHandlingApp" is displayed:

ADMA5005: The application ClaimsHandlingApp is configured in the WebSphere Application Server repository.
CWSCA3013: Resources for the SCA application "ClaimsHandlingApp" are being configured.
CWSCA3023: The EAR file "dpl_ClaimsHandlingApp_ear" is being loaded for the SCA module.
CWSCA3017: Installation task "Resource Task for SCA Messaging Binding and EIS Binding" is running.
CWSCA3017: Installation task "Resource Task for SCA Messaging Binding and JMS Binding" is running.
CWSCA3017: Installation task "SIBus Destination Resource Task for SCA Asynchronous Invocations" is running.
CWSCA3017: Installation task "EJB NamespaceBinding Resource Task for SCAImportBinding" is running.
CWSCA3017: Installation task "SIBus Destination Resource Task for SCA SOAP/JMS Invocations" is running.
CWSCA3017: Installation task "PolicySet Task for JaxWsImportBinding and JaxWsExportBinding" is running.
CWSCA3014: Resources for the SCA application "ClaimsHandlingApp" have been configured successfully.
ADMA5011: The cleanup of the temp directory for application ClaimsHandlingApp is complete.
ADMA5013: Application ClaimsHandlingApp installed successfully.

Application ClaimsHandlingApp installed successfully.

To start the application, first save changes to the master configuration.

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" button.

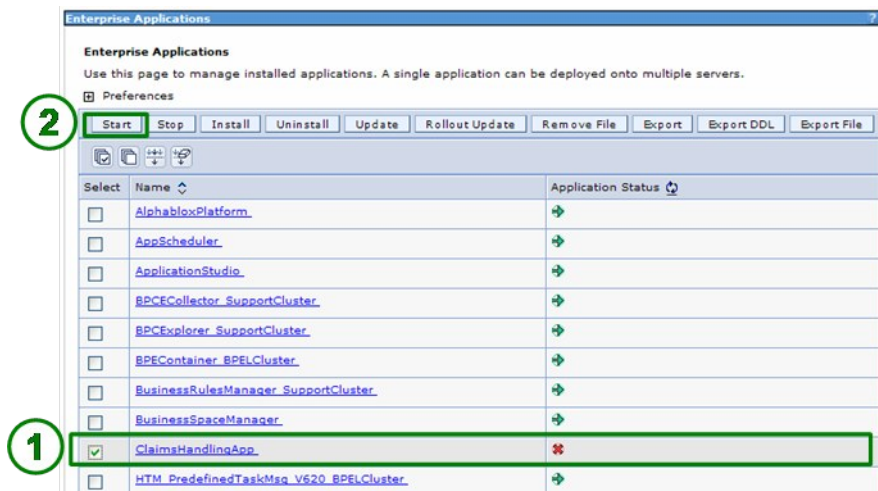
[Manage Applications](#)

Save and Synchronize.

23.1 Start the ClaimsHandlingApp

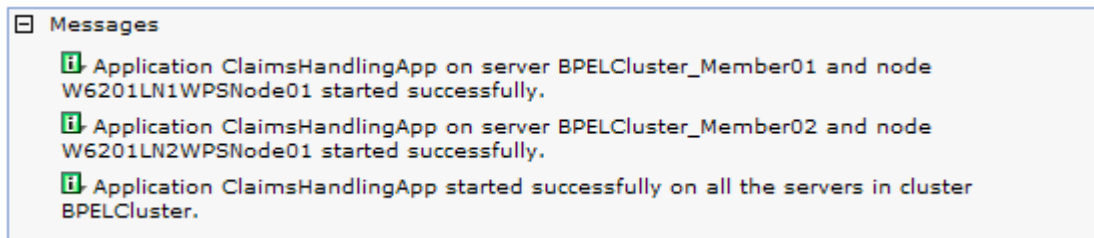
In the administrative console, navigate to **Applications -> Enterprise Applications**, select **ClaimsHandlingApp** and click **Start**:

The Enterprise Application panel is displayed:



1. Select ClaimsHandlingApp.
2. Click **Start**

After a successful application start, the following message is displayed.



Chapter 24 Install the Claims Handling Monitor Model

Based on the **Claims Handling** application a simple Monitor Model has been created. It contains several Metrics, Key Performance Indicators and Visual Models. Explaining the logic of the monitor model is beyond the scope of this document. The goal is to provide general instructions on how to deploy a monitor model in a clustered environment using an Oracle database.

24.1 Configure Queue Bypass

According to the Info Center WebSphere Business Monitor provides two methods for receiving events from the CEI server: queue based or queue bypass. Queue based event management uses JMS to process events. Queue bypass enables you to process events without using an intermediate JMS queue. For most environments, using the queue bypass method improves performance and simplifies the system configuration. With the queue bypass method, the events do not use a JMS queue configured for the monitor model. Rather, the events are directed to the event database table for the monitor model.

For more information on Queue Based / Queue Bypass consult the Info Center:

```
http://publib.boulder.ibm.com/infocenter/dmndhelp/v6r2mx/index.jsp?
topic=/com.ibm.btools.help.monitor.install.doc/admin/cfg_qb_single_cell.htm
1
```

Queue Bypass needs to be configured on the machines that host the Common Event Infrastructure (W6201LN1.boeblingen.de.ibm.com and W6201LN2.boeblingen.de.ibm.com).

Note: Since WebSphere Business Monitor binaries have not been installed on the machines that host the Common Event Infrastructure several files have to be copied from any of the WebSphere Business Monitor Machines (W6201LN3.boeblingen.de.ibm.com or W6201LN4.boeblingen.de.ibm.com) to W6201LN1.boeblingen.de.ibm.com and W6201LN2.boeblingen.de.ibm.com

Copy all files from **/WBM62/scripts.wbm/QueueBypass** on W6201LN3.boeblingen.de.ibm.com **OR** W6201LN4.boeblingen.de.ibm.com to **/WPS62/temp** on W6201LN1.boeblingen.de.ibm.com **AND** W6201LN2.boeblingen.de.ibm.com

Logon to W6201LN1.boeblingen.de.ibm.com as user root. Navigate to:

```
/WPS62/temp
```

Specify following command:

```
./setupQueueBypass.sh -wasHome /WPS62 -profileName W6201LN1WPSCustom01  
-profilePath /WPS62/profiles/W6201LN1WPSCustom01 -cellName Cell01  
-nodeName W6201LN1WPSNode01
```

```
Start Setup Queue Bypass Script  
  
wasHome=/WPS62  
profileName=W6201LN1WPSCustom01  
profilePath=/WPS62/profiles/W6201LN1WPSCustom01  
cellName=Cell01  
nodeName=W6201LN1WPSNode01  
. /WPS62/profiles/W6201LN1WPSCustom01/bin/setupCmdLine.sh  
  
call setupQueueBypass.ant  
/WPS62/bin/ws_ant.sh -buildfile setupQueueBypass.ant -DwasHome=/WPS62  
-DprofileName=W6201LN1WPSCustom01  
-DprofilePath=/WPS62/profiles/W6201LN1WPSCustom01 -DcellName=Cell01  
-DnodeName=W6201LN1WPSNode01  
Buildfile: setupQueueBypass.ant  
  
removeQuotes:  
  [echo] wasHome: /WPS62  
  [echo] wasHome2: /WPS62  
  [echo] profilePath: /WPS62/profiles/W6201LN1WPSCustom01  
  [echo] profilePath2: /WPS62/profiles/W6201LN1WPSCustom01  
  [delete] Deleting: /WPS62/temp/tmp_out.txt  
  
installAll:  
  [echo] WAS_HOME: /WPS62  
  [echo] PROFILE_PATH: /WPS62/profiles/W6201LN1WPSCustom01  
  [echo] profileName: W6201LN1WPSCustom01  
  [echo] cellName: Cell01  
  [echo] nodeName: W6201LN1WPSNode01  
  [unzip] Expanding: /WPS62/temp/queue_routing_plugins.zip into  
/WPS62/plugins  
  [echo] NODE_META_DATA_FILE:  
/WPS62/profiles/W6201LN1WPSCustom01/config/cells/Cell01/nodes/W6201LN1WPSN  
ode01/node-metadata.properties  
  [echo] Add WBM routing feature  
[propertyfile] Updating property file:  
/WPS62/profiles/W6201LN1WPSCustom01/config/cells/Cell01/nodes/W6201LN1WPSN  
ode01/node-metadata.properties  
  [echo] Done add WBM routing feature  
  
BUILD SUCCESSFUL  
Total time: 0 seconds  
Done
```

Navigate to:

```
/WPS62/profiles/W6201LN1WPSCustom01/bin
```

Specify following command:

```
./osgiCfgInit.sh
```

Repeat the Queue Bypass configuration on W6201LN2.boeblingen.de.ibm.com:

```
./setupQueueBypass.sh -wasHome /WPS62 -profileName W6201LN2WPSCustom01  
-profilePath /WPS62/profiles/W6201LN2WPSCustom01 -cellName Cell101  
-nodeName W6201LN2WPSNode01
```

Navigate to:

```
/WPS62/profiles/W6201LN2WPSCustom01/bin
```

Specify following command:

```
./osgiCfgInit.sh
```

Re-start all Java Processes (except Proxy nodeagent, Proxy server and WebServer):

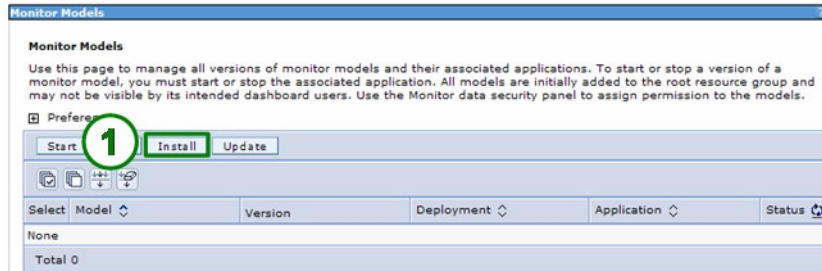
- MECluster
- SupportCluster
- BPELCluster
- MonApplicationCluster
- MonSupportCluster
- WebDashboardCluster
- Deployment Manager
- WebSphere Process Server nodeagents
- WebSphere Business Monitor nodeagents

24.2 Deploy the Claims Handling Monitor Model

The application was installed using the admin console. Navigate to

```
--> Applications  
----> Monitor Models
```

The "Monitor Models" panel is displayed:



1. click **Install**

The “Preparing for the application installation” panel is displayed:

The screenshot shows a dialog box titled "Preparing for the application installation". The main instruction is "Specify the EAR, WAR, JAR, or SAR module to upload and install." The dialog is divided into several sections:

- Path to the new application:** This section has two radio buttons. The first, "Local file system", is selected and highlighted with a green box and a circled "1". Below it, the "Full path" field contains "C:\ClaimsHandling\Claims" and is highlighted with a green box and a circled "2". A "Browse..." button is to the right.
- Remote file system:** This section is unselected. It has a "Full path" field and a "Browse..." button.
- Context root:** A text field with a note: "Used only for standalone Web modules (.war files) and SIP modules (.sar files)".
- How do you want to install the application?:** This section has two radio buttons. The second, "Show me all installation options and parameters.", is selected and highlighted with a green box and a circled "3".
- Buttons:** At the bottom, there are "Next" and "Cancel" buttons. The "Next" button is highlighted with a green box and a circled "4".

1. Select **Local file system**
2. Type in the path to the **ClaimsHandlingMMApplication.ear**
3. Select **Show me all installation options and parameters.**
4. Click **Next**

The "Preparing for the application installation" panel is displayed:

Preparing for the application installation

Choose to generate default bindings and mappings.

Generate Default Bindings

Prefixes:

Do not specify unique prefix for beans

Specify Prefix:

Prefix
ejb

Override:

Do not override existing bindings

Override existing bindings

Specific bindings file

Browse...

Previous **1** Next Cancel

1. Leave the defaults and click **Next**

The "Application Security Warnings" panel is displayed.

Application Security Warnings

Specifies the resulting security warnings from an analysis of this application.

The contents of the was.policy file -

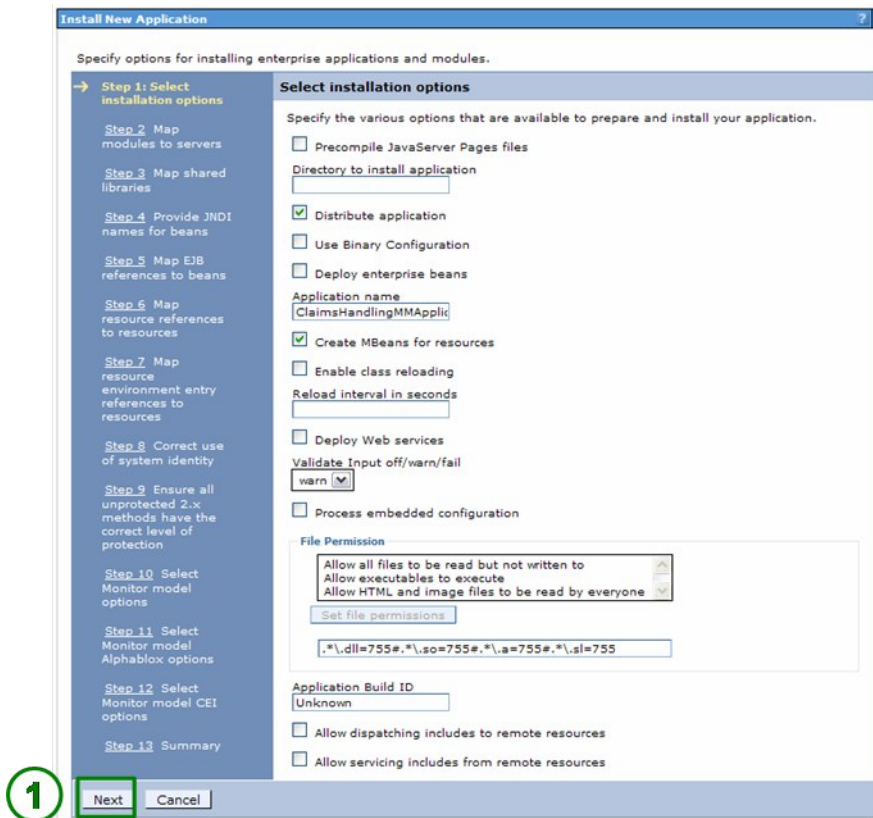
```
/* AUTOMATICALLY GENERATED ON Thursday, June 25, 2009 11:07:46 AM CEST*/
/* DO NOT EDIT */

grant codeBase "file:${application}" {
  permission java.security.AllPermission;
};
```

1 Continue Cancel

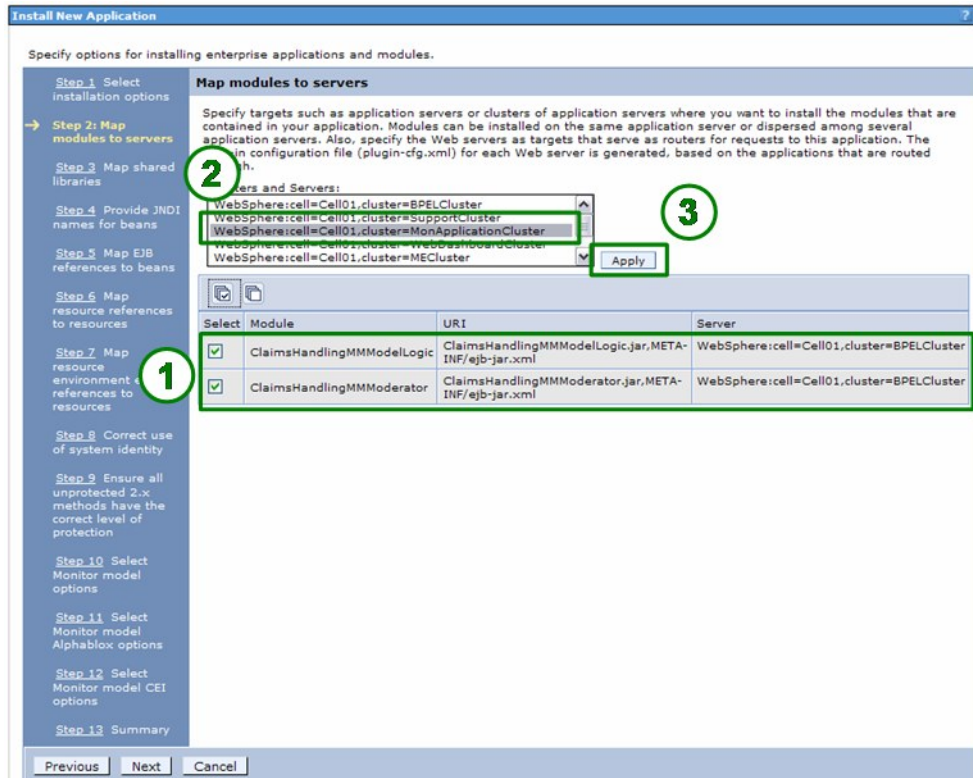
1. Click **Continue**

The "Select installation options" panel is displayed.



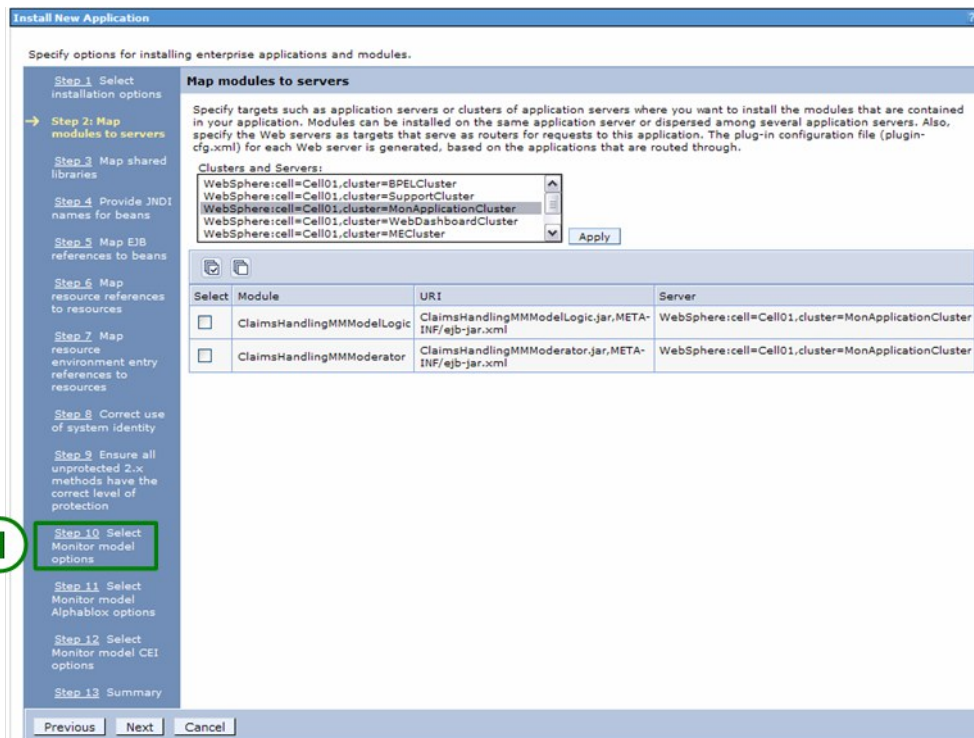
1. Leave the defaults and click **Next**

The “Map modules to servers” panel is displayed:



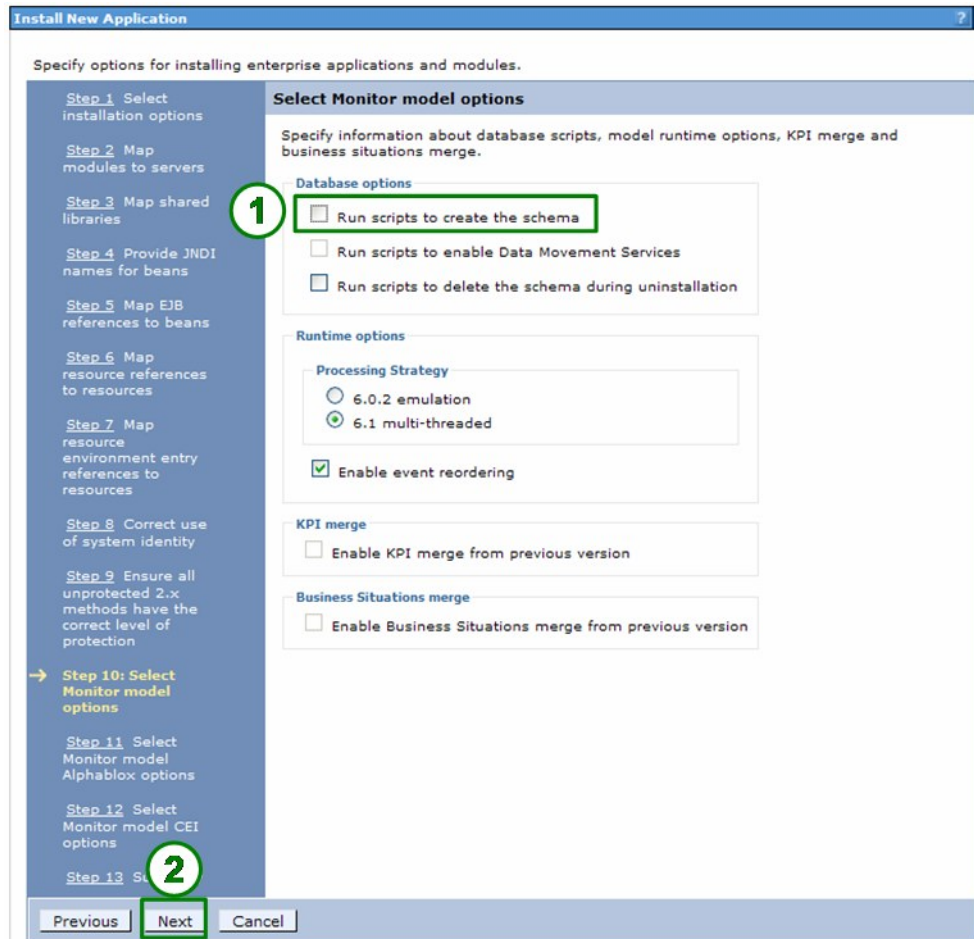
1. Select both modules (**ClaimsHandlingMMModelLogic** and **ClaimsHandlingMMModerator**)
2. Select **MonApplicationCluster**.
3. Press **Apply**

The “Map modules to servers” panel is displayed again. Now both Monitor Model modules are mapped to the MonApplicationCluster:



1. Select **Step 10: Select Monitor model options**

The "Select Monitor model options" panel is displayed:



1. Check if **Run scripts to create the schema.** is selected
2. Press **Next**

The "Select Monitor model Alphablox options" panel is displayed:

The screenshot shows the 'Install New Application' wizard window. The title bar reads 'Install New Application'. Below the title bar, it says 'Specify options for installing enterprise applications and modules.' On the left side, there is a vertical list of steps from Step 1 to Step 13. Step 11, 'Select Monitor model Alphablox options', is highlighted with a green arrow and a green circle containing the number '2'. Step 8, 'Correct use of system identity', is also highlighted with a green circle containing the number '1'. The main content area is titled 'Select Monitor model Alphablox options' and contains the following fields and options:

- Location:** Radio buttons for 'Local' (selected) and 'Remote'. Below are text boxes for 'Host name' and 'RMI port'.
- Security:** Radio buttons for 'Disabled' (selected) and 'Enabled'. Below are text boxes for 'User ID' (containing 'vmmuser') and 'Password' (containing '*****').
- Checkbox:** A checkbox labeled 'Create the Alphablox cubes' is present, which is currently unchecked. It is highlighted with a green box.

At the bottom of the window, there are three buttons: 'Previous', 'Next', and 'Cancel'. The 'Next' button is highlighted with a green box.

1. De-select **Create the Alphablox cubes**.

2. Press **Next**

The "Select Monitor model CEI options" panel is displayed:

Install New Application

Specify options for installing enterprise applications and modules.

Select Monitor model CEI options

Specify information about CEI configuration.

Location

Local Remote

Host name

RMI port

Security

Disabled Enabled

User ID
vmmuser

Password

Event group profile list name

Select	Event group profile list name	Scope
<input checked="" type="checkbox"/>	Event groups list	cluster=SupportCluster, cell=Cell01,

Distribution mode

Active (monitor model queue-based)

Active (monitor model queue bypass)

Inactive

1. Select **Active (monitor model queue bypass)**

2. Press **Next**

The "Summary" panel is displayed:

Install New Application

Specify options for installing enterprise applications and modules.

Step 1 Select installation options
Step 2 Map modules to servers
Step 3 Map shared libraries
Step 4 Provide JNDI names for beans
Step 5 Map EJB references to beans
Step 6 Map resource references to resources
Step 7 Map resource environment entry references to resources
Step 8 Correct use of system identity
Step 9 Ensure all unprotected 2.x methods have the correct level of protection
Step 10 Select Monitor model options
Step 11 Select Monitor model Alphablox options
Step 12 Select Monitor model CEI options
→ Step 13: **1** Summary

Summary

Summary of installation options

Options	Values
Precompile JavaServer Pages files	No
Directory to install application	
Distribute application	Yes
Use Binary Configuration	No
Deploy enterprise beans	No
Application name	ClaimsHandlingMMAApplication
Create MBeans for resources	Yes
Enable class reloading	No
Reload interval in seconds	
Deploy Web services	No
Validate Input off/warn/fail	warn
Process embedded configuration	No
File Permission	.*\,dll=755#.*\,so=755#.*\,a=755#.*\,sl=755
Application Build ID	Unknown
Allow dispatching includes to remote resources	No
Allow servicing includes from remote resources	No
Cell/Node/Server	Click here

⚠ No application modules were mapped to Web servers. The plug-in configuration file (plugin-cfg.xml) for each Web server is generated based on the application modules which are mapped to it, therefore no Web server will route requests to this application. To change this option, select the Map modules to servers step.

Previous **Finish** Cancel

Press **Finish**


```
ADMA5053: The library references for the installed optional package are created.
ADMA5005: The application ClaimsHandlingMMAApplication is configured in the WebSphere Application Server repository.
ADMA5001: The application binaries are saved in /WPS62/profiles/W6201L3MBPMDmgr/wstemp/576092513/workspace/cell
ADMA5005: The application ClaimsHandlingMMAApplication is configured in the WebSphere Application Server repository.
SECJ0400: Successfully updated the application ClaimsHandlingMMAApplication with the appContextIDForSecurity information.
CWMLC0251: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] installation started.
CWMLC0268W: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] added to the root resource group and may not be
CWMLC0253: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] registration complete.
ADMA5005: The application ClaimsHandlingMMAApplication is configured in the WebSphere Application Server repository.
ADMA5011: The cleanup of the temp directory for application ClaimsHandlingMMAApplication is complete.
ADMA5013: Application ClaimsHandlingMMAApplication installed successfully.
Application ClaimsHandlingMMAApplication installed successfully.
To start the application, first save changes to the master configuration.
Changes have been made to your local configuration. You can:
• Save directly to the master configuration.
• Review changes before saving or discarding.
```

Save and Synchronize.

24.3 Create the Alphablox Cubes

Navigate to:

```
--> Applications  
----> Monitor Models  
-----> Version (identified by the time stamp)
```

The Schema has been created (indicated by the green icon next to **Schema created**)

Monitor Models

Monitor Models > ClaimsHandlingMM (2009-06-25T15:04:46)

Use this page to tune and configure the error handling and KPI properties of this model version.

General

General Properties

Model: ClaimsHandlingMM

Version: 2009-06-25T15:04:46

Application: ClaimsHandlingMMApplication

CEI distribution mode: Active (monitor model queue-based)

Active MC instances: 0

Deployment

- Dashboards enabled
- Schema created
- Alphablox cubes created (optional)
- Data Movement Service enabled (optional)

Version Properties

- Manage schema
- Manage Alphablox Cubes**
- Enable Data Movement Service
- Change CEI distribution mode
- Change runtime configuration
- View model

Manage Monitor Data

- Export Instance Data
- Purge and Archive Instance Data

1. Select **Manage Alphablox Cubes**

Monitor Models

[Monitor Models](#) > [ClaimsHandlingMM \(2009-06-25T15:04:46\)](#) > **Manage Alphablox Cubes**

Use this page to supply the Alphablox host connection setting and then create the cubes.
After the cubes have been created, you can remove or export them.

To export the cubes XML and properties files into a zip file, click **Export Cubes**.

Alphablox host connection settings

Location

Local Remote

Host name

W6201LN3.boebling

RMI port

9811

Security

Disabled Enabled

User ID

vmmuser

Password

Export Cubes

Create Remove Cancel

1. Select **Remote**.
2. Enter the host name of one of the nodes that Alphablox is installed on. (here: **W62L3dmg.boeblingen.de.ibm.com** is used, could be also W6201l4m.boeblingen.de.ibm.com. Enter **9811** as RMI port (BOOTSTRAP_PORT). The port can be determined by looking at the ports section of one of the members of the WebDashboard Cluster.
3. Select **Enabled** (Global Security on the remote host).
4. Enter username and password of the remote host.
5. Click **Create**

Following messages indicate that the Alphablox Cubes have been created successfully:

```
Messages
[CWMAX4000I: Create Alphablox: Cubes completed successfully.
[CWMLC0551I: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] cube [CLAIMSHANDLINGMM_CLAIMSHANDLINGPROCESS_CUB_20090625150446] created.
[CWMLC0551I: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] cube [CLAIMSHANDLINGMM_CHECKCLAIM2_CUBE_20090625150446] created.
[CWMLC0551I: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] cube [CLAIMSHANDLINGMM_RECEIVE_CUBE_20090625150446] created.
[CWMLC0551I: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] cube [CLAIMSHANDLINGMM_CHECKCLAIM1_CUBE_20090625150446] created.
[CWMLC0551I: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] cube [CLAIMSHANDLINGMM_CLAIMSHANDLINGPROCESS_CUB] created.
[CWMLC0551I: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] cube [CLAIMSHANDLINGMM_CHECKCLAIM2_CUBE] created.
[CWMLC0551I: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] cube [CLAIMSHANDLINGMM_CHECKCLAIM1_CUBE] created.
[CWMLC0551I: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] cube [CLAIMSHANDLINGMM_RECEIVE_CUBE] created.
[CWMLC0111I: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] step [createAlphabloxCubes] completed.
[CWMAX4000I: Create Alphablox: Cubes completed successfully.
[CWMLC0124I: Model [ClaimsHandlingMM] version [2009-06-25T15:04:46] Alphablox cubes start completed.
```

Deployment

- Dashboards enabled
- Schema created
- Alphablox cubes created (optional)
- Data Movement Service enabled (optional)

The Monitor Model contains Alphablox cubes now:

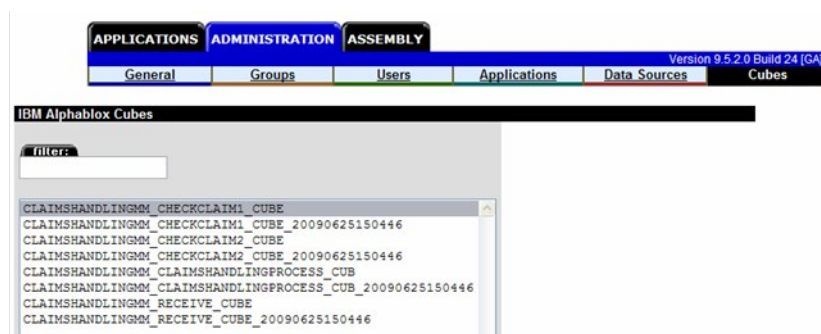
An additional verification step is to check the cubes section within the Alphablox Administration Console of **both** Alphablox hosts:

<http://w62011n3.boeblingen.de.ibm.com:9082/AlphabloxAdmin/home>

or

<http://w62011n4.boeblingen.de.ibm.com:9082/AlphabloxAdmin/home>

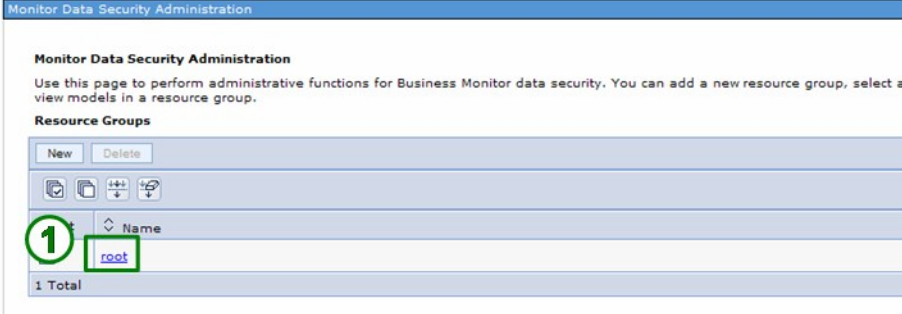
Both Installations have to display the same cubes:



Chapter 25 Configure Monitor Data Security

Navigate to:

```
--> Security  
----> Monitor Data Security
```

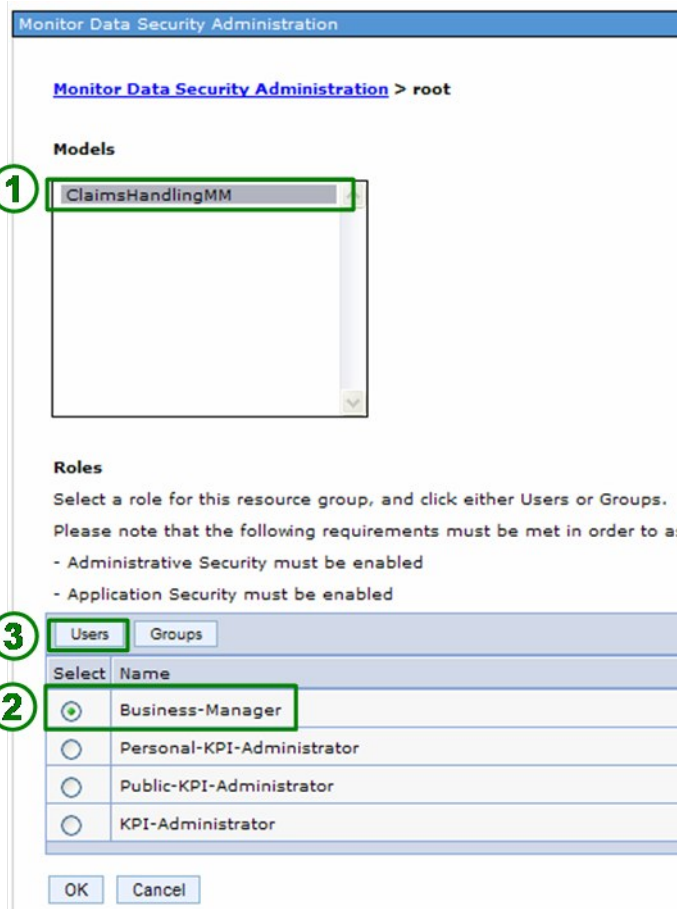


The screenshot shows the 'Monitor Data Security Administration' page. It includes a title bar, a description, and a 'Resource Groups' section with a table. A green circle with the number '1' highlights the 'root' entry in the table, and a green box highlights the 'root' text in the 'Name' column.

Name
root

1 Total

1. Select **root**.



1. Select the **ClaimsHandlingMM** monitor model.
2. Select **Business-Manager**.
3. Click **Users**.

Monitor Data Security Administration

Monitor Data Security Administration > root > Select users for Business-Manager role

Search for: * Maximum results: 100

1 Search

2 Available: uid=vmmuser,o=defaultWIMFileBasedRealm

3 Selected

> >> < <<

OK Cancel

1. Click **Search.**
2. Select the **vmmuser** that is displayed in the panel of available users.
3. Click **>.**

Monitor Data Security Administration

Monitor Data Security Administration > root > Select users for Business-Manager role

Search for: * Maximum results: 100

Search

Available

Selected

uid=vmuser,o=defaultWIMFileBasedRealm

OK Cancel

1. The vmuser is now displayed in the panel of the selected users.
3. Click **OK**.

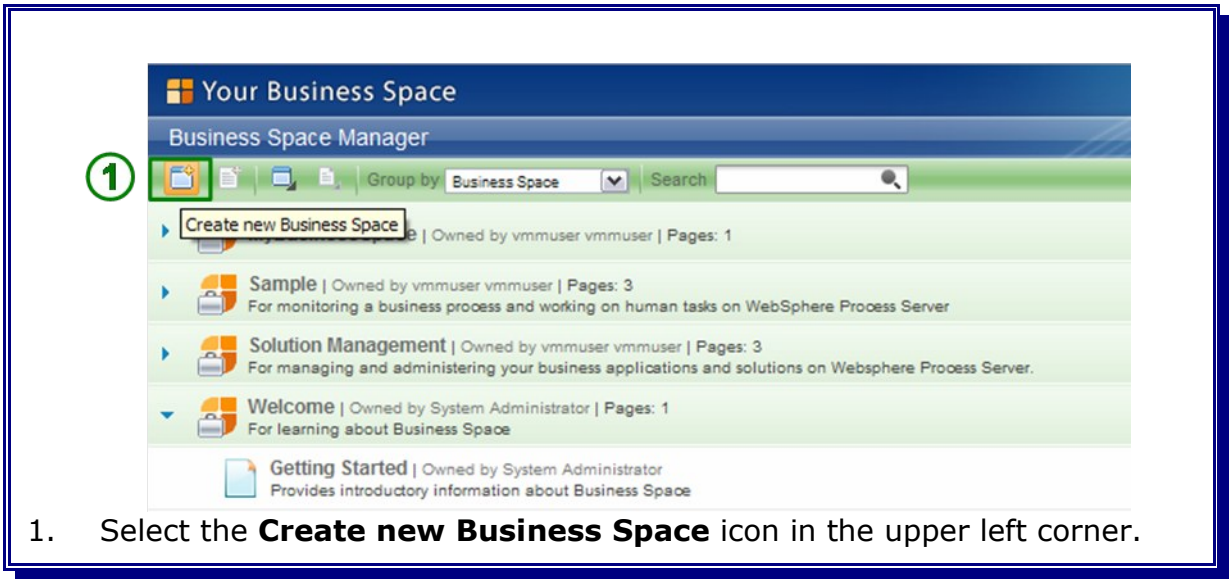
Repeat the steps for the **Personal-KPI-Administrator**, the **Public-KPI-Administrator** and the **KPI-Administrator**.

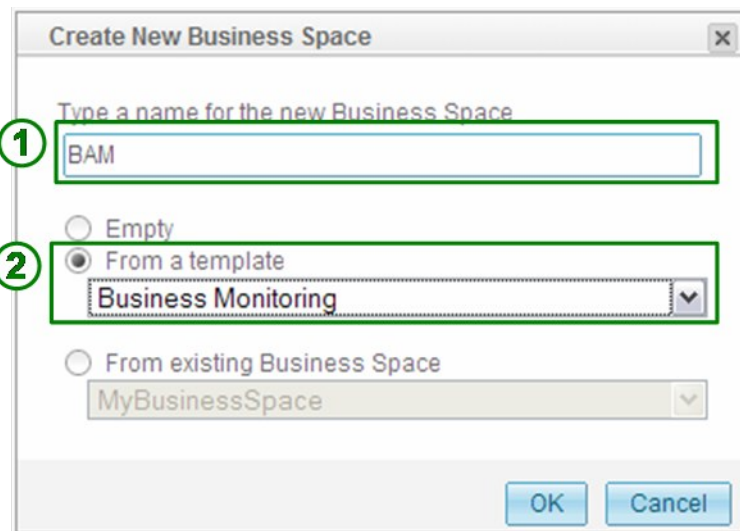
Chapter 26 Define a Business Space

This chapter describes how to define a sample Business Space in order to verify the configuration and deployment of the monitor model.

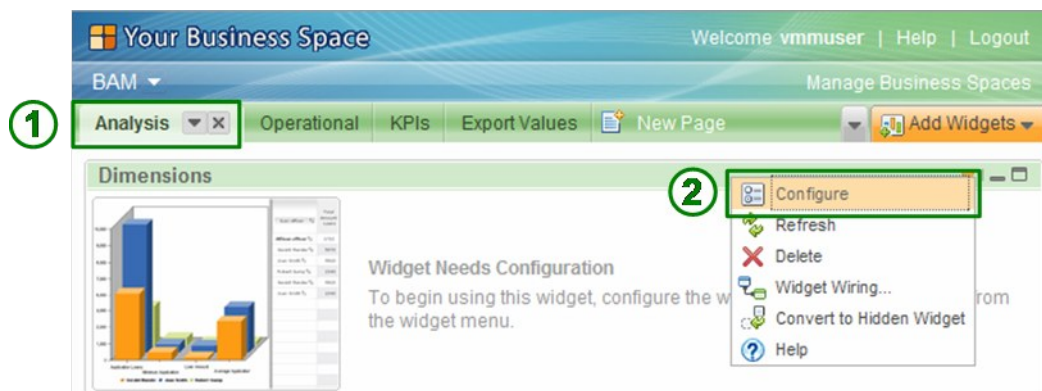
Logon to the Business Space:

<https://w620113m.boeblingen.de.ibm.com/BusinessSpace/login.jsp>





1. Enter **BAM** as name for the new Business Space.
2. Select **From a template** and select **Business Monitoring** from the drop down list.



1. Select the **Analysis** tab in the newly created BAM Business Space.
2. Select the arrow in the upper right corner of the **Dimensions** widget. Select **configure** from the drop down menu.

1. Select the version of the Monitoring Model (At this point only one version is available).

2. Select **ClaimsHandlingProcess** as Monitoring context.

3. Move **CreationTime** from **Available Dimensions** to **Row Dimensions**.

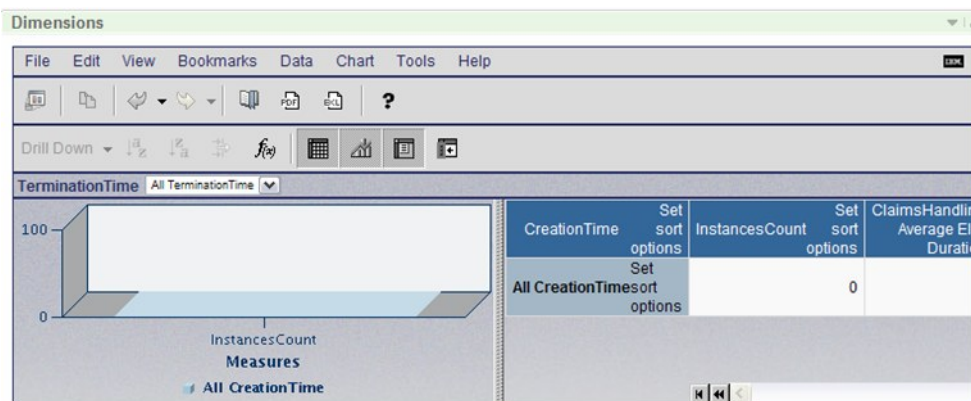
4. Move **Measures** from **Available Dimensions** to **Column Dimensions**.

5. Move **TerminationTime** from **Available Dimensions** to **Page Dimensions**.

6. Click **OK**.

6. Click **Apply** and then **OK**.

The **Dimensions** widget is displayed. However, it does not display any data since Common Base Events have not yet been emitted by the corresponding Business Process.

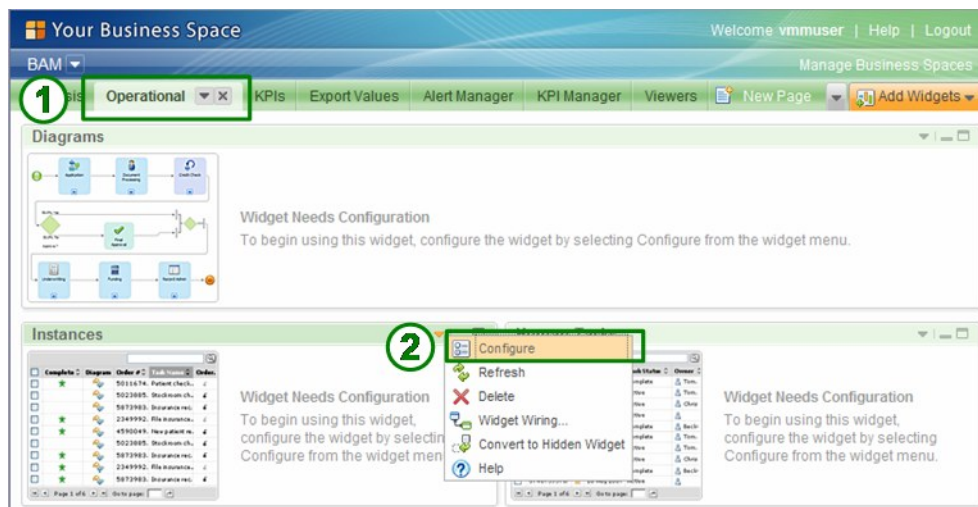


Note: if you encounter following exception:

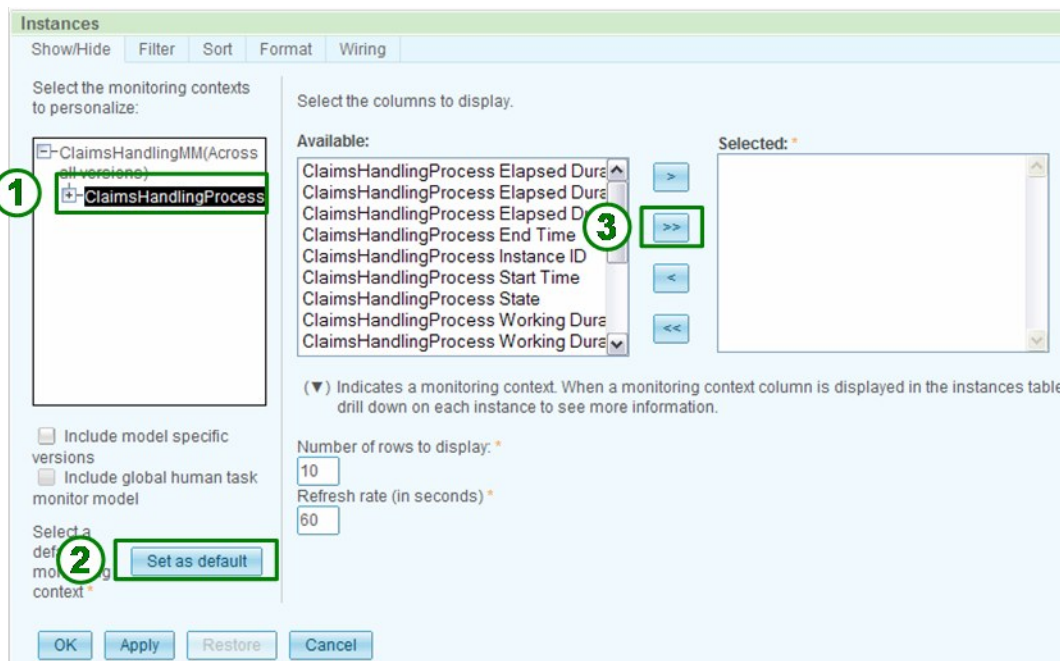
/DashboardABX/_Dimensional/jsp/html/DimABXView.jsp has not been defined. Refer to

http://publib.boulder.ibm.com/infocenter/dmndhelp/v6r2mx/index.jsp?topic=/com.ibm.btools.help.monitor.admin.doc/trouble/dash_abx_autostart.html

to solve the issue.



1. Select the **Operational** tab in the BAM Business Space.
2. Select the arrow in the upper right corner of the **Instances** widget. Select **configure** from the drop down menu.



1. Expand the Monitoring Contexts and select **ClaimsHandlingProcess**.
2. Click **Set as default**.
3. Click **>>** to display all available columns.

The screenshot shows the 'Instances' configuration window. On the left, under 'Select the monitoring contexts to personalize:', there is a tree view with 'ClaimsHandlingMM(Across all versions)' expanded to show 'ClaimsHandlingProcess(default)'. Below this are checkboxes for 'Include model specific versions' and 'Include global human task monitor model'. A 'Set as default' button is also present. On the right, under 'Select the columns to display.', there are two lists: 'Available' (empty) and 'Selected' (containing 'ClaimsHandlingProcess Elapsed Duration', 'ClaimsHandlingProcess Elapsed Duration for KPI', 'ClaimsHandlingProcess Elapsed Duration for Measure', 'ClaimsHandlingProcess End Time', 'ClaimsHandlingProcess Instance ID', 'ClaimsHandlingProcess Start Time', 'ClaimsHandlingProcess State', 'ClaimsHandlingProcess Working Duration', and 'ClaimsHandlingProcess Working Duration'). Below these lists are fields for 'Number of rows to display' (set to 10) and 'Refresh rate (in seconds)' (set to 60). At the bottom, the 'Apply' button is highlighted with a green box and a circled '1'.

1. Click **Apply** and then **OK**.

The screenshot shows the 'Instances' widget in a software interface. It features a search bar with a 'Search for:' field and a 'Reset' button. Below the search bar, there are three column headers: 'ClaimsHandlingProcess Elapsed Duration', 'ClaimsHandlingProcess Elapsed Duration for KPI', and 'ClaimsHandlingProcess Elapsed Duration for Measure'. The table area below the headers is empty, with a '0' centered at the bottom.

The **Instances** widget is displayed. However, it does not display any data since Common Base Events have not yet been emitted by the corresponding Business Process.

Chapter 27 Run the Claims Handling Application

More information on running the ClaimsHandling application can be found at <http://publib.boulder.ibm.com/bpcsamp/index.html>

1. Start the BPC Explorer at URL http://<hostname>:<default_hostport>/bpc:

```
http://w6213dmgr.boeblingen.de.ibm.com:444/bpc
```

2. Navigate to Process Templates -> My Process Template
3. Select ClaimsHandlingProcess and click Start Instance:
4. Enter string values in the Process Input Message view e.g.:
 - **customerNo:** **100** (a value of type string)
 - **claimRecord:** **999** (a value of type string)
5. Click Submit and navigate to Task Instances -> All Tasks
6. Select Task CheckClaim and click Work on
7. Select one of the available Task Output Messages, e.g. Reject
8. Click **Complete**

The process finishes and the process instance is being deleted.

The following output can be found in the according log of the BPELCluster member:

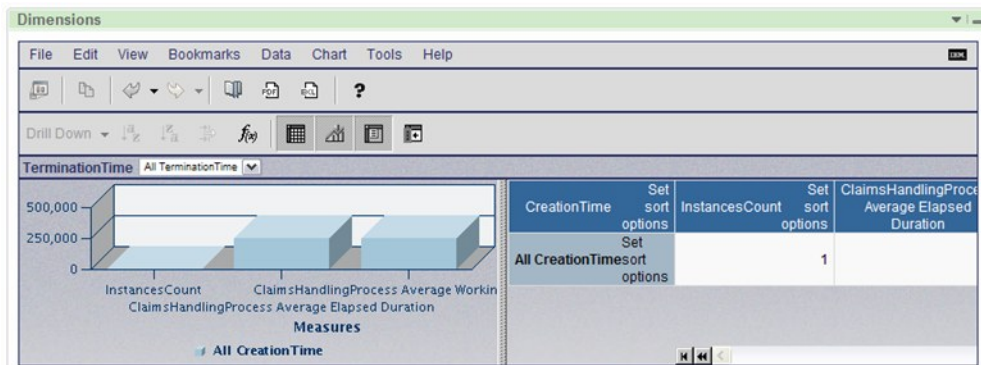
```
[5/25/07 12:22:12:048 CEST] 00000061 SystemOut      O May 25, 2007 12:21:12
PM: Claim handling request received. Claim record no: 999. Customer no:
100.
May 25, 2007 12:22:12 PM: Claim was checked. Action: reject.
May 25, 2007 12:22:12 PM: Final decision: reject.
```


Chapter 28 View Dimensions and Instances within Business Space

Logon to the Business Space:

<https://w620113m.boeblingen.de.ibm.com/BusinessSpace/login.jsp>

Open the BAM Business Space. Select the **Analysis** tab. The **Dimensions** widget now displays data based on the Common Base Events emitted by the Claims Handling Business Process:



Open the BAM Business Space. Select the **Operational** tab. The Instances widget now displays information related to single instances of the Claims Handling Business Process:

ClaimsHandlingProcess Instance ID	ClaimsHandlingProcess Start Time	ClaimsHandlingProcess State	ClaimsHandlingProcess Working Dur.
_PI:90030122.2cd6ffaf.d8b67f6.b2f7046b	29 June 2009 18:26:43	3 - STATE_FINISHED	5 m, 14 s

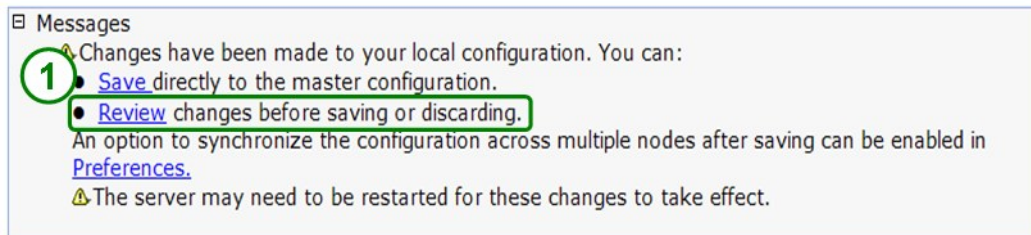
Part VIII Appendix

Chapter 29 Appendix

29.1 WPS How To

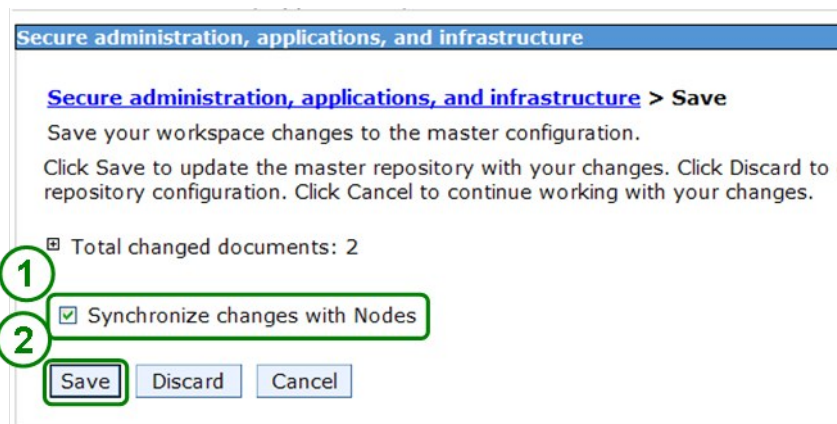
29.1.1 Save changes and synchronize Nodes

The "Save changes" section is displayed on top of a page:



1. Click **Review**

The "Save" page is displayed:



1. Select "Synchronize changes with Nodes".
2. Click **Save**

The "Synchronize changes with Nodes" page is displayed:

Secure administration, applications, and infrastructure

Secure administration, applications, and infrastructure > Synchronize changes with Nodes

The current status of the Nodes being synchronized.

- ADMS0202: Automatic synchronization mode is disabled for node: WPSNode01.
- ADMS0202: Automatic synchronization mode is disabled for node: WPSNode02.
- ADMS0201: The configuration synchronization started for node: WPSNode02.
- ADMS0205: The configuration synchronization completed successfully for node: WPSNode02.
- ADMS0201: The configuration synchronization started for node: WPSNode01.
- ADMS0203: The automatic synchronization mode is enabled for node: WPSNode02.
- ADMS0208: The configuration synchronization complete for cell.

OK

1. Verify that synchronization is complete.

2. Click **OK**

29.1.2 Start/stop the deployment manager and the node agents

This section describes how to stop and start the node agents and the deployment manager. Deployment manager and node agents are the parts of the cell.

29.1.2.1 Stop the deployment manager and the node agents

Before restarting the entire cell all Clusters in the cell must be stopped.

In the admin console navigate to:

System administration
-> *Node agents*

The "Node agents" page is displayed:

Node agents

Use this page to manage node agents and application servers on the node that a node agent manages. The node agent intermediary between the application servers on the node and the deployment manager. The node agent process runs c specialized to perform node-specific administration functions, such as server process monitoring, configuration synchron and request routing.

Preferences

2 Stop Restart Restart all Servers on Node

1

Select	Name	Node	Version	Status
<input checked="" type="checkbox"/>	nodeagent	WPSNode02	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	+
<input checked="" type="checkbox"/>	nodeagent	WPSNode01	ND 6.1.0.21 Process Choreographer 6.2.0.0 WPS 6.2.0.0 WS FEP 6.1.0.21	+

Total 2

1. Select all running node agents.

2. Click **Stop**

In the admin console navigate to:

System administration
-> **Deployment manager**

The "Deployment manager" page is displayed:

Deployment manager

Use this page to stop the deployment manager from running, and to the deployment manager. The deployment manager provides a single (R) Application Server distributed cell.

Runtime Configuration

1 Stop

General Properties

Name
dmgr

Apply OK Reset Cancel

1. Click **Stop**

The "Stopping Server" page is displayed:

Stopping Server

⚠ The server is running the administration application.
If you stop the server, you will be logged out of the current HTTP sess

Start the server again to use the administrative console. If security is still valid. Since the LTPA cookie is for single-signon (multi-server use),

1 OK Cancel

Click **Ok**

You can also stop the node agents and the deployment manager by executing the following commands as user **root** on the several hosts:

1. On all custom profile node hosts:

```
cd /<install_root>/profiles/<profile_name>/bin
./stopNode.sh -username vmmuser -password <password>
```

```
ADMU0116I: Tool information is being logged in file
/<install_root>/profiles/<profile_name>/logs/nodeagent/stopServer.log
ADMU0128I: Starting tool with the <profile_name> profile
ADMU3100I: Reading configuration for server: nodeagent
ADMU3201I: Server stop request issued. Waiting for stop status.
ADMU4000I: Server nodeagent stop completed.
```

2. On the deployment manager host:

```
cd /<install_root>/profiles/<profile_name>/bin
./stopManager.sh -username vmmuser -password <password>
```

```
ADMU0116I: Tool information is being logged in file
/<install_root>/profiles/<profile_name>/logs/dmgr/stopServer.log
ADMU0128I: Starting tool with the <profile_name> profile
ADMU3100I: Reading configuration for server: dmgr
ADMU3201I: Server stop request issued. Waiting for stop status.
ADMU4000I: Server dmgr stop completed.
```

29.1.2.2 Start the deployment manager and the node agents

To start the deployment manager and the node agents execute the following commands as user **root** on the several hosts:

1. On the deployment manager host:

```
cd /<install_root>/profiles/<profile_name>/bin
./startManager.sh
```

```
ADMU0116I: Tool information is being logged in file
/<install_root>/profiles/<profile_name>/logs/dmgr/startServer.log
ADMU0128I: Starting tool with the <profile_name> profile
ADMU3100I: Reading configuration for server: dmgr
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server dmgr open for e-business; process id is 8941
```

2. On all node hosts:

```
cd /<install_root>/profiles/<profile_name>/bin
./startNode.sh
```

```
ADMU0116I: Tool information is being logged in file
/<install_root>/profiles/<profile_name>/logs/nodeagent/startServer.log
ADMU0128I: Starting tool with the <profile_name> profile
ADMU3100I: Reading configuration for server: nodeagent
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server nodeagent open for e-business; process id is 7000
```

29.2 IHS How To

29.2.1 Starting and stopping the HTTP server

To start the http server execute the following commands as user **root** on the http host:

```
cd /<install_root>/bin  
./apachectl start
```

To stop the http server execute the following commands as user **root** on the http host:

```
cd /<install_root>/bin  
./apachectl stop
```

29.3 Oracle How To

29.3.1 Starting and stopping the database listener

This chapter describes how to manage the Oracle database listener.

29.3.1.1 Starting the database listener

Login the database system as user oracle and execute the following command:

```
lsnrctl start
LSNRCTL for Linux: Version 11.1.0.6.0 - Production on 05-DEC-2008
19:45:06

Copyright (c) 1991, 2007, Oracle. All rights reserved.

Starting /opt/oracle/11g/bin/tnslsnr: please wait...

TNSLSNR for Linux: Version 11.1.0.6.0 - Production
System parameter file is /opt/oracle/11g/network/admin/listener.ora
Log messages written to
/opt/oracle/diag/tnslsnr/fmtc7175/listener/alert/log.xml
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)
(HOST=fmtc7175.boeblingen.de.ibm.com) (PORT=1521)))
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)
(KEY=EXTPROC1521)))

Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)
(HOST=<your_hostname>) (PORT=1521)))
STATUS of the LISTENER
-----
Alias                LISTENER
Version              TNSLSNR for Linux: Version 11.1.0.6.0 -
Production
Start Date           05-DEC-2008 19:45:06
Uptime                0 days 0 hr. 0 min. 0 sec
Trace Level          off
Security              ON: Local OS Authentication
SNMP                  OFF
Listener Parameter File /opt/oracle/11g/network/admin/listener.ora
Listener Log File    /opt/oracle/diag/tnslsnr/fmtc7175/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp) (HOST=<your_hostname>)
(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc) (KEY=EXTPROC1521)))
The command completed successfully
```

Note: The Oracle Listener needs about 1 minute to discover all services. Trying to connect to a database before all services are discovered will lead to an ORA error.

29.3.1.2 Stopping the database listener

Login the database system as user `oracle` and execute the following command:

```
lsnrctl stop
LSNRCTL for Linux: Version 11.1.0.6.0 - Production on 05-DEC-2008
19:46:30

Copyright (c) 1991, 2007, Oracle. All rights reserved.

Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)
(HOST=<your_hostname>) (PORT=1521)))
The command completed successfully
```

29.3.1.3 Displaying the database listener status

Login the database system as user `oracle` and execute the following command:

```
lsnrctl status
LSNRCTL for Linux: Version 11.1.0.6.0 - Production on 05-DEC-2008
19:49:55

Copyright (c) 1991, 2007, Oracle. All rights reserved.

Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)
(HOST=<your_hostname>) (PORT=1521)))
STATUS of the LISTENER
-----
Alias                LISTENER
Version              TNSLSNR for Linux: Version 11.1.0.6.0 -
Production
Start Date           05-DEC-2008 19:49:13
Uptime               0 days 0 hr. 0 min. 42 sec
Trace Level          off
Security             ON: Local OS Authentication
SNMP                 OFF
Listener Parameter File /opt/oracle/11g/network/admin/listener.ora
Listener Log File    /opt/oracle/diag/tnslsnr/fmtc7175/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp) (HOST=<your_hostname>)
(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc) (KEY=EXTPROC1521)))
Services Summary...
Service "ORCL.<your_hostname>" has 1 instance(s).
  Instance "ORCL", status READY, has 1 handler(s) for this
service...
Service "ORCL_XPT.<your_hostname>" has 1 instance(s).
  Instance "ORCL", status READY, has 1 handler(s) for this
service...
The command completed successfully
```

29.3.2 Starting and stopping the database

This chapter describes how to start and stop the oracle database ORCL.

29.3.2.1 Starting the database

To start the database ORCL execute the following commands as user **oracle**:

```
sqlplus sys/<password>@<oracle_sid> AS SYSDBA

SQL*Plus: Release 11.1.0.7.0 - Production on Thu Jan 29 15:07:23
2009

Copyright (c) 1982, 2008, Oracle. All rights reserved.

Connected to an idle instance.

SQL>startup
ORACLE instance started.

Total System Global Area <xxxxxxx> bytes
Fixed Size <xxxxxxx> bytes
Variable Size <xxxxxxx> bytes
Database Buffers <xxxxxxx> bytes
Redo Buffers <xxxxxxx> bytes
Database mounted.
Database opened.
```

29.3.2.2 Stopping the database

To stop the database ORCL execute the following commands as user **oracle**:

```
sqlplus sys/<yourPassword>@<oracle_sid> AS SYSDBA

SQL*Plus: Release 11.1.0.7.0 - Production on Thu Jan 29 15:00:08
2009

Copyright (c) 1982, 2008, Oracle. All rights reserved.

Connected to:
Oracle Database 11g Enterprise Edition Release 11.1.0.7.0 - 64bit
Production
With the Partitioning option

SQL>shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
```

29.3.3 Starting and stopping the Oracle Enterprise Manager Console

This chapter describes how to manage the Oracle Enterprise Manager Console (OEM) and how to access the OEM website.

29.3.3.1 Starting the Oracle Enterprise Manager

To start the Oracle Enterprise Manager Console execute the following command as user `oracle`:

```
emctl start dbconsole
Oracle Enterprise Manager 11g Database Control Release 11.1.0.7.0
Copyright (c) 1996, 2008 Oracle Corporation. All rights reserved.
https://<hostname>:1158/em/console/aboutApplication
Starting Oracle Enterprise Manager 11g Database
Control ..... started.
-----
Logs are generated in directory
/opt/oracle/11g/W62L3ORA.boeblingen.de.ibm.com_ORCL/sysman/log
```

29.3.3.2 Stopping the Oracle Enterprise Manager

To stop the Oracle Enterprise Manager Console execute the following command as user `oracle`:

```
emctl stop dbconsole
Oracle Enterprise Manager 11g Database Control Release 11.1.0.7.0
Copyright (c) 1996, 2008 Oracle Corporation. All rights reserved.
https://<hostname>:1158/em/console/aboutApplication
Stopping Oracle Enterprise Manager 11g Database Control ...
... Stopped.
```

29.3.3.3 Displaying the Oracle Enterprise Manager status

```
emctl status dbconsole
Oracle Enterprise Manager 11g Database Control Release 11.1.0.7.0
Copyright (c) 1996, 2008 Oracle Corporation. All rights reserved.
https://<hostname>:1158/em/console/aboutApplication
Oracle Enterprise Manager 11g is running.
-----
Logs are generated in directory /opt/oracle/11g/W62L3ORA.boeblingen.de.ibm.com_ORCL/sysman/log
```

29.3.3.4 Accessing the Oracle Enterprise Manager

To access the Oracle Enterprise Manager type the following url in the web browser:

```
https://<hostname>:1158/em
```

The port can differ and may be found in the file `$ORACLE_HOME/install/portlist.ini`.

29.3.4 Resetting a user password in the Oracle database

There is sometimes a need to reset the password for a database user in the Oracle database.

To reset the password of a database user execute the following commands as user **oracle**:

```
# sqlplus / AS SYSDBA
```

```
SQL*Plus: Release 11.1.0.7.0 - Production on Wed Jul 22 09:16:52 2009
```

```
Copyright (c) 1982, 2008, Oracle. All rights reserved.
```

```
Connected to:
```

```
Oracle Database 11g Enterprise Edition Release 11.1.0.7.0 - 64bit
```

```
Production
```

```
With the Partitioning, OLAP, Data Mining and Real Application Testing  
options
```

```
SQL> ALTER USER <username> IDENTIFIED BY <password>;
```

```
SQL>
```

e.G. resetting the password for the database user "sys":

```
SQL> ALTER USER SYS IDENTIFIED BY <password>;
```

```
SQL>
```

29.3.5 Compute database statistics

29.3.5.1 Prepare the database

Execute script

```
sqlplus sys/<password>@<oracle_sid> AS SYSDBA  
@$ORACLE_HOME/rdbms/admin/dbmsstat.sql;
```

to create the dbms_stats packages in the database.

Note: The dbms_stats packages are normally created during the database creation.

29.3.5.2 Gather the database statistics

To gather statistics log in with

```
sqlplus sys/<password>@<oracle_sid> AS SYSDBA
```

and start the function:

```
execute dbms_stats.Gather_database_stats;
```

29.3.6 Work with Redo Log Groups

29.3.6.1 Sizing the Redo Log Groups

The size of the redo log files depends on the database load. The 750 MB of the Oracle database chapter are only a rule of thumb. It may be, that greater redo log files are needed.

If a redo log file is full, the database switches to the next redo log file in a round robin manner. On every log switch the database generates a checkpoint. This is very IO extensive. So too small log files are downgrading the database performance.

With Oracle 10g a sizing advisor was introduced. A precondition of this advisor is that the database is on load.

A important parameter of this method is the parameter `FAST_START_MTTR_TARGET`. This is the mean time that the database should be able to recover if a database crash occurs. This parameter is specified in seconds and possible values are between 0 and 3600.

The result of the following SQL statement is the advice for the size in MB of the redo log files:

```
SQL> SELECT OPTIMAL_LOGFILE_SIZE FROM V$INSTANCE_RECOVERY;
```

You have to execute the statement as user "SYS" and the role "SYSDBA".

Therefore connect to the database executing the following command as user `oracle`:

```
# sqlplus sys/<password>@<oracle_sid> AS SYSDBA
```

```
SQL*Plus: Release 11.1.0.7.0 - Production on Wed Jul 22 09:16:52 2009  
Copyright (c) 1982, 2008, Oracle. All rights reserved.
```

```
Connected to:  
Oracle Database 11g Enterprise Edition Release 11.1.0.7.0 - 64bit  
Production  
With the Partitioning, OLAP, Data Mining and Real Application Testing  
options
```

```
SQL> SELECT OPTIMAL_LOGFILE_SIZE FROM V$INSTANCE_RECOVERY;
```

```
OPTIMAL_LOGFILE_SIZE  
-----  
nnnn
```

29.3.6.2 Changing the redo log size

The size of a redo log file cannot be changed. You have to delete it and recreate it with the right size.

Oracle uses the redo log files in a round robin order. So if you have three redo log files, one is active and two are inactive. You are able to drop a logfile member with the following command:

```
ALTER DATABASE DROP LOGFILE MEMBER
'/opt/oracle/oradata/<DBNAME>/redo01.log' ;
```

In this command you have to change the name and location of the redo log file. When a redo log member is dropped from the database, the operating system file is not deleted from disk. Rather, the control files of the associated database are updated to drop the member from the database structure. After dropping a redo log file, make sure that the drop completed successfully, and then use the appropriate operating system command to delete the dropped redo log file.

To drop a member of an active group, you must first force a log switch.

To force a log switch, you must have the ALTER SYSTEM privilege:

```
ALTER SYSTEM SWITCH LOGFILE;
```

To add a new logfile member use:

```
ALTER DATABASE ADD LOGFILE MEMBER
'/opt/oracle/oradata/<DBNAME>/redo01.log' SIZE <new_log_size>M TO GROUP
<your_group>;
```