

# WebSphere Business Monitor V7.0: Clustering Custom topology using the configuration Wizard

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## What this exercise is about

The objective of this exercise is to provide step by step instructions for installing WebSphere® Business Monitor V7.0 and eventually create a custom topology environment using the WebSphere Business Monitor configuration wizard in a six machine topology good for 32-bit and 64-bit system users.

## Exercise requirements

List of software required for the student to complete the exercise:

- IBM Installation Manager V1.3.3
- WebSphere Application Server V7.0.0.7
- WebSphere Business Monitor V7.0
- DB2

## What you should be able to do

At the end of this exercise you should be able to:

- Install IBM Installation Manager V1.3.3
- Install WebSphere Application Server V7.0.0.7
- Install WebSphere Business Monitor V7.0
  - WebSphere Business Monitor V7.0 binaries including Alphablox
  - WebSphere Application Server V7 Feature Pack for XML
- Create these WebSphere Business Monitor V7.0 profiles
  - A deployment manager profile
  - Five custom profiles
- Create five clusters and then deploy WebSphere Business Monitor components, configuring a fully functional and highly available monitor environment using the WebSphere Business Monitor configuration wizard

## Exercise instructions

Some instructions in this exercise might be Windows® operating-system specific. If you plan on running the exercise on an operating-system other than Windows, you will need to run the appropriate commands, and use appropriate files (.sh or .bat) for your operating system. The directory locations are specified in the exercise instructions using symbolic references, as follows:

Reference variable	Windows location	AIX® location
<b>WBM deployment manager profile &amp; DB2 (Machine 1)</b>		
<WBM_HOME>	C:\IBM\WebSphere\MonServer	
<DMGR_PROFILE_HOME>	<WBM_HOME>\profiles\Dmgr01	
<DB2_HOME>	C:\IBM\DB2\SQLLIB	
<b>WBM custom profile 01 (Machine 2)</b>		
<WBM_HOME>	C:\IBM\WebSphere\MonServer	
<CUSTOM01_PROFILE_HOME>	<WBM_HOME>\profiles\Custom01	
<b>WBM custom profile 02 (Machine 3)</b>		
<WBM_HOME>	C:\IBM\WebSphere\MonServer	
<CUSTOM02_PROFILE_HOME>	<WBM_HOME>\profiles\Custom02	
<b>WBM custom profile 03 (Machine 4)</b>		
<WBM_HOME>	C:\IBM\WebSphere\MonServer	
<CUSTOM03_PROFILE_HOME>	<WBM_HOME>\profiles\Custom03	
<b>WBM custom profile 04 (Machine 5)</b>		
<WBM_HOME>	C:\IBM\WebSphere\MonServer	
<CUSTOM04_PROFILE_HOME>	<WBM_HOME>\profiles\Custom04	
<b>WBM custom profile 05 (Machine 6)</b>		
<WBM_HOME>	C:\IBM\WebSphere\MonServer	
<CUSTOM05_PROFILE_HOME>	<WBM_HOME>\profiles\Custom05	

**Windows users' note:** When directory locations are passed as parameters to a Java™ program such as EJBdeploy or wsadmin, it is necessary to replace the backslashes with forward slashes to follow the Java convention.

The following is the installation file you need to complete the exercise:

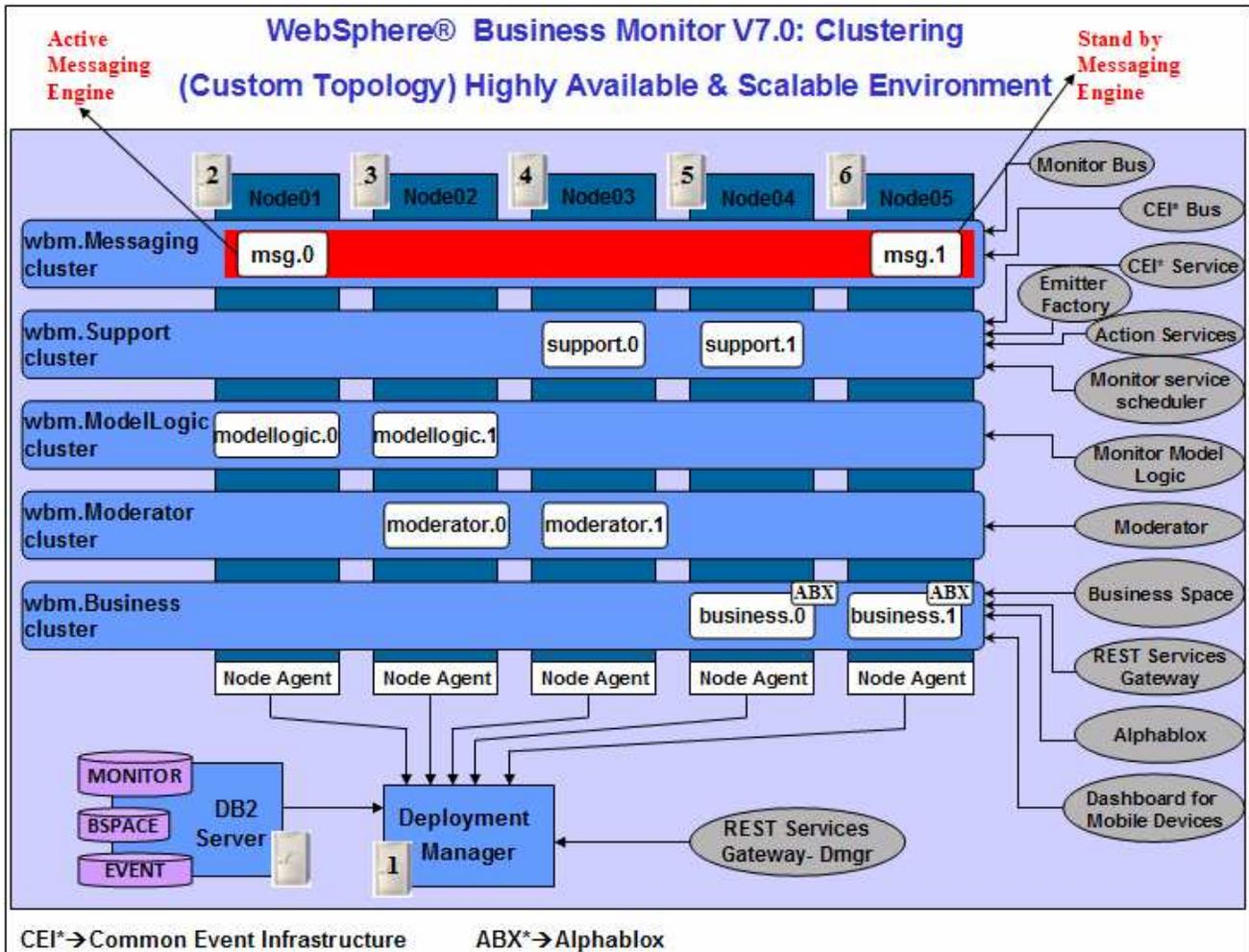
Product	File name
WebSphere Business Monitor V7.0	Monitor_V7.0_Windows_32.zip

## Introduction

IBM WebSphere Business Monitor is a comprehensive business activity monitoring software that provides an up-to-date view of your business performance and provides predictions so that you can take action before problems occur. Personalized business dashboards process business events and data, and calculate key performance indicators (KPIs) and metrics. WebSphere Business Monitor can collect events and data from a wide variety of sources including WebSphere Process Server and IBM FileNet® P8 BPM. In addition, you can use adapters to collect events from additional sources.

In this exercise, you will install and configure WebSphere Business Monitor in a custom topology environment using the WebSphere Business Monitor configuration wizard. To achieve the custom topology, you will install WebSphere Business Monitor binaries on the designated machines. Eventually create a deployment manager profile, create custom profiles, and create clusters with member servers assigned. Then you will configure Event service to a cluster and finally use the monitor configuration wizard to deploy various monitor components and resources to the clusters. The components and resources are allocated to clusters accordingly after meeting with the pre-requisites and restrictions as directed by the configuration wizard.

In this exercise, the custom topology environment has two member servers assigned to each of the clusters which are spread across five nodes as shown in the diagram below:



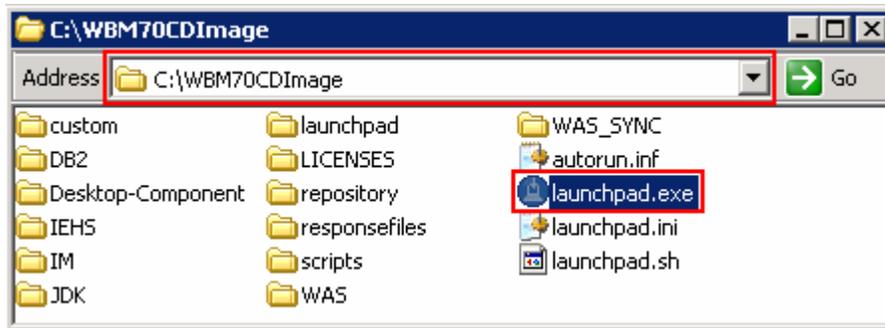
## Part 1: Preparing for the WebSphere Business Monitor installation image

In this part of the exercise, the WebSphere Business Monitor V7.0 DVD image is obtained and extracted -- creating the correct on-disk structure for the installation image.

- \_\_\_ 1. The following is the installation file needed to install the WebSphere Business Monitor V7.0 binaries:

Product	File Name
WebSphere Business Monitor V7.0	Monitor_V7.0_Windows_32.zip

- \_\_\_ 2. Obtain the WebSphere Business Monitor DVD image and extract in such a way to create the correct on-disk structure for the installation image
- \_\_\_ a. Extract the archive to a directory (for example `C:\WBM70CDImage`) and confirm that the directories and files are extracted correctly; it should appear similar to the picture below:



## Part 2: Installing WebSphere Business Monitor V7.0 binaries

In this part of the exercise, you will install the WebSphere Business Monitor V7.0 binaries using the Installation Manager on an existing WebSphere Application Server – ND package group.

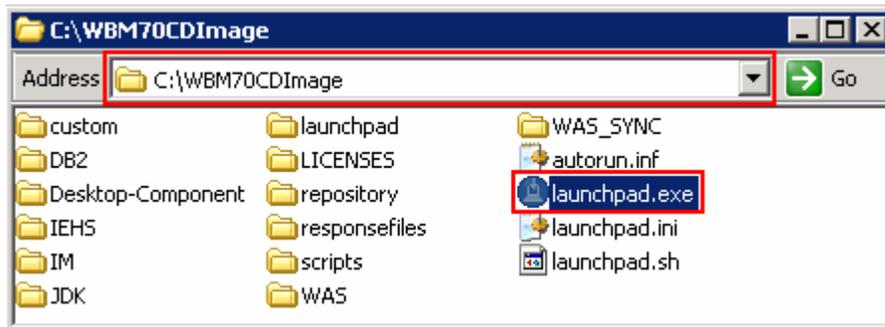
You will use the WebSphere Business Monitor V7.0 Common Launchpad to silently install WebSphere Application Server V7.0.0.7 and then launch the Installation Manager from the Common Launchpad to install the WebSphere Business Monitor V7.0 binaries on the WebSphere Application Server - ND package group.

If you are installing WebSphere Business Monitor V7.0 for the first time, you have the opportunity to update it with the latest available refresh pack, fixes, and extensions at the same time when you install WebSphere Business Monitor V7.0.

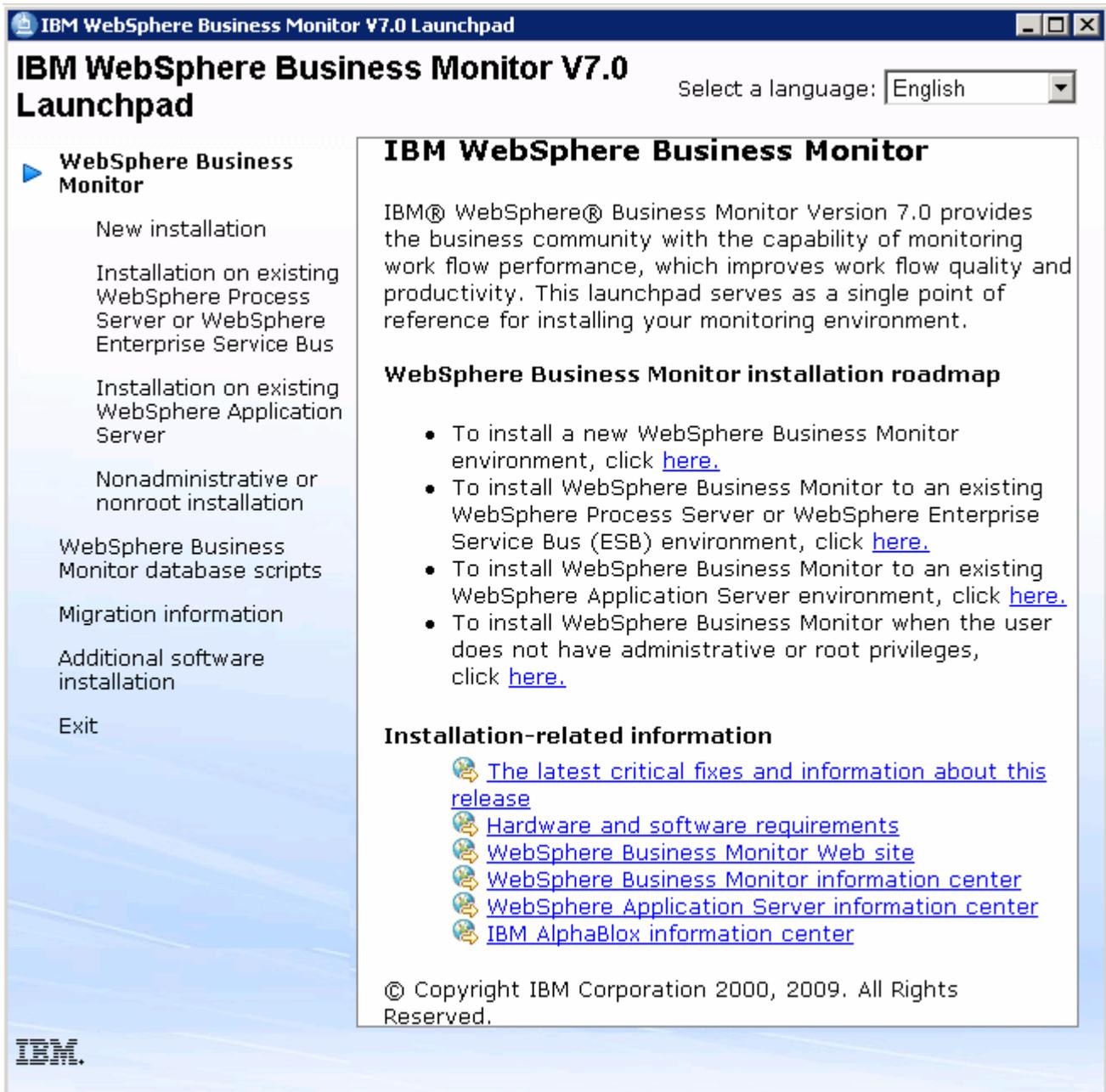
**Pre-requisite:** Before going to the next step, ensure you have enough disk space to install WebSphere Application Server V7.0.0.7 and then the WebSphere Business Monitor binaries.

Complete the instructions below to install the WebSphere Business Monitor V7.0 binaries:

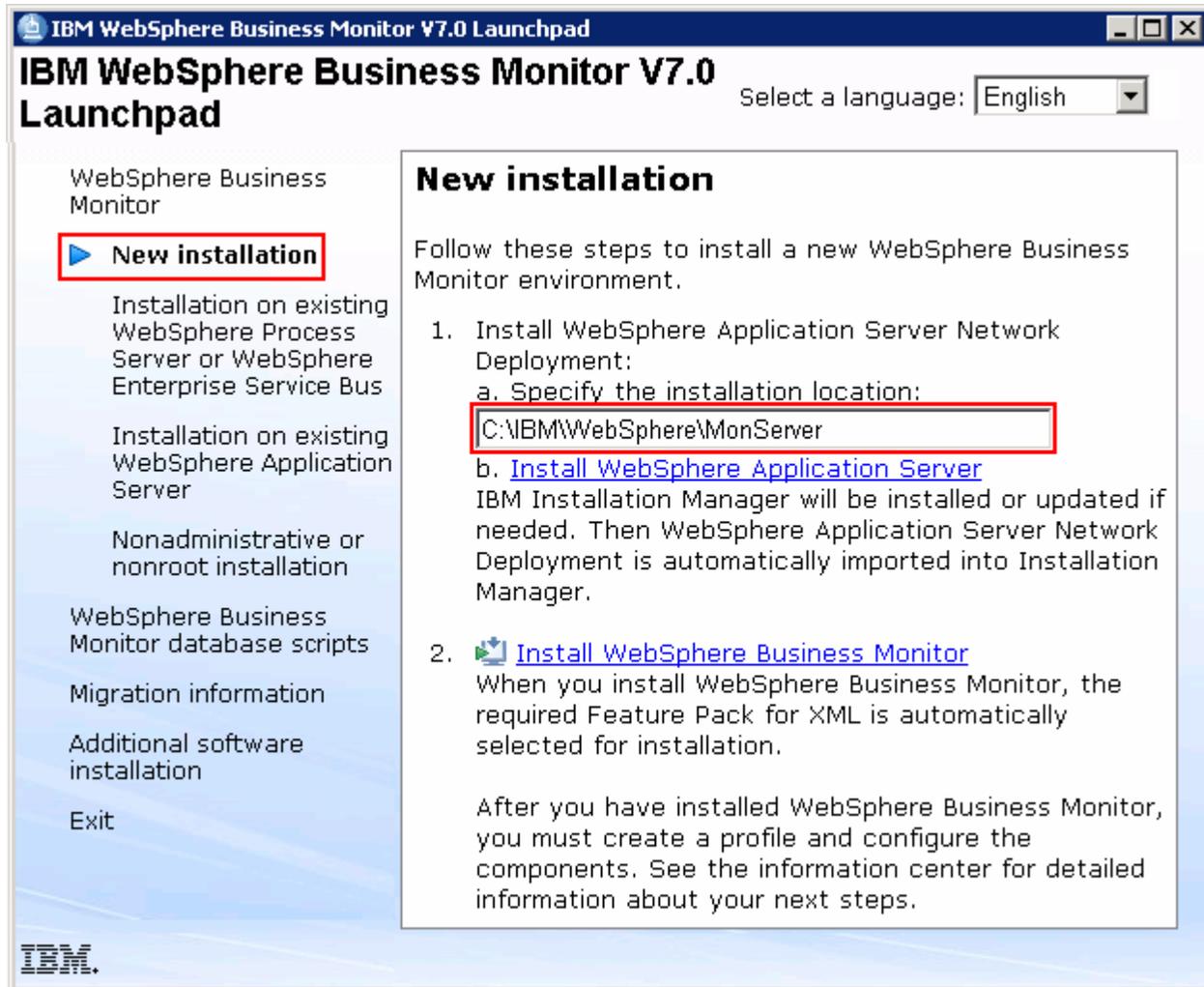
1. Navigate to the directory where the correct on-disk structure for the installation image was created



2. Double-click **launchpad.exe** to launch the WebSphere Business Monitor Common Launchpad



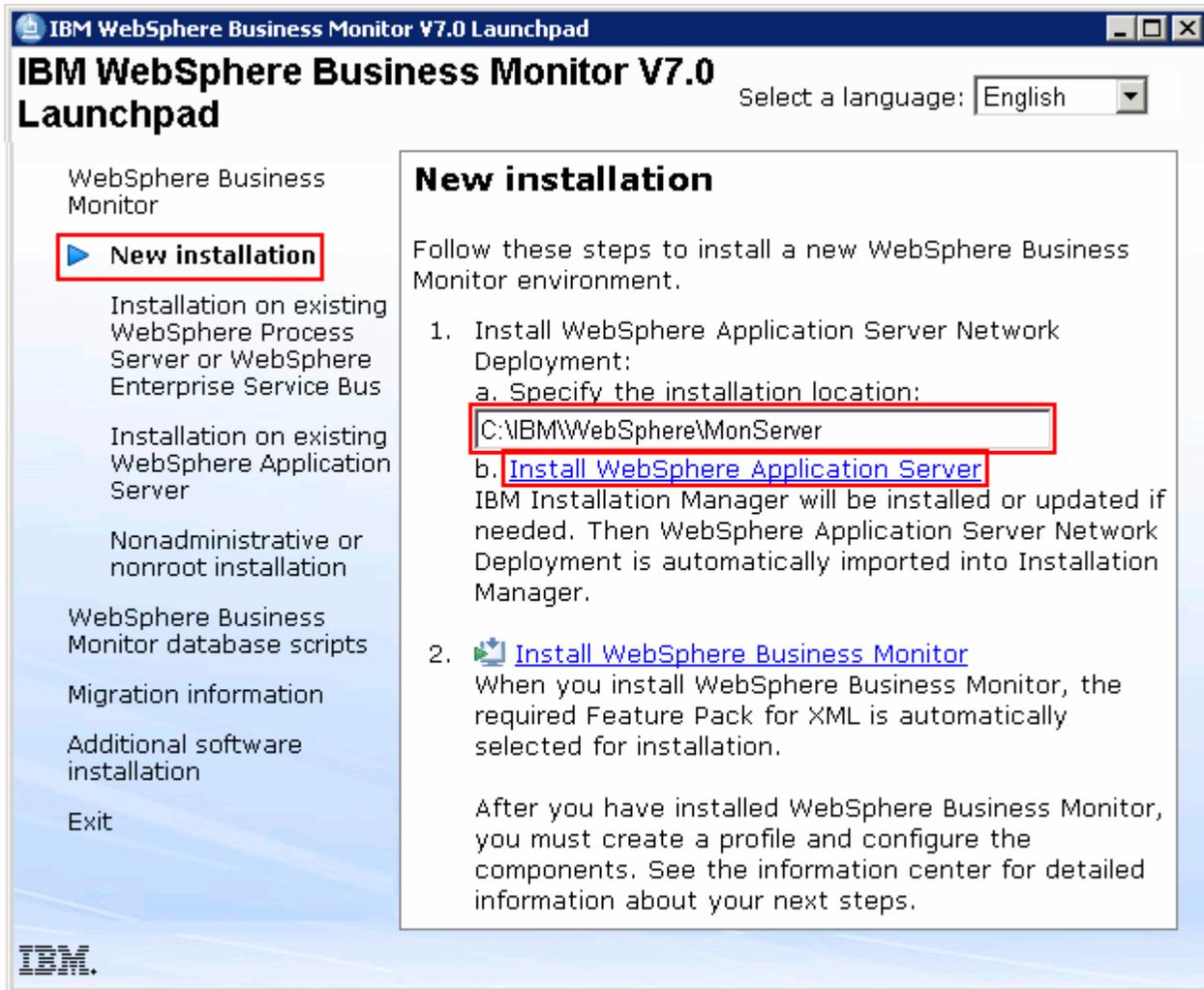
- \_\_\_\_ 3. On the left navigation pane of the WebSphere Business Monitor Common Launchpad, click the **WebSphere Business Monitor** → **New Installation** link



- \_\_\_ 4. Specify the **Installation Location** for WebSphere Application Server Network Deployment in the text field
- \_\_\_ a. Specify the Installation Location : Ex: **C:\IBM\WebSphere\MonServer**

**Note:** Ensure the specified WebSphere Application Server installation location does not exist. If so, you should see the warning dialog shown below, when you click the 'Install WebSphere Application Server' link.

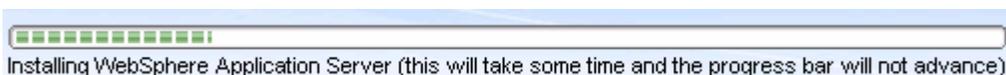




5. Now, click the **Install WebSphere Application Server** link. This action silently installs IBM Installation Manager V1.3.3 to a default location, WebSphere Application Server V7.0.0.7 to the specified location and then imports the WebSphere Application Server repository to the Installation Manager.
6. A warning dialog pops-up, requesting to close the IBM Installation Manager if it is already installed and running at this time. Close the Installation Manager if it is already installed and running



7. Click **OK**. The WebSphere Application Server V7.0.0.7 installation progresses



- \_\_\_\_ 8. Once the WebSphere Application Server installation is complete, you should see a pop-up stating that the WebSphere Application Server installation is successful and imported into Installation Manager



- \_\_\_\_ 9. Click **OK**

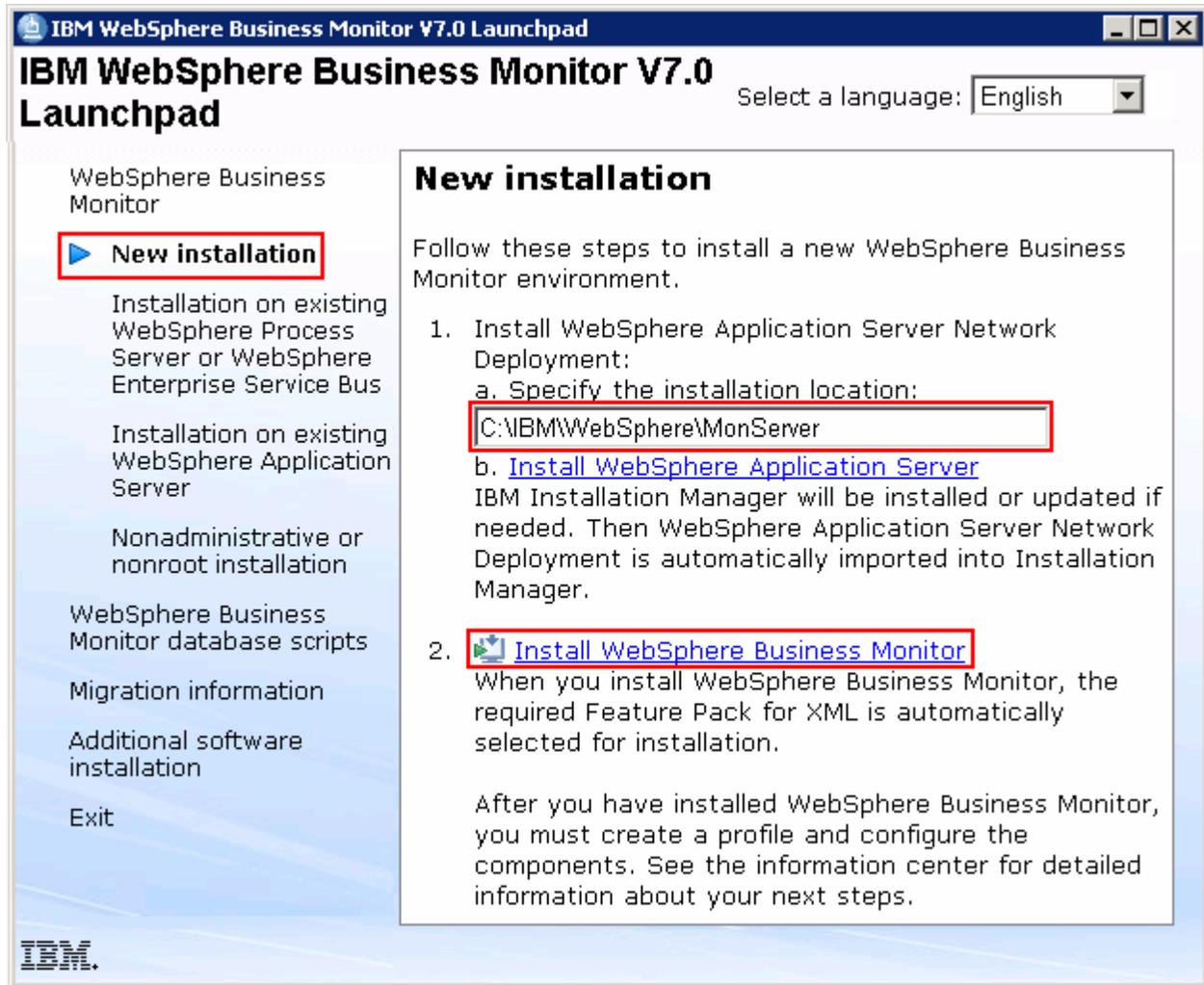
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**Note:** Navigate to the WebSphere Application Server installation home **logs** directory, **<WBM\_HOME>\logs\install** to verify the installation status. Open the **log.txt** file and scroll to the end of the file. You should see the status reported as **INSTCONFSUCCESS**

**Note:** The Installation Manager is installed to a default location. For Example on Windows, it is installed at **C:\Program Files\IBM\BPMSHared**

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- \_\_\_\_ 10. Back to the WebSphere Business Monitor Common Launchpad, click the **Install WebSphere Business Monitor** link

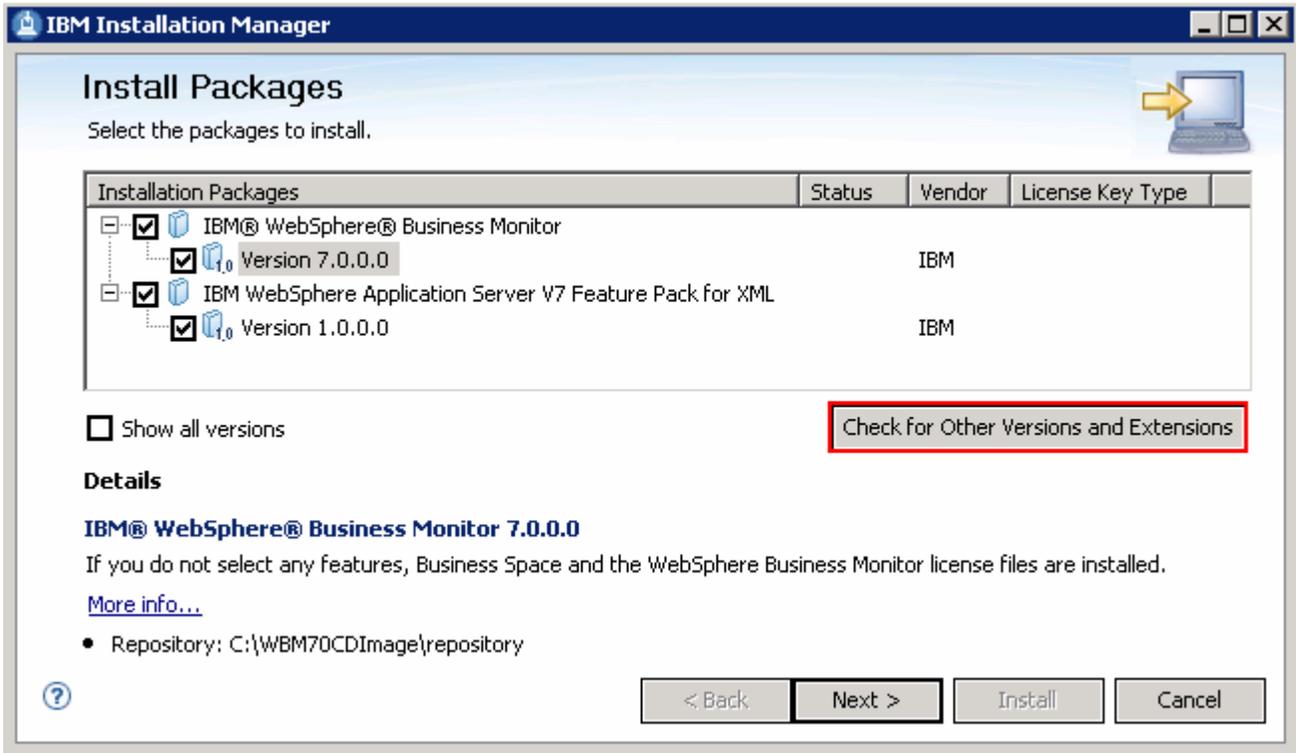


- \_\_\_ 11. The Installation Manager is launched as shown in the picture below. You should see a list of the packages shown below:
- \_\_\_ a. IBM WebSphere Business Monitor → Version 7.0.0.0
  - \_\_\_ b. IBM WebSphere Application Server V7 Feature Pack for XML → Version 1.0.0.0

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**Note:** If you do not select any features in this panel, Business Space and WebSphere Business Monitor license files are installed on the WebSphere Application Server package group.

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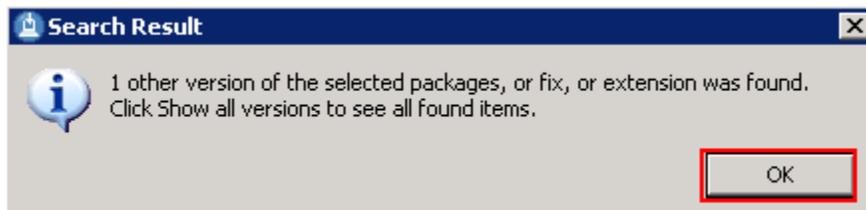


**Note:** If you do **not** want to update with the latest available refresh pack, fixes and extensions, do not click the **Check for Other Versions and Extensions** button. Select the required packages and click **Next**

- \_\_\_\_ 12. Click **Check for Other Versions and Extensions** button to search for the available refresh packs, fixes and extensions. This action gives an opportunity to update the packages with the latest refresh packs, fixes and extensions at the same time when you install WebSphere Business Monitor V7.0

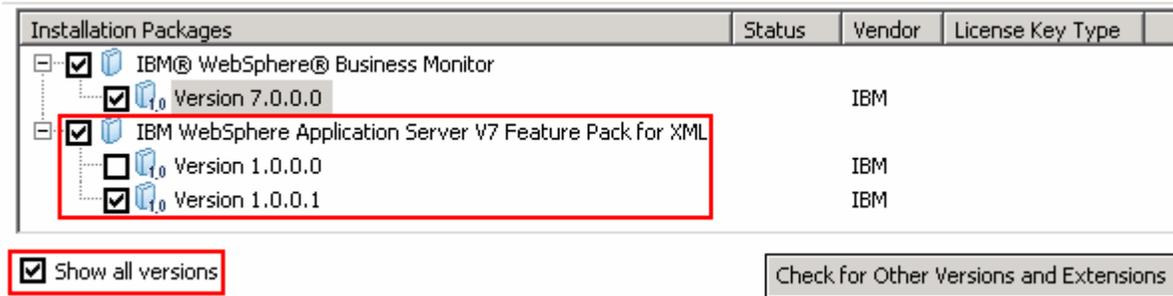
**Note:** At the time of writing this document, there is no refresh pack available for monitor. However the XML feature pack Version 1.0.0.1 Fix Pack is available. Ensure your machine is connected to the network accessible to the WebSphere Business Monitor live repository Web site.

- \_\_\_\_ 13. Once the search is complete, you should see an information dialog similar to the one shown in the picture below, displaying the number of other versions found



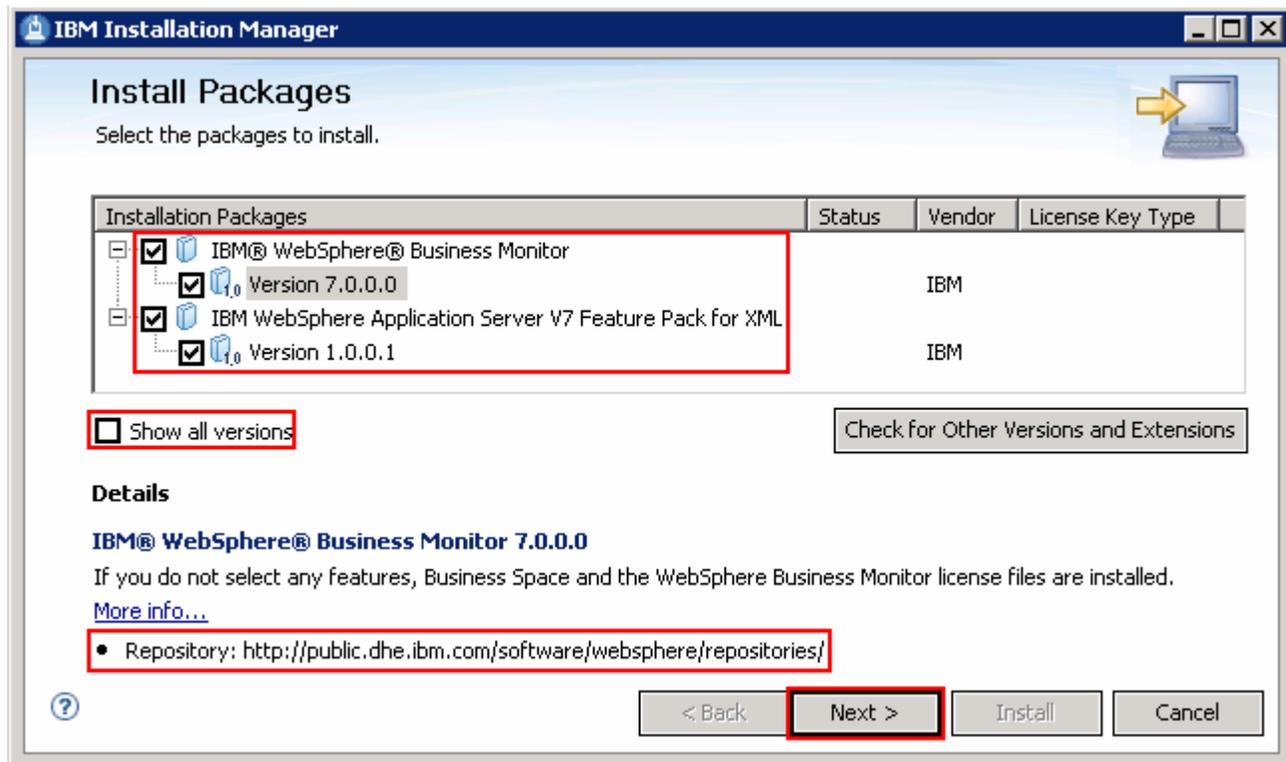
- \_\_\_\_ 14. Click **OK**. You should see the Install Packages panel updated with the latest available packages, for example WebSphere Application Server V7 XML Feature Pack Version 1.0.0.1

**Note:** The Installation Manager only lists and selects recommended versions of the packages available at the time of search. If you want to install an older version, select the **Show all versions** check box. You should see all the available versions as shown below:



In this exercise, you will install WebSphere Business Monitor V7.0 with WebSphere Application Server V7 Feature Pack for XML Version 1.0.0.1 selected.

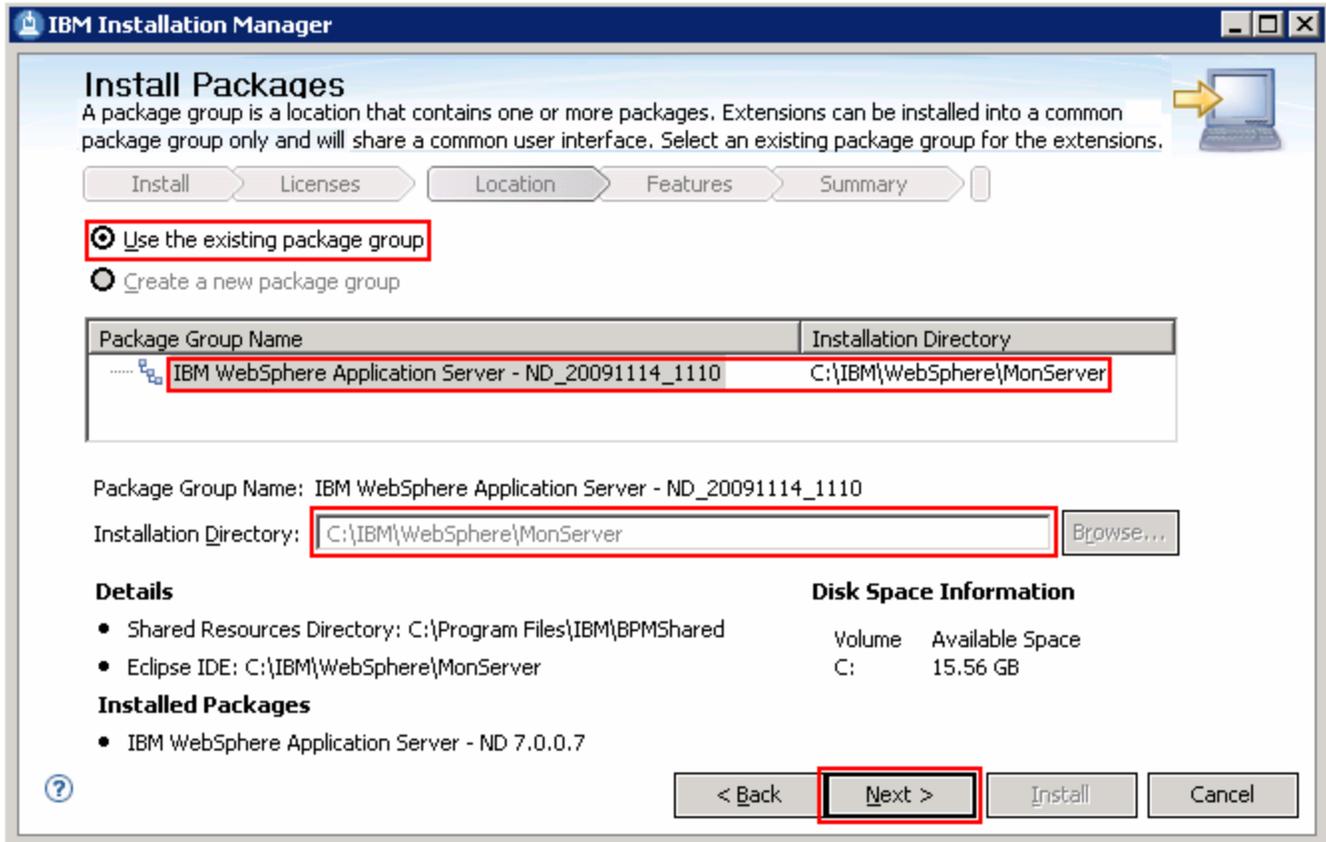
- \_\_\_ 15. In the select packages panel, select the packages with the appropriate versions you like to install
- \_\_\_ a. Select **IBM WebSphere Business Monitor** → **Version 7.0.0.0**
  - \_\_\_ b. Select **IBM WebSphere Application Server V7 Feature Pack for XML** → **Version 1.0.0.1**



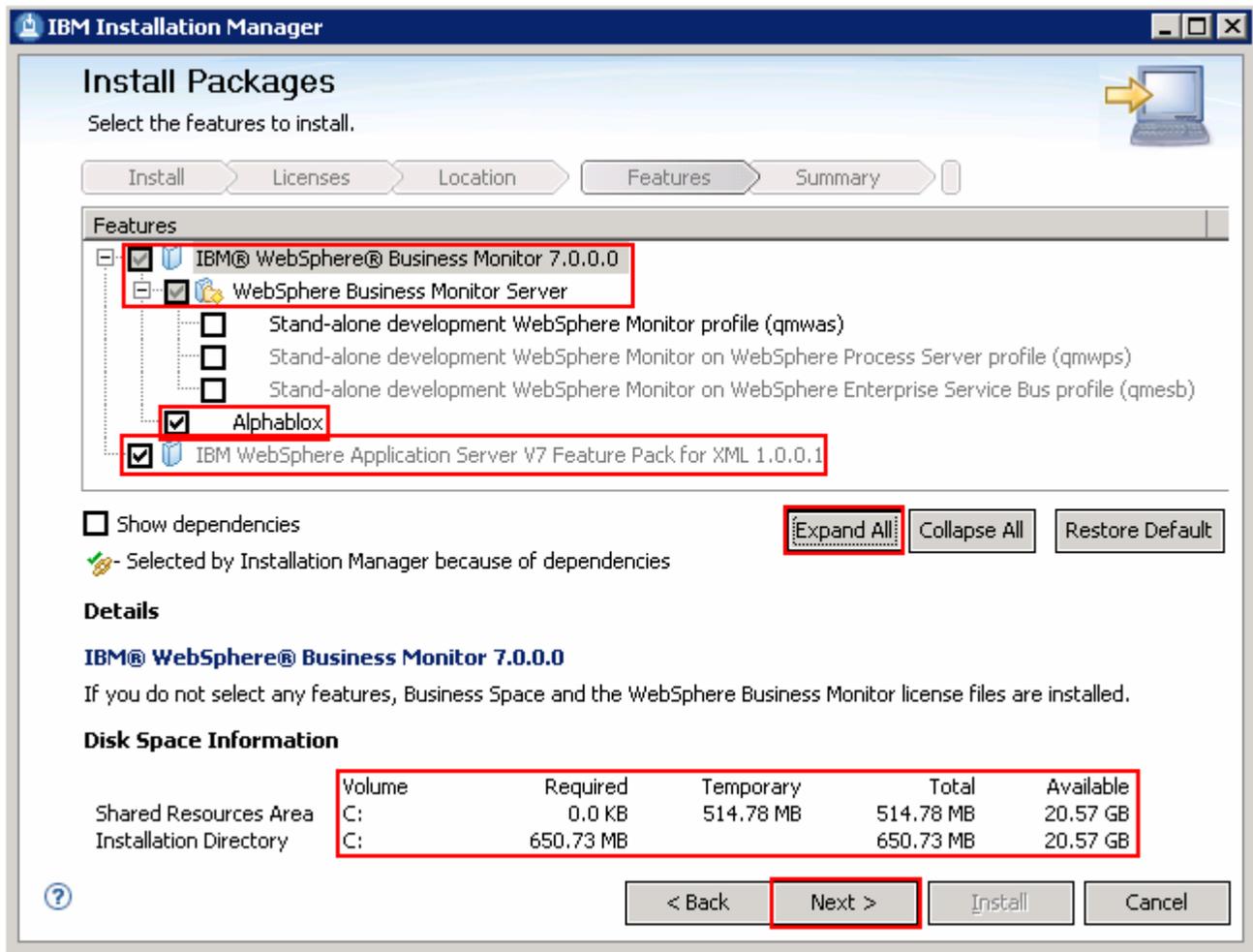
**Note:** If you do not select any features in this panel, Business Space and WebSphere Business Monitor license files are installed on the WebSphere Application Server package group.

- \_\_\_ 16. Click **Next**

- \_\_\_ 17. In the next panel, read the license agreements. If you agree to the terms, select the radio button next to **I accept the terms in the license agreements** and Click **Next**
- \_\_\_ 18. In the next panel, select the radio button for **Use the existing package group** and then select **IBM WebSphere Application Server - ND** as the **Package Group Name**

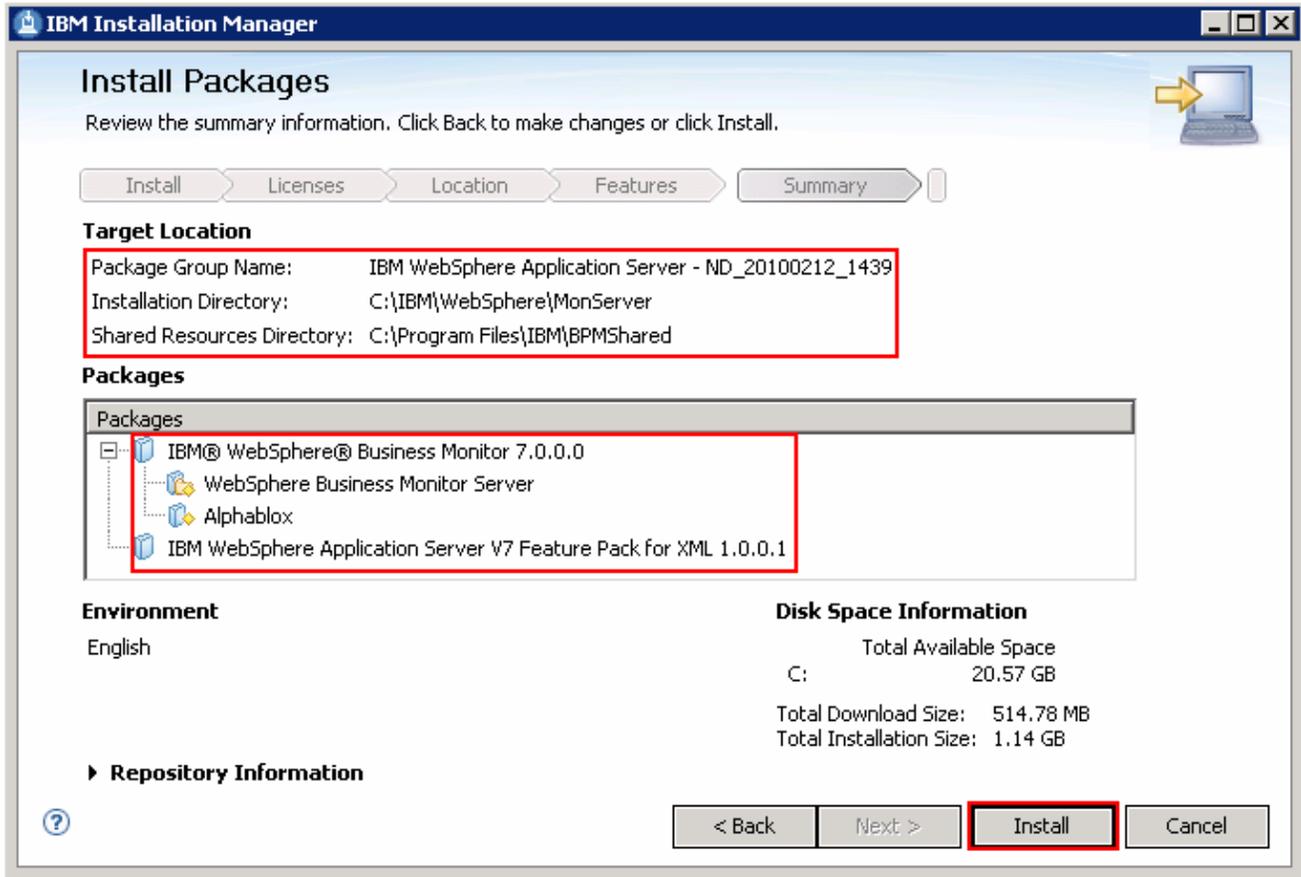


- \_\_\_ 19. Click **Next**
- \_\_\_ 20. In the next panel, click the **Expand All** button to see all the features. Accept the defaults but ensure the features listed below are selected. Do not select any stand-alone profile options.
- \_\_\_ a. **IBM WebSphere Business Monitor Server 7.0.0.0 → WebSphere Business Monitor Server**
    - 1) **Alphablox**
  - \_\_\_ b. **IBM WebSphere Application Server V7 Feature Pack for XML 1.0.0.1**



\_\_\_ 21. Click **Next**

\_\_\_ 22. In the next panel, verify the WebSphere Business Monitor installation summary



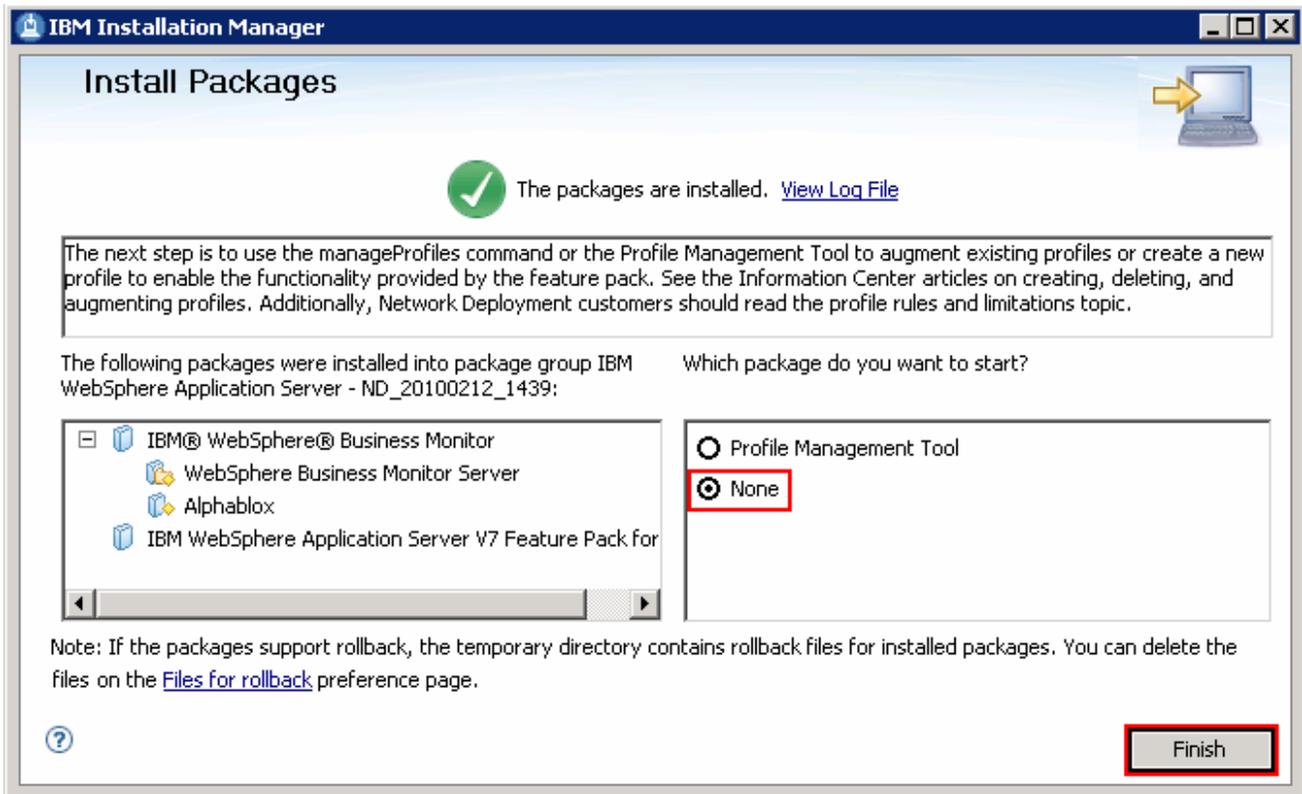
23. Click **Install** to continue with the installation. The WebSphere Business Monitor V7.0 installation progresses

Installing.: Retrieving files. 39 MB of 363 MB (11%) completed.



Pause Download

Cancel



\_\_\_\_ 24. Select the radio button for **Profile Management Tool** and click **Finish** when the installation is complete

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**Note:** Optionally select the radio button for **None** to quit the Installation Manager. You can launch the WebSphere Business Monitor **Profile Management Tool** at a later time.

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## Alternative: Silently install WebSphere Business Monitor V7.0 binaries

In this part of the exercise, you will install WebSphere Business Monitor binaries in a silent mode using a readily available script supported by a response file. If you are installing WebSphere Business Monitor for the first time on this machine, the features are updated with the latest available recommended refresh packs, fixes and extensions at the same time when you install WebSphere Business Monitor V7.0 provided the correct live repository locations is/are defined.

WebSphere Business Monitor core files can be installed in a silent mode which can be helpful in the event of the graphical user interface not available due to operating system restrictions. To achieve this, you will modify the readily available WebSphere Business Monitor installation script template (`run_template.bat`) and the response file template (`template_response.xml`) to suit your installation needs.

What the `run_template.bat` script template does?

- Sets the parameters mentioned below:
  - Sets the path to the WebSphere Application Server - Network Deployment installation image (WAS)
  - Sets the path of the WebSphere Application Server Network Deployment installation location (WAS\_LOCATION)
  - Sets the path to the Installation Manager Installation image (IM)
- Silently installs the WebSphere Application Server - Network Deployment core file to the specified location
- Finally runs the Installation Manager executable file with `template_response.xml` response file as input

What the Installation Manager `template_response.xml` response file template does?

- Installs or updates the Installation Manager
- Synchronizes the WebSphere Application Server installation with the Installation Manager and creates a package group with the name; IBM WebSphere Application Server – ND
- Installs the WebSphere Application Server V7 Feature Pack for XML using the Installation Manager
- Installs IBM WebSphere Business Monitor and features using the Installation Manager

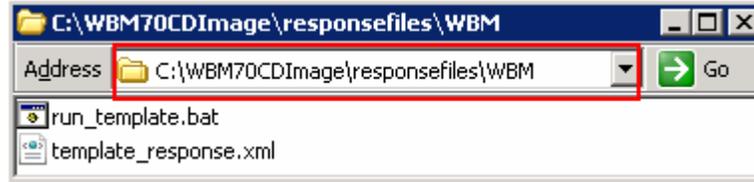
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**Note:** Visit **Part 1: Preparing for the WebSphere Business Monitor installation image** to extract and create the correct on-disk structure for the WebSphere Business Monitor V7.0 installation image.

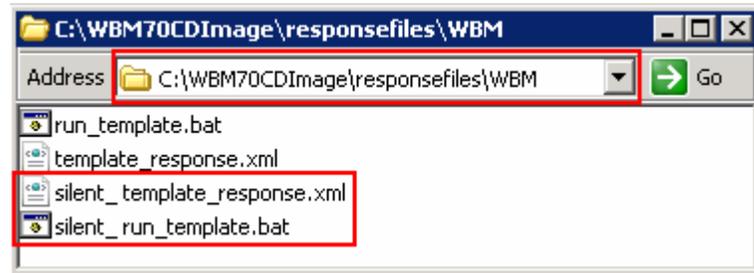
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Complete the instructions below to install WebSphere Business Monitor in a silent mode:

- \_\_\_\_ 1. Create an on-disk WebSphere Business Monitor installation image
- \_\_\_\_ 2. Navigate through the `responsefiles\WBM` directories (Ex: `C:\WBM70CDImage\responsefiles\WBM`). You should see two files, a script and a response file as shown below:



- \_\_\_ 3. Make a copy of the `run_template.bat` and `template_response.xml` files and name them, for example `silent_run_template.bat` and `silent_template_response.xml`



**Note:** Ensure both the files exist in the `\repositories\WBM` directory of the installation image. Running the files from this location helps with using the relative paths set for the installation image, repository locations and so on in these files.

- \_\_\_ 4. Modify the `silent_run_template.bat` script to suit your installation needs

**Note:** In this exercise, you will modify the value for the `WAS_LOCATION` variable and then the name of the response file if you named it different from the original file name.

- \_\_\_ a. Edit the `silent_run_template.bat` file using a text editor
- \_\_\_ b. Under the `PARAMETERS` section, modify the value for the `WAS_LOCATION` variable

Ex: `set WAS_LOCATION = C:\IBM\WebSphere\MonServer`

```
REM ##### PARAMETERS #####
set WAS_IMAGE=..\..\WAS
set WAS_LOCATION=C:\IBM\WebSphere\MonServer
set IM_IMAGE=..\..\IM
set KEYRING=
```

**Note:** You need **not** modify the `WAS_IMAGE` and `IM_IMAGE` values unless this script template is moved to a different location or the installation image is created than the usual.

- \_\_\_ c. The next section of the script template, silently installs WebSphere Application Server Network Deployment to a specified installation location. You need not make any modifications to this section. Accept the defaults

```
"%WAS_IMAGE%\install" -silent -OPT silentInstallLicenseAcceptance=true -OPT
allowNonRootSilentInstall=true -OPT disableOSPrereqChecking=true -OPT
disableNonBlockingPrereqChecking=true -OPT installType=installNew -OPT
profileType=none -OPT feature=samplesSelected -OPT feature=languagepack.console.all
-OPT feature=languagepack.server.all -OPT installLocation="%WAS_LOCATION%"
```

```

REM #####
REM Install WebSphere Application Server Network Deployment using a silent installation.
REM
REM Note: Comment out this section if WebSphere Application Server Network Deployment is already installed
REM #####
"%WAS_IMAGE%\install" -silent -OPT silentInstallLicenseAcceptance=true -OPT allowNonRootSilentInstall=true -

```

**Note:** Comment the WebSphere Application Server Network Deployment installation command section, if it is already installed.

- \_\_ d. The final section of the script runs the response file template and logs the trace to a file in XML format. Modify the name of the response file if you named it different from the original. In this exercise, the file is renamed to **silent\_template\_response.xml**

```

echo "%IM_IMAGE%\installc" --launcher.ini "%IM_IMAGE%\silent-install.ini" -input "%PROGDIR%\silent_template_response.xml" -
"%IM_IMAGE%\installc" --launcher.ini "%IM_IMAGE%\silent-install.ini" -input "%PROGDIR%\silent_template_response.xml" -log "
echo "%IM_IMAGE%\installc" --launcher.ini "%IM_IMAGE%\silent-install.ini" -input
"%PROGDIR%\silent_template_response.xml" -log
"%WAS_LOCATION%\logs\wbm\silent_install.log"

"%IM_IMAGE%\installc" --launcher.ini "%IM_IMAGE%\silent-install.ini" -input
"%PROGDIR%\silent_template_response.xml" -log
"%WAS_LOCATION%\logs\wbm\silent_install.log"

```

- \_\_ e. Save and close the **silent\_run\_template.bat** script

5. Now, modify the **silent\_template\_response.xml** file to suit your installation needs. The response file defines a set of sequential activities called nodes which run specific tasks defined in that node

- \_\_ a. **Node 1: <server></server>** → the **server** node defines all the local and (or) live repository locations. You need not make any modifications to the **location** of the repositories, unless the response file and the script template are moved and run from a different location

```

<!-- #####
All repositories are listed here.
A repository can be either a local location or a live repository.

If you have a local repository, replace the appropriate value below.
You do not need to remove the repository from this section if you decide not to install
that product.
#####-->
<server>
  <!-- ##### IM Repository Location #####-->
  <repository location=".../IM/" temporary='true' />
  <!-- ##### WebSphere Application Server Import Repository Location #####
  <repository location=".../WAS_SYNC/" />
  <!-- ##### WebSphere Application Server Feature Pack for XML Repository L
  <repository location=".../repository/" />
  <!-- ##### WebSphere Business Monitor #####-->
  <repository location=".../repository/" />
  <!-- ##### WebSphere Application Server Live Update Repository #####
  <repository location="http://public.dhe.ibm.com/software/websphere/repositories/" />
</server>

```

**Note:** If you do not want the Installation Manager to update WebSphere Business Monitor and features to the latest available refresh packs, fixes and extensions at same time when you install WebSphere Business Monitor V7.0 binaries, remove the **repository** element (marked with an arrow in the picture shown above) with a live repository location defined.

- \_\_ **b. Node 2:** `<profile></profile>` → the `profile` node defines where the Installation Manager is installed. Note that the `installLocation` and the value for the `eclipseLocation` must be same. In this exercise you will set both the values to `C:/IBM/IM/eclipse`

```
<!-- #####
This profile node defines where IBM Installation Manager (IM) is/or will be installed.

If you want to modify where IM is installed modify both the
installLocation and eclipseLocation values to specify the correct directory
#####-->
<profile kind='self' installLocation='C:/IBM/IM/eclipse' id='IBM Installation Manager'>
  <data key='eclipseLocation' value='C:/IBM/IM/eclipse' />
</profile>
```

**Note:** The Installation Manager expects only one eclipse cache location. Modify the eclipse cache location to suit your needs, only if this is a new Installation Manager installation. In this exercise, the eclipse cache location is set to `C:/IBM/IM/eclipseCache`

```
<!-- #####
Modify to change the location of the eclipseCache (only if no cache has been created yet)
#####-->
<preference value="C:/IBM/IM/eclipseCache" name="com.ibm.cic.common.core.preferences.eclipseCache"/>
```

- \_\_ **c. Node 3:** `<install></install>` → the `install` node directs the Installation Manager installer to install the Installation Manager if not already installed. This node is ignored/skipped if the Installation Manager is already installed on this machine. In either case, you need not make any modifications to this node

```
<!-- #####
This installation node directs the IM installer to install IM.
You do not need to edit this line. If IM is already installed, this instruction
#####-->
<install>
  <offering features='agent_core,agent_jre' id='com.ibm.cic.agent' />
</install>
```

- \_\_ **d. Node 4:** `<profile></profile>` → the `profile` node defines where the WebSphere Application Server Network Deployment is installed. Specify the correct location where the WebSphere Application Server is installed. Note that the `installLocation` and the value for the `eclipseLocation` must be same. In this exercise the WebSphere Application Server is installed at `C:\IBM\WebSphere\MonServer`

```
<!-- #####
This profile node defines where IBM WebSphere Application Server Network Deployment is installed
Modify the installLocation and eclipseLocation values to the proper to specify the correct direct
If the specified profile ID exists, you must also change the profile ID.

If you would like to create the default profile uncomment and provide valid values for the ID and
#####-->
<profile installLocation='C:/IBM/WebSphere/MonServer' id='IBM WebSphere Application Server - ND'>
  <data key='eclipseLocation' value='C:/IBM/WebSphere/MonServer' />
  <data key="cic.selector.nl" value="en" />
  <data key="user.cic.imported.com.ibm.websphere.ND.70" value="WAS" />
  <!-- #####
  <data key='user.bpm.admin.username' value='admin' />
  <data key='user.bpm.admin.password' value='admin' />
  #####-->
</profile>
```

**Note:** The default profile ID (or Package Group name) for a WebSphere Application Server installation is IBM WebSphere Application Server – ND. If you are installing WebSphere Business Monitor on an existing

WebSphere Application Server which is already synchronized to the Installation Manager, meaning it already has a profile ID, provide the correct profile ID of that installation.

- \_\_\_ e. **Node 4:** `<import>`/`</import>` → the `import` node directs the Installation Manager to import the WebSphere Application Server Network Deployment installation location into the Installation Manager and creates a package group named after the profile ID you specified, which is IBM WebSphere Application Server - ND

```

<!-- #####
This command directs IM to import WebSphere Application Server Network Deployment, w
If you changed the profile ID above, you must also change the profile ID here.
#####-->
<import profile="IBM WebSphere Application Server - ND" type="WAS" />

```

- \_\_\_ f. **Node 5:** `<install>`/`</install>` → the `install` node directs the Installation Manager to install the defined offerings under the specified profile group also called as the package group. There are two offerings defined. Accept the defaults

- 1) `com.ibm.websphere.XML.v10` offering installs the XML feature pack
- 2) `com.ibm.ws.WBM` offering installs the Monitor feature including Alphablox

```

<!-- #####
This installation node directs the IM installer to install IM-based offering.

The ID must match a valid offering ID of a repository that is specified in the first section of this
The features value is optional. If it is omitted, the default feature set is installed

See the online documentation for more information about modifying
this node.
If you would like to create the default profile, you will need to enable the proper feature id
The format is: <prod>.profile.feature for example wdpe.profile.feature
For example your WDPE install node would become:
<offering profile="IBM WebSphere Application Server - ND" id="com.ibm.ws.WDPE" feature="wdpe.profile
If you changed the profile ID above, you must also change the profile ID here.
#####-->
<install>
  <offering profile="IBM WebSphere Application Server - ND" id="com.ibm.websphere.XML.v10" />
  <offering profile="IBM WebSphere Application Server - ND" id="com.ibm.ws.WBM" />
</install>

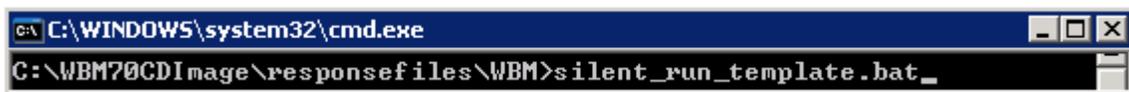
```

**Note:** If the live repository location is defined for the mentioned offerings, the Installation Manager installs and updates the offerings with the latest available recommended refresh packs, fixes, and so on.

- \_\_\_ g. Save and close the response file

\_\_\_ 6. Complete the instructions below to run the installation:

- 1) Open a command window and change directories to `C:\WBM70CDImage\responsefiles\WBM` and run the command as shown below:
  - Type `silent_run_template.bat` and press the **Enter** key



- \_\_\_ b. The WebSphere Business Monitor V7.0 installation progresses and in the sequence mentioned below:

- Installs WebSphere Application Server V7.0.0.7

- Installs Installation Manager V1.3.3 or a recommended latest available version
- Imports the WebSphere Application Server V7.0.0.7 installation location to the Installation Manager repository and creates a package group (profile ID) named IBM WebSphere Application Server - ND
- Installs the XML feature pack, WebSphere Business Monitor including the Alphablox feature to the package group named IBM WebSphere Application Server –ND and updates with the available refresh packs, fixes and extensions if the live repository reference is made available

```

C:\WINDOWS\system32\cmd.exe
C:\WBM70CDImage\responsefiles\WBM>silent_run_template.bat
0
"..\..\IM\installc" --launcher.ini "..\..\IM\silent-install.ini" -input "C:\WBM
70CDImage\responsefiles\WBM\silent_template_response.xml" -log "C:\IBM\WebSpher
e\MonServer\logs\wbm\silent_install.log"
The next step is to use the manageProfiles command or the Profile Management Too
l to augment existing profiles or create a new profile to enable the functionali
ty provided by the feature pack. See the Information Center articles on creating
, deleting, and augmenting profiles. Additionally, Network Deployment customers
should read the profile rules and limitations topic.
C:\WBM70CDImage\responsefiles\WBM>_
  
```

\_\_\_ 7. Verify the WebSphere Application Server installation

- \_\_\_ a. Navigate to the `logs` directory, `<WBM_HOME>\logs\install` to verify the installation status. Open the `log.txt` file and scroll to the end of the file. You should see the status reported as `INSTCONFSUCCESS` at the end of the file

\_\_\_ 8. Verify the XML feature pack installation

- \_\_\_ a. Navigate to the `logs` directory, `<WBM_HOME>\logs\xml` to verify the installation status. From the `install` directory, open the `installconfig.log` file. You should see the status reported as `INSTCONFSUCCESS` at the end of the file



**Note:** If the live repository location is defined, the installation Manager updates the offering with the available fix packs, fixes and so on. In this case, you see an update directory with the version appended as shown in the picture above. Verify if the update is installed successfully by opening the `installconfig.log` file from the `update.FP1001` directory.

\_\_\_ 9. Verify the WebSphere Business Monitor and alphablox installation

- \_\_\_ a. Navigate to the `logs` directory, `<WBM_HOME>\logs\wbm` to verify the installation status. From the `install` directory, open the `installconfig_wbm.log` and `installconfig_abx.log` file. You should see the status reported as `INSTCONFSUCCESS` at the end of the files

- \_\_\_\_\_ 10. Run the Version Information command. Open a command window, change directories to `<WBM_HOME>\bin` and the `versionInfo.bat`. You should see the version information for all the offerings installed.

## Part 3: Create WebSphere Business Monitor server deployment manager profile

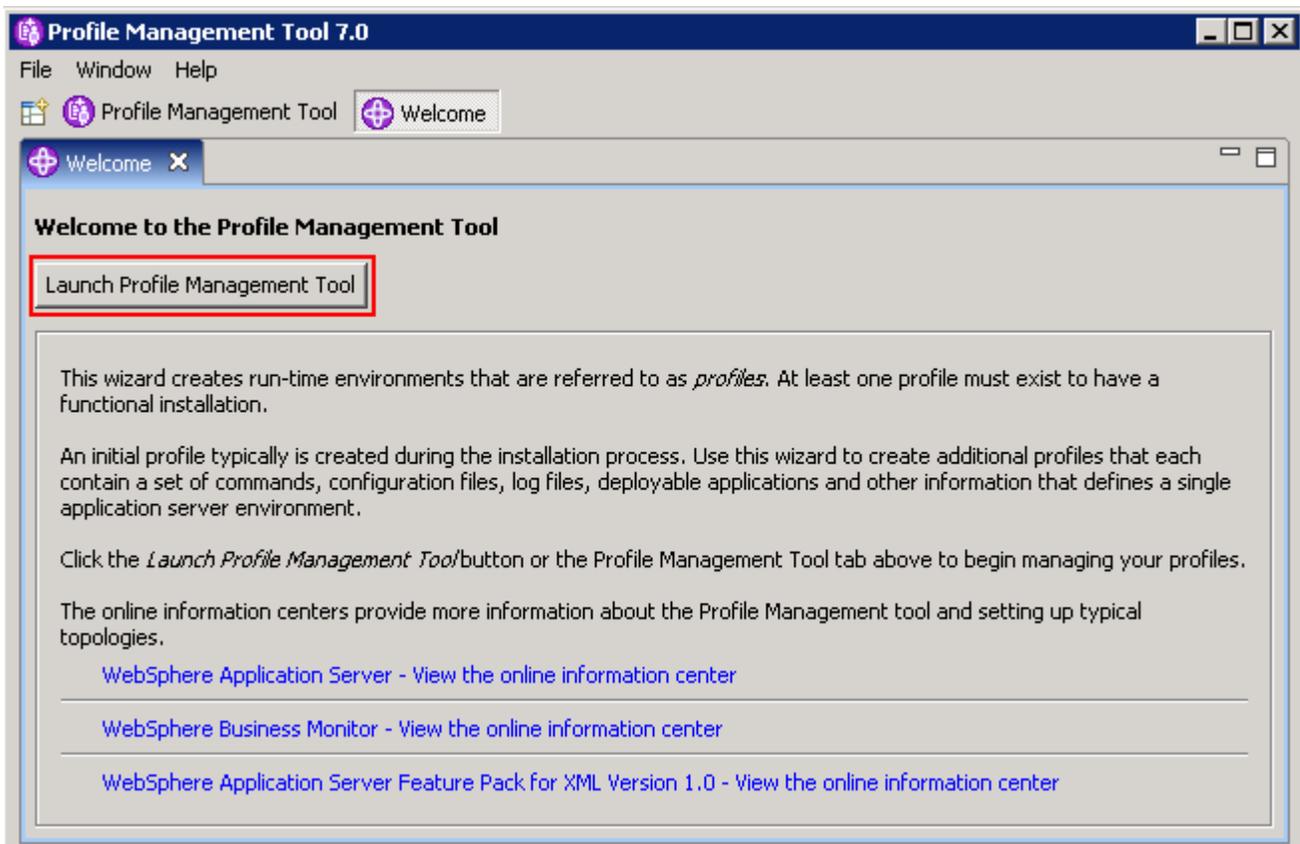
In this part of the exercise, you will create a WebSphere Business Monitor deployment manager profile using the Profile Management Tool (32 bit users only). If you are on a 64 bit operating system, you can use the `manageprofiles` command.

**Note:** - For manual profile creation, visit: **Alternative: Manually create WebSphere Business Monitor deployment manager profile.**

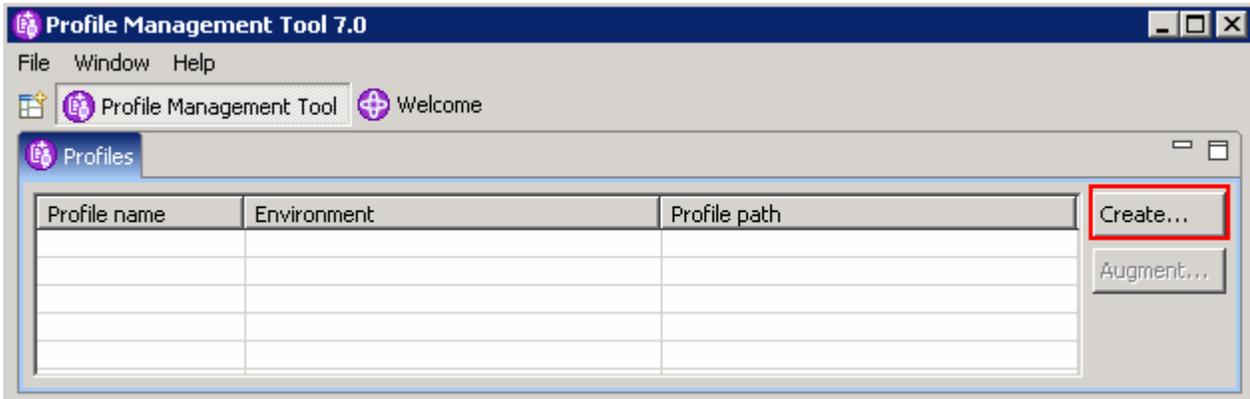
Complete the instructions below to create a WebSphere Business Monitor V7.0 deployment manager profile:

- \_\_\_ 1. Launch the Profile Management Tool
  - \_\_\_ a. From the start menu, select **IBM WebSphere** → **Business Monitor 7.0** → **Profile Management Tool**

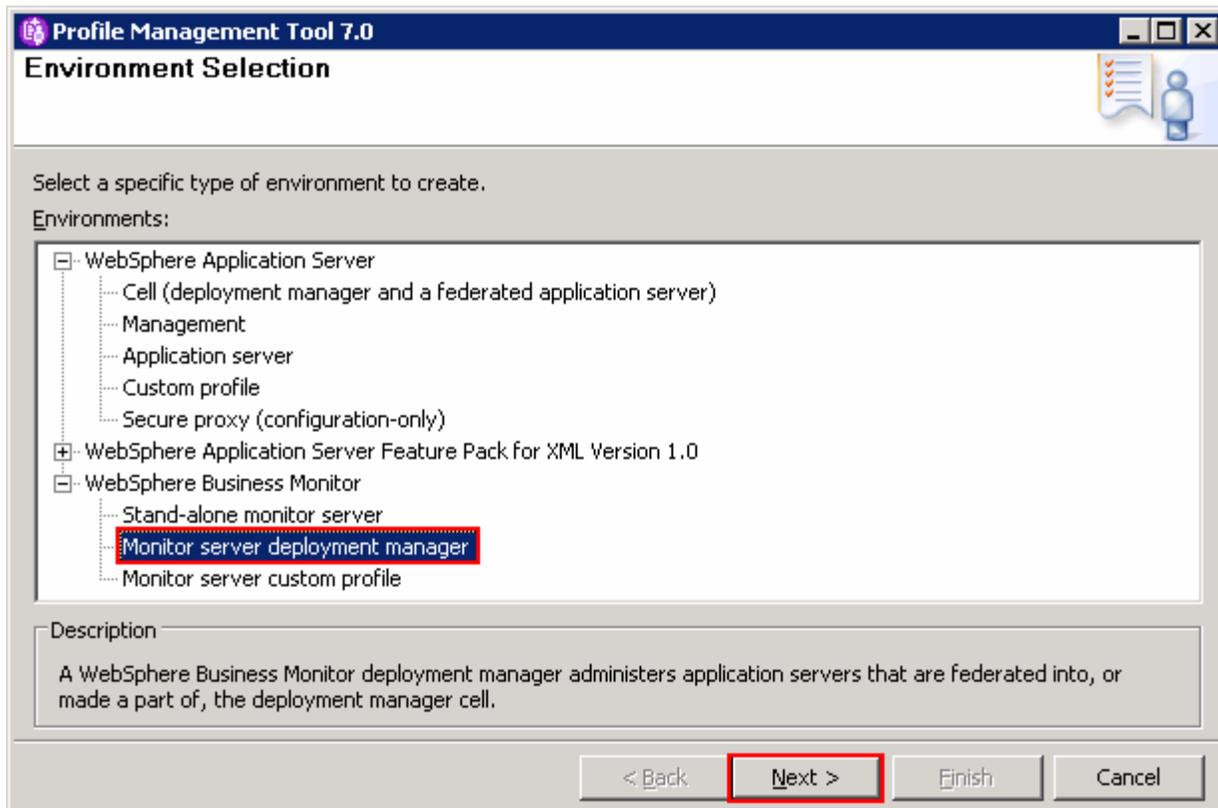
**Note:** Alternatively to launch the Profile Management Tool, navigate to `<WBM_HOME>\bin\ProfileManagement`, double click `pmt.bat`



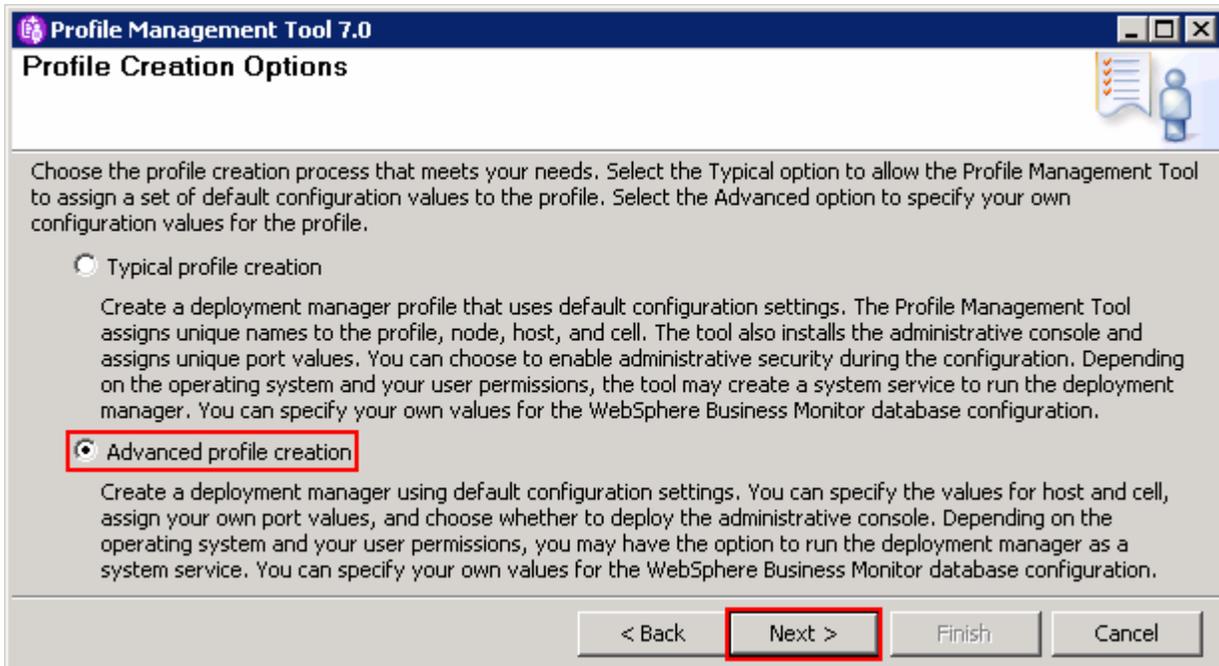
- \_\_\_ 2. Select the **Profile Management Tool** button



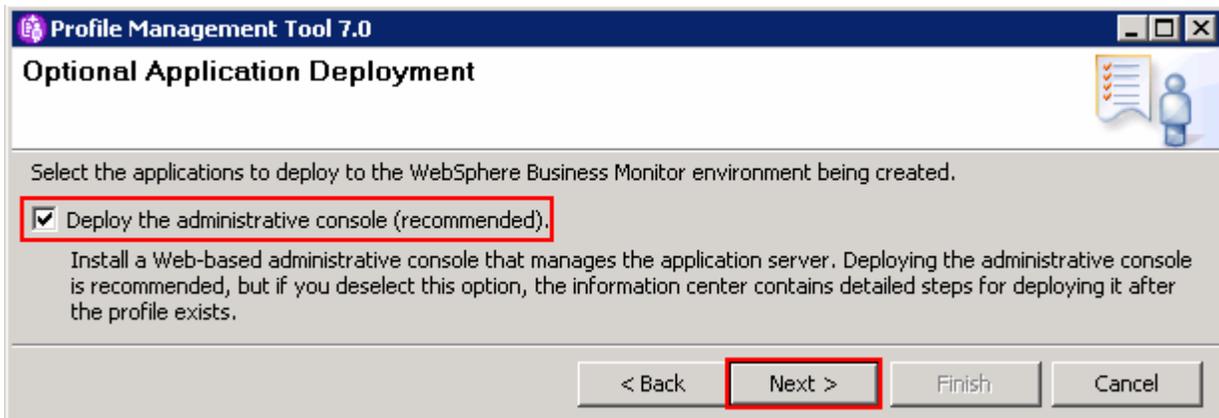
- \_\_\_ 3. Click the **create** button. The **Environment** selection panel is launched
- \_\_\_ 4. In the **Environment Selection** panel, expand **WebSphere Business Monitor** and select **Monitor server deployment manager**



- \_\_\_ 5. Click **Next**
- \_\_\_ 6. In the next **Profile Creation Options** panel, select the radio button for **Advanced profile creation**

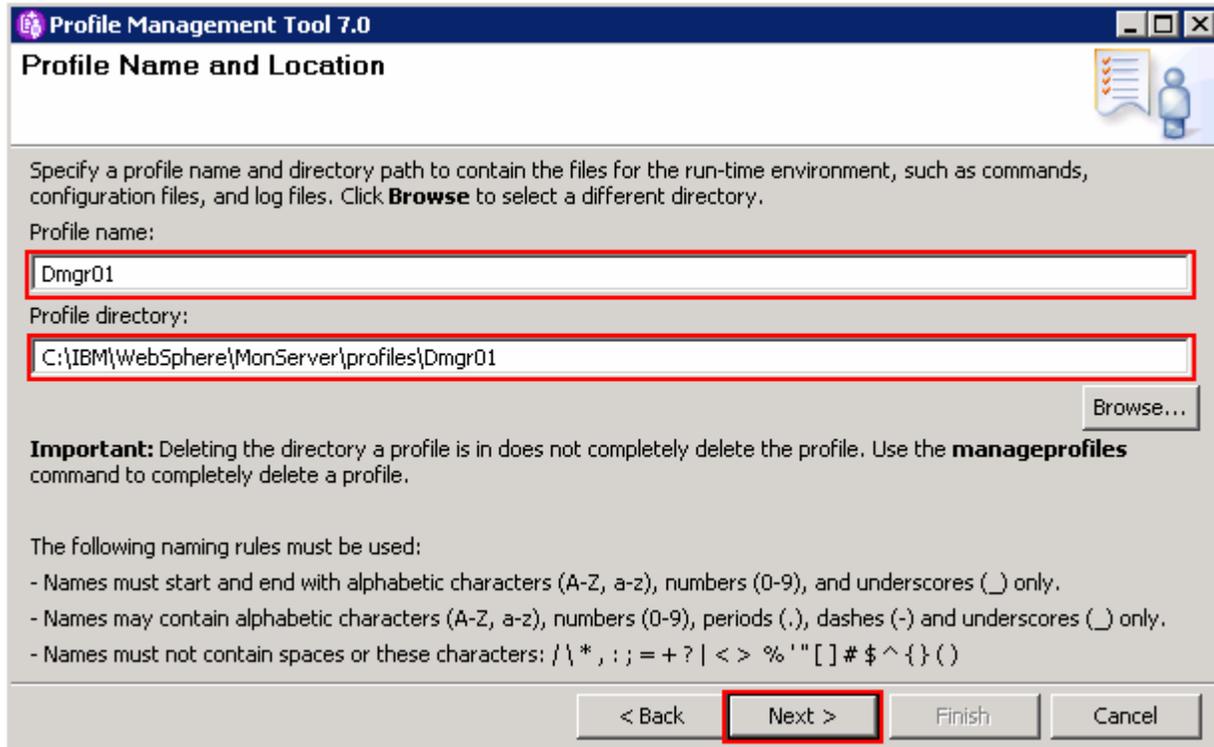


- \_\_\_ 7. Click **Next**
- \_\_\_ 8. In the next **Optional Application Deployment** panel, select the application to deploy to the WebSphere Business Monitor environment being created:
- \_\_\_ a. **Deploy the administrative console (recommended)**



- \_\_\_ 9. Click **Next**
- \_\_\_ 10. In the next **Profile Name and Location** panel, specify the profile name and the profile directory path to the profile being created
- \_\_\_ a. Profile name : **Dmgr01**
- \_\_\_ b. Profile Directory : **<WBM\_HOME>\profiles\Dmgr01**

**Ex:** C:\IBM\WebSphere\MonServer\profiles\Dmgr01



- \_\_\_ 11. Click **Next**
- \_\_\_ 12. In the next **Node Host and Cell Names** panel, specify the node name, host name and cell name for the deployment manager profile
  - \_\_\_ a. Node name : **wbmCellManager01**
  - \_\_\_ b. Host name : Ex: **dmgr.austin.ibm.com**
  - \_\_\_ c. Cell Name : **wbmCe1101**

**Profile Management Tool 7.0**  
**Node, Host, and Cell Names**

Specify a node name, a host name, and a cell name for this profile.

Node name:  
wbmCellManager01

Host name:  
dmgr.austin.ibm.com

Cell name:  
wbmCell01

**Node name:** A node name is for administration by the deployment manager. The name must be unique within the cell.  
**Host name:** A host name is the domain name system (DNS) name (short or long) or the IP address of this computer.  
**Cell name:** A cell name is a logical name for the group of nodes administered by this deployment manager.

The following naming rules must be used:

- Names must start and end with alphabetic characters (A-Z, a-z), numbers (0-9), and underscores (\_) only.
- Names may contain alphabetic characters (A-Z, a-z), numbers (0-9), periods (.), dashes (-) and underscores (\_) only.
- Names must not contain spaces or these characters: / \ \* , ; = + ? | < > \_ % ' " [ ] # \$ ^ { } ( )

See the information center for profile naming and migration considerations.  
[View the online information center](#)

< Back **Next >** Finish Cancel

\_\_\_ 13. Click **Next**

\_\_\_ 14. In the next **Administrative Security** panel, select the check box for **Enable administrative security** and then type the administrative username and password:

- \_\_\_ a. User name : **admin**
- \_\_\_ b. Password : **superSecret**
- \_\_\_ c. Confirm Password : **superSecret**

Profile Management Tool 7.0  
Administrative Security

Choose whether to enable administrative security. To enable security, supply a user name and password for logging into administrative tools. This administrative user is created in a repository within business monitor. After profile creation finishes, you can add more users, groups, or external repositories.

Enable administrative security

User name:  
admin

Password:  
••••••

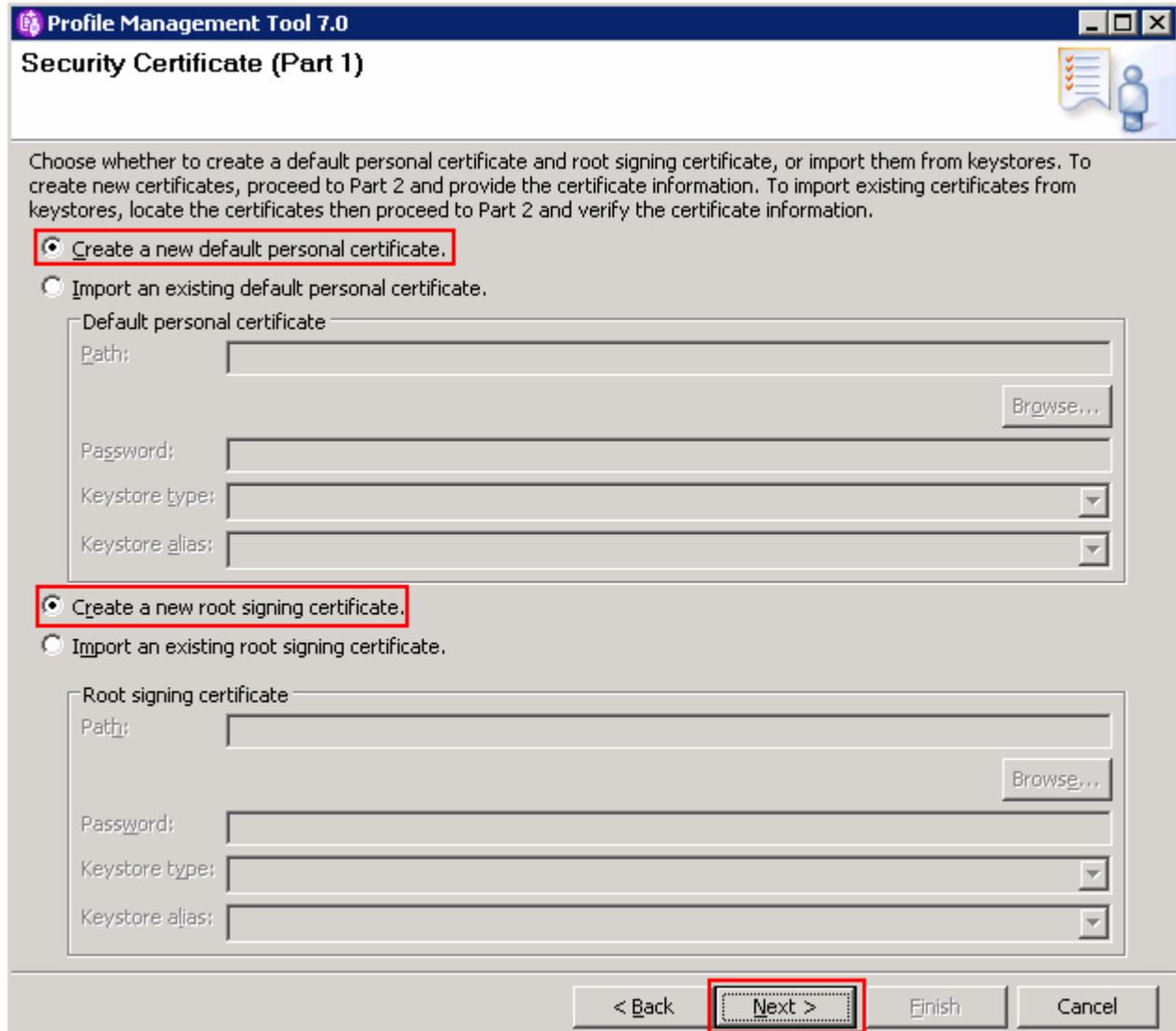
Confirm password:  
••••••

See the information center for more information about administrative security.  
[View the online information center](#)

< Back   Next >   Finish   Cancel

\_\_\_ 15. Click **Next**

\_\_\_ 16. In the next **Security Certificate (Part 1)** panel, accept the defaults



\_\_\_ 17. Click **Next**

\_\_\_ 18. In the next **Security Certificate (Part 2)** panel, accept the defaults

**Profile Management Tool 7.0**

## Security Certificate (Part 2)

Modify the certificate information to create new certificates during profile creation. If you are importing existing certificates from keystores, use the information to verify whether the selected certificates contain the appropriate information. If the selected certificates do not, click **Back** to import different certificates.

Default personal certificate (a personal certificate for this profile, public and private key):

Issued to distinguished name:

Issued by distinguished name:

Expiration period in years:

Root signing certificate (personal certificate for signing other certificates, public and private key):

Expiration period in years:

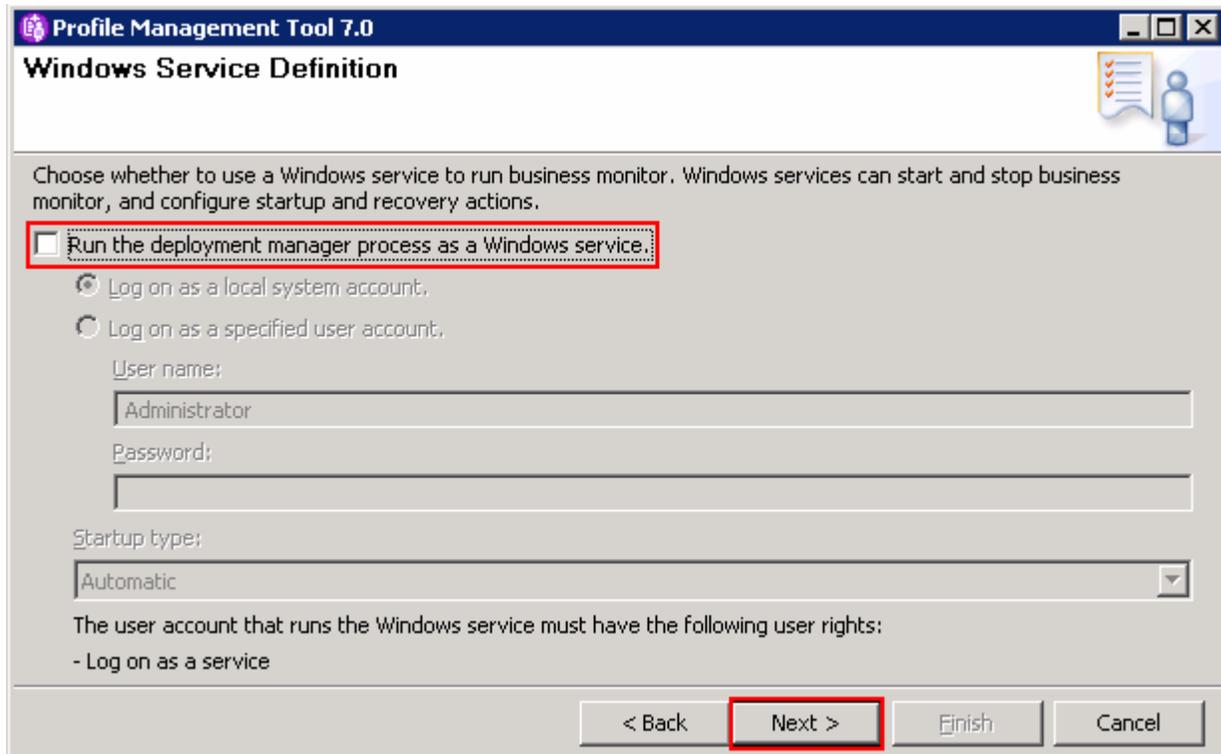
Default keystore password:

Confirm the default keystore password:

Note: The default value for the keystore is well documented in the Information Center and should be changed to protect the security of the keystore files and SSL configuration.

< Back **Next >** Finish Cancel

- \_\_\_ 19. Click **Next**
- \_\_\_ 20. In the next **Port Values Assignment** panel, review the ports assigned. You can change them to the required values, but ensure that the port numbers do not conflict with other services running on this machine
- \_\_\_ 21. Click **Next**
- \_\_\_ 22. In the next **Widows Service Definition** panel, clear the check box for **Run the deployment manager process as a Windows service**



\_\_\_ 23. Click **Next**

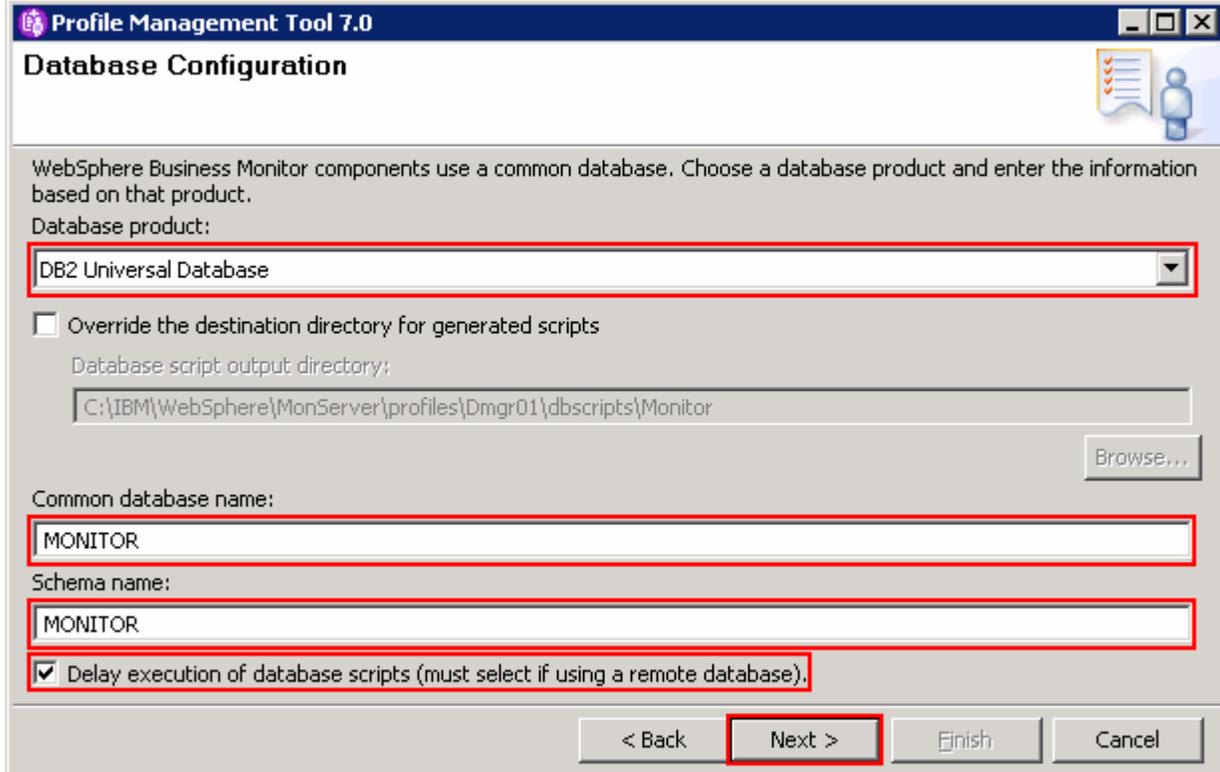
\_\_\_ 24. In the next **Database Configuration** panel, provide the information for the monitor database type:

\_\_ a. Database product: **DB2 Universal Database**

\_\_ b. Common Database name : **MONITOR**

\_\_ c. Schema name : **MONITOR**

\_\_ d. Select the check box for **Delay execution of database scripts** (must select if using a remote database)



- \_\_\_ 25. Click **Next**
- \_\_\_ 26. In the next **Database Configuration (Part 2)** panel provide the additional monitor database configuration information:
  - \_\_\_ a. User name: **db2admin**
  - \_\_\_ b. Password: **superSecret**
  - \_\_\_ c. Confirm password: **superSecret**
  - \_\_\_ d. Location (directory) of JDBC driver classpath files: **<WBM\_HOME>\universalDriver.wbm/lib**
  - \_\_\_ e. JDBC driver type: **4**
  - \_\_\_ f. Database server host name: Ex: **dbserver.austin.ibm.com**
  - \_\_\_ g. Server Port: **50000** (default)

**Profile Management Tool 7.0**

## Database Configuration (Part 2)

Additional information about the database server you are using is required to complete configuration for the DB2 Universal Database database. For database authentication, you must type the user name and password that will be used to connect to the database. The database user must have read and write access on the database.

User name:

Password:

Confirm password:

Location (directory) of JDBC driver classpath files:

JDBC driver type:  
 2  
 4

**Type 2:** Type 2 drivers require that you have a local installation of the database product. Type 2 drivers are commonly used if your database is created locally.

**Type 4:** Type 4 drivers use Java implementation to communicate with the actual database. Type 4 drivers do not require a database product on your local system.

Database server host name or IP address:

Database TCP/IP service port or listener port:

< Back **Next >** Finish Cancel

\_\_\_ 27. Click **Next**

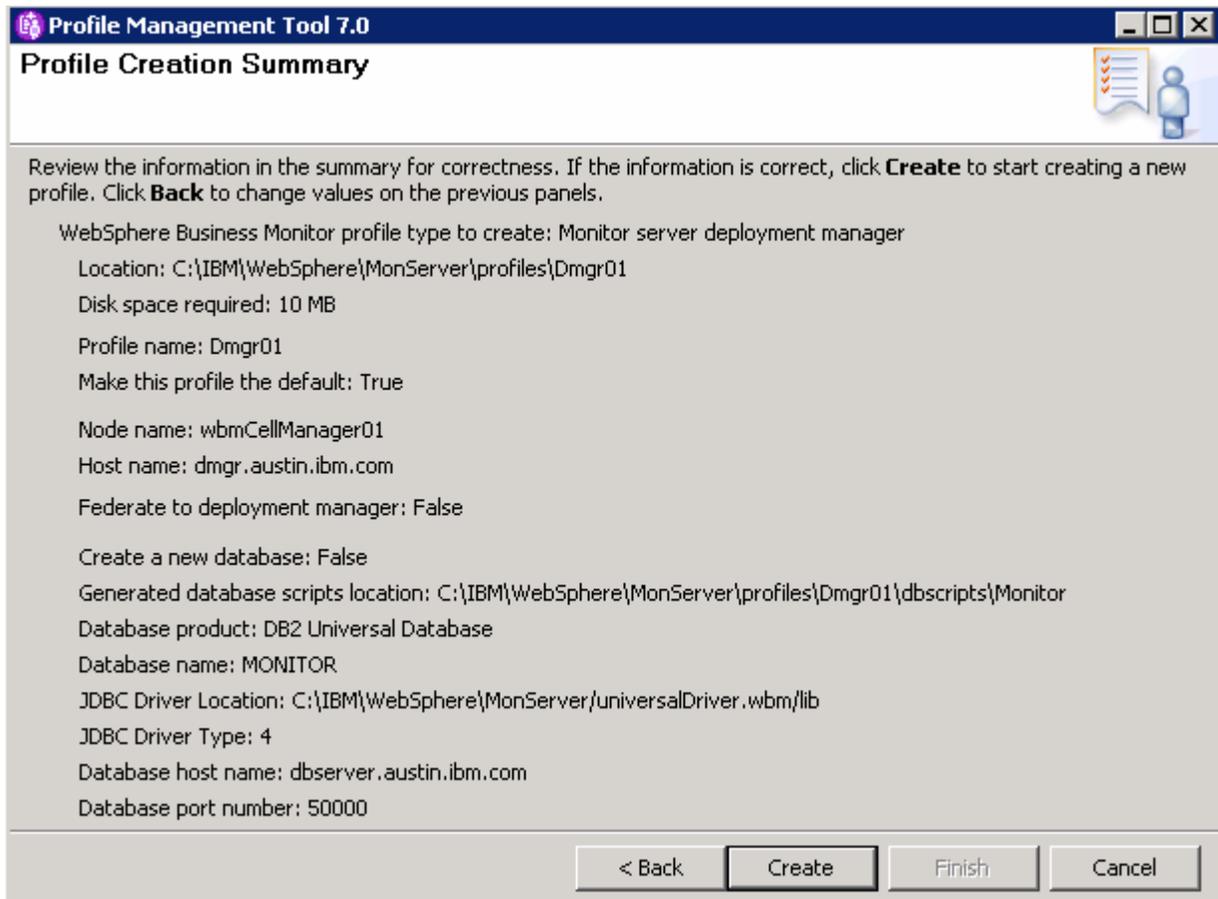
\_\_\_ 28. The **Database validation failure** dialog pops-up

**Database validation failure**

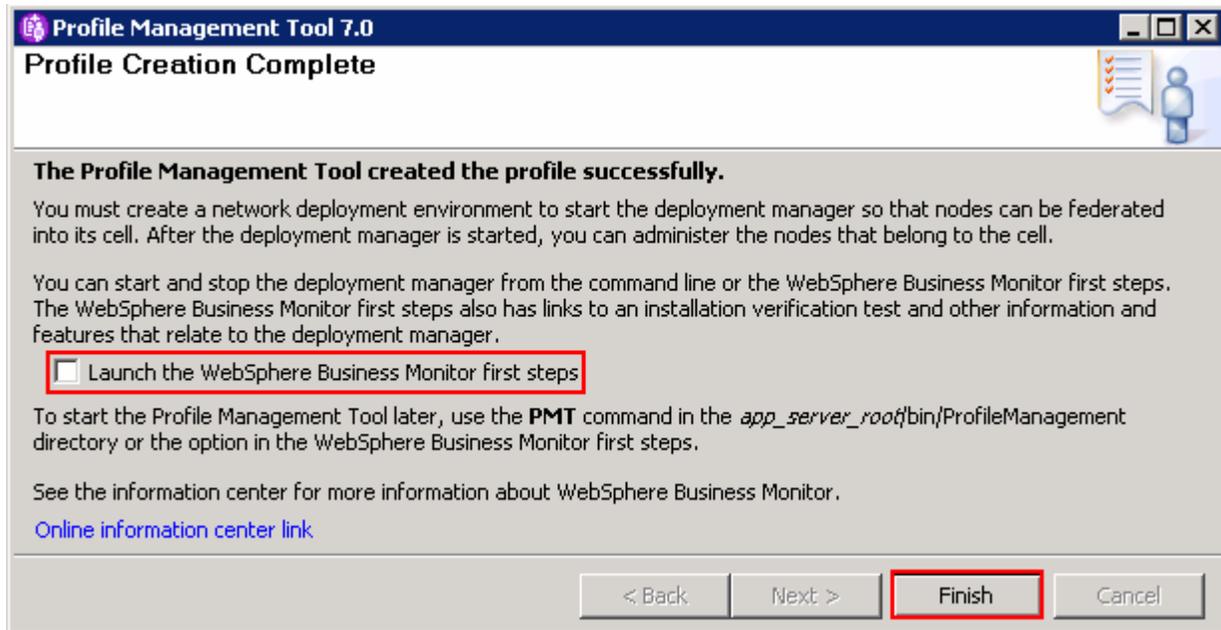
The database does not exist on this system.  
 You can create the database after the installation by running the generated database scripts on your database server.  
 If you plan to create the database later, please ignore this warning.  
 Are you sure you want to proceed?

\_\_\_ 29. Click **yes** to proceed to the next step

- \_\_\_ 30. In the next **Profile Creation Summary** panel, verify the profile creation summary



- \_\_\_ 31. Click **Create**
- \_\_\_ 32. Once the installation is complete, clear the check box for **Launch the WebSphere Business Monitor first steps** console in the **Profile Creation Complete** panel



\_\_\_ 33. Click **Finish**

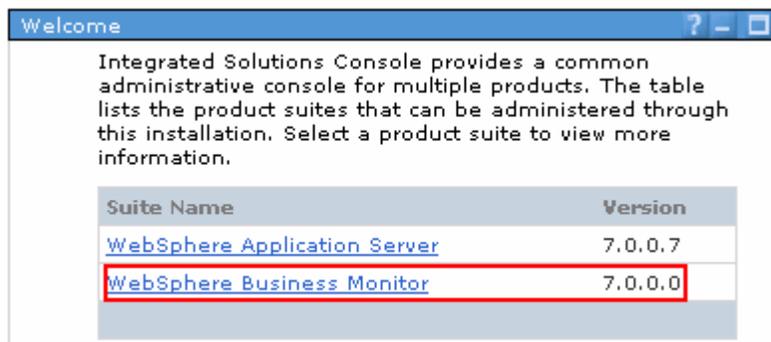
---

**Note:** If you chose DB2 as the database and delayed running the database scripts, visit **Task 1: Manually create WebSphere Business Monitor database and tables.**

---

## Verify the WebSphere Business Monitor administrative console menus

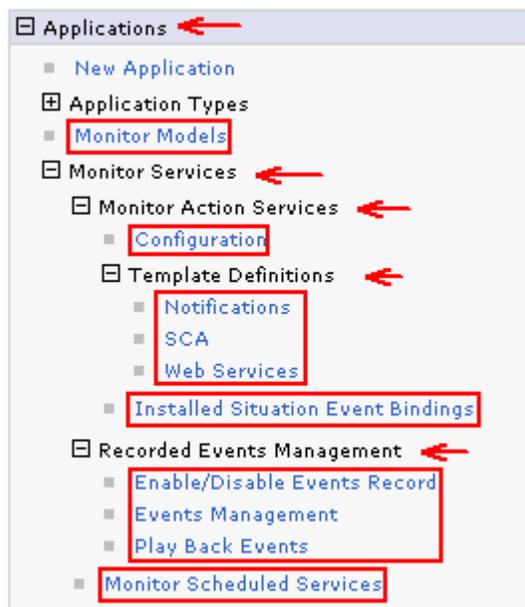
- \_\_\_ 34. Start the WebSphere Business Monitor deployment manager process, launch the administrative console and log in using the security credentials.
- \_\_\_ 35. In the left navigation pane, click the **welcome** link and ensure the correct WebSphere Business Monitor version is displayed



- \_\_\_ 36. In the left navigation pane, expand **Servers** and ensure the **WebSphere Business Monitor configuration** menu exists. Make sure the link works



37. In the left navigation pane, expand **Applications** → **Monitor Services** → **Monitor Action Services** → **Template Definitions**. Also expand **Recorded Events Management**. Ensure all the menus marked in the picture below exist. Also make sure the links work



38. In the left navigation pane, expand **Security** and ensure the **Monitor Data Security** menu exists. Make sure the link works



39. In the left navigation pane, expand **Troubleshooting** → **Monitor Models** and ensure **Failed Event Sequences** and **Unrecoverable Events** menus exist. Ensure the links work

## Alternative: Manually create WebSphere Business Monitor deployment manager profile

WebSphere Business Monitor deployment manager profile can be created manually using the `manageprofiles` command with the help of WebSphere Business Monitor deployment manager profile template. The `manageprofiles` command comes handy when creating profiles on 64-bit platforms.

**Download:** Profile creation scripts good for Windows and UNIX are available for download from the IBM Education Assistant. These scripts also use `manageprofiles` command. You can update the scripts with required options and then create profiles.

---

**Note:** For more options, navigate to `<WBM_HOME>/bin` and run this command:

```
manageprofiles.bat -create -templatePath <WBM_HOME>/profileTemplates/wbmonitor/dmgr -help
```

---

Complete the instructions below to create WebSphere Business Monitor deployment manager profile using the `manageprofiles` command:

- \_\_\_ 1. The following are the options commonly used to create a WebSphere Business Monitor deployment manager profile:

Parameter	Value
<code>-create</code>	<i>N/A</i>
<code>-templatePath</code>	<code>&lt;WBM_HOME&gt;/profileTemplates/wbmonitor/dmgr</code>
<code>-profileName</code>	Ex: <code>Dmgr01</code>
<code>-profilePath</code>	<code>&lt;WBM_HOME&gt;/profiles/Dmgr01</code>
<code>-nodeName</code>	Ex: <code>wbmCellManager01</code>
<code>-cellName</code>	Ex: <code>wbmCell101</code>
<code>-hostName</code>	Ex: <code>dmgr.austin.ibm.com</code>
<code>-enableAdminSecurity</code>	<code>true</code>
<code>-adminUserName</code>	Ex : <code>admin</code>
<code>-adminPassword</code>	Ex : <code>superSecret</code>
<code>-winserviceCheck</code>	<code>false</code> (windows only)
<code>-wbmDBType</code>	<b>DB2_Universal</b> for a DB2 Universal database <b>DB2UDBOS390_V8_1</b> for a DB2 for z/OS V8 database <b>DB2UDBOS390_V9_1</b> for a DB2 for z/OS V9 database <b>Oracle11g</b> for Oracle 11g database
<code>-wbmDBDelayConfig</code>	<code>true</code>

-wbmDBName	Ex : MONITOR
-wbmDBSchemaName	Ex : MONITOR
-wbmDBDriverType	4
-wbmDBUserId	Ex : db2admin
-wbmDBPassword	Ex : superSecret
-wbmDBHostName	Ex : dbserver.austin.ibm.com
-wbmDBServerPort	Ex : 50000 (default)
-wbmDBJDBCClasspath	<WBM_HOME>\universalDriver.wbm\lib

- \_\_\_ 2. Run the manageprofiles script. Navigate to the <WBM\_HOME>/bin directory and run the manageprofiles script along with the options

Ex: For DB2\_UNIVERSAL as database type

```
manageprofiles.bat -create -templatePath <WBM_HOME>\profileTemplates\wbmonitor\dmgr
-profileName Dmgr01 -profilePath <WBM_HOME>\profiles\Dmgr01 -nodeName
wbmCellManager01 -cellName wbmCell01 -hostname dmgr.austin.ibm.com -
enableAdminSecurity true -adminUserName admin -adminPassword superSecret -
winserviceCheck false -wbmDBType DB2_Universal -wbmDBDelayConfig true -wbmDBName
MONITOR -wbmDBSchemaName MONITOR -wbmDBDriverType 4 -wbmDBUserId db2admin -
wbmDBPassword superSecret -wbmDBHostName dbserver.austin.ibm.com -wbmDBServerPort
50000 -wbmDBJDBCClasspath <WBM_HOME>\universalDriver.wbm\lib
```

---

**Note:** If you chose DB2 as the database and delayed running the database scripts, visit **Task 1: Manually create WebSphere Business Monitor database and tables.**

---

- \_\_\_ 3. Verify the installation

- \_\_\_ a. Navigate to <WBM\_HOME>/logs/manageprofiles and locate the <profile\_name>\_create.log file

Ex: C:\IBM\WebSphere\MonServer\logs\manageprofiles\Dmgr01\_create.log

- \_\_\_ b. You should see a string, **INSTCONFSUCCESS** written to the last line of the file. If so the installation is successful

- \_\_\_ c. If you **INSTCONFPARTIALSUCCESS** or **INSTCONFFAILED** appear in the last line of the log file, problems encountered during the installation

- \_\_\_ 4. Run the installation verification test

- \_\_\_ a. Navigate to <WBM\_HOME>/bin and run the **ivt** command with appropriate parameters

```
ivt.bat <SERVER_NAME> <PROFILE_NAME> -username <USER_NAME> -password
<PASSWORD>
```

Ex: **ivt.bat dmgr Dmgr01 -username admin -password superSecret**

- \_\_\_ 5. Ensure the verification is successful. While the verification is complete, examine the **SystemOut.log** file. The file is located at <WBM\_HOME>/profiles/Dmgr01/logs/dmgr

---

## Part 4: Create WebSphere Business Monitor custom profiles

In this part of the exercise, you will create WebSphere Business Monitor custom profiles (managed nodes) on all the designated machines using the Profile Management Tool (32 bit users only). A custom profile is an empty profile that gets created and eventually has to federate itself to the WebSphere Business Monitor deployment manager profile. If you are on a 64 bit operating system, you can use the `manageprofiles` command.

---

**Note:** - For manual profile creation, visit: **Alternative: Manually create WebSphere Business Monitor custom profile**

---

### Prerequisites: -

- Before proceeding to the next step, ensure the deployment manager you want to federate this custom profile is installed and running successfully at this time
- Make a note of the fully qualified host name of the deployment manager host machine
- Make a note of the deployment manager SOAP port number
- Make a note of the primary user name and password of the deployment manager administrative security credentials, if security is enabled

Complete the instructions below to create a WebSphere Business Monitor custom profile:

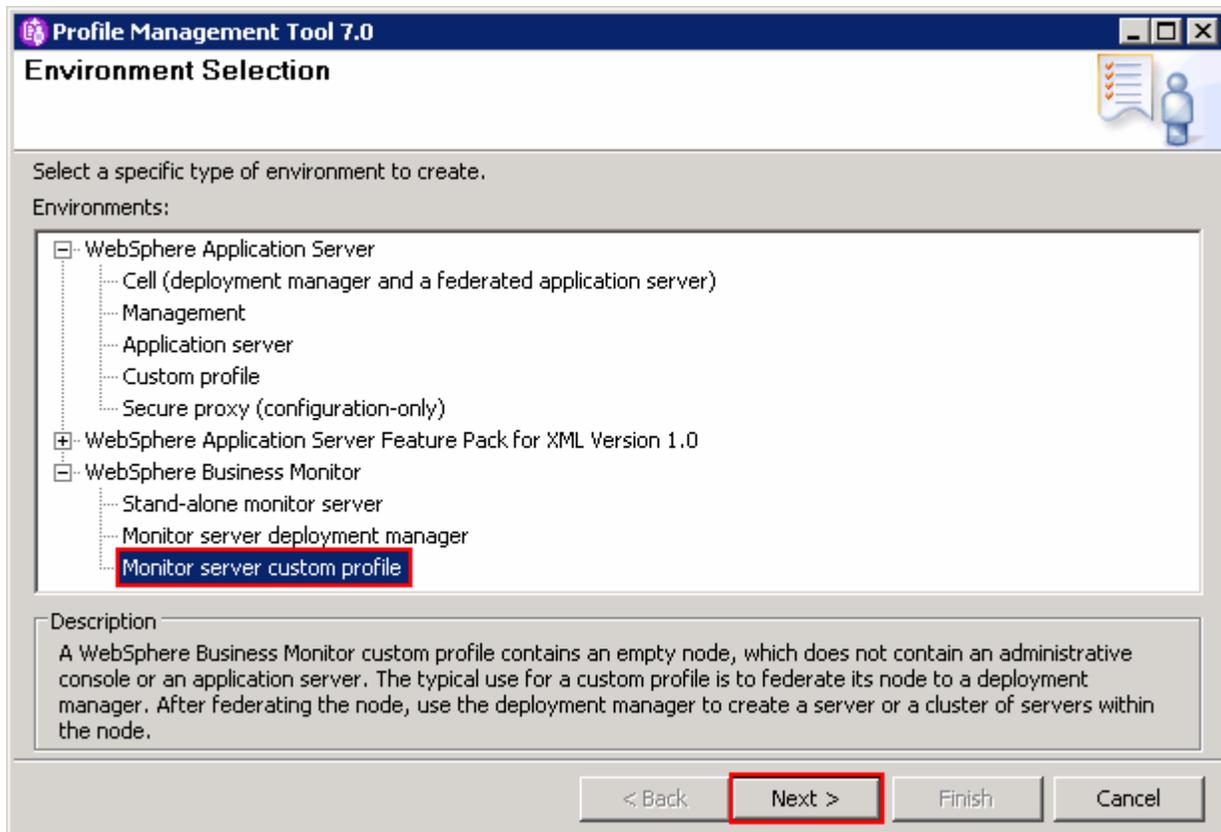
1. Launch the Profile Management Tool
  - a. From the start menu, select **IBM WebSphere → Business Monitor 7.0 → Profile Management Tool**

---

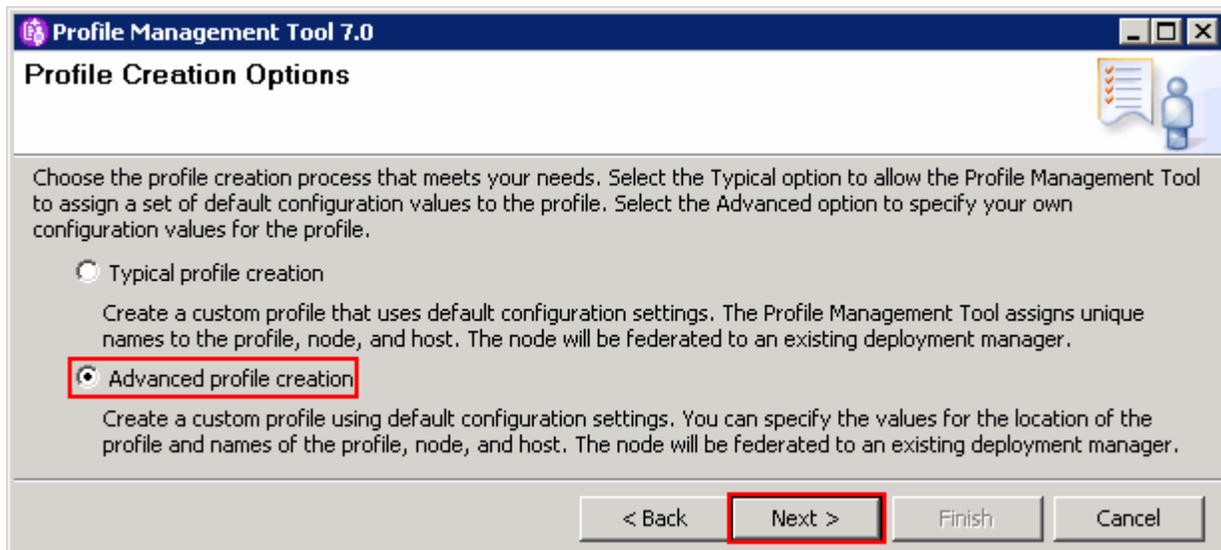
**Note:** Alternatively to launch the Profile Management Tool, navigate to `<WBM_HOME>\bin\ProfileManagement`, double click `pmt.bat`

---

2. Select the **Profile Management Tool** button
3. Click the **Create** button. The **Environment** selection panel is launched
4. In the Environment selection panel, expand **WebSphere Business Monitor** and select **Monitor server custom profile**



5. Click **Next**
6. In the next **Profile Creation Options** panel, select the radio button for **Advanced profile creation**



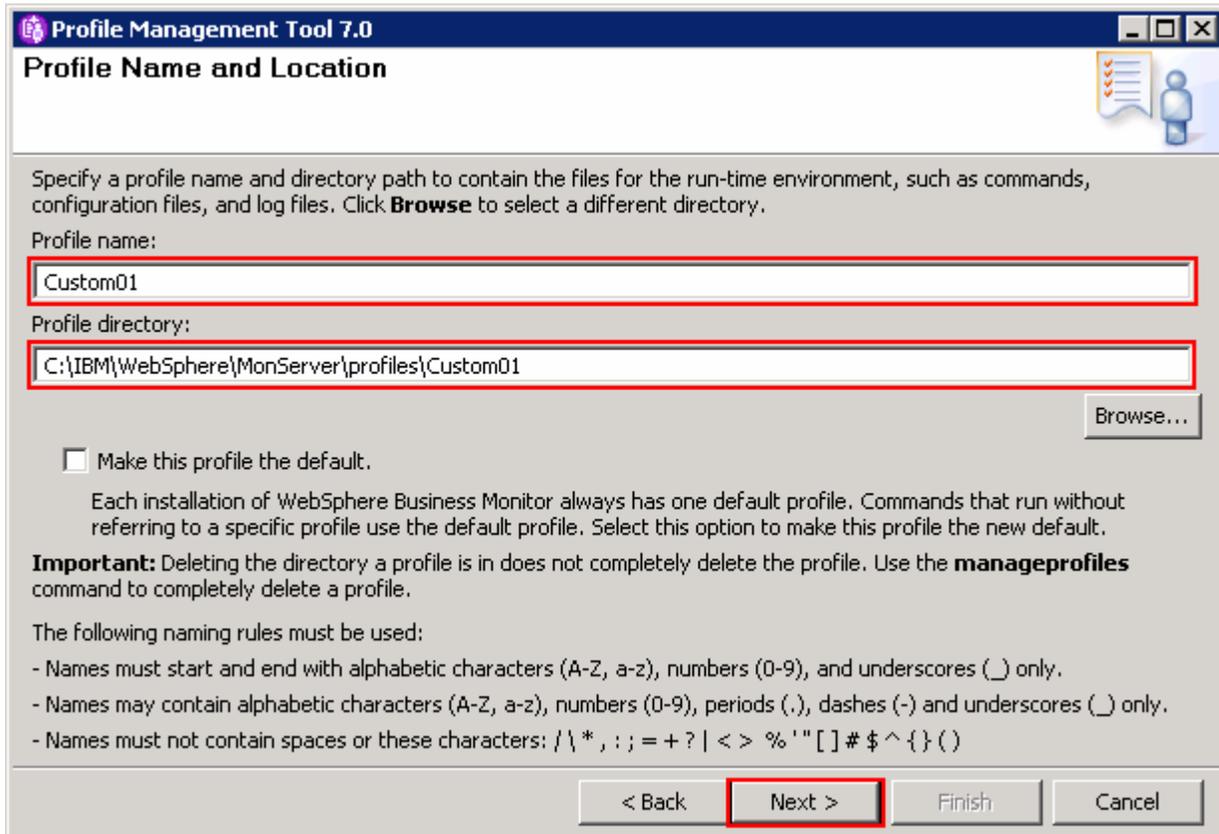
7. Click **Next**

\_\_\_ 8. In the next **Profile Name and Location** panel, specify the custom profile name and the location where the profile is created

\_\_\_ a. Profile name : **Custom01**

\_\_\_ b. Profile Directory : **<WBM\_HOME>\profiles\Custom01**

**Ex:** C:\IBM\WebSphere\MonServer\profiles\Custom01



\_\_\_ 9. Click **Next**

\_\_\_ 10. In the next **Node and Host Names** panel, specify the node name and host name for this profile:

\_\_\_ a. Node name : **Custom01Node01**

\_\_\_ b. Host name : **custom01.austin.ibm.com** (fully qualified host name)

Profile Management Tool 7.0

## Node and Host Names

Specify a node name and a host name for this profile.

Node name:

Host name:

**Node name:** A node name is used for administration. If the node is federated, the name must be unique within the cell.  
**Host name:** A host name is the domain name system (DNS) name (short or long) or the IP address of this computer.

The following naming rules must be used:

- Names must start and end with alphabetic characters (A-Z, a-z), numbers (0-9), and underscores (\_) only.
- Names may contain alphabetic characters (A-Z, a-z), numbers (0-9), periods (.), dashes (-) and underscores (\_) only.
- Names must not contain spaces or these characters: / \ \* , ; = + ? | < > % ' " [ ] # \$ ^ { } ( )

See the information center for profile naming and migration considerations.  
[View the online information center](#)

< Back   **Next >**   Finish   Cancel

\_\_\_ 11. Click **Next**

\_\_\_ 12. In the next **Federation** panel, provide the federation information:

- \_\_\_ a. Deployment manager host name or IP address : Ex: **dmgr.austin.ibm.com** (fully qualified host name of the deployment manager host machine)
- \_\_\_ b. Deployment manager SOAP port number : **8879** (default)
- \_\_\_ c. Deployment manager authentication:
  - User name : **admin**
  - Password : **superSecret**
- \_\_\_ b. Clear the check box for **Federate this node later**

---

**Note:** The **User name** and **Password** must match the deployment manager **Administrative Security** credentials, which is the primary user. Also ensure that the deployment manager SOAP port number is correct. If you are unable to connect, then the deployment manager might be stopped or the information you provided in the **Federation** panel is not correct.

---

**Profile Management Tool 7.0**

## Federation

Specify the host name or IP address and the SOAP port number for an existing deployment manager. Federation can occur only if the deployment manager is running.

Deployment manager host name or IP address:

Deployment manager SOAP port number (Default 8879):

Deployment manager authentication  
 Provide a user name and password that can be authenticated, if administrative security is enabled on the deployment manager.

User name:

Password:

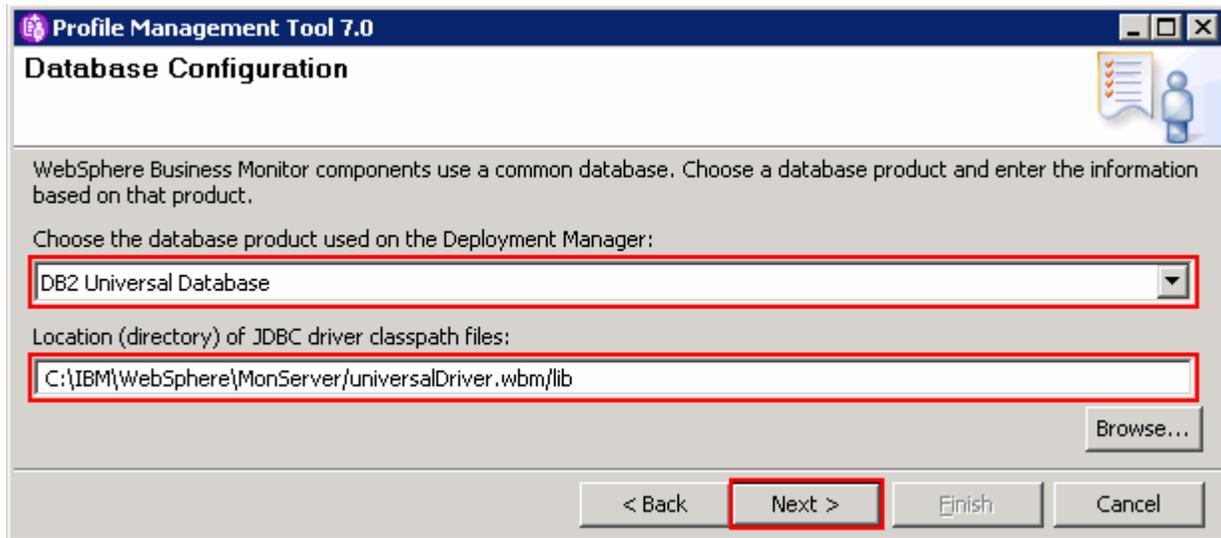
Federate this node later.

You must federate this node later using the **addNode** command if the deployment manager:

- is not running
- has the SOAP connector disabled

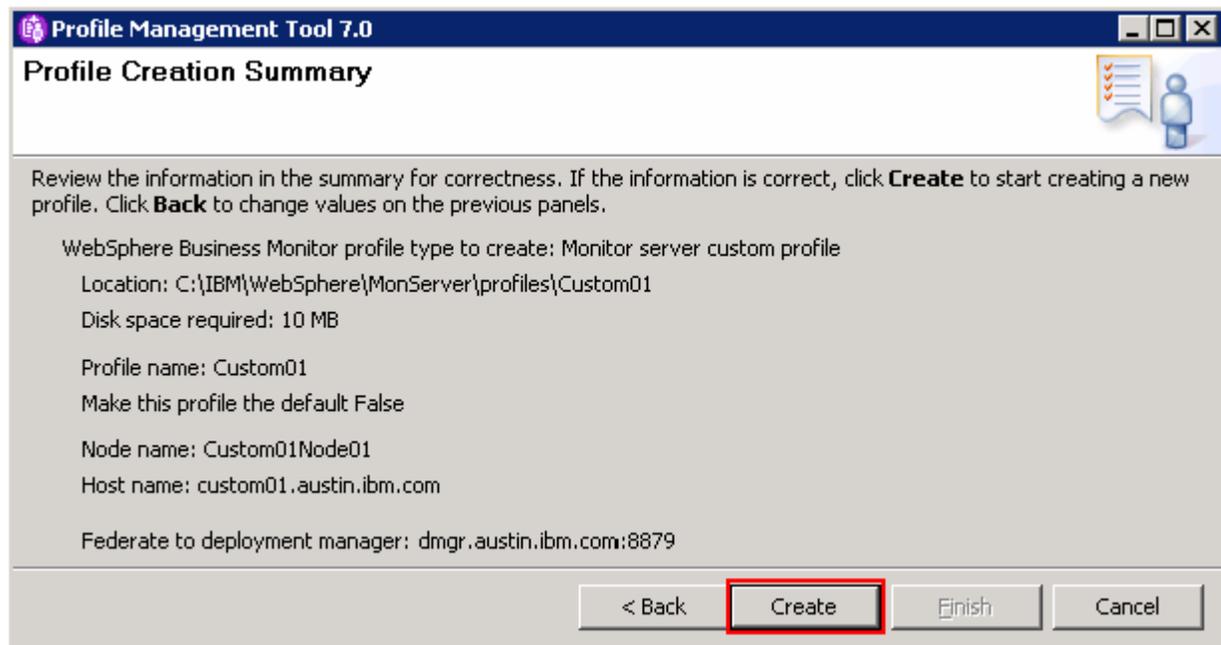
< Back   **Next >**   Finish   Cancel

- \_\_\_ 13. Click **Next**
- \_\_\_ 14. In the next **Port Values Assignment** panel, review the ports assigned. You can change them to the required values, but ensure that the port numbers do not conflict with other services running on this machine
- \_\_\_ 15. Click **Next**
- \_\_\_ 16. In the next **Database Configuration** panel, provide WebSphere Business Monitor database information:
- \_\_\_ a. Select **DB2 Universal Database** for the database product used by the deployment manager
  - \_\_\_ b. Location (directory) of JDBC driver classpath files: **<WBM\_HOME>\universalDriver.wbm\lib**

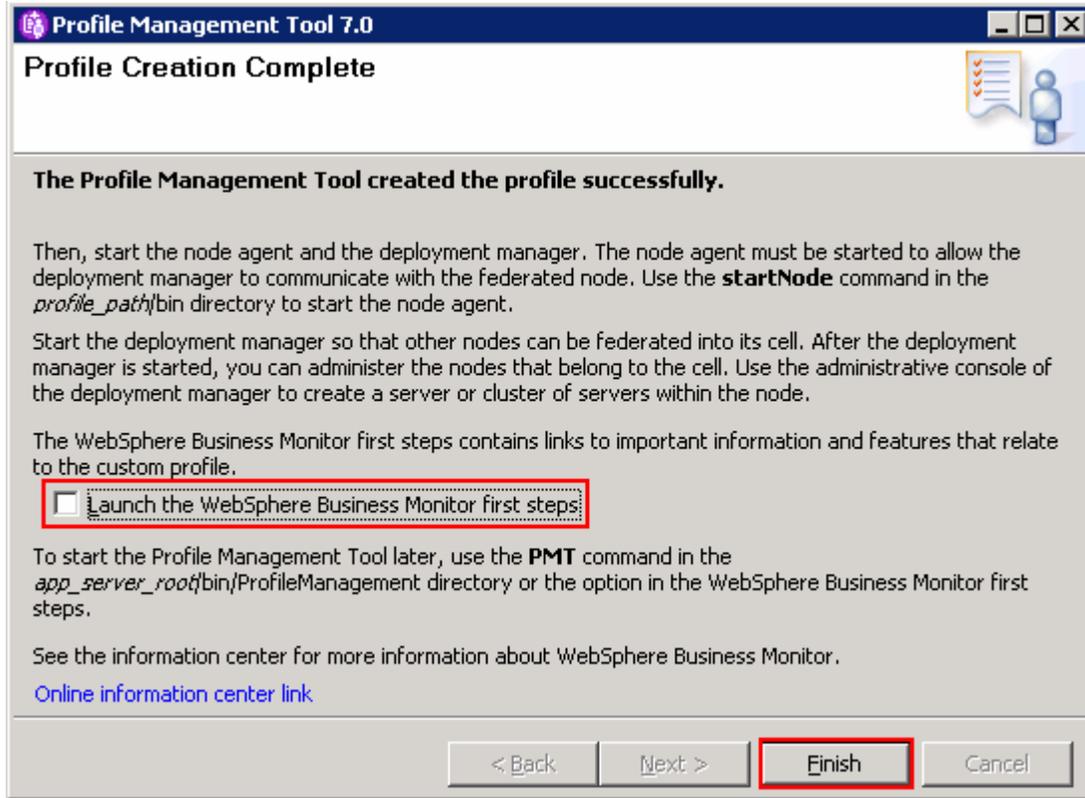


\_\_\_ 17. Click **Next**

\_\_\_ 18. In the next panel, verify the custom profile creation summary information



\_\_\_ 19. Click **Create**. The profile creation progresses



- \_\_\_ 20. Once the profile creation is complete, clear the check box for **Launch the First steps** console and click **Finish**
- \_\_\_ 21. Similarly create the remaining custom profiles and name them as **Custom02**, **Custom03**, **Custom04** and **Custom05** by repeating these instructions on the designated host machines. In this exercise, the nodes are named as **Custom02Node02**, **Custom03Node03**, **Custom04Node04** and **Custom05Node05**
- \_\_\_ 22. Login to the administrative console. In the left navigation pane, expand **System Administration** and click the **Nodes** link. Ensure the nodes you added are listed and display the correct versions (see the Version column) for WebSphere Application Server, XML Feature pack and WebSphere Business Monitor

Select	Name	Host Name	Version	Discovery Protocol	Status
<input type="checkbox"/>	Custom01Node01	custom01.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	TCP	↔
<input type="checkbox"/>	Custom02Node02	custom02.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	TCP	↔
<input type="checkbox"/>	Custom03Node03	custom03.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	TCP	↔
<input type="checkbox"/>	Custom04Node04	custom04.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	TCP	↔
<input type="checkbox"/>	Custom05Node05	custom05.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	TCP	↔
<input type="checkbox"/>	wbmCellManager01	dmgr.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	TCP	↔
Total 6					

## Alternative: Manually create WebSphere Business Monitor custom profile

WebSphere Business Monitor custom profile can be created manually using the `manageprofiles` command with the help of WebSphere Business Monitor custom profile template. The `manageprofiles` command comes handy when creating profiles on 64-bit platforms.

### Prerequisites: -

- Before proceeding to the next step, ensure the deployment manager you want to federate this custom profile is installed and running successfully at this time
- Make a note of the fully qualified host name of the deployment manager host machine
- Make a note of the deployment manager SOAP port number
- Make a note of the primary user name and password of the deployment manager administrative security credentials, if security is enabled

**Download:** Profile creation scripts good for Windows and UNIX are available for download from the IBM Education Assistant. These scripts also use `manageprofiles` command. You can update the scripts with required options and then create profiles.

---

**Note:** For more options, navigate to `<WBM_HOME>/bin` and run this command:

```
manageprofiles.bat -create -templatePath <WBM_HOME>/profileTemplates/wbmonitor/managed -help
```

---

Complete the instructions below to create WebSphere Business Monitor custom profiles using the `manageprofiles` command:

- \_\_\_\_ 1. The following are the options commonly used to create a WebSphere Business Monitor custom profile:

Parameter	Value
<code>-create</code>	N/A
<code>-templatePath</code>	<code>&lt;WBM_HOME&gt;/profileTemplates/wbmonitor/managed</code>
<code>-profileName</code>	Custom01
<code>-profilePath</code>	<code>&lt;WBM_HOME&gt;/profiles/Custom01</code>
<code>-nodeName</code>	Ex: Custom01Node01, Custom02Node02, Custom03Node03, Custom04Node04, Custom05Node05
<code>-hostName</code>	Ex: custom01.austin.ibm.com
<code>-dmgrHost</code>	Ex : dmgr.austin.ibm.com
<code>-dmgrPort</code>	8879 (default)
<code>-dmgrAdminUserName</code>	Ex : admin
<code>-dmgrAdminPassword</code>	Ex : superSecret

-federateLater	false
-wbmDBType	<b>DB2_Universal</b> for a DB2 Universal database <b>DB2UDBOS390_V8_1</b> for a DB2 for z/OS V8 database <b>DB2UDBOS390_V9_1</b> for a DB2 for z/OS V9 database <b>Oracle11g</b> for Oracle 11g database
-wbmDBJDBCClasspath	<WBM_HOME>\universalDriver.wbm\lib

\_\_\_ 2. Run the manageprofiles script

- \_\_\_ a. Navigate to the <WBM\_HOME>/bin directory and run the manageprofiles script along with the options

For DB2\_UNIVERSAL as the database type:

```
manageprofiles.bat -create -templatePath
<WBM_HOME>\profileTemplates\wbmonitor\managed -profileName Custom01 -
profilePath <WBM_HOME>\profiles\Custom01 -nodeName Custom01Node01 -hostName
custom01.austin.ibm.com -dmgrHost dmgr.austin.ibm.com -dmgrPort 8879 -
dmgrAdminUserName admin -dmgrAdminPassword superSecret -federateLater false
-wbmDBType DB2_Universal -wbmDBJDBCClasspath
<WBM_HOME>\universalDriver.wbm\lib
```

\_\_\_ 3. Verify the installation

- \_\_\_ a. Navigate to <WBM\_HOME>/logs/manageprofiles and locate the <profile\_name>\_create.log file

**Ex:** C:\IBM\WebSphere\MonServer\logs\manageprofiles\Custom01\_create.log

- \_\_\_ b. You should see a string, **INSTCONFSUCCESS** written to the last line of the file. If so the installation is successful

- \_\_\_ c. If **INSTCONFPARTIALSUCCESS** or **INSTCONFFAILED** appear in the last line of the log file, problems encountered during the installation

\_\_\_ 4. Similarly create the remaining custom profiles and name them as **Custom02**, **Custom03**, **Custom04** and **Custom05** by repeating these instructions on the designated host machines. In this exercise, the nodes are named as **Custom02Node02**, **Custom03Node03**, **Custom04Node04** and **Custom05Node05**

\_\_\_ 5. Login to the administrative console. In the left navigation pane, expand **System Administration** and click the **Nodes** link. Ensure the nodes you added are listed and display the correct versions (see the Version column) for WebSphere Application Server, XML Feature pack and WebSphere Business Monitor

## Part 5: Create clusters and assign member servers

In this part of the exercise, you will create five clusters and assign two member servers for each cluster to accommodate various WebSphere Business Monitor functions and components.

It is a best practice to plan for the number of clusters you are creating. Also plan for the number of member servers a cluster will manage and on which managed node the member servers are created.

**Clusters → Node → Member Server topology mapping table:**

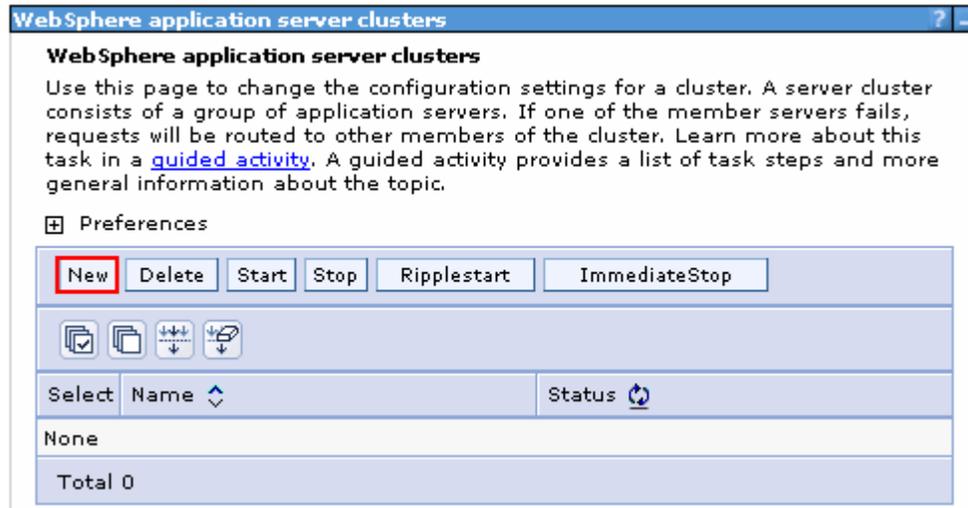
Clusters	Nodes	Member Servers
wbm.ModelLogic	Custom01Node01	modellogic.Custom01Node01.0
	Custom02Node02	modellogic.Custom02Node02.1
wbm.Moderator	Custom02Node02	moderator.Custom02Node02.0
	Custom03Node03	moderator.Custom03Node03.1
wbm.Support	Custom03Node03	support.Custom03Node03.0
	Custom04Node04	support.Custom04Node04.1
wbm.Messaging	Custom01Node01	msg.Custom01Node01.0
	Custom05Node05	msg.Custom05Node05.1
wbm.Business	Custom04Node04	business.Custom04Node04.0
	Custom05Node05	business.Custom05Node05.1

### Pre-requisites:

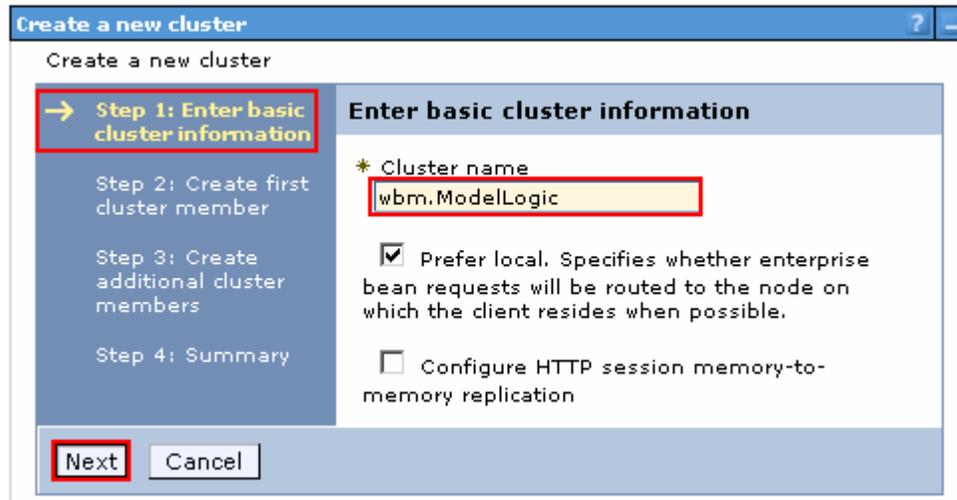
- Ensure the Deployment Manager process is running
- Ensure all the node agents of the custom profiles (managed nodes) are running
  - In the left navigation pane of the deployment manager administrative console, expand **System administration** and then click **Node agents**
  - In the **Node agents** panel to the right, ensure that all of the node agents display the status as green (🟢)

Complete the instructions below to create the clusters and their member servers:

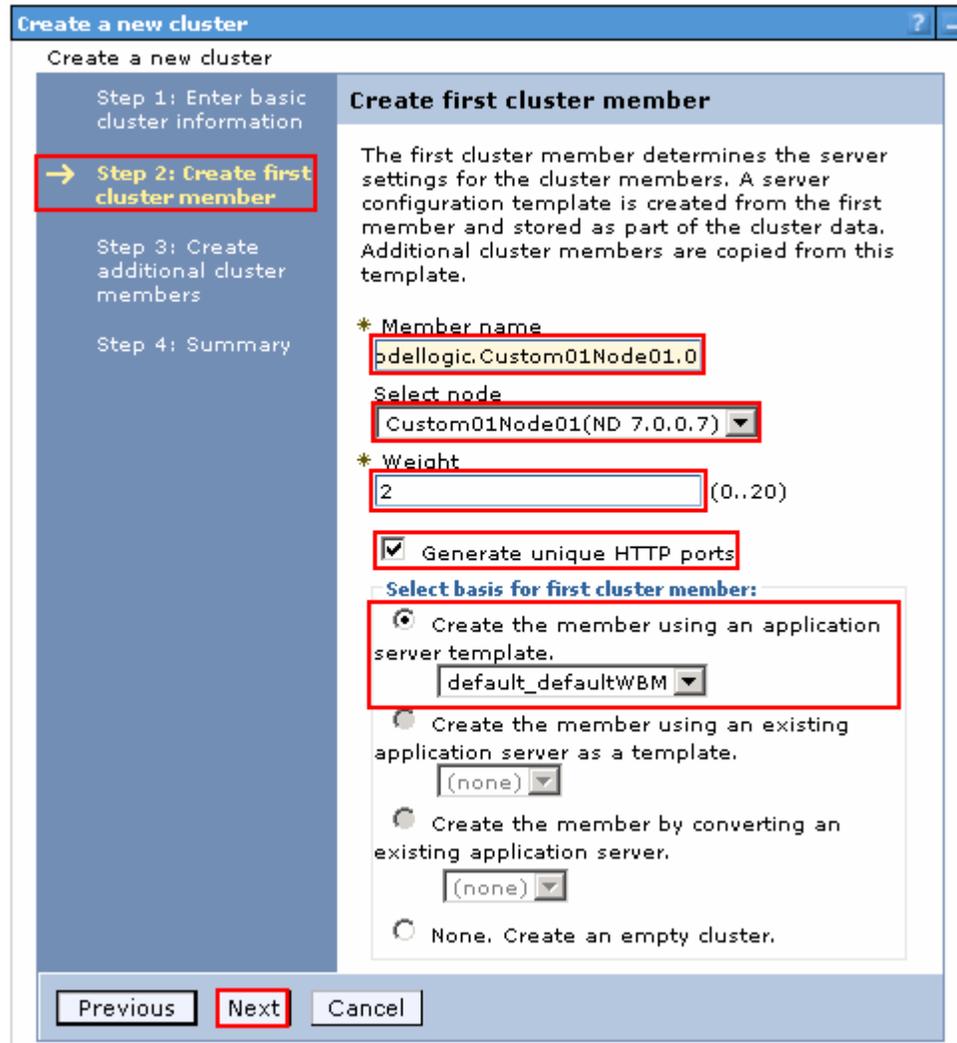
- \_\_\_\_ 1. Launch the WebSphere Business Monitor deployment manager administrative console, enter the security credentials and then click **Log in**. The default URL is: **http://localhost:9060/admin**
- \_\_\_\_ 2. In the left navigation pane of the administrative console, expand **Servers** → **Clusters** and then click **WebSphere application server clusters** link
- \_\_\_\_ 3. In the next **WebSphere application server clusters** panel, click **New** to launch the cluster creation wizard



- \_\_\_ 4. In the next **Step 1: Enter basic cluster information** panel, type `wbm.ModelLogic` as the **Cluster name** and accept the rest as defaults



- \_\_\_ 5. Click **Next**
- \_\_\_ 6. In **Step 2: Create first cluster member** panel, specify the first cluster member information:
- \_\_\_ a. Member name: `modellogic.Custom01Node01.0`
  - \_\_\_ b. Select `Custom01Node01` from the **Select node** dropdown
  - \_\_\_ c. Weight : 2 (Default)
  - \_\_\_ d. Select the check box for **Generate unique HTTP ports**
  - \_\_\_ e. In the **Select basis for first cluster member** section, select the radio button for **Create the member using an application server template** and then select `default_defaultWBM` from the dropdown



- \_\_\_ 7. Click **Next**
- \_\_\_ 8. In the next **Step 3: Create additional cluster members** panel, type the values below to create the second cluster member on **Custom02Node02**:
  - \_\_\_ a. Member name : **modellogic.Custom02Node02.1**
  - \_\_\_ b. Select node : **Custom02Node02**
  - \_\_\_ c. Weight : **2 (Default)**
  - \_\_\_ d. Select the check box for **Generate unique HTTP ports**

**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

\* 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 checked="" type="checkbox"/>	modellogic.Custom01Node01.0	Custom01Node01	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	2
Total 1				

9. Click the **Add Member** button. This action adds the additional cluster member server to the table as shown below:

Select	Member name	Nodes	Version	Weight
<input checked="" type="checkbox"/>	modellogic.Custom01Node01.0	Custom01Node01	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	2
<input type="checkbox"/>	modellogic.Custom02Node02.1	Custom02Node02	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	2
Total 2				

- \_\_\_ 10. Click **Next**
- \_\_\_ 11. In the next **Step 4: Summary** panel, verify the summary of actions

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

### Summary

Summary of actions:

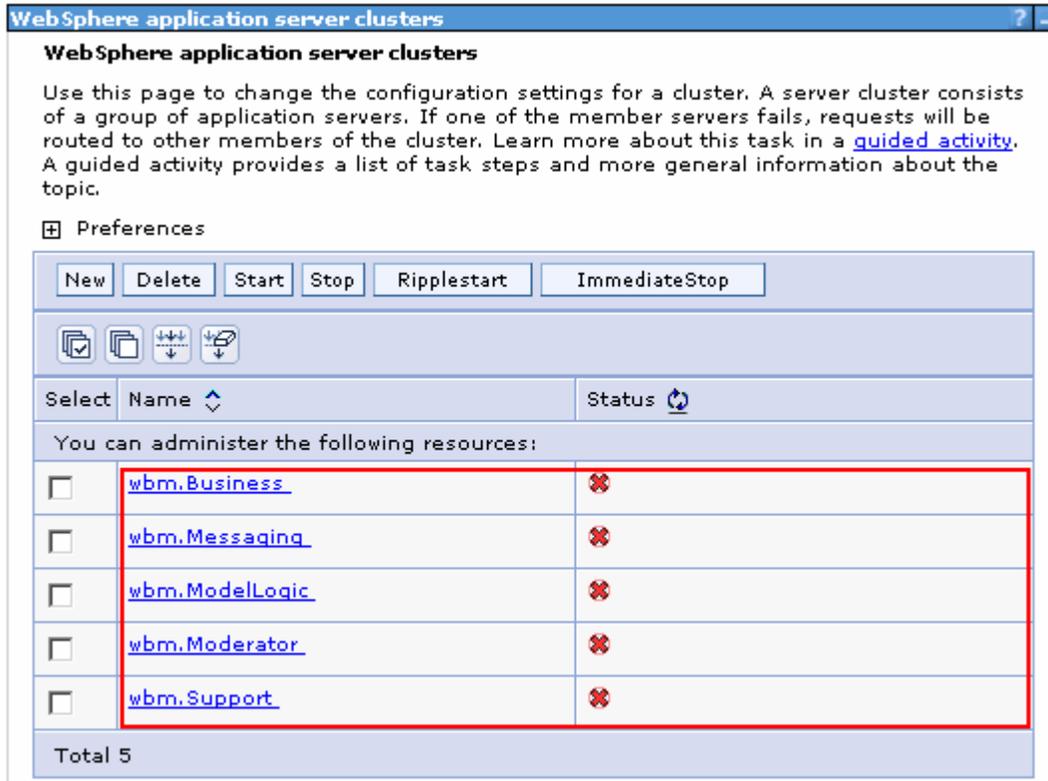
Options	Values
Cluster Name	wbm.ModelLogic
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Prefer local	true
Configure HTTP session memory-to-memory replication	false
Server name	modellogic.Custom01Node01.0
Node	Custom01Node01(ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0)
Weight	2
Clone Template	default_defaultWBM
Clone Basis	Create the member using an application server template.
Generate unique HTTP ports	true
Server name	modellogic.Custom02Node02.1
Node	Custom02Node02(ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0)
Weight	2
Clone Template	Version 7 member template
Generate unique HTTP ports	true

Previous
Finish
Cancel

- \_\_\_ 12. Click **Finish**
- \_\_\_ 13. Save to the master configuration and synchronize changes with the nodes
- \_\_\_ 14. Repeat these steps to create the remaining **wbm.Moderator**, **wbm.Support**, **wbm.Messaging** and **wbm.Business** clusters and their member servers. Use the **Cluster → Node → member server mapping table** as a reference. Save to the master configuration and synchronize changes with the nodes

**Note:** Ensure all node agents are running at this time. (System Administration → Node agents)

15. Verify the five clusters you created. In the left navigation pane of the administrative console, expand **Servers** → **Clusters** and then click **WebSphere application server clusters** link



16. Verify the member servers. In the left navigation pane, expand **Servers** → **Server Types** and then click **WebSphere application servers** link. You should see eight member servers listed as shown below:

Select	Name	Node	Host Name	Version	Cluster Name	Status
You can administer the following resources:						
<input type="checkbox"/>	<a href="#">business.Custom04Node04.0</a>	Custom04Node04	custom04.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	wbm.Business	✘
<input type="checkbox"/>	<a href="#">business.Custom05Node05.1</a>	Custom05Node05	custom05.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	wbm.Business	✘
<input type="checkbox"/>	<a href="#">modellogic.Custom01Node01.0</a>	Custom01Node01	custom01.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	wbm.ModelLogic	✘
<input type="checkbox"/>	<a href="#">modellogic.Custom02Node02.1</a>	Custom02Node02	custom02.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	wbm.ModelLogic	✘
<input type="checkbox"/>	<a href="#">moderator.Custom02Node02.0</a>	Custom02Node02	custom02.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	wbm.Moderator	✘
<input type="checkbox"/>	<a href="#">moderator.Custom03Node03.1</a>	Custom03Node03	custom03.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	wbm.Moderator	✘
<input type="checkbox"/>	<a href="#">msg.Custom01Node01.0</a>	Custom01Node01	custom01.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	wbm.Messaging	✘
<input type="checkbox"/>	<a href="#">msg.Custom05Node05.1</a>	Custom05Node05	custom05.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	wbm.Messaging	✘
<input type="checkbox"/>	<a href="#">support.Custom03Node03.0</a>	Custom03Node03	custom03.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	wbm.Support	✘
<input type="checkbox"/>	<a href="#">support.Custom04Node04.1</a>	Custom04Node04	custom04.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.1	wbm.Support	✘
Total 10						

17. Verify the Cluster Topology. In the left navigation pane, expand **Servers** → **Clusters** and then click the **Cluster Topology** link. The picture shown below is of the **Cluster** → **Nodes** → **Cluster Members** relationship



- \_\_\_\_ 18. Start the clusters. In the left navigation pane of the administrative console, expand **Servers** → **Clusters** and then click **WebSphere application server clusters** link
- \_\_\_\_ 19. Click the **start** button. This action starts all the member servers assigned to the respective clusters. Review the runtime logs for all the member servers

## Part 6: Deploy and configure the common event infrastructure service

In this part of the exercise, you will deploy and configure the common event infrastructure (CEI) service on the `wbm.Support` cluster.

**Important:** Before configuring the WebSphere® Business Monitor components using the administrative console, you must have a local common event infrastructure (CEI) event service that WebSphere Business Monitor can use to send events. The same CEI event service can also be used to receive events.

You will use the `wbmDeployCEIEventService` command interactively to install a CEI event service to a cluster and create the resources it requires (the service integration bus, messaging engine and data sources). You can also configure security and enable the default CEI event service data store if required. (**Note:** The event service data store enablement is not recommended for production environments.) For high availability, the CEI event service is installed on the support cluster.

The table below shows where the event service components are deployed and configured:

Component → Cluster mapping table

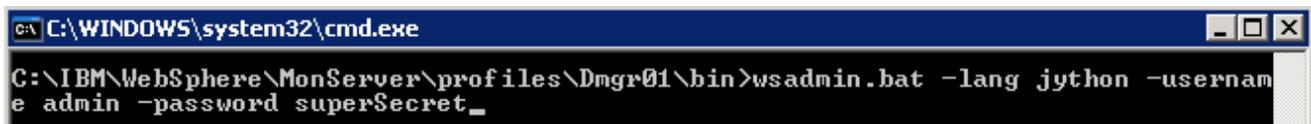
Component	wbm.ModelLogic	wbm.Moderator	wbm.Support	wbm.Messaging	wbm.Business
Event Service Bus	No	No	No	<b>Yes</b>	No
Event Data Store	No	No	<b>Yes</b>	No	No
Event Service	No	No	<b>Yes</b>	No	No
CEI JMS Auth Alias	<b>Yes</b> on the Cell Scope				

**Note:** You can skip the instructions in this part of the exercise if you plan to use an existing CEI service in the cell or a remote cell. However you must configure the Monitor **Event Emitter Factory** and **Event Service Transmission** to use the existing CEI service.

**Note:** The instructions in this part of the exercise must be completed on the deployment manager machine. You might have to complete some instructions on a different machine for creating the event database depending on where the database server is located.

Complete the instructions below to deploy and configure the CEI service on a cluster:

- \_\_\_ 1. Open a **Command Window** and change directory to `<DMGR_PROFILE_HOME>\bin` of the deployment manager profile (`C:\IBM\WebSphere\MonServer\profiles\Dmgr\bin`)
- \_\_\_ 2. Run the `wsadmin` command line utility using the command as shown below:
  - Jython: `wsadmin -lang jython -username admin -password superSecret`
  - Jacl: `wsadmin -lang jacl -username admin -password superSecret`



```

C:\WINDOWS\system32\cmd.exe
C:\IBM\WebSphere\MonServer\profiles\Dmgr01\bin>wsadmin.bat -lang jython -username admin -password superSecret_
  
```

\_\_\_ 3. Run the `wbmDeployCEIEventService` command interactively by using one of the scripting languages at the command line:

- Jython : `AdminTask.wbmDeployCEIEventService('-interactive')`
- Jacl : `$AdminTask.wbmDeployCEIEventService {-interactive}`

```
C:\WINDOWS\system32\cmd.exe - wsadmin.bat -lang jython -username admin -password admin
WASX7209I: Connected to process "dmgr" on node wbmCellManager01 using SOAP connector; The type of process is: DeploymentManager
WASX7031I: For help, enter: "print Help.help()"
wsadmin>AdminTask.wbmDeployCEIEventService('-interactive')_
```

\_\_\_ 4. Press the **Enter** key

\_\_\_ 5. Type **S** (Select) to select the option: 1. Configure event service bus (busMember). Note that the arrow must be pointing to this option

```
C:\WINDOWS\system32\cmd.exe - wsadmin.bat -lang jython -username admin -password admin
wsadmin>AdminTask.wbmDeployCEIEventService('-interactive')
Deploy CEI event service

Deploy a CEI event service, optionally specifying where to create the messaging engine
-> 1. Configure event service bus (busMember)
   2. Configure event service datastore (dataStore)
   3. Configure the event service (eventService)
   4. Create JMS resources authentication alias (jmsAuthAlias)

S (Select)
N (Next)
F (Finish)
C (Cancel)
H (Help)

Select [S, N, F, C, H]: [F] S_
```

\_\_\_ 6. Press the **Enter** key

\_\_\_ 7. In the next panel, type **E** (Edit) to edit the event service bus parameters

```
C:\WINDOWS\system32\cmd.exe - wsadmin.bat -lang jython -username admin -password admin
Configure event service bus (busMember)
Target cluster for messaging engine (cluster):
Target server for messaging engine (server):
Target node for messaging engine (node):
Create default datasource (createDefaultDatasource):
Datasource JNDI name (datasourceJndiName):
Datasource authentication alias (datasourceAuthAlias):
Datasource database schema (databaseSchema):
Create messaging engine data store tables (createTables):

Select [C (Cancel), E (Edit)]: [E] E_
```

\_\_\_ 8. Press **Enter**

\_\_\_ 9. Type the name of the target cluster for the event service bus: `wbm.Messaging`

\_\_\_ 10. Press **Enter**

- \_\_\_ 11. Target server for the event service bus option, leave it as blank: *<Do Not Type>*
- \_\_\_ 12. Press **Enter**
- \_\_\_ 13. Target node for the event service bus option, leave it as blank: *<Do Not Type>*
- \_\_\_ 14. Press **Enter**
- \_\_\_ 15. Type **true** or **false** for the create default Data source option: **false**

---

**Note:** The create default Data source option should be set **false** if the event service bus is being configured to a **cluster**. This option can be **true** if the bus is being configured to a **server**.

---

- \_\_\_ 16. Press **Enter**
- \_\_\_ 17. Type the Data source JNDI name : **jdbc/wbm/MonitorMEDatabase**

---

**Note:** The Data source JNDI name is not required if the create default Data source option was set to **true**. In this case do not type anything for this parameter.

---

- \_\_\_ 18. Press **Enter**
- \_\_\_ 19. Type the Data source authentication alias : **Monitor\_JDBC\_Alias**

---

**Note:** The Data source authentication alias is not required if the create Data source option was set to **true**. In this case do not type anything for this parameter.

---

- \_\_\_ 20. Press **Enter**
- \_\_\_ 21. Type the Data source database schema name: Ex: **MONCM00**

---

**Note:** The Data source database schema name is not required if the create default Data source option is set to **true**. In this case do not type anything for this parameter.

---

- \_\_\_ 22. Press **Enter**
- \_\_\_ 23. Type **true** or **false** to create the messaging engine data store tables: **false**

---

**Note:** If the create the messaging engine data store tables parameter is set to **false**, the database administrator should create the database tables, post event service bus configuration.

---

- \_\_\_ 24. Press **Enter**. Verify the event service bus parameters. Type **P** (Previous) to fix them

```

C:\WINDOWS\system32\cmd.exe - wsadmin -lang jython -username admin -password admin
Target cluster for messaging engine (cluster): wbm.Messaging
Target server for messaging engine (server):
Target node for messaging engine (node):
Create default datasource (createDefaultDatasource): false
Datasource JNDI name (datasourceJndiName): jdbc/wbm/MonitorMEDatabase
Datasource authentication alias (datasourceAuthAlias): Monitor_JDBC_Alias
Datasource database schema (databaseSchema): MONCM00
Create messaging engine data store tables (createTables): false
Deploy CEI event service

Deploy a CEI event service, optionally specifying where to create the messaging
engine
1. Configure event service bus (busMember)
-> 2. Configure event service datastore (dataStore)
3. Configure the event service (eventService)
4. Create JMS resources authentication alias (jmsAuthAlias)

S (Select)
N (Next)
P (Previous)
F (Finish)
C (Cancel)
H (Help)

Select [S, N, P, F, C, H]: [F] S_

```

**Note:** Type **N** (Next) to skip the **Configure event service Datasource (dataStore)** option and move to the next option, which is, **3. Configure the event service (eventService)**. You can configure the data store, post event service deployment. Instructions for manual event service data store configuration are provided at the end of this part.

- \_\_\_ 25. Type **s** (Select) to select the option: **2. Configure event service datastore (dataStore)**. Note that the arrow must be pointing to this option
- \_\_\_ 26. Press **Enter**
- \_\_\_ 27. In the next panel, type **E** (Edit) to edit the event service bus parameters

```

C:\WINDOWS\system32\cmd.exe - wsadmin -lang jython -username admin -password admin
Configure event service datastore (dataStore)
Data store database type (databaseType):
JDBC driver path (jdbcClassPath):
Database name (databaseName):
Database host name (host):
Database port (port):
Database user name (user):
Database password (password):

Select [C (Cancel), E (Edit)]: [E] E_

```

- \_\_\_ 28. Press the **Enter** key
- \_\_\_ 29. Type the Data store database type (databaseType) : **db2**
- \_\_\_ 30. Press **Enter**

- \_\_\_ 31. Type the location of the JDBC driver for the database type you chose (jdbcClassPath):  
`<WBM_HOME>/universalDriver.wbm/lib`  
**Ex:** `C:/IBM/WebSphere/MonServer/universalDriver.wbm/lib`
- \_\_\_ 32. Press **Enter**
- \_\_\_ 33. Type the name of the event service database (databaseName): **EVENT**
- \_\_\_ 34. Press **Enter**
- \_\_\_ 35. Type the fully qualified host name of the machine hosting the database server (host):  
`dbserver.austin.ibm.com`
- \_\_\_ 36. Press **Enter**
- \_\_\_ 37. Type the database server port number (port): **50000**
- \_\_\_ 38. Press **Enter**
- \_\_\_ 39. Type the database administrative user name (user): **db2admin**
- \_\_\_ 40. Press **Enter**
- \_\_\_ 41. Type the database administrative user password (password): **superSecret**
- \_\_\_ 42. Press **Enter**. Verify the event service data store parameters. Type **P** (Previous) to fix them

```

C:\WINDOWS\system32\cmd.exe - wsadmin -lang jython -username admin -password admin
Data store database type (databaseType): db2
JDBC driver path (jdbcClassPath): C:/IBM/WebSphere/MonServer/universalDriver.wbm/lib
Database name (databaseName): EVENT
Database host name (host): dbserver.austin.ibm.com
Database port (port): 50000
Database user name (user): db2admin
Database password (password): superSecret
Deploy CEI event service

Deploy a CEI event service, optionally specifying where to create the messaging engine

  1. Configure event service bus (busMember)
  2. Configure event service datastore (dataStore)
-> 3. Configure the event service (eventService)
  4. Create JMS resources authentication alias (jmsAuthAlias)

S (Select)
N (Next)
P (Previous)
F (Finish)
C (Cancel)
H (Help)

Select [S, N, P, F, C, H]: [F]S
  
```

- \_\_\_ 43. Type **S** (Select) to select the option: **3. Configure the event service (eventService)**.  
 Note that the arrow must be pointing to this option
- \_\_\_ 44. Press the **Enter** key
- \_\_\_ 45. In the next panel, type **E** (Edit) to edit the event service parameters:

```

C:\WINDOWS\system32\cmd.exe - wsadmin.bat -lang jython -username admin -password admin
Configure the event service (eventService)
Target cluster for event service (cluster):
Target server for event service (server):
Target node for event service (node):
Disable event service (disabled): [false]
Enable data store (enableDataStore): [false]
Select [C <Cancel>, E <Edit>]: [E] E

```

- \_\_\_ 46. Press the **Enter** key
- \_\_\_ 47. Type the name of the target cluster for the event service: **wbm.Support**.
- \_\_\_ 48. Press **Enter**
- \_\_\_ 49. For the target server for the event service option, leave it as blank: *<Do Not Type>*
- \_\_\_ 50. Press **Enter**
- \_\_\_ 51. For the target node for the event service option, leave it as blank: *<Do Not Type>*
- \_\_\_ 52. Press **Enter**
- \_\_\_ 53. Type **true** or **false** for the disable event service option: **false**
- \_\_\_ 54. Press **Enter**
- \_\_\_ 55. Type **true** or **false** for the enable data store option: **false**
- \_\_\_ 56. Press **Enter**. Verify the event service parameters. Type **P** (Edit) to fix them

```

C:\WINDOWS\system32\cmd.exe - wsadmin.bat -lang jython -username admin -password admin
Target cluster for event service (cluster): wbm.Support
Target server for event service (server):
Target node for event service (node):
Disable event service (disabled): [false] false
Enable data store (enableDataStore): [false] false
Deploy CEI event service
Deploy a CEI event service, optionally specifying where to create the messaging
engine
  1. Configure event service bus (busMember)
  2. Configure event service datastore (dataStore)
  3. Configure the event service (eventService)
-> 4. Create JMS resources authentication alias (jmsAuthAlias)
S <Select>
P <Previous>
F <Finish>
C <Cancel>
H <Help>
Select [S, P, F, C, H]: [F] S

```

- \_\_\_ 57. Type **S** (Select) to select the **4. Create JMS resource authentication alias** option. Press **Enter**
- \_\_\_ 58. In the next panel, type **E** (Edit) to edit the JMS resources authentication alias parameters

```
C:\WINDOWS\system32\cmd.exe - wsadmin.bat -lang jython -username admin -password admin
Create JMS resources authentication alias <jmsAuthAlias>
User name <user>:
Password <password>:
Select [C <Cancel>, E <Edit>]: [E] E
```

- \_\_\_ 59. Press **Enter**
- \_\_\_ 60. Type the user name : **admin**
- \_\_\_ 61. Press **Enter**
- \_\_\_ 62. Type the password : **superSecret**
- \_\_\_ 63. Press **Enter**. Verify the JMS resources authentication alias parameters. Type **P** (Previous) to fix them

```
C:\WINDOWS\system32\cmd.exe - wsadmin.bat -lang jython -username admin -password admin
Select [C <Cancel>, E <Edit>]: [E] E
User name <user>: admin
Password <password>: superSecret
Deploy CEI event service
Deploy a CEI event service, optionally specifying where to create the messaging engine
  1. Configure event service bus <busMember>
  2. Configure event service datastore <dataStore>
  3. Configure the event service <eventService>
  4. Create JMS resources authentication alias <jmsAuthAlias>
-> End of task
P <Previous>
F <Finish>
C <Cancel>
H <Help>
Select [P, F, C, H]: [F] F
```

- \_\_\_ 64. Press the **Enter** button. The event service and the related resources are configured

```

C:\WINDOWS\system32\cmd.exe - wsadmin -lang jython -username admin -password admin
Deploy a CEI event service, optionally specifying where to create the messaging
engine
  1. Configure event service bus (busMember)
  2. Configure event service datastore (dataStore)
  3. Configure the event service (eventService)
  4. Create JMS resources authentication alias (jmsAuthAlias)
-> End of task
P (Previous)
F (Finish)
C (Cancel)
H (Help)
Select [P, F, C, H]: [F] F
WASX7278I: Generated command line: AdminTask.wbmDeployCEIEventService('[-busMemb
er [-cluster wbm.Messaging -createDefaultDatasource false -datasourceJndiName jd
bc/wbm/MonitorMEDatabase -datasourceAuthAlias Monitor_JDBC_Alias -databaseSchema
MONCM00 -createTables false] -dataStore [-databaseType db2 -jdbcClassPath C:/IB
M/WebSphere/MonServer/universalDriver.wbm/lib -databaseName EVENT -host aimcp032
.austin.ibm.com -port 500000 -user db2admin -password *****] -eventService [-clus
ter wbm.Support -disabled false -enableDataStore false] -jmsAuthAlias [-user adm
in -password *****]')
wsadmin>

```

\_\_\_ 65. Save to the master configuration. Type the command shown below:

Jython: `AdminConfig.save()`

Jacl: `$AdminConfig save`

```

C:\WINDOWS\system32\cmd.exe - wsadmin -lang jython -username admin -password admin
WASX7278I: Generated command line: AdminTask.wbmDeployCEIEventService('[-busMemb
er [-cluster wbm.Messaging -createDefaultDatasource false -datasourceJndiName jd
bc/wbm/MonitorMEDatabase -datasourceAuthAlias Monitor_JDBC_Alias -databaseSchema
MONCM00 -createTables false] -dataStore [-databaseType db2 -jdbcClassPath C:/IB
M/WebSphere/MonServer/universalDriver.wbm/lib -databaseName EVENT -host aimcp032
.austin.ibm.com -port 500000 -user db2admin -password *****] -eventService [-clus
ter wbm.Support -disabled false -enableDataStore false] -jmsAuthAlias [-user adm
in -password *****]')
wsadmin>AdminConfig.save()

```

\_\_\_ 66. Press the **Enter** key

\_\_\_ 67. Synchronize changes to the nodes. From the left navigation pane of the administrative console, expand **System administration** and click the **Nodes** link. In the next **Nodes** panel, select the check boxes for all the nodes listed and then click the **Full Resynchronize** button

\_\_\_ 68. Visit **Step 72** of this part, to create the event data store database and tables

#### Alternative: (Optional) Configure event service data store

If you skipped configuring the event service data store while running the `wbmDeployCEIEventService` command, complete the instructions below to generate the database configuration scripts for the event data store:

---

**Note:** As the CEI service is deployed to a cluster, you should use a supported database other than Derby. You can use `configEventServiceDB2DB`, `configEventServiceDB2ZOSDB` or `configEventServiceOracleDB`. This exercise shows you how to configure it for DB2.

---

69. Generate the database configuration scripts using the command below:

```
$AdminTask configEventServiceDB2DB {-clusterName <CLUSTER_NAME> -
jdbcClassPath <WAS_HOME>\universalDriver.wbm\lib -dbHostName <HOST_NAME>
-dbName <DATABASE_NAME> -dbUser <USER_NAME> -dbPassword <PASSWORD> -
dbPort <PORT_NUMBER>}
```

```
Example: $AdminTask configEventServiceDB2DB {-clusterName wbm.Support -
jdbcClassPath C:\IBM\WebSphere\MonServer\universalDriver.wbm\lib -dbHostName
dbserver.austin.ibm.com -dbName EVENT -dbUser db2admin -dbPassword
superSecret -dbPort 50000}
```



70. Save changes to the master configuration using the command below:

```
$AdminConfig save
```

71. Synchronize changes to the nodes

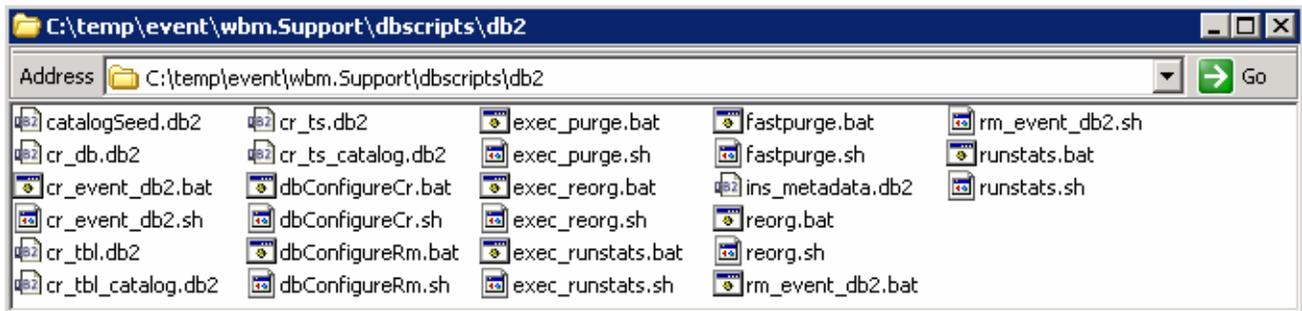
72. Complete the instructions below to create the EVENT database

a. The EVENT database scripts are generated to a location on the deployment manager machine as shown below:

```
<DMGR_HOME>\databases\
```



73. Copy the event database scripts directory to a temporary location in your database host machine:



\_\_ a. Open the DB2 command window from **Start** → **Programs** → **IBM DB2** → **Command Line Tools** → **Command Window** and change the directory to Ex:  
C:\temp\event\wbm.Support\dbscripts\db2

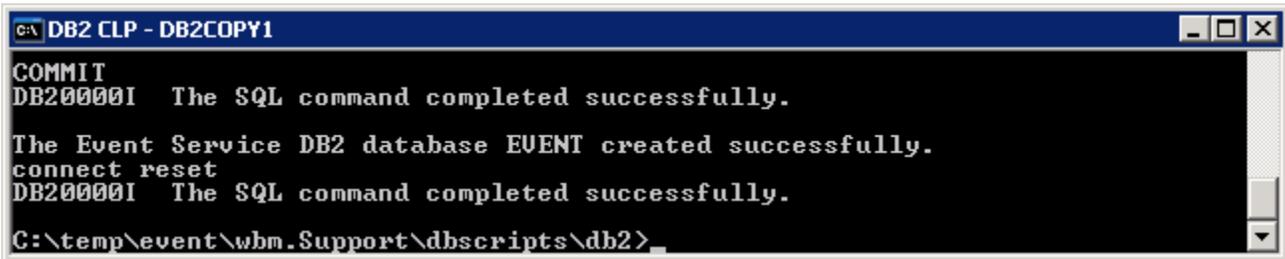
\_\_ b. Run the `cr_event_db2.bat` script using the command below:

- `cr_event_db2.bat server db2admin`



```
C:\> DB2 CLP - DB2COPY1
C:\IBM\SQLLIB\BIN>cd \temp\event\wbm.Support\dbscripts\db2
C:\temp\event\wbm.Support\dbscripts\db2>cr_event_db2.bat server db2admin,
```

\_\_ c. Ensure the script runs successfully



```
C:\> DB2 CLP - DB2COPY1
COMMIT
DB20000I  The SQL command completed successfully.
The Event Service DB2 database EVENT created successfully.
connect reset
DB20000I  The SQL command completed successfully.
C:\temp\event\wbm.Support\dbscripts\db2>
```

\_\_ d. Close the command window

\_\_\_\_ 74. **Important:** Restart the deployment manager, all the node agents and the member servers. Ensure the CEI service, the CEI Bus and the message engine start successfully

## Alternative: Manually deploy Common Event Infrastructure service

In this part of the exercise, you will manually deploy and configure the Common Event Infrastructure service and components to the environment.

The table below shows where the event service components are deployed and configured:

Component → Cluster mapping table

Component	wbm.ModelLogic	wbm.Moderator	wbm.Support	wbm.Messaging	wbm.Business
Event Service Bus	No	No	No	Yes	No
Event Data Store	No	No	Yes	No	No
Event Service	No	No	Yes	No	No
CEI JMS Auth Alias	Yes on the Cell level				

**Note:** You can skip the instructions in this part of the exercise if you plan to use an existing CEI service in the cell or a remote cell. However you must configure the Monitor **Event Emitter Factory** and **Event Service Transmission** to use the existing CEI service.

**Note:** The instructions in this part of the exercise must be completed on the deployment manager machine. You might have to complete some instructions on a different machine for creating the event database depending on where the database server is located.

1. Complete the instructions below to manually deploy and configure the Common Event Infrastructure service using the `wbmDeployCEIEventService` command:

The following are the options used to manually deploy and configure the Common Event Infrastructure service:

The `wbmDeployCEIEventService` command accepts the parameters listed in the table below:

Parameter	Required?	Comments
<code>-eventService</code>	Yes	Configures CEI service
<code>-busMember</code>	Yes if installing to a cluster	If you did not specify a cluster for the event service and you do not specify this parameter, the messaging engine is configured on the server specified for the CEI event service, using a default data source
<code>-dataStore</code>	Yes if you if <code>enableDataStore</code> is set to <code>true</code> while running this command	Configure the CEI event service data store but set the <code>enableDataStore</code> to <code>false</code> . Enabling the event service data store is not recommended for production environments, due to the performance impact of persisting events.
<code>-jmsAuthAlias</code>	Yes if security is enabled	Create an authentication alias to secure the event service bus.

The parameters below are for configure the event service bus (**busMember**) step:

Parameter	Required?	Comments
-cluster <i>cluster_name</i>   -server <i>server_name</i> -node <i>node_name</i>	Either cluster or server and node is required	If you specify a cluster, do not specify the server or node. If you specify the server, you must also specify the node.
-createDefaultDatasource true   false	Optional, <b>false</b> in this exercise	The default is false. This parameter is ignored if you specified a cluster for the messaging engine. The command is only valid when the target is a server.
-datasourceJndiName <i>JNDI_name</i>	Required when createDefaultDatasource is <b>false</b>	You could use the WebSphere Business Monitor messaging engine data source <b>jdbc/wbm/MonitorMEDatabase</b>
-datasourceAuthAlias <i>alias_name</i>	Required when createDefaultDatasource is <b>false</b>	You cannot set this parameter if you set createDefaultDatasource to true. You could use the WebSphere Business Monitor messaging engine authentication alias <b>Monitor_JDBC_Alias</b>
-databaseSchema <i>schema_name</i>	Required when createDefaultDatasource is <b>false</b>	You cannot set this parameter if you set createDefaultDatasource to true
-createTables true   false	Optional, <b>false</b> in this exercise	The default is false

The parameters below are for the configure event service data store (**dataStore**) step:

Parameter	Required?	Comments
-databaseType db2   oracle   derby	Required	Specify db2, oracle, or derby. You can only specify derby if you are installing the CEI event service on a server.
-jdbcClassPath <i>classpath</i>	Required if databaseType is not derby	You cannot specify this parameter if the databaseType is derby
-databaseName <i>database_name</i>	Required if databaseType is not derby	You cannot specify this parameter if the databaseType is derby
-host <i>host_name</i>	Required if databaseType is not derby	You cannot specify this parameter if the databaseType is derby
-user <i>user_name</i>	Required if databaseType is not derby	You cannot specify this parameter if the databaseType is derby
-password <i>password</i>	Required if databaseType is not derby	You cannot specify this parameter if the databaseType is derby

The parameters below are for the create event service (`eventService`) step:

Parameter	Required?	Comments
<code>-cluster cluster_name   -server server_name -node node_name</code>	Either cluster or server and node is required	If you specify a cluster, do not specify the server or node. If you specify the server, you must also specify the node.
<code>-disabled true   false</code>	Optional	If you set this parameter to true, the CEI event service will not start on server start
<code>-enableDataStore true   false</code>	Optional	The data store is typically left disabled. If you set this parameter to true, a copy of each event is sent to the data store. The event service data store is not recommended for production environments, due to the performance impact of persisting events.  <b>Important:</b> If you are using DB2® on z/OS for the CEI data store, you cannot set this parameter to true.

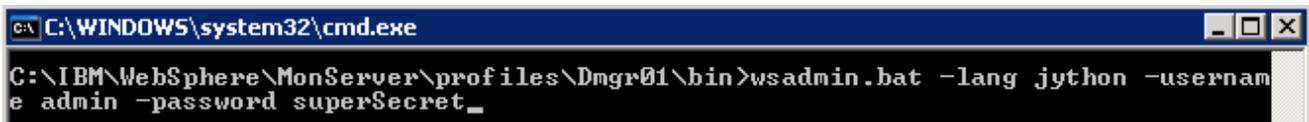
The parameters below are for the create JMS resources authentication alias (`jmsAuthAlias`) step:

Parameter	Required?	Comments
<code>-user user_name</code>	Required	The user name for the JMS resources authentication alias.
<code>-password password</code>	Required	The password for the specified user.

\_\_\_ 2. Open a **Command Window** and change directory to `<DMGR_PROFILE_HOME>\bin` of the deployment manager profile (`C:\IBM\WebSphere\MonServer\profiles\Dmgr\bin`)

\_\_\_ 3. Run the `wsadmin` command line utility using the command as shown below:

- Jython: `wsadmin -lang jython -username admin -password superSecret`
- Jacl: `wsadmin -lang jacl -username admin -password superSecret`



```
C:\WINDOWS\system32\cmd.exe
C:\IBM\WebSphere\MonServer\profiles\Dmgr01\bin>wsadmin.bat -lang jython -username admin -password superSecret_
```

\_\_\_\_ 4. Run the `wbmDeployCEIEventService` administrative task with options defined:

```
AdminTask.wbmDeployCEIEventService('[-busMember [-cluster wbm.Messaging -  
createDefaultDatasource false -datasourceJndiName jdbc/wbm/MonitorMEDatabase -  
datasourceAuthAlias Monitor_JDBC_Alias -databaseSchema MONCM00 -createTables  
false] -dataStore [-databaseType db2 -jdbcClassPath  
<WBM_HOME>/universalDriver.wbm/lib -databaseName EVENT -host  
dbserver.austin.ibm.com -port 50000 -user db2admin -password superSecret] -  
eventService [-cluster wbm.Support -disabled false -enableDataStore false] -  
jmsAuthAlias [-user admin -password superSecret]]')
```

\_\_\_\_ 5. Save to the master configuration. Type the command shown below:

- Jython: `AdminConfig.save()`
- Jacl: `$AdminConfig save`

\_\_\_\_ 6. Run the generated database scripts to create the event service database and tables. Visit **Step 72** of **Part 6** of this document

\_\_\_\_ 7. **Important:** Restart the deployment manager, all the node agents and the member servers. Ensure the CEI service, the CEI Bus and the message engine start successfully

## Part 7: Custom configure WebSphere Business Monitor environment

In this part of the exercise, you will deploy and configure multiple components that are needed for your WebSphere Business Monitor environment to function properly. These components can be configured using the WebSphere Business Monitor configuration wizard of the administrative console. Required components include the Monitor service scheduler, Action service, messaging engine and the event emitter factory. Optionally, you will deploy and configure other WebSphere Business Monitor supporting applications in the similar way.

### Pre-requisites:

You should have completed the tasks below:

- Created clusters and their member servers
- You must have a local common event infrastructure (CEI) event service that WebSphere Business Monitor can use to send events

This table lists the components to be installed and the target clusters:

Component → Target Cluster mapping table:

Component	Target Cluster
<b>Required Components</b>	
Outbound CEI event service	wbm.Support
Messaging Engine	wbm.Messaging
Action services	wbm.Support
Monitor service scheduler	wbm.Support
<b>Optional Components</b>	
Alphablox	wbm.Business
Dashboard for mobile devices	wbm.Business
Inbound event emitter services (JMS and REST)	wbm.Support
<b>Shared Components</b>	
REST Services Gateway	wbm.Business
Business Space	wbm.Business
<b>Monitor Models (Human Task &amp; Global Process Monitor Models)</b>	
Human Task Model	wbm.ModelLogic & wbm.Moderator
Global Process Model	wbm.ModelLogic & wbm.Moderator

**Note:** The instructions in this part of the exercise can be completed using the administrative console.

- \_\_\_ 1. Configure the **Outbound CEI event service** on **wbm.Support** cluster. WebSphere Business Monitor uses an outbound CEI event service (Event Emitter Factory) to create and send events. The event service uses an event emitter factory that requires configuration. Ensure the event service is deployed and configured to a cluster before proceeding to the next step
  - \_\_\_ a. Login to the Administrative console
  - \_\_\_ b. In the left navigation panel, click **Servers** → **WebSphere Business Monitor configuration**



- \_\_\_ c. In the **WebSphere Business Monitor Configuration** window, click **Outbound CEI event service** under **Required Components** section

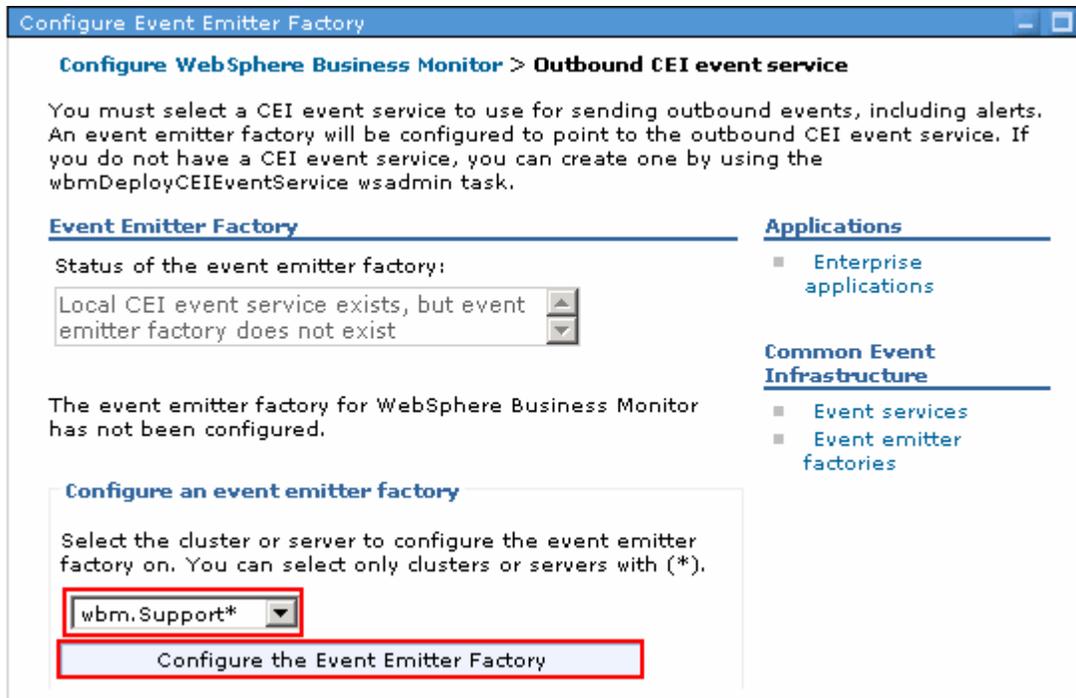
	Component	Status
	<b>Outbound CEI event service</b>	Not configured
	<a href="#">Messaging engine</a>	Not configured
	<a href="#">Action services</a>	Not configured
	<a href="#">Monitor scheduled services</a>	Not configured

- \_\_\_ d. This action launches the configuration wizard. To configure the event service to a cluster, select **wbm.Support** from the dropdown

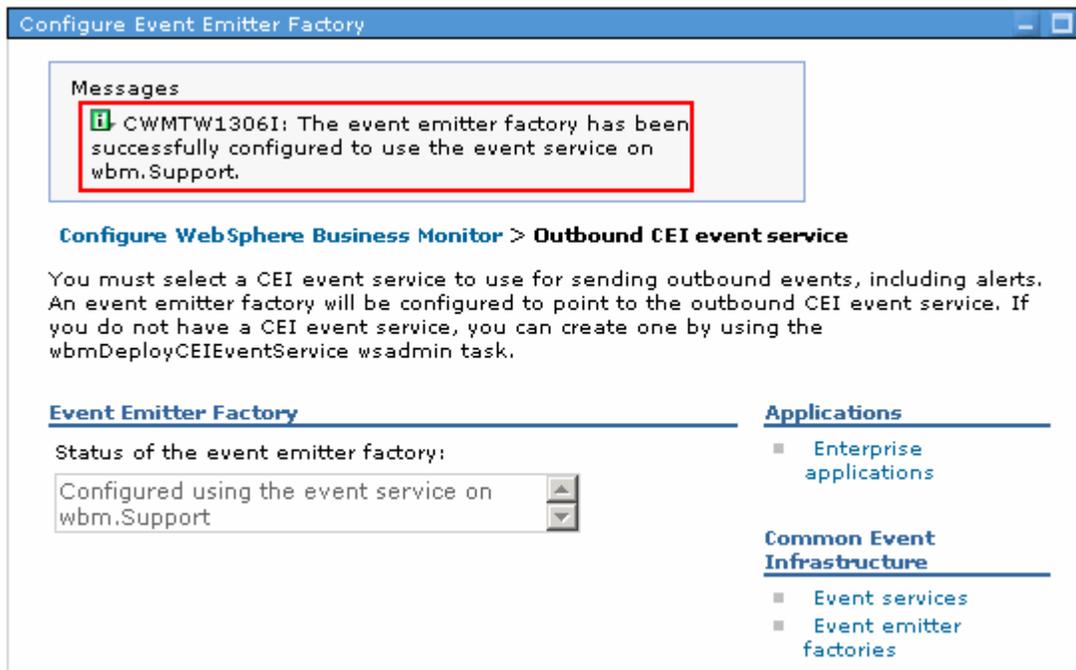
---

**Note:** To configure the Outbound CEI event service, you must select the target cluster where the event service is configured. The configuration wizard detects a cluster with the event service and marks as an eligible target with \* (Ex: **wbm.Support \***)

---



- \_\_\_ e. Click the **Configure the Event Emitter Factory** button. Ensure the event emitter factory is configured successfully on the cluster you selected



- \_\_\_ f. In the left navigation pane of the administrative console, click **Servers** → **WebSphere Business Monitor configuration**. Ensure the **Outbound CEI event service** is configured (Green) and on the cluster you chose as shown below:

	Component	Status
✓	<a href="#">Outbound CEI event service</a>	Configured using the event service on wbm.Support
✗	<a href="#">Messaging engine</a>	Not configured
✗	<a href="#">Action services</a>	Not configured
✗	<a href="#">Monitor scheduled services</a>	Not configured

\_\_\_ 2. Configure the messaging engine. WebSphere Business Monitor requires its own service integration bus and messaging engine before it can monitor events.

\_\_\_ a. Login to the Administrative console

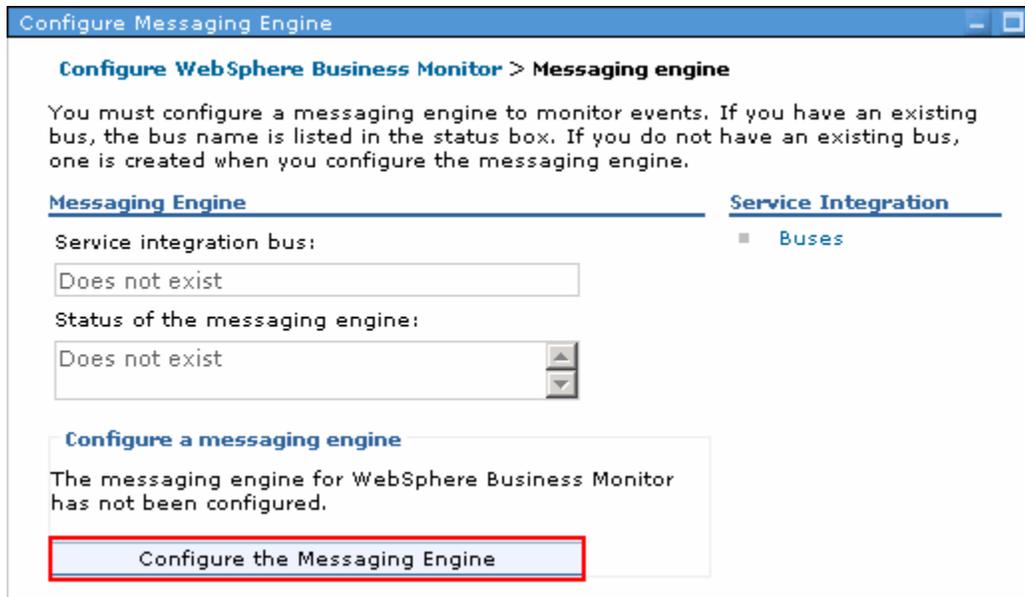
\_\_\_ b. In the left navigation panel, click **Servers** → **WebSphere Business Monitor configuration**



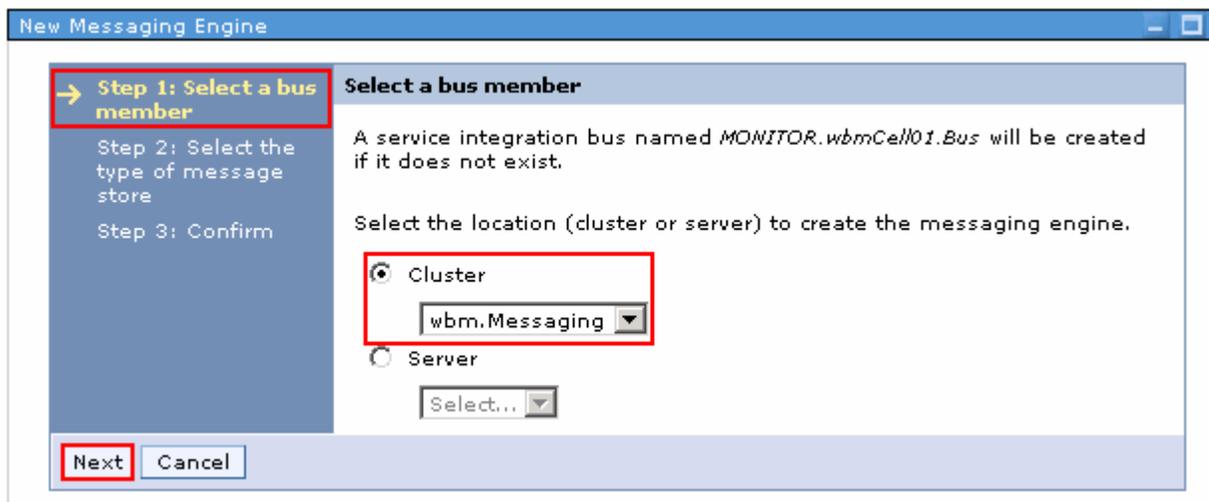
\_\_\_ c. In the **WebSphere Business Monitor Configuration** window, click **Messaging Engine** under **Required Components** section

	Component	Status
✓	<a href="#">Outbound CEI event service</a>	Configured using the event service on wbm.Support
✗	<a href="#">Messaging engine</a>	Not configured
✗	<a href="#">Action services</a>	Not configured
✗	<a href="#">Monitor scheduled services</a>	Not configured

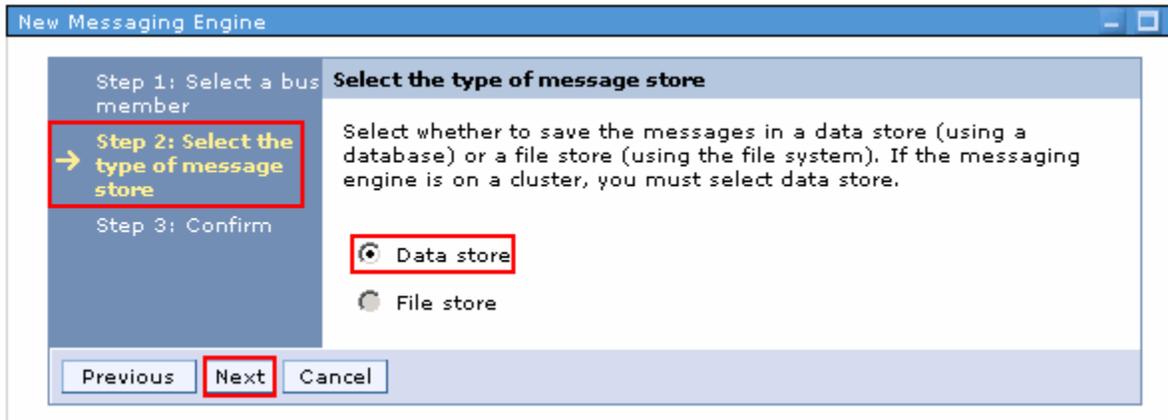
\_\_\_ d. In the next window, click **Configure the Messaging Engine**



- \_\_\_ e. This action launches the **New Messaging Engine** configuration wizard. Select the radio button for **Cluster** and then select **wbm.Messaging** from the drop down



- \_\_\_ f. Click **Next**
- \_\_\_ g. In the next window, select the radio button for **Data store**



\_\_ h. Click **Next**

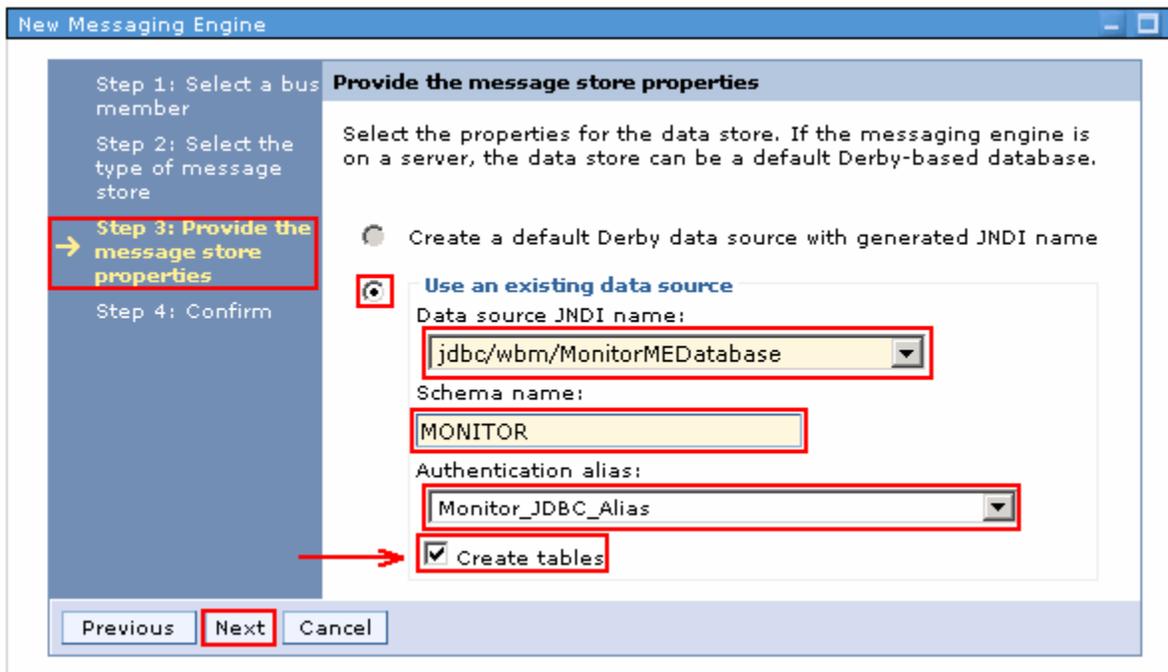
\_\_ i. In the next window, select the radio button for **Use an existing data source** and then specify the values below:

- Data source JNDI name : `jdbc/wbm/MonitorMEDatabase`
- Schema name : `MONITOR`
- Authentication Alias: `Monitor_JDBC_Alias`
- Optionally select the check box for **Create tables**

---

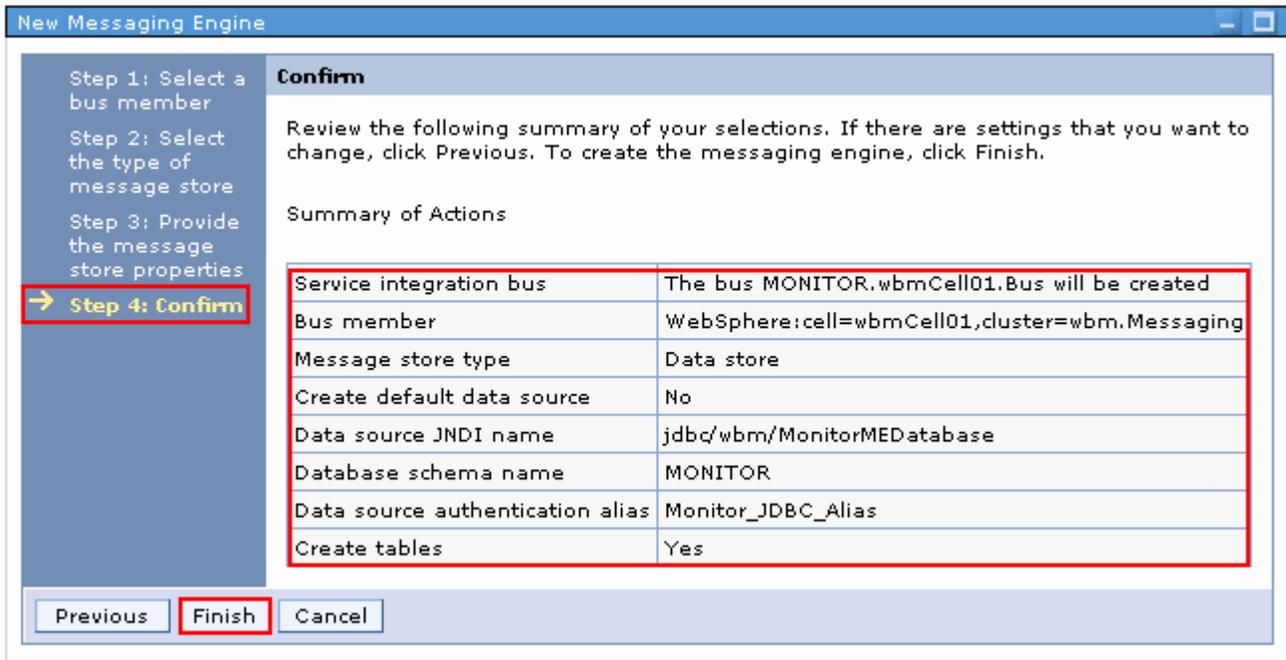
**Note:** Clear the **Create tables** check box if you want not to create the messaging engine database tables during the configuration. You can manually run the generated database scripts, post configuration.

---



\_\_ j. Click **Next**

\_\_\_ k. In the next window, verify the summary of actions to create a new messaging engine



\_\_\_ l. Click **Finish** to complete the new messaging engine configuration

\_\_\_ m. Ensure the service integration bus for WebSphere Business Monitor is successfully configured. Also ensure the messaging engine is deployed successfully on the **wbm.Messaging** cluster



\_\_\_ n. In the left navigation pane of the administrative console, click **Servers** → **WebSphere Business Monitor configuration**. Ensure the **Messaging Engine** is deployed (Green) as shown below:

	Component	Status
✓	<a href="#">Outbound CEI event service</a>	Configured using the event service on wbm.Support
✓	<a href="#">Messaging engine</a>	Deployed on wbm.Messaging
✗	<a href="#">Action services</a>	Not configured
✗	<a href="#">Monitor scheduled services</a>	Not configured

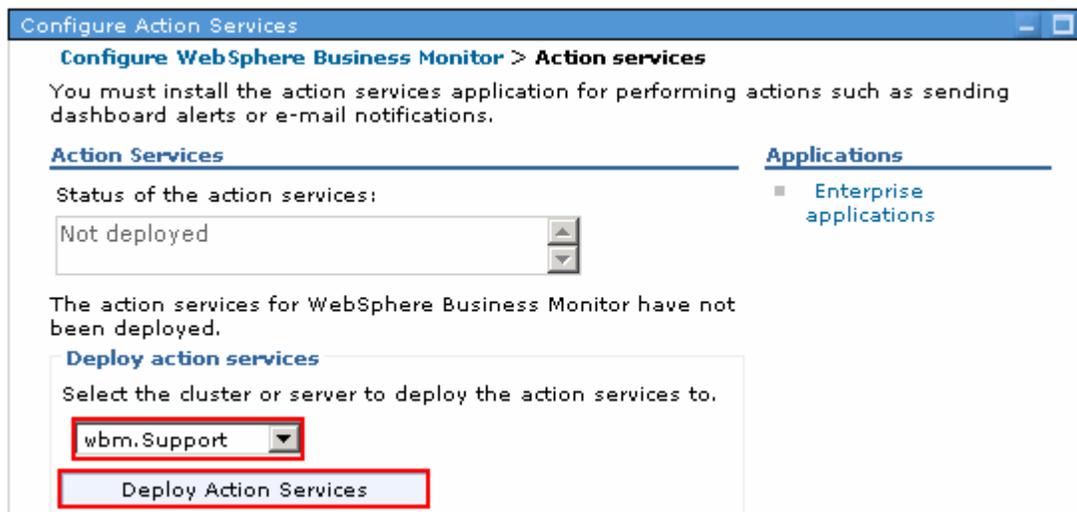
3. Deploy the **Action services** application to **wbm.Support** cluster. The WebSphere Business Monitor action services application invokes actions, such as sending dashboard alerts or e-mail notifications, when it receives defined situation events emitted by WebSphere Business Monitor and other applications. Situation events typically indicate business situations that need attention, such as a printer running out of paper or a metric exceeding a certain value.

**Pre-requisite:** Ensure a local Event service is configured in the environment, before installing the Action service application.

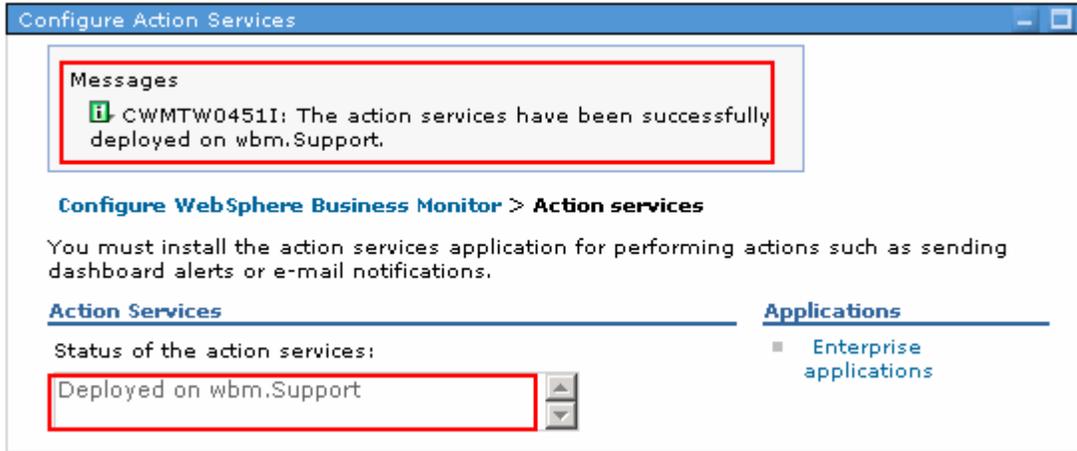
- \_\_\_ a. In the left navigation panel, click **Servers** → **WebSphere Business Monitor configuration**
- \_\_\_ b. In the **WebSphere Business Monitor Configuration** window, click **Action services** under **Required Components** section

	Component	Status
✓	<a href="#">Outbound CEI event service</a>	Configured using the event service on wbm.Support
✓	<a href="#">Messaging engine</a>	Deployed on wbm.Messaging
✗	<a href="#">Action services</a>	Not configured
✗	<a href="#">Monitor scheduled services</a>	Not configured

- \_\_\_ c. In the next window, select **wbm.Support** to deploy action services application to a cluster from the dropdown



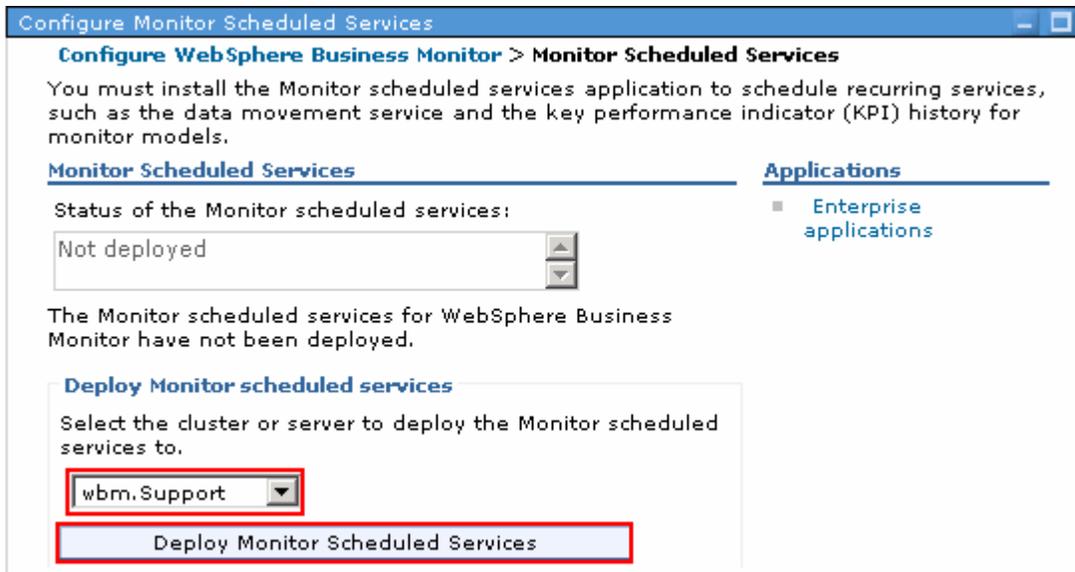
- \_\_\_ d. Click **Deploy Action services**. Ensure the application is deployed successfully



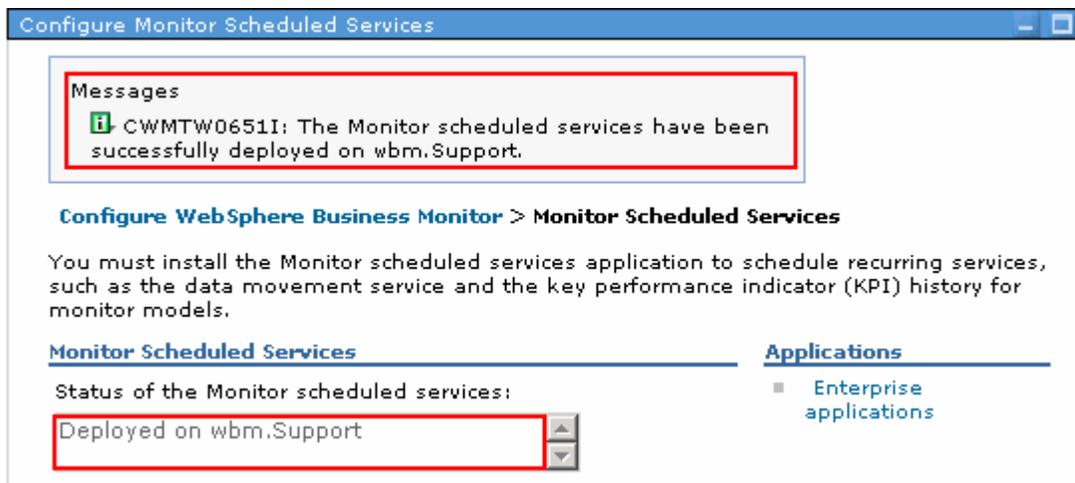
- \_\_\_ 4. Deploy **Monitor scheduled services** to the **wbm.Support** cluster. The Monitor scheduled services application supports multiple services, some of which optimize performance or are used for base processing. You can configure it on the WebSphere Application Server administrative console. You must install this application to schedule recurring services, such as the data movement service and the key performance indicator (KPI) history for monitor models.
  - \_\_\_ a. In the left navigation panel, click **Servers** → **WebSphere Business Monitor configuration**
  - \_\_\_ b. In the **WebSphere Business Monitor Configuration** window, click **Monitor scheduled services** under **Required Components** section

	Component	Status
✓	<a href="#">Outbound CEI event service</a>	Configured using the event service on wbm.Support
✓	<a href="#">Messaging engine</a>	Deployed on wbm.Messaging
✓	<a href="#">Action services</a>	Deployed on wbm.Support
✗	<a href="#">Monitor scheduled services</a>	Not configured

- \_\_\_ c. In the next window, select **wbm.Support** to deploy the Monitor scheduled services to a cluster from the from dropdown list



- \_\_\_ d. Click **Deploy Monitor Scheduled Services**. Ensure the application is deployed successfully



- \_\_\_ 5. Optionally deploy the **Alphablox** service to **wbm.Business** cluster. WebSphere Business Monitor uses Alphablox to conduct multidimensional data analysis from your Business Space or portlet-based dashboards.
  - \_\_\_ a. In the left navigation panel, click **Servers** → **WebSphere Business Monitor configuration**
  - \_\_\_ b. In the **WebSphere Business Monitor Configuration** window, click **Alphablox** under **Optional components** section

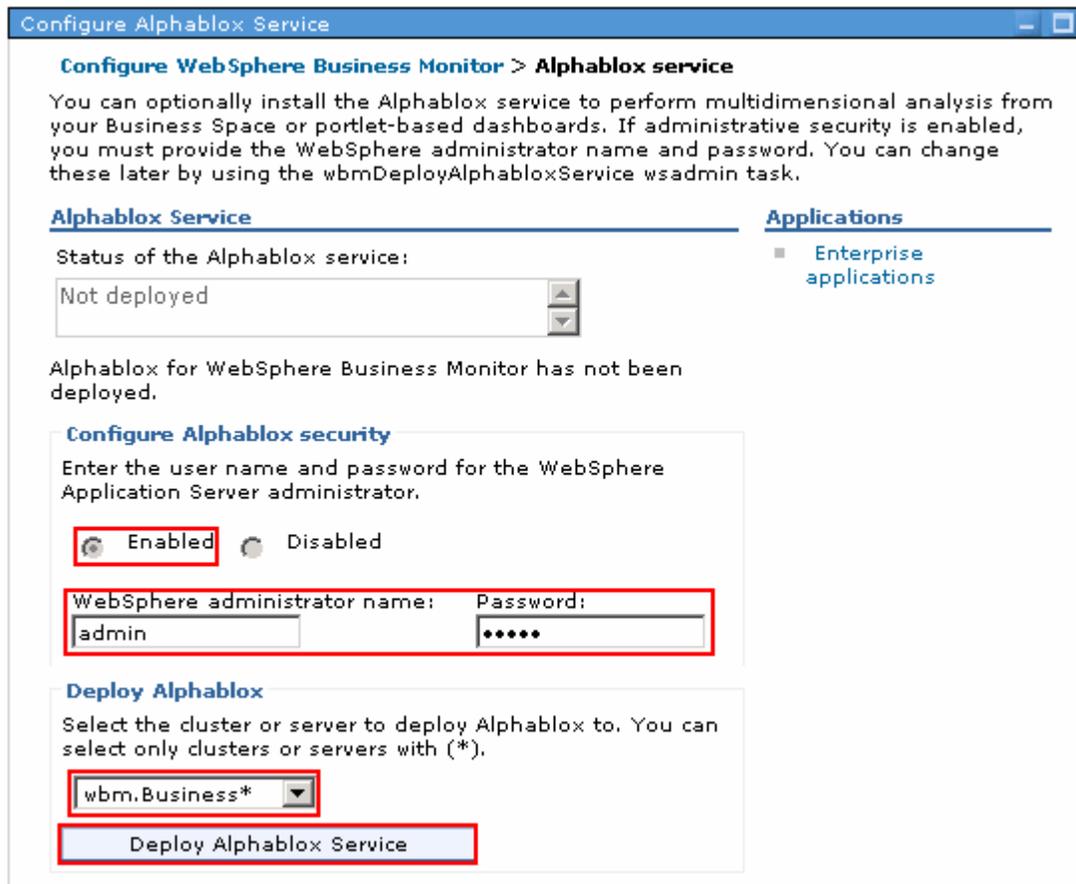
**Optional components:**

To configure an optional component, click the component name. Components that are already configured display a green check mark.

	Component	Status
<input type="radio"/>	<a href="#">Alphablox</a>	Not configured
<input type="radio"/>	<a href="#">Dashboards for mobile devices</a>	Not configured
<input type="radio"/>	<a href="#">Inbound event emitter services (JMS and REST)</a>	Not configured

\_\_\_ c. In the next window, provide the information as shown below:

- 1) Under the **Configure Alphablox security** section, type the WebSphere administrator name and password if the security is enabled
  - WebSphere administrator name : **admin**
  - Password : **superSecret**
- 2) Under the **Deploy Alphablox** section, select **wbm.Business** to deploy the Alphablox utility to a cluster from the dropdown



\_\_\_ d. Click **Deploy Alphablox Service**. Ensure the Alphablox service is deployed successfully



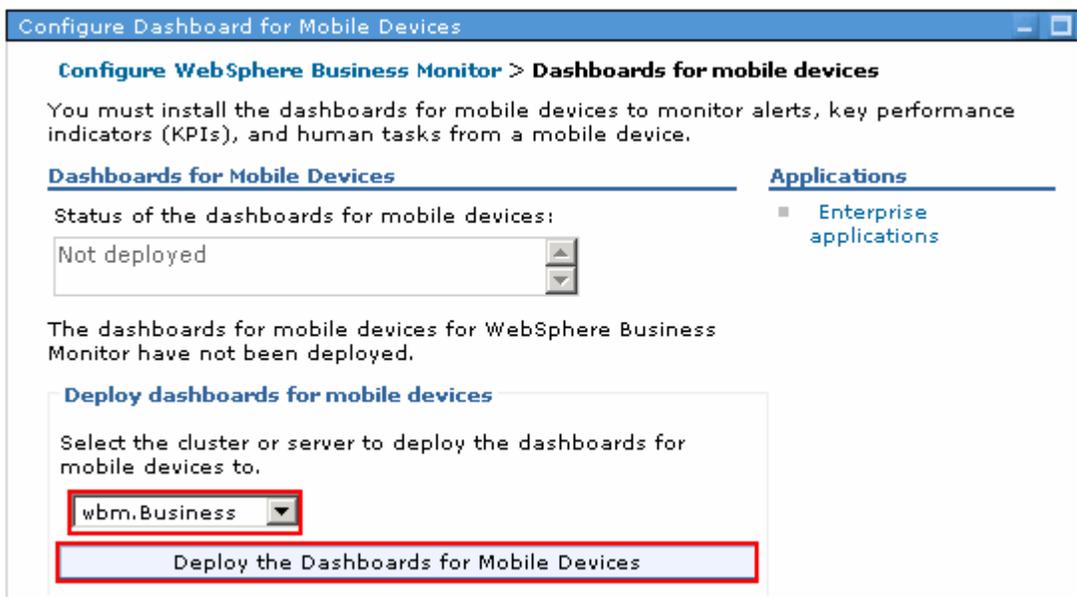
\_\_\_ 6. Optionally deploy **Dashboards for mobile devices** application to **wbm.Business** cluster. You can use WebSphere Business Monitor dashboards on mobile devices.

\_\_\_ a. In the left navigation panel, click **Servers** → **WebSphere Business Monitor configuration**

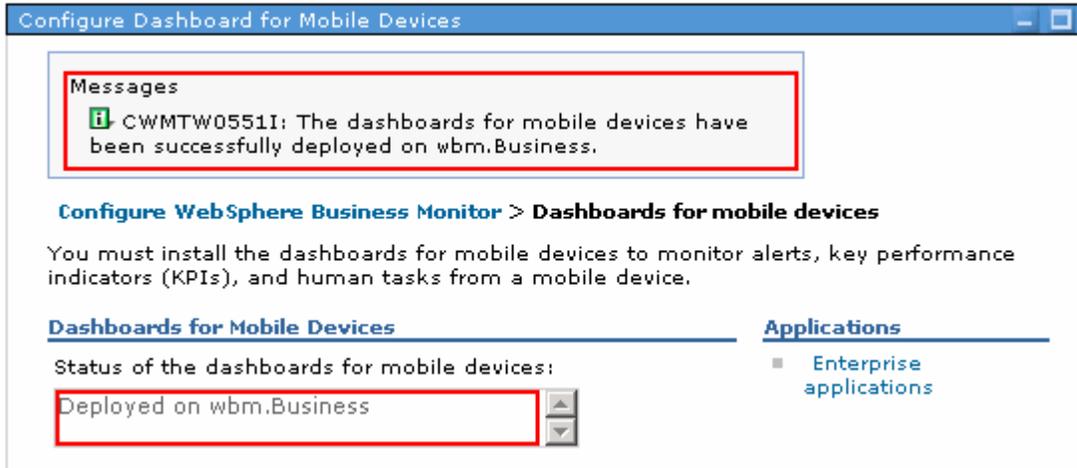
\_\_\_ b. In the **WebSphere Business Monitor Configuration** window, click **Dashboards for mobile devices** under **Optional components** section

	Component	Status
<input checked="" type="checkbox"/>	<a href="#">Alphasbox</a>	Deployed on wbm.Business
<input type="checkbox"/>	<a href="#">Dashboards for mobile devices</a>	Not configured
<input type="checkbox"/>	<a href="#">Inbound event emitter services (JMS and REST)</a>	Not configured

\_\_\_ c. In the next window, select **wbm.Business** to deploy the Dashboards for Mobile Devices to a cluster from the dropdown



- \_\_\_ d. Click **Deploy the Dashboards for Mobile Devices**. Ensure the application is deployed successfully

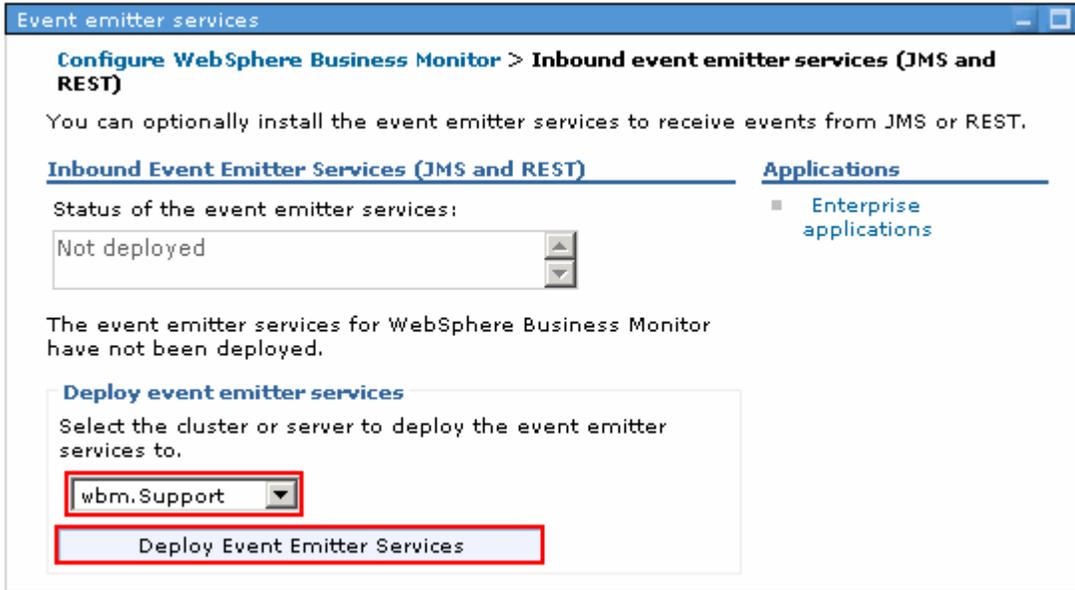


- \_\_\_ 7. Optionally configure **Inbound event emitter services (JMS and REST)** on the **wbm.Support** cluster. If you plan to use the Java Messaging Service (JMS) and Representational State Transfer (REST) event emitter services, you must install the API service applications. Rather than coding or generating Common Base Events directly, you can then use these event emitter services. You provide the event XML, and the event emitter services receive the event XML and wrap it in a Common Base Event so that WebSphere Business Monitor can process it.

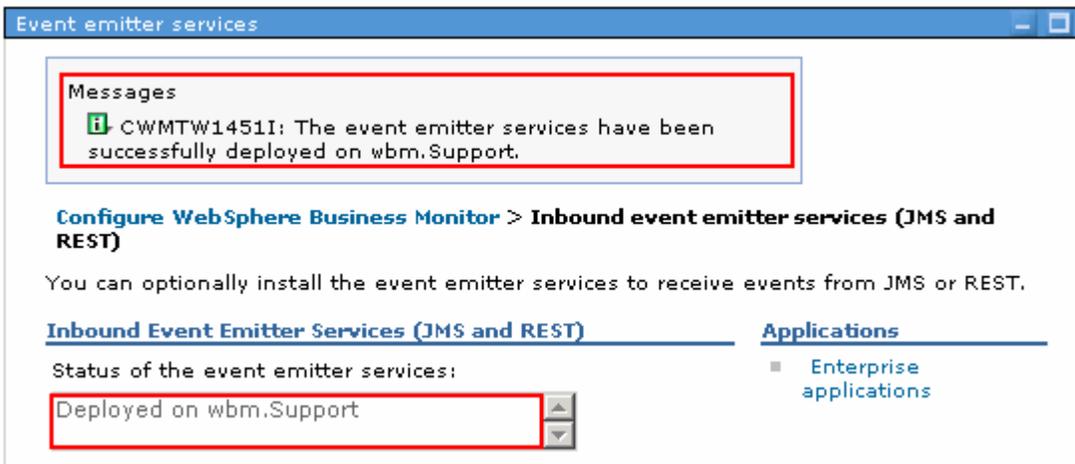
- \_\_\_ a. In the left navigation panel, click **Servers** → **WebSphere Business Monitor configuration**
- \_\_\_ b. In the **WebSphere Business Monitor Configuration** window, click **Inbound event emitter services** under **Optional components** section

	Component	Status
<input checked="" type="checkbox"/>	<a href="#">Alphablox</a>	Deployed on wbm.Business
<input checked="" type="checkbox"/>	<a href="#">Dashboards for mobile devices</a>	Deployed on wbm.Business
<input type="checkbox"/>	<a href="#">Inbound event emitter services (JMS and REST)</a>	Not configured

- \_\_\_ c. In the next window, select **wbm.Support** to deploy Inbound event emitter services to a cluster from the dropdown



- \_\_\_ d. Click **Deploy Event Emitter Services**. Ensure the inbound event emitter service is configured successfully



- \_\_\_ 8. Deploy **REST Services Gateway** to the **wbm.Business** cluster. Because the REST Services Gateway is a shared component, you cannot configure it using the configuration wizard. If you create clusters using the deployment environment configuration wizard, or create a stand-alone profile, the REST Services Gateway is configured for you. The REST Services Gateway must be deployed and registered with Business Space before you can use the widgets in Business Space.

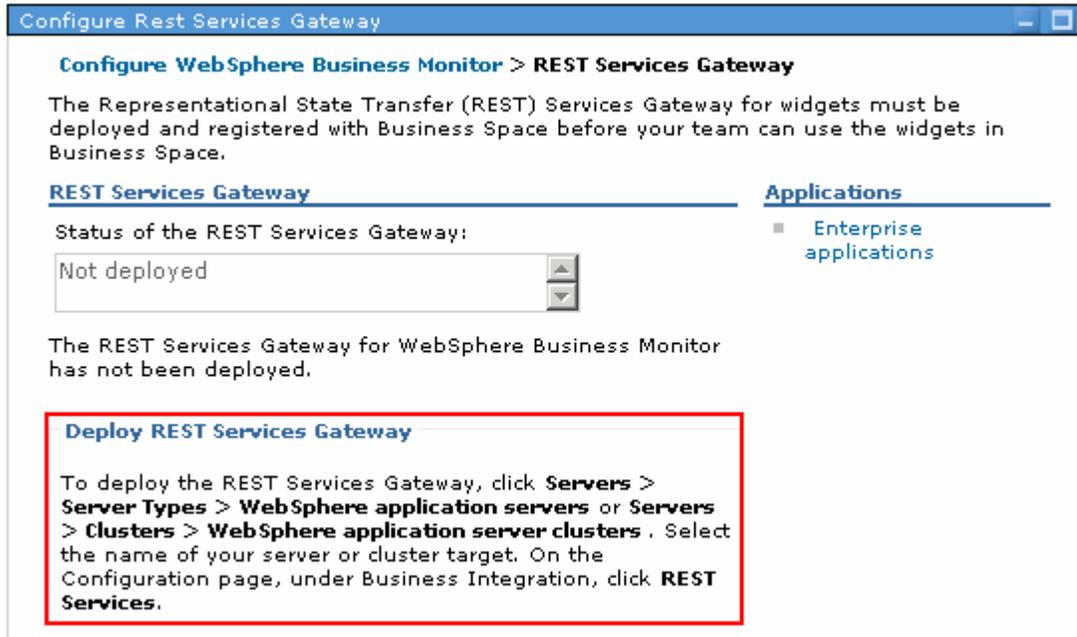
- \_\_\_ a. In the left navigation panel, click **Servers** → **WebSphere Business Monitor configuration**
- \_\_\_ b. In the **WebSphere Business Monitor Configuration** window, click **REST Services Gateway** under **Shared components** section

**Shared components:**

Components that are already configured display a green check mark. Removing these components might affect other products.

	Component	Status
<input type="radio"/>	<a href="#">REST Services Gateway</a>	Not configured
<input type="radio"/>	<a href="#">Business Space</a>	Not configured

- \_\_\_ c. Follow the instructions in the next window, to deploy the REST services application to the **wbm.Business** cluster



**Configure Rest Services Gateway**

**Configure WebSphere Business Monitor > REST Services Gateway**

The Representational State Transfer (REST) Services Gateway for widgets must be deployed and registered with Business Space before your team can use the widgets in Business Space.

**REST Services Gateway**

Status of the REST Services Gateway:  
 Not deployed

**Applications**

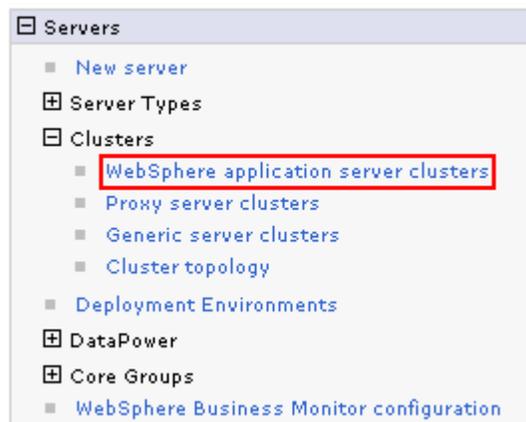
- Enterprise applications

The REST Services Gateway for WebSphere Business Monitor has not been deployed.

**Deploy REST Services Gateway**

To deploy the REST Services Gateway, click **Servers > Server Types > WebSphere application servers** or **Servers > Clusters > WebSphere application server clusters**. Select the name of your server or cluster target. On the Configuration page, under Business Integration, click **REST Services**.

- \_\_\_ d. Now, in the left navigation pane of the administrative console, expand **Servers** → **Clusters** and click the **WebSphere application server clusters** link



- Servers
  - New server
  - Server Types
  - Clusters
    - WebSphere application server clusters**
    - Proxy server clusters
    - Generic server clusters
    - Cluster topology
  - Deployment Environments
  - DataPower
  - Core Groups
  - WebSphere Business Monitor configuration

- \_\_\_ e. In the next window, click the **wbm.Business** link to deploy the REST Services to a cluster

<input type="button" value="New"/> <input type="button" value="Delete"/> <input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Ripplestart"/> <input type="button" value="ImmediateStop"/>		
Select	Name	Status
You can administer the following resources:		
<input type="checkbox"/>	<a href="#">wbm.Business</a>	
<input type="checkbox"/>	<a href="#">wbm.Messaging</a>	
<input type="checkbox"/>	<a href="#">wbm.ModelLogic</a>	
<input type="checkbox"/>	<a href="#">wbm.Moderator</a>	
<input type="checkbox"/>	<a href="#">wbm.Support</a>	
Total 5		

\_\_ f. In the next window, ensure the **Configuration** tab is selected and then click the **REST Services** link under the **Business Integration** section

**WebSphere application server clusters** > **wbm.Business**

Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the application servers that is a member of the cluster fails, requests are routed to other members of the cluster.

Runtime | **Configuration** | Local Topology

**General Properties**

- \* Cluster name:
- Bounding node group name:
- Prefer local
- Enable failover of transaction log recovery

**Cluster messaging**

- [Messaging engines](#)

**Business Integration**

- [Business Space Configuration](#)
- [REST services](#)

**Additional Properties**

- [Cluster members](#)
- [Backup cluster](#)
- [Endpoint listeners](#)
- [Security domain](#)

\_\_ g. In the next window, specify the information below:

- 1) Protocol : Select **https://** from the dropdown
- 2) Host name : Ex: **<fully qualified host name of a Web server machine which load-balances the wbm.Business cluster>**
- 3) Port : Ex: **9451**
- 4) Select the check boxes for the REST Services listed to enable them

**Note:** If you do not have the protocol, the host name and the http port for the REST services configuration handy, accept the default values. You can provide the correct information once you have it handy and save to the master configuration.

**REST services**

Protocol:

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

\* Port:

Context root:

Enabled	Type	Description	URL
<input checked="" type="checkbox"/>	Monitor	WebSphere Business Monitor REST services	https:// hostn
<input checked="" type="checkbox"/>	User Membership	User Membership REST API	https:// hostn

\_\_ h. Click **OK**

\_\_ i. Save to the master configuration. Synchronize changes to the nodes

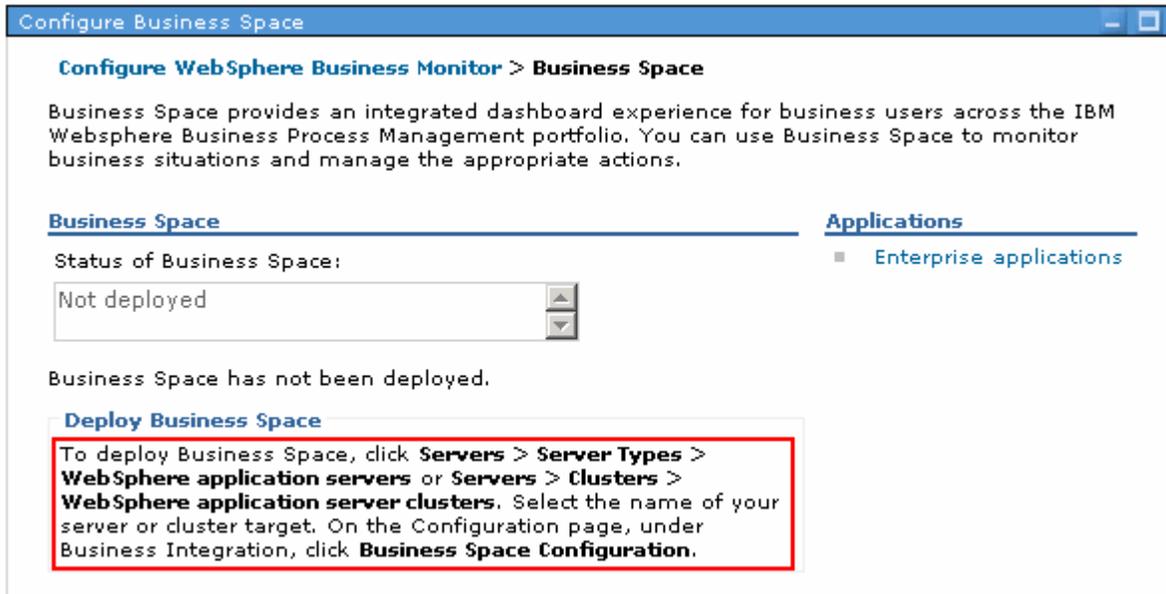
\_\_\_ 9. Deploy **Business Space** to the **wbm.Business** cluster. Because Business Space is a shared component, you cannot configure it using the configuration wizard. If you create clusters using the deployment environment configuration wizard, or create a stand-alone profile, Business Space is configured for you.

\_\_ a. In the left navigation panel, click **Servers** → **WebSphere Business Monitor configuration**

\_\_ b. In the **WebSphere Business Monitor Configuration** window, click **Business Space** under **Shared components** section

	Component	Status
<input checked="" type="checkbox"/>	<a href="#">REST Services Gateway</a>	Deployed on wbm.Business
<input type="checkbox"/>	<a href="#">Business Space</a>	Not configured

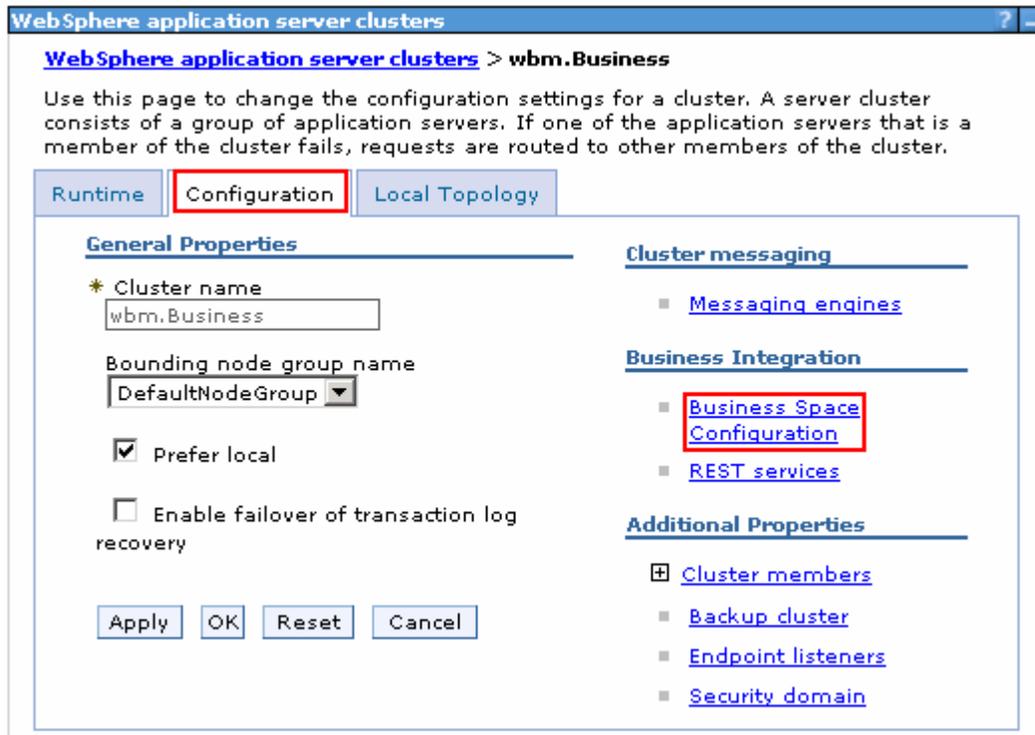
\_\_\_ 10. Follow the instructions in the next window, to deploy the Business Space application to the **wbm.Business** cluster



\_\_ a. In the next window, click the `wbm.Business` link to deploy the REST Services to a cluster

<input type="button" value="New"/> <input type="button" value="Delete"/> <input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Ripplestart"/> <input type="button" value="ImmediateStop"/>		
Select	Name	Status
You can administer the following resources:		
<input type="checkbox"/>	<a href="#">wbm.Business</a>	✘
<input type="checkbox"/>	<a href="#">wbm.Messaging</a>	✘
<input type="checkbox"/>	<a href="#">wbm.ModelLogic</a>	✘
<input type="checkbox"/>	<a href="#">wbm.Moderator</a>	✘
<input type="checkbox"/>	<a href="#">wbm.Support</a>	✘
Total 5		

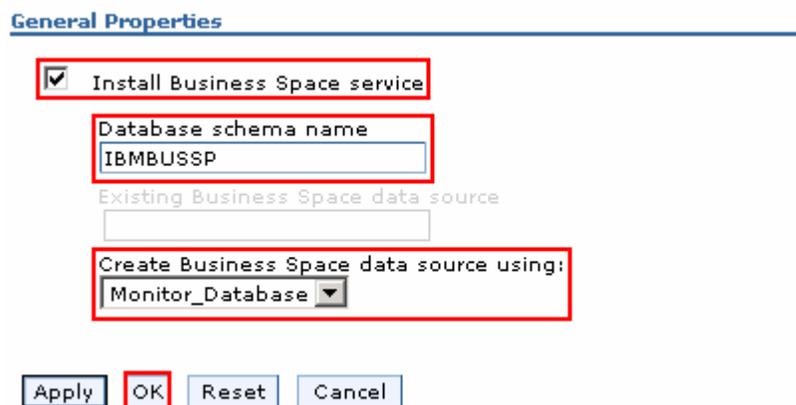
\_\_ b. In the next window, ensure the **Configuration** tab is selected and then click the **Business Space Configuration** link under the **Business Integration** section



\_\_ c. In the next window, complete the instructions below to configure Business Space

1) Select the check box for **Install Business Space service**

- Database schema name : **IBMBUSSP** (default)
- Select **Monitor\_Database** to create a data source



\_\_ d. Click **OK**

\_\_ e. Save changes to the master configuration. Synchronize changes to the nodes

\_\_\_ 11. Verify the WebSphere Business Monitor components configuration

\_\_ a. In the left navigation pane, expand **Servers** and then click **WebSphere Business Monitor configuration**



- \_\_\_ b. In the **WebSphere Business Monitor configuration** panel to the right, verify each component and to a cluster the components are deployed.

**Configure WebSphere Business Monitor**

For your WebSphere Business Monitor environment to work properly, you must configure multiple components. The following tables show the status of the components that make up a complete WebSphere Business Monitor environment.

**Configure WebSphere Business Monitor**

To view the details of a component or to modify a configuration, click the component name.

**Required components:**  
All components must display a green check mark for your WebSphere Business Monitor environment to work properly.

Component	Status
<a href="#">Outbound CEI event service</a>	Configured using the event service on wbm.Support
<a href="#">Messaging engine</a>	Deployed on wbm.Messaging
<a href="#">Action services</a>	Deployed on wbm.Support
<a href="#">Monitor scheduled services</a>	Deployed on wbm.Support

**Optional components:**  
To configure an optional component, click the component name. Components that are already configured display a green check mark.

Component	Status
<a href="#">Alphablox</a>	Deployed on wbm.Business
<a href="#">Dashboards for mobile devices</a>	Deployed on wbm.Business
<a href="#">Inbound event emitter services (JMS and REST)</a>	Deployed on wbm.Support

**Shared components:**  
Components that are already configured display a green check mark. Removing these components might affect other products.

Component	Status
<a href="#">REST Services Gateway</a>	Deployed on wbm.Business
<a href="#">Business Space</a>	Deployed on wbm.Business

- \_\_\_ c. Click each component link, to verify the specific configuration of that component

\_\_\_ 12. The WebSphere Business Monitor configuration is complete

## Part 8: Deploy the human task and global process monitor models

In this part of the exercise, you will deploy the global human task and the global process monitor models. You deploy these monitor models dispersing across two clusters, which is, the monitor model logic EJB module and the monitor model moderator EJB module of the monitor model is deployed to two clusters. You will eventually configure connections for Business Space widgets to communicate with WebSphere Process Server.

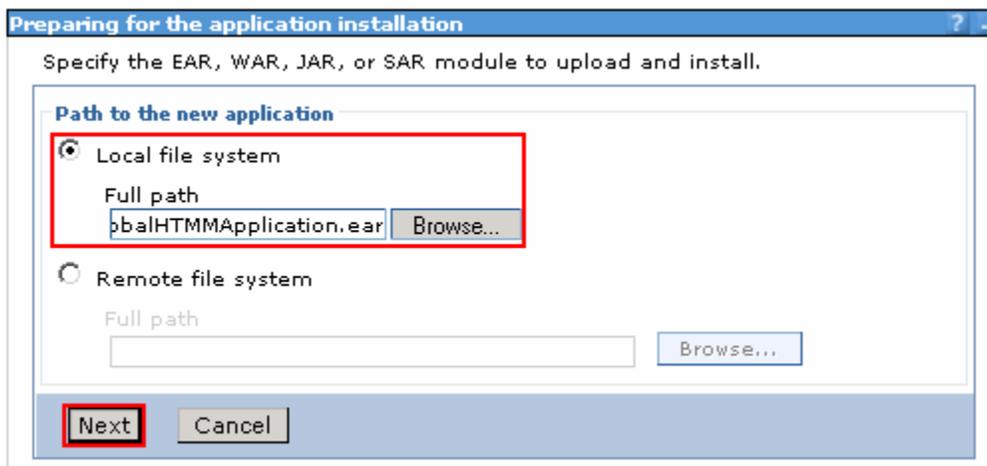
**Pre-requisite:** Before proceeding to the next step, ensure the monitor data scheduled services application is running

- \_\_\_ 1. Install the global human task monitor model
  - \_\_\_ a. Launch the administrative console, and in the left navigation pane, expand **Applications** and click **Monitor Models**

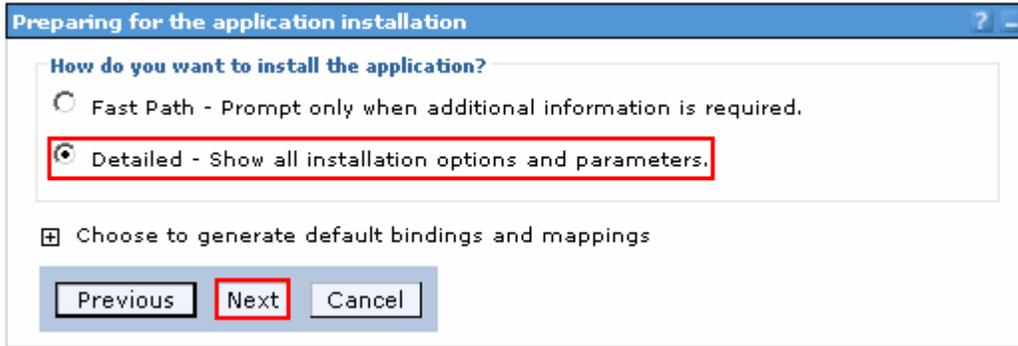


- \_\_\_ b. In the Monitor Models window to the right, click **Install**
- \_\_\_ c. In the next window, click the select the radio button for **Local file system** and then click the **Browse** button to locate the monitor model

**Note:** The global process monitor model enterprise archive is located at <WBM\_HOME>\installableApps.wbm\monitorModels on the deployment manager machine.

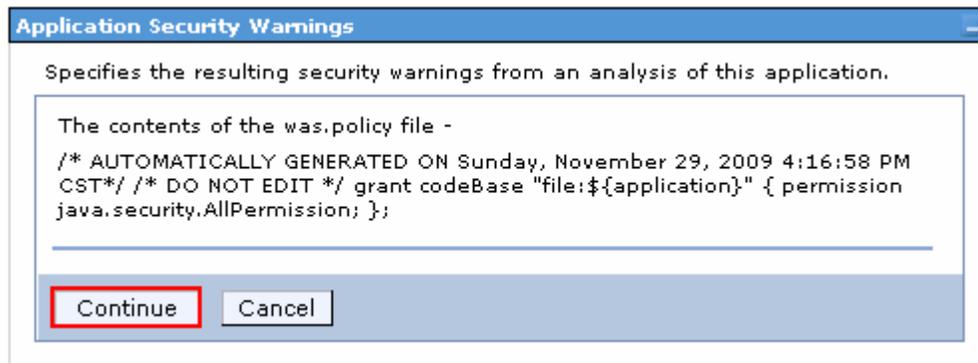


- \_\_\_ d. Click **Next**
- \_\_\_ e. In the next window, select the radio button for, **Detailed - Show all installation options and parameters**



\_\_ f. Click **Next**

\_\_ g. In the next Application Security Warnings panel, read the warning messages



\_\_ h. Click **Continue**

\_\_ i. In the next **Step1: Select installation options** panel, accept the defaults and click **Next**

\_\_ j. In the next **Step2 : Map Modules to servers** panel, complete the instructions below:

- 1) Clusters and servers: Select **wbm.ModelLogic**
- 2) Select the check box for **GlobalHTMMModelLogic** EJB module only

Step 1 Select installation options

**→ Step 2: Map modules to servers**

Step 3 Map shared libraries

Step 4 Map shared library relationships

Step 5 Provide JNDI names for beans

Step 6 Map EJB references to beans

Step 7 Map resource references to resources

### 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=wbmCell01,cluster=wbm.ModelLogic
WebSphere:cell=wbmCell01,cluster=wbm.Support
WebSphere:cell=wbmCell01,cluster=wbm.Messaging
WebSphere:cell=wbmCell01,cluster=wbm.Moderator
WebSphere:cell=wbmCell01,cluster=wbm.Business
```

**Apply**

Select	Module	URI	Server
<input checked="" type="checkbox"/>	GlobalHTMMModelLogic	GlobalHTMMModelLogic.jar,META-INF/ejb-jar.xml	WebSphere:cell=wbmCell01,cluster=wbm.Support
<input type="checkbox"/>	GlobalHTMMConsumer	GlobalHTMMConsumer.jar,META-INF/ejb-jar.xml	WebSphere:cell=wbmCell01,cluster=wbm.Support

3) Now, click the **Apply** button to map the selected module to the **wbm.ModelLogic** cluster

\_\_\_ k. While you are in the **Step2 : Map Modules to servers** panel, complete the instructions below:

- 1) Clusters and servers: Select **wbm.Moderator**
- 2) Select the check box for **GlobalHTMMConsumer** EJB module only

**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=wbmCell01,cluster=wbm.ModelLogic
WebSphere:cell=wbmCell01,cluster=wbm.Support
WebSphere:cell=wbmCell01,cluster=wbm.Messaging
WebSphere:cell=wbmCell01,cluster=wbm.Moderator
WebSphere:cell=wbmCell01,cluster=wbm.Business
```

**Apply**

Select	Module	URI	Server
<input type="checkbox"/>	GlobalHTMMModelLogic	GlobalHTMMModelLogic.jar,META-INF/ejb-jar.xml	WebSphere:cell=wbmCell01,cluster=wbm.ModelLogic
<input checked="" type="checkbox"/>	GlobalHTMMConsumer	GlobalHTMMConsumer.jar,META-INF/ejb-jar.xml	WebSphere:cell=wbmCell01,cluster=wbm.Support

3) Now, click the **Apply** button to map the selected module to the **wbm.Moderator** cluster

4) The final **Step2: Map modules to servers** panel should look like in the picture shown below:

**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=wbmCell01,cluster=wbm.ModelLogic
WebSphere:cell=wbmCell01,cluster=wbm.Support
WebSphere:cell=wbmCell01,cluster=wbm.Messaging
WebSphere:cell=wbmCell01,cluster=wbm.Moderator
WebSphere:cell=wbmCell01,cluster=wbm.Business
```

**Apply**

Select	Module	URI	Server
<input type="checkbox"/>	GlobalHTMMModelLogic	GlobalHTMMModelLogic.jar,META-INF/ejb-jar.xml	WebSphere:cell=wbmCell01,cluster=wbm.ModelLogic
<input checked="" type="checkbox"/>	GlobalHTMMConsumer	GlobalHTMMConsumer.jar,META-INF/ejb-jar.xml	WebSphere:cell=wbmCell01,cluster=wbm.Moderator

\_\_\_ l. Click **Next**

\_\_\_ m. In the next **Step3: Map shared libraries** panel, accept the defaults. Click **Next**

\_\_\_ n. In the next **Step4: Map shared library relationships** panel, accept the defaults. Click **Next**

\_\_\_ o. In the next **Step5: Provide JNDI names for beans** panel, accept the defaults. Click **Next**

\_\_\_ p. In the next **Step6: Map EJB references to beans** panel, accept the defaults. Click **Next**

- \_\_ q. In the next **Step7: Map resource references to resources** panel, accept the defaults. Click **Next**

---

**Note:** If an Application Resource Warnings panel shows up, read the warning messages and click **Continue**

---

- \_\_ r. In the next **Step8: Map resource environment entry references to resources** panel, accept the defaults. Click **Next**

---

**Note:** If an Application Resource Warnings panel shows up, read the warning messages and click **Continue**

---

- \_\_ s. In the next **Step9: Correct use of system identity** panel, accept the defaults. Click **Next**

- \_\_ t. In the next **Step10: Metadata for modules** panel, accept the defaults. Click **Next**

- \_\_ u. In the next **Step11: Select Monitor Model options** panel, accept the defaults. Click **Next**

---

**Note:** You can clear the check box for **Run scripts to create the schema** option. You can export the scripts and create the tables post monitor model deployment.

---

- \_\_ v. In the next **Step12: Select Monitor Model Alphablox options** panel, accept the defaults. Click **Next**

---

**Note:** You can clear the check box for **Create the Alphablox cubes** option. You can deploy the cubes, post monitor model deployment.

---

- \_\_ w. In the next **Step13: Select Monitor Model CEI options** panel, accept the defaults. Click **Next**

---

**Note:** If the event service is running on a remote cell, select the **Remote** option and then provide the required information to connect to that remote event service.

---

- \_\_ x. In the next **Step14: Configure security for monitor model** panel, accept the defaults. Click **Next**

- \_\_ y. In the next **Summary** panel, verify the monitor model installation summary. Click **Finish**

- \_\_ z. Save to the master configuration. Synchronize changes to nodes

- \_\_\_ 2. Similarly deploy the **Global Process Monitor Model**

- \_\_\_ 3. You should see both the monitor models successfully running as shown in the picture below:

- \_\_ a. In the left navigation pane, expand **Applications** and click the **Monitor Models** link

**Monitor Models**

Use this page to manage all versions of monitor models and their associated applications. To start or stop a version of a monitor model, you must start or stop the associated application. All models are initially added to the root resource group and may not be visible by its intended dashboard users. Use the Monitor data security panel to assign permission to the models.

Preferences

Start Stop Install

Select	Model	Version	Deployment	Application	Data Security	Status
<input type="checkbox"/>	<a href="#">GlobalHTMM</a>	<a href="#">2007-06-18T09:54:38</a>	OK	<a href="#">GlobalHTMMApplication</a>	No members assigned	
<input type="checkbox"/>	<a href="#">Global Process Monitor</a>	<a href="#">2009-11-10T20:00:00</a>	OK	<a href="#">GlobalProcessMonitorApplication</a>	No members assigned	

Total 2

4. Configure connections for Business Space to communicate with WebSphere Process Server
  - a. In the left navigation pane, expand **Servers** → **Server Types** and then click **WebSphere application servers** link
  - b. In the next **WebSphere Application Servers** window, click the **business.Custom04Node04.0** link
  - c. In the next window, ensure the **Configuration** tab is selected and then expand **Java and Process Management** to click the **Process Definition** link under the **Server Infrastructure** section
  - d. In the next window, click **Java Virtual Machine** under **Additional Properties** section
  - e. In the next window, click **Custom Properties** under the **Additional Properties** section
  - f. In the next window, click the **New** button
  - g. In the next window, enter the information below:
    - 1) Name : **DashboardBPCHost**
    - 2) Value : <fully qualified host name of the WebSphere Process server deployment manager machine>

**General Properties**

\* Name

\* Value

Description

Apply  Reset Cancel

- \_\_\_ h. Click **OK**
- \_\_\_ i. Now click the **New** button again
- \_\_\_ j. In the next window, enter the information below:

- 1) Name : **DashboardBPCRMIPort**
- 2) Port : < RMI port of the WebSphere Process Server deployment manager process >

**General Properties**

\* Name

\* Value

Description

- \_\_\_ k. Click **OK**
- \_\_\_ l. Save the changes to the master configuration. The final configuration should look like in the picture below;

Select	Name	Value	Description
You can administer the following resources:			
<input type="checkbox"/>	<a href="#">DashboardBPCHost</a>	WPSdmgr.austin.ibm.com	
<input type="checkbox"/>	<a href="#">DashboardBPCRMIPort</a>	2809	
<input type="checkbox"/>	<a href="#">com.ibm.security.jass.debug</a>	off	
<input type="checkbox"/>	<a href="#">com.ibm.security.krb5.Krb5Debug</a>	off	
Total 4			

- \_\_\_ 5. Similarly, configure connection for the **business.Custom05Node05.1** server by these instructions

## Part 9: Create Business Space database tables

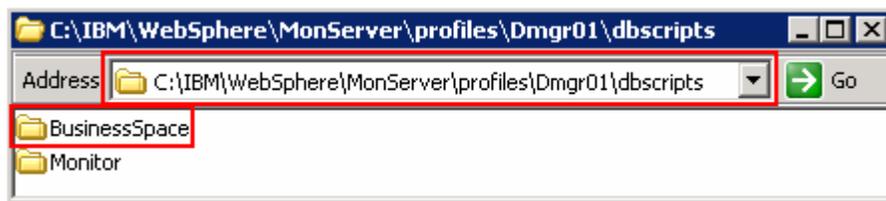
In this part of the exercise, you will create the business space database tables using the generated scripts. By default the Business Space data source is configured for the WebSphere Business Monitor Common database. Eventually you will mark the Deployment Environment's deferred configuration as done.

Complete the instructions below to manually create Business Space database tables:

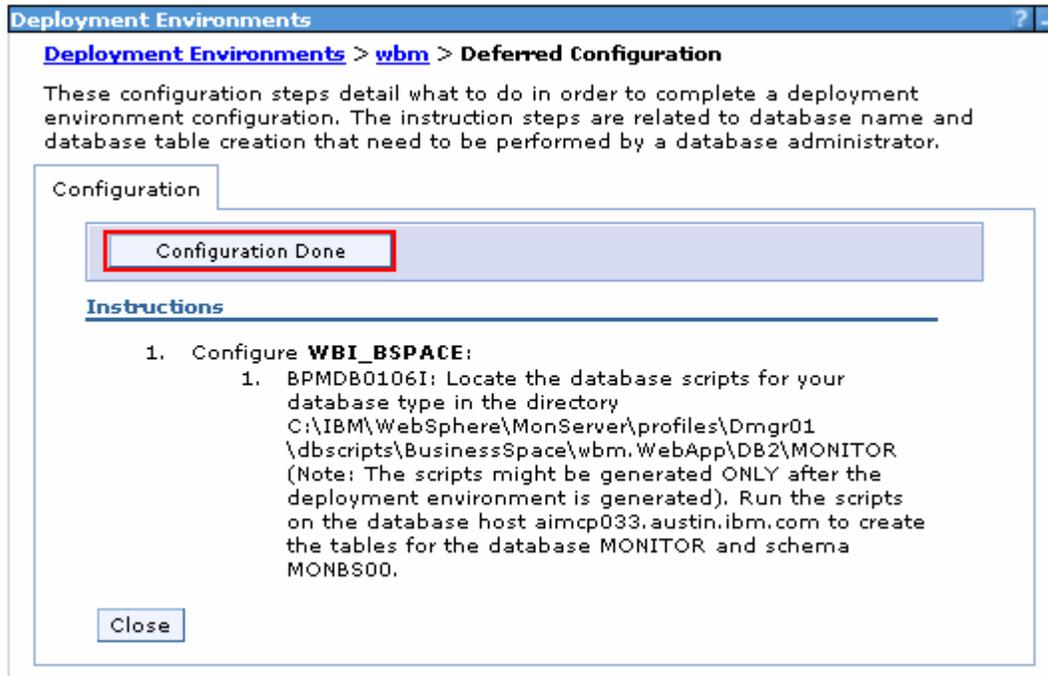
- \_\_\_ 1. The Business Space database scripts are generated to the location mentioned below on the business monitor deployment manager machine:

<DMGR\_PROFILE\_HOME>\dbscripts\BusinessSpace\DB2\

EX: C:\IBM\WebSphere\MonServer\profiles\Dmgr01\dbscripts\BusinessSpace\



- \_\_\_ 2. Open the DB2 command window from **Start** → **Programs** → **IBM DB2** → **Command Line Tools** → **Command Window** and change the directory to the location of the scripts
- \_\_\_ a. Run this script with the recommended usage to create the Business Space tables against the WPRCSDB database:
- **configBusinessSpaceDB.bat**
- \_\_\_ b. Ensure the Business Space tables are created successfully
- \_\_\_ 3. Close the DB2 command window
- \_\_\_ 4. Mark the deferred configuration as marked for the Deployment Environment
- \_\_\_ a. In the left navigation pane of the administrative console, expand **Servers** and then click **Deployment Environments**
- \_\_\_ b. Click **wbm** , the name of the deployment environment in the right panel
- \_\_\_ c. In the next panel, click **Deferred Configuration** under the **Additional Properties** section



\_\_\_ d. Click **Configuration Done**. You should see a message indicating the configuration is complete

\_\_\_ e. Save the changes to the master configuration

\_\_\_ 5. Click **Close**

## Part 10: Verify the custom topology environment

In this part of the exercise, you will verify the functions, resources and applications configured during the custom topology environment configuration.

### Pre-requisites:

- Ensure the DB2 server is running
- Restart the deployment manager
- Restart the node agents
- Start all the clusters and their member servers

### Verify the components and functions configured on the Messaging Cluster:

In this section, you will verify the messaging engines configured on the `wbm.Messaging` cluster.

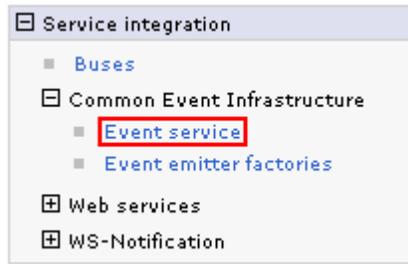
1. In the left navigation pane, expand **Servers** → **Clusters** and then click **WebSphere application server clusters**
2. In the **WebSphere application server clusters** panel to the right, click **wbm.Messaging**
3. In the next **WebSphere application server clusters** → **wbm.Messaging** panel, ensure the **Configuration** tab is selected and then click **Messaging Engines** under the **Cluster Messaging** section. You should see two messaging engines listed. Ensure they are running properly

Select	Name	Description	Status
You can administer the following resources:			
<input type="checkbox"/>	<a href="#">wbm.Messaging.000-CEI.wbmCell01.BUS</a>		+
<input type="checkbox"/>	<a href="#">wbm.Messaging.000-MONITOR.wbmCell01.Bus</a>		+
Total 2			

### Verify the components and functions configured on the Support Cluster:

In this section, you will verify the Common Event Infrastructure server support and Event emitter factories, configured on the `wbm.Support` cluster

4. In the left navigation pane, expand **Service Integration** → **Common Event Infrastructure** and then click **Event service**



5. In the **Event service** panel, click the **Event services** link under the **Additional Properties** section

6. In the next panel, click the **Default Common Event Infrastructure event server** link

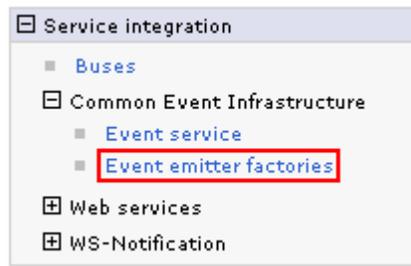
Name	Scope	Enable Event Distribution	Enable Event Data Store	Event Data Store EJB JNDI Name
You can administer the following resources:				
<a href="#">Default Common Event Infrastructure event server</a>	Cluster=wbm.Support	true	false	ejb/com/ibm/events/datastore/imp
Total 1				

7. In the next panel, verify the configuration

<p><b>General Properties</b></p> <p>* Scope cells:wbmCell01:clusters:wbm.Support</p> <p>* Name Default Common Event Infrastructure event server</p> <p>* JNDI name com/ibm/events/configuration/event-server/Default</p> <p>Description The profile of the event server shipped with the Common Event Infrastructure.</p> <p>Category</p> <p><input checked="" type="checkbox"/> Enable event distribution</p> <p><input type="checkbox"/> Enable event data store</p> <p>Event data store EJB JNDI name ejb/com/ibm/events/datastore/impl/DefaultDataStoreEJBLocalHome</p> <p>Apply OK Reset Cancel</p>	<p><b>Additional Properties</b></p> <ul style="list-style-type: none"> <li><a href="#">Event groups</a></li> <li><a href="#">Event data store</a></li> <li><a href="#">Custom properties</a></li> </ul>
--	---

8. Click the **Event groups** link to verify the event groups created. You should see two groups created

9. In the left navigation pane, expand **Service Integration** → **Common Event Infrastructure** and then click **Event emitter factories**



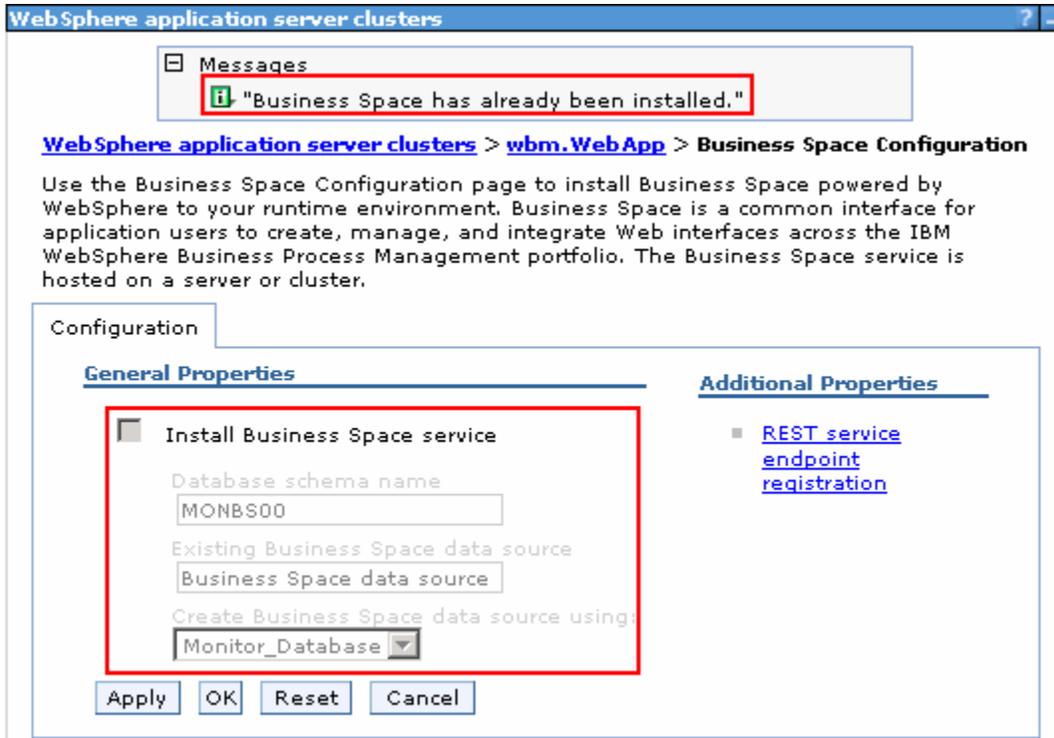
\_\_\_ 10. In the next panel, verify all the event emitter factory configurations

Select	Name	Scope	JNDI name
You can administer the following resources:			
<input type="checkbox"/>	<a href="#">Default Common Event Infrastructure emitter</a>	Cluster=wbm.Support	com/ibm/events/configuration/emitter/Default
<input type="checkbox"/>	<a href="#">EmitterFactory</a>	Cluster=wbm.Support	com/ibm/monitor/EmitterFactory
<input type="checkbox"/>	<a href="#">EmitterFactoryForREST</a>	Cluster=wbm.Support	com/ibm/monitor/EmitterFactoryForREST
<input type="checkbox"/>	<a href="#">MonitorEmitterFactory</a>	Cell=wbmCell01	com/ibm/monitor/MonitorEmitterFactory
Total 4			

### Verify the components and functions configured on the Business Cluster:

In this section, you will verify the Business Space and REST services on the **wbm.Business** cluster

- \_\_\_ 11. In the left navigation pane, expand **Servers** → **Clusters** and then click **WebSphere application server clusters**
- \_\_\_ 12. In the **WebSphere application server clusters** panel, click the **wbm.Business**
- \_\_\_ 13. In the **WebSphere application server clusters** → **wbm.Business** window, ensure the **Configuration** tab is selected, click **Business Space Configuration** under the **Business Integration** section
  - \_\_\_ a. Ensure the **Business Space Configuration** panel indicates that business space has already been installed. You should see all the configuration parameter fields are not available indicating the Business Space is already installed



- \_\_\_ 14. Click **Cancel**
- \_\_\_ 15. In the **WebSphere application server clusters** → **wbm.Business** window, ensure the **Configuration** tab is selected, click **REST Services** under the **Business Integration** section
  - \_\_\_ a. Ensure the **REST Services** panel indicates that the REST service endpoints are configured. verify all the default configuration

**Note:** If you did not provide the protocol, the host name and the http port for the REST services configuration values during the deployment environment generation, the end points can be configured to a server member of the Business cluster. Provide the correct information once you have it handy and save to the master configuration.

**REST services**

Protocol:

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

\* Port:

Context root:

Enabled	Type	Description	URL
<input checked="" type="checkbox"/>	Monitor	WebSphere Business Monitor REST services	https://host.austin.ibm.com:9449/rest/bpm/monitor
<input checked="" type="checkbox"/>	User Membership	User Membership REST API	https:// host.austin.ibm.com:9449/rest/ws/um

- \_\_\_ 16. Click **Cancel**

\_\_\_ 17. Launch the Business Space site

**URL:** [http://<Business\\_hostname:port>/BusinessSpace](http://<Business_hostname:port>/BusinessSpace)

**Ex:** <http://bspace.austin.ibm.com:9080/BusinessSpace>

---

**Note 1:** Business Space is deployed to the Business cluster. Use the host name and port of a member server of that cluster. In this exercise, you have only a cluster and two member servers configured.

**Note 2:** If you had turned on security during the profile creation, the Business Space security credentials are same as credentials used to configure WebSphere Business Monitor security.

---

\_\_\_ 18. Login to the Business Space site and verify

### Verify the Alphablox service:

In this section, you will verify the Business Space and REST services on the **wbm.Business** cluster

\_\_\_ 19. Launch the Alphablox administrative console and type the user name and password when prompted

**URL:** [http://<Alphablox\\_hostname:port>/AlphabloxAdmin/home](http://<Alphablox_hostname:port>/AlphabloxAdmin/home)

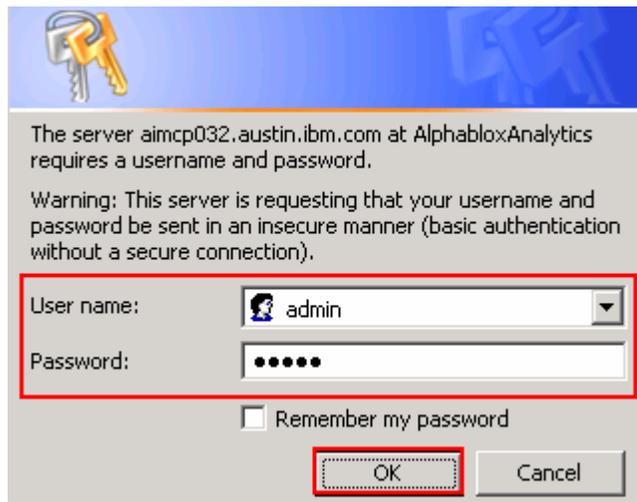
**Ex:** <http://bspace.austin.ibm.com:9080/AlphabloxAdmin/home>

---

**Note 1:** The Alphablox service is deployed to a cluster where the Business Space is running. Use the host name and port of a member server of that cluster. In this exercise, you have only a cluster and two member servers configured.

**Note 2:** If you had turned on security during the profile creation, the Alphablox security credentials are same as credentials used to configure WebSphere Business Monitor security.

---



\_\_\_ 20. The Alphablox administrative console is launched as shown in the picture below:

**APPLICATIONS** **ADMINISTRATION** **ASSEMBLY** Version 9.5.7.0 Build 51 [GA]

Application Sorting:  Alphabetical  Recently Used

### IBM Alphablox FastForward



A sample IBM Alphablox application

### IBM Alphablox Query Builder



Tool to generate queries and IBM Alphablox tags

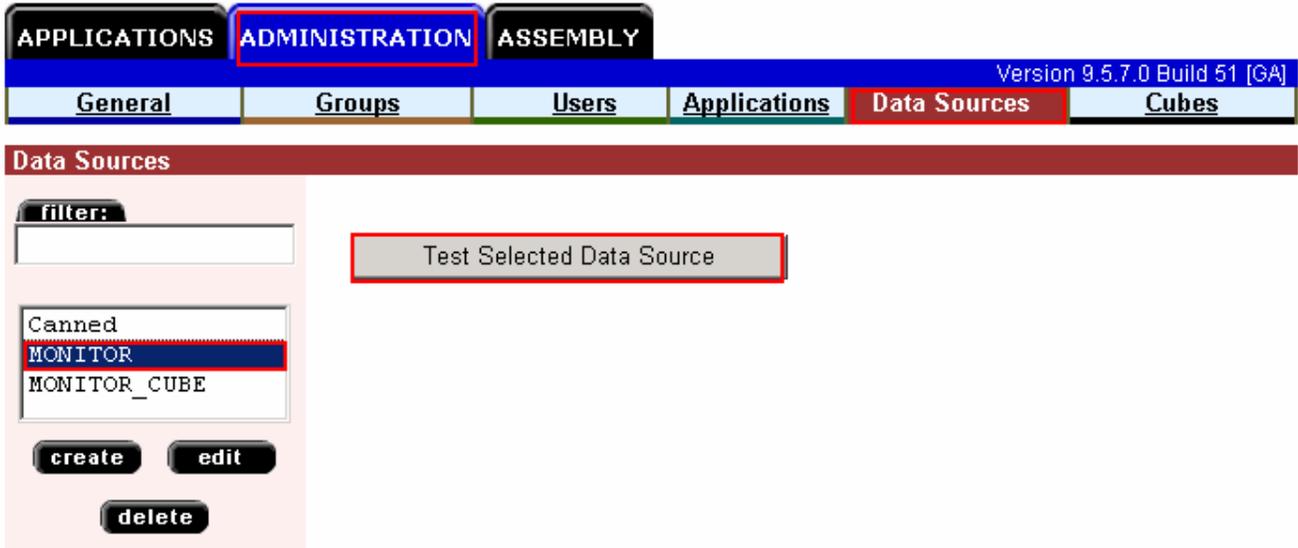
\_\_\_ 21. Select the **ADMINISTRATION** tab and navigate through general management activities you can perform as an Alphablox Administrator

**APPLICATIONS** **ADMINISTRATION** **ASSEMBLY** Version 9.5.7.0 Build 51 [GA]

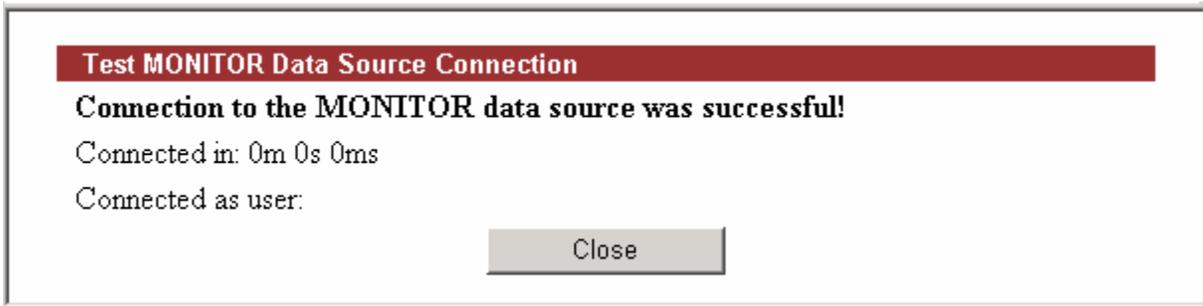
**General** **Groups** **Users** **Applications** **Data Sources** **Cubes**

- General Properties**
  - [Startup](#)
  - [System](#)
  - [Telnet Console](#)
  - [Repository Manager](#)
  - [IBM Alphablox Cube Manager](#)
  - [Cluster Options](#)
- Custom Properties**
  - [User Definitions](#)
  - [Application Definitions](#)
- Runtime Management**
  - [Comments](#)
  - [IBM Alphablox Cubes](#)
  - [Application Sessions](#)
  - [PDF Reports \(DHTML\)](#)
- Console**
  - [Start Console Session](#)
- Utilities**
  - [Essbase Setup](#)

\_\_\_ 22. Now select **ADMINISTRATION** → **Data Sources** tab. You should see three data sources. Select **MONITOR** from the data sources text area as shown in the picture below:



\_\_\_ 23. Click the **Test Selected Data Source** button and ensure the data base connection is successful



\_\_\_ 24. Click **Close**

\_\_\_ 25. Similarly select **MONITOR\_CUBE** from the data source text area and test for a successful database connection

\_\_\_ 26. Now, navigate through the remaining administration activities like managing groups, users, applications and cubes.

## Task 1: Manually create WebSphere Business Monitor databases and tables

In this part of the exercise, you will create the WebSphere Business Monitor Common database and tables.

### Pre-requisites:-

- Install and configure the WebSphere Business Monitor supported database product on a designated host machine. In this exercise, a supported DB2 version is used and the instructions are based on the DB2 product. Ensure the DB2 server is running at this time
- Copy the WebSphere Business Monitor Common database scripts to a temporary location of your database product host machine. The database scripts are generated to the location mentioned below:

o <DMGR\_PROFILE\_HOME>\dbscripts\



Ex: C:\IBM\WebSphere\MonServer\profiles\Dmgr01\dbscripts\\*

Complete the instructions below to create the common database:

1. Open the DB2 command window from **Start → Programs → IBM DB2 → Command Line Tools → Command Window** and change the directory to the temporary directory where the scripts are copied, Ex: C:\temp\dbscripts
2. Run this script with the recommended usage to create the MONITOR database:
  - **db2 -tf createDatabase.sql**
  - **db2 -tf createTables.sql** (Note: Connect to the MONITOR database before running this script)
3. These scripts create the Monitor database, that is MONITOR and create Monitor database tables
4. Close the DB2 command window

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