

# WebSphere Business Monitor V7.0: Clustering - Remote messaging, remote support, and Web pattern

What this exercise is about .....	2
Exercise requirements .....	2
What you should be able to do .....	2
Exercise Instructions .....	3
Introduction .....	4
Part 1: Preparing for the WebSphere Business Monitor installation image .....	7
Part 2: Installing WebSphere Business Monitor V7.0 binaries .....	8
Alternative: Silently install WebSphere Business Monitor V7.0 binaries .....	20
Part 3: Create WebSphere Business Monitor server deployment manager profile .....	27
Alternative: Manually create WebSphere Business Monitor deployment manager profile .....	41
Part 4: Create WebSphere Business Monitor custom profiles.....	43
Alternative: Manually create WebSphere Business Monitor custom profile .....	50
Part 5: Generate a remote messaging, remote support, and Web pattern.....	52
Part 6: Verify and update the deployment environment configuration.....	64
Part 7: Create Business Space database tables .....	77
Task 1: Manually create WebSphere Business Monitor database and tables .....	79

## What this exercise is about

The objective of this exercise is to provide step by step instructions for installing WebSphere® Business Monitor V7.0 binaries and eventually create a remote messaging, remote support, and Web deployment environment pattern in a five 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
  - Four custom profiles
- Generate a remote messaging, remote support, and Web deployment environment pattern

## 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 and 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	

**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 are the installation files you need to complete the exercise:

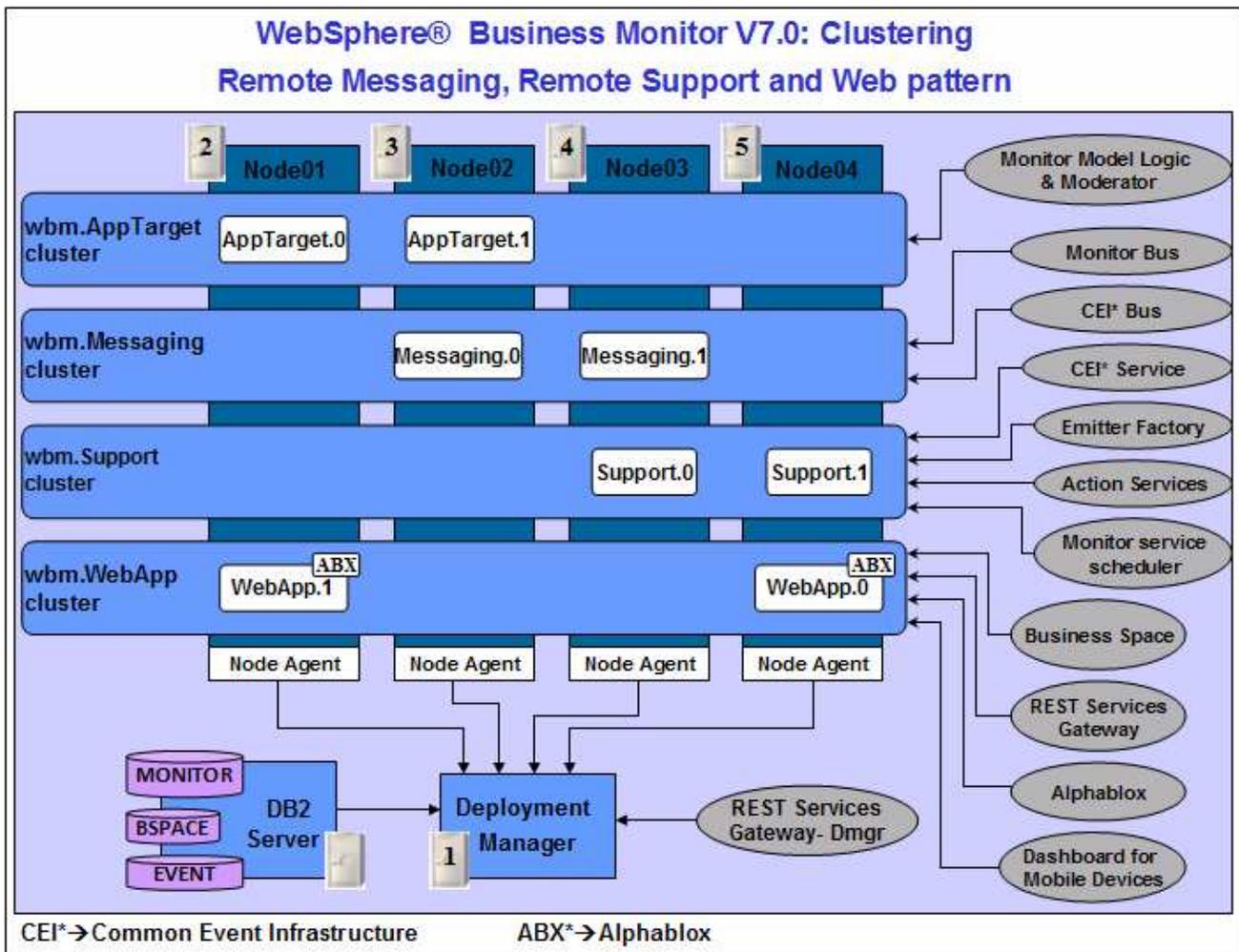
Product	File Name
WebSphere Business Monitor V7.0	Monitor_V7.0_Windows_32.zip

## 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 WebSphere Adapters to collect events from additional sources.

In this exercise, you will install and configure WebSphere Business Monitor in a remote messaging, remote support, and Web deployment environment pattern. The remote messaging, remote support, and Web deployment environment pattern is a pre-defined four-cluster topology pattern in which the monitor components and resources are allocated accordingly to the cluster that handles the highest loads. This topology is the most flexible and versatile, and is proffered by most users. The components are divided between the four clusters.

In this exercise, the remote messaging, remote support, and Web deployment environment pattern has two member servers assigned to each of the clusters which are spread across four nodes as shown in the diagram below:



The topology mapping table below, gives you an opportunity to foresee the naming pattern and helps assigning the member servers to a cluster. On generating the deployment environment, the clusters and their member servers are named by appending to the Deployment Environment name and the node name. Remember the cluster and their member server names can get lengthy if the Deployment Environment and the node names are long.

The table below shows the naming pattern used in the exercise and the deployment environment is named; **wbm**:

**Clusters → Nodes → Member Servers mapping (Topology) table:**

Clusters	Nodes	Member Servers	Host Name
<b>wbm</b> .AppTarget	Custom01Node01	<b>wbm</b> .AppTarget.Custom01Node01.0	custom01.austin.ibm.com
	Custom02Node02	<b>wbm</b> .AppTarget.Custom02Node02.0	custom02.austin.ibm.com
<b>wbm</b> .Messaging	Custom02Node02	<b>wbm</b> .Messaging.Custom02Node02.0	custom02.austin.ibm.com
	Custom03Node03	<b>wbm</b> .Messaging.Custom03Node03.0	custom03.austin.ibm.com
<b>wbm</b> .Support	Custom03Node03	<b>wbm</b> .Support.Custom03Node03.0	custom03.austin.ibm.com
	Custom04Node04	<b>wbm</b> .Support.Custom04Node04.0	custom04.austin.ibm.com
<b>wbm</b> .WebApp	Custom04Node04	<b>wbm</b> .WebApp.Custom04Node04.0	custom04.austin.ibm.com
	Custom01Node01	<b>wbm</b> .WebApp.Custom01Node01.0	custom01.austin.ibm.com

**Node → Server assignment table:**

Nodes	Application Deployment Target	Messaging Infrastructure	Support Infrastructure	Web Infrastructure
Custom01Node01	1	0	0	1
Custom02Node02	1	1	0	0
Custom03Node03	0	1	1	0
Custom04Node04	0	0	1	1

Use the tables below to plan the naming pattern and the member servers for you environment:

**Clusters → Nodes → Member Servers mapping (Topology) table:**

Clusters	Nodes	Member Servers	Host Name

**Node → Server assignment table:**

Nodes	Application Deployment Target	Messaging Infrastructure	Support Infrastructure	Web Infrastructure

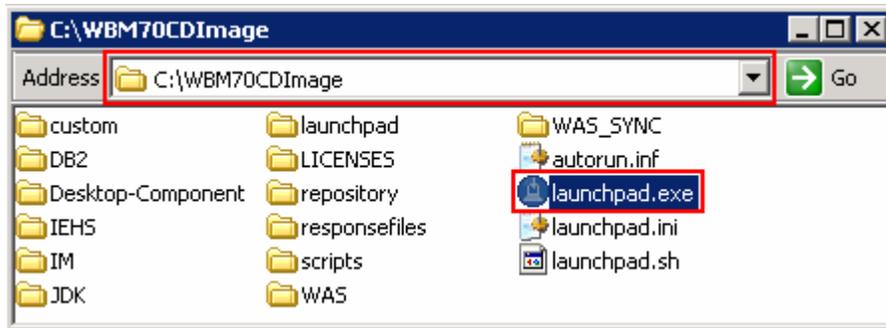
## Part 1: Preparing for the WebSphere Business Monitor installation image

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
- \_\_\_ 3. 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.

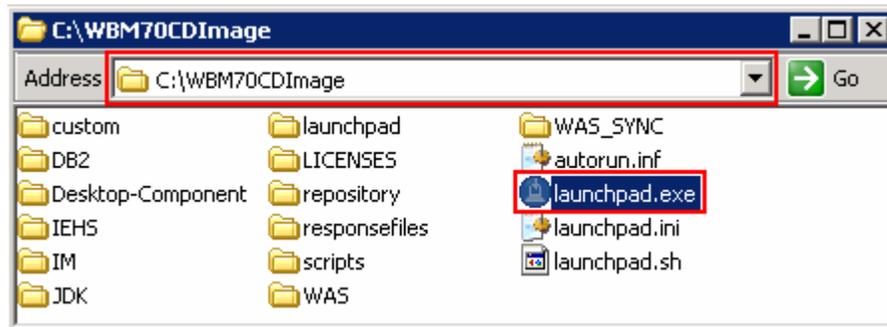
You will use the WebSphere Business Monitor V7.0 Common Launchpad to silently install WebSphere Application Server V7.0.0.7 and then launch the Installation Manager from the Common Launchpad to install the WebSphere Business Monitor V7.0 binaries on the WebSphere Application Server - ND package group.

If you are installing WebSphere Business Monitor V7.0 for the first time on this machine, 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.

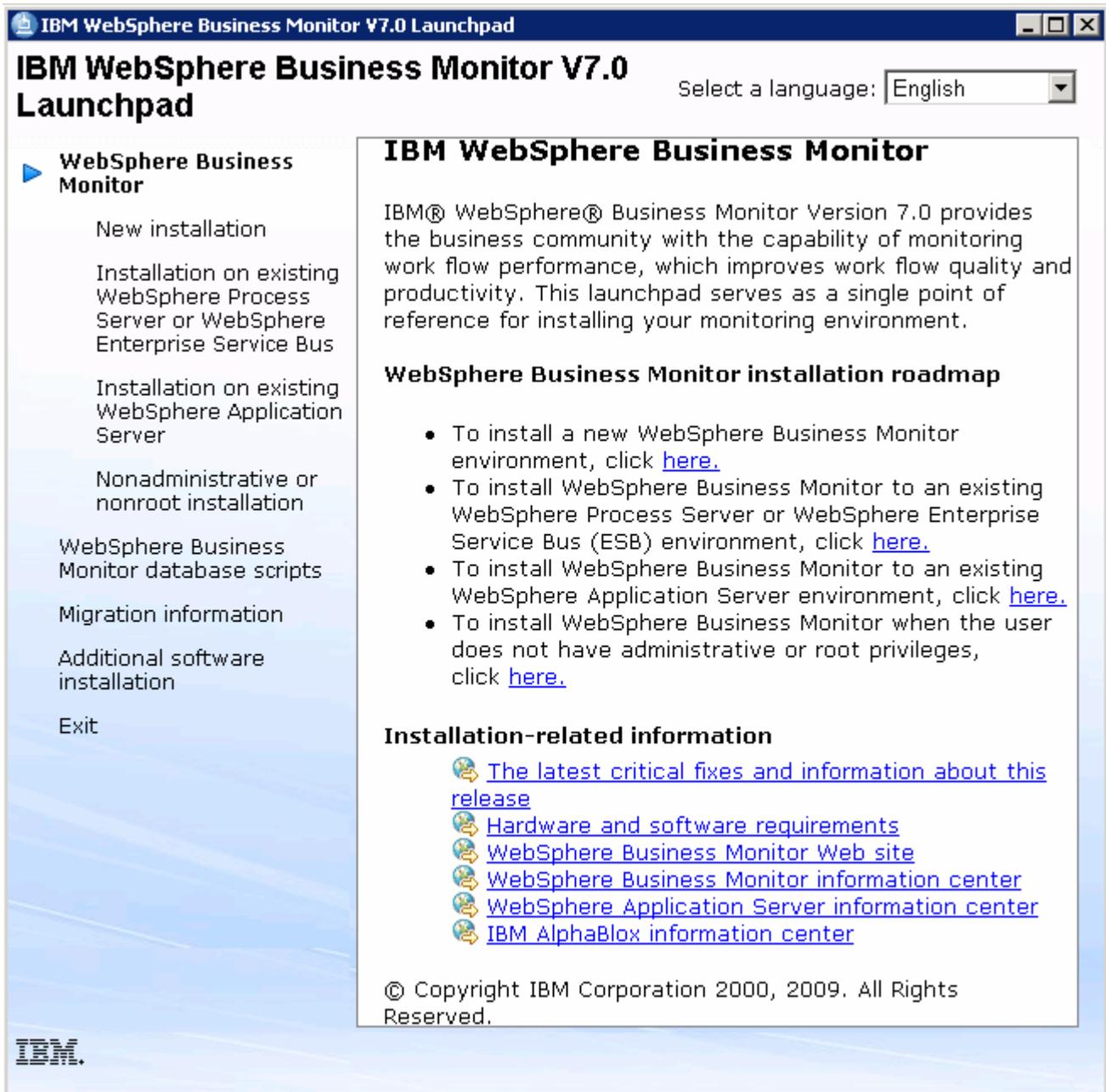
**Pre-requisite:** Before going to the next step, ensure you have enough disk space to install WebSphere Application Server V7.0.0.7 and then the WebSphere Business Monitor binaries.

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

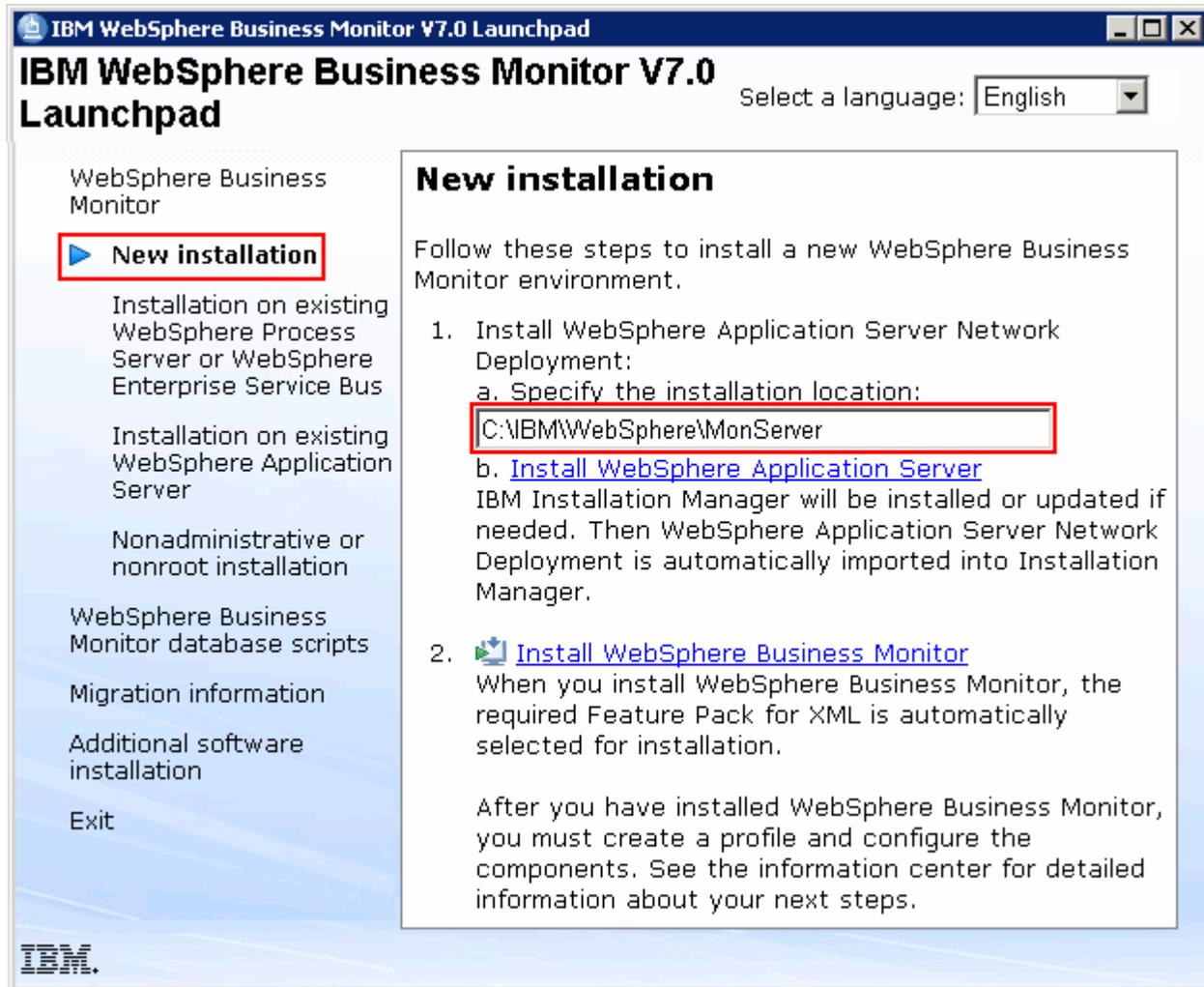
1. Navigate to the directory where the correct on-disk structure for the installation image was created



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



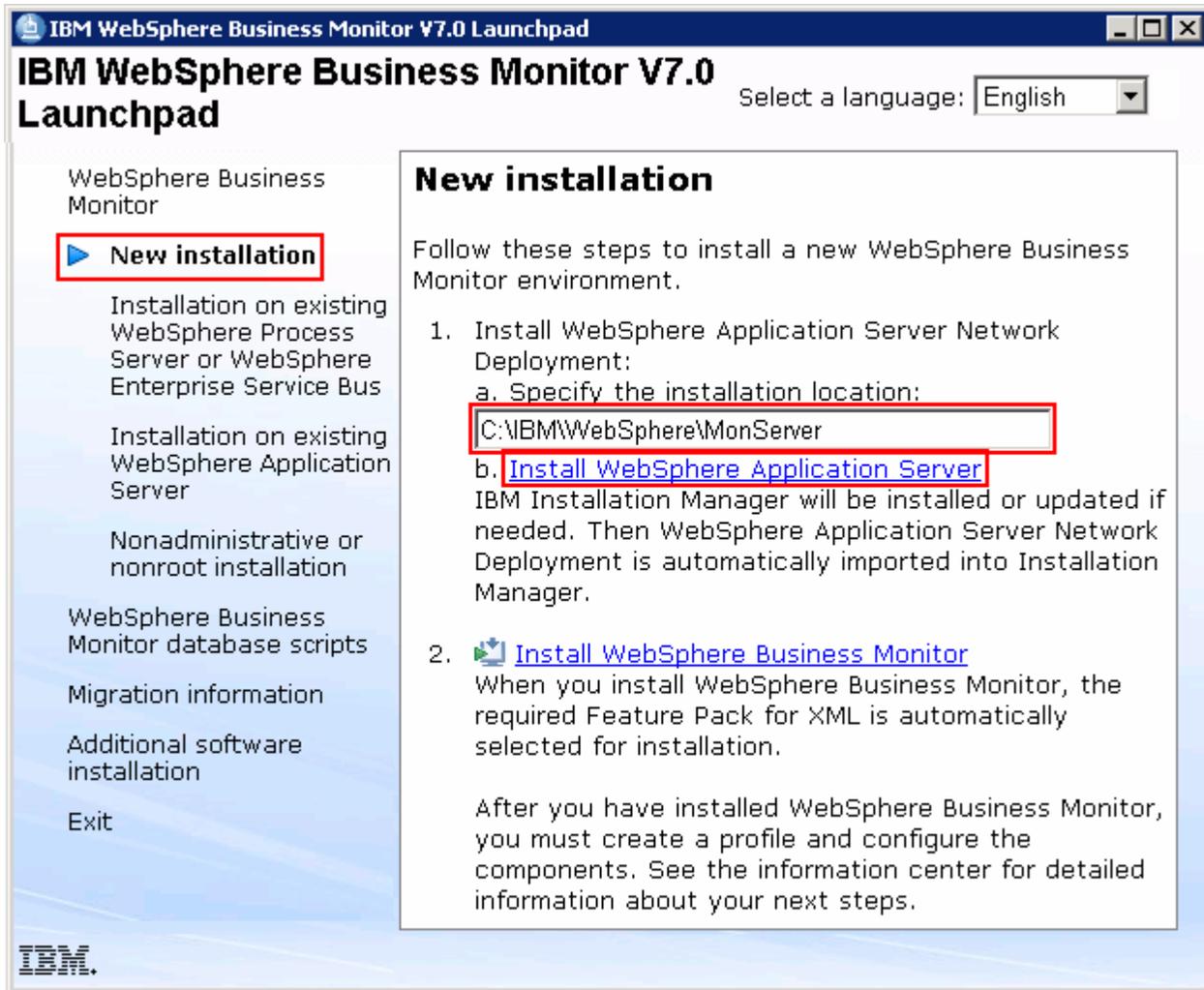
- \_\_\_\_ 3. On the left navigation pane of the WebSphere Business Monitor Common Launchpad, click the **WebSphere Business Monitor** → **New Installation** link



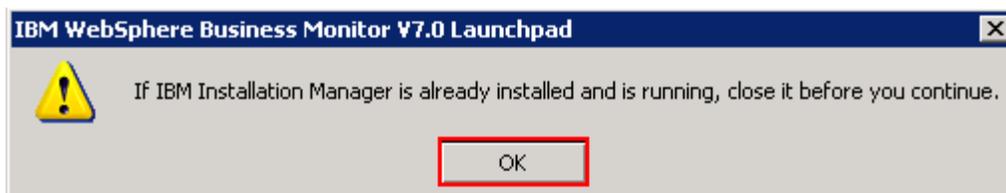
- \_\_\_ 4. Specify the **Installation Location** for WebSphere Application Server Network Deployment in the text field
- \_\_\_ a. Specify the Installation Location : Ex: **C:\IBM\WebSphere\MonServer**

**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.

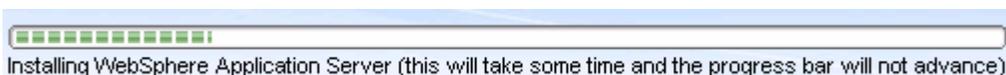




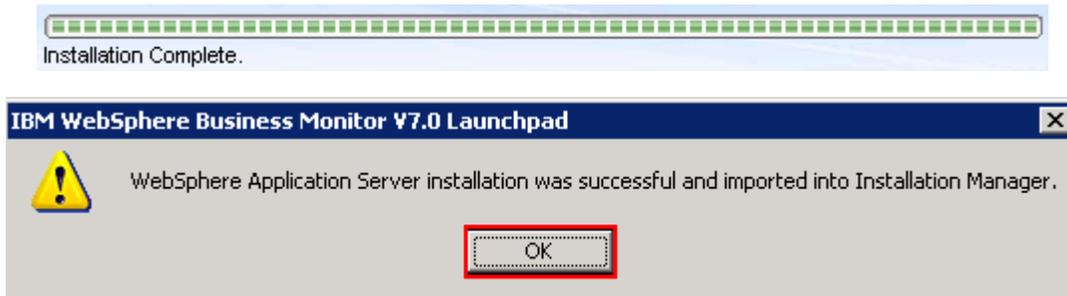
5. Now, click the **Install WebSphere Application Server** link. This action silently installs IBM Installation Manager V1.3.3 to a default location, WebSphere Application Server V7.0.0.7 to the specified location and then imports the WebSphere Application Server repository to the Installation Manager.
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 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**

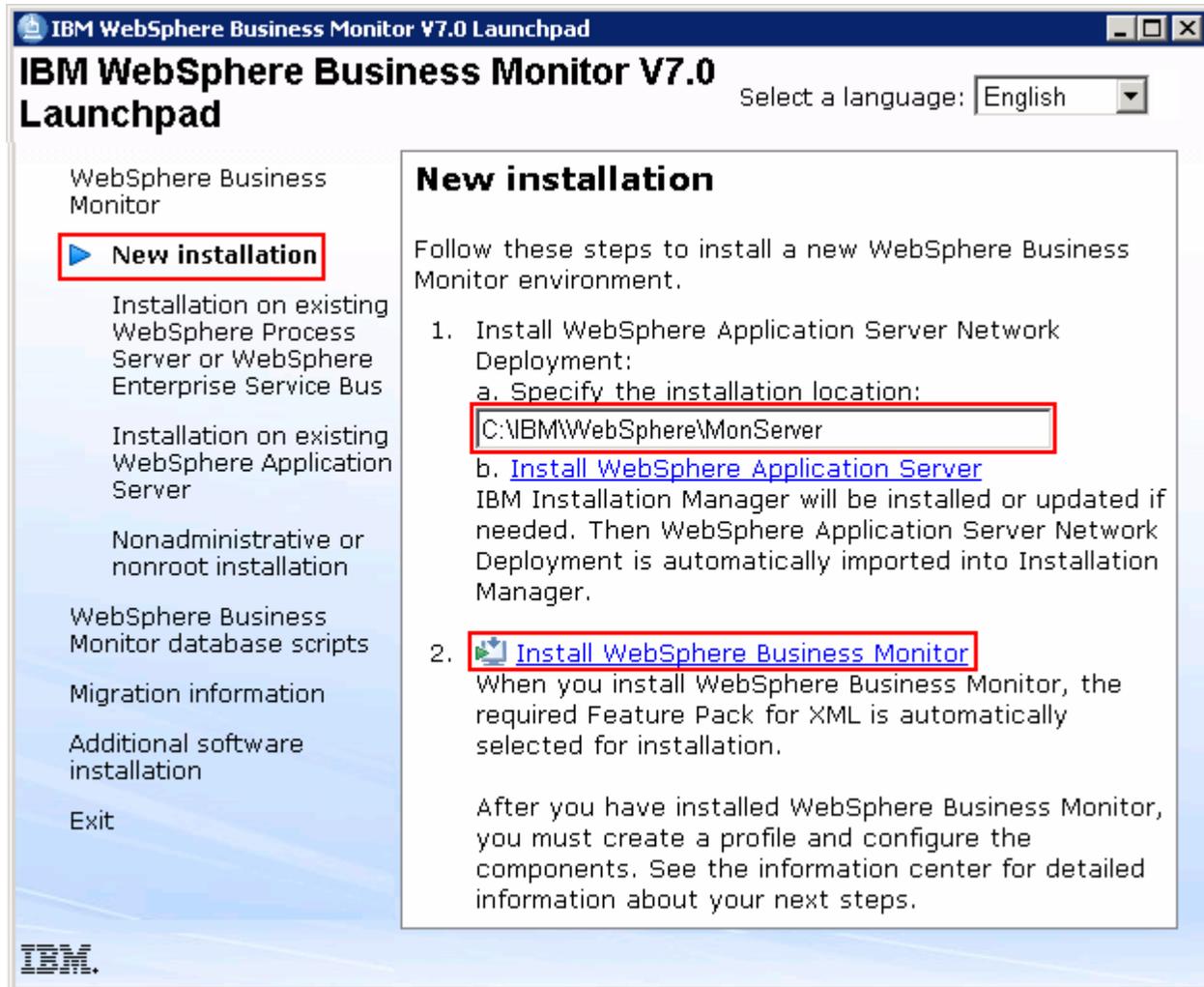
---

**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`

---

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



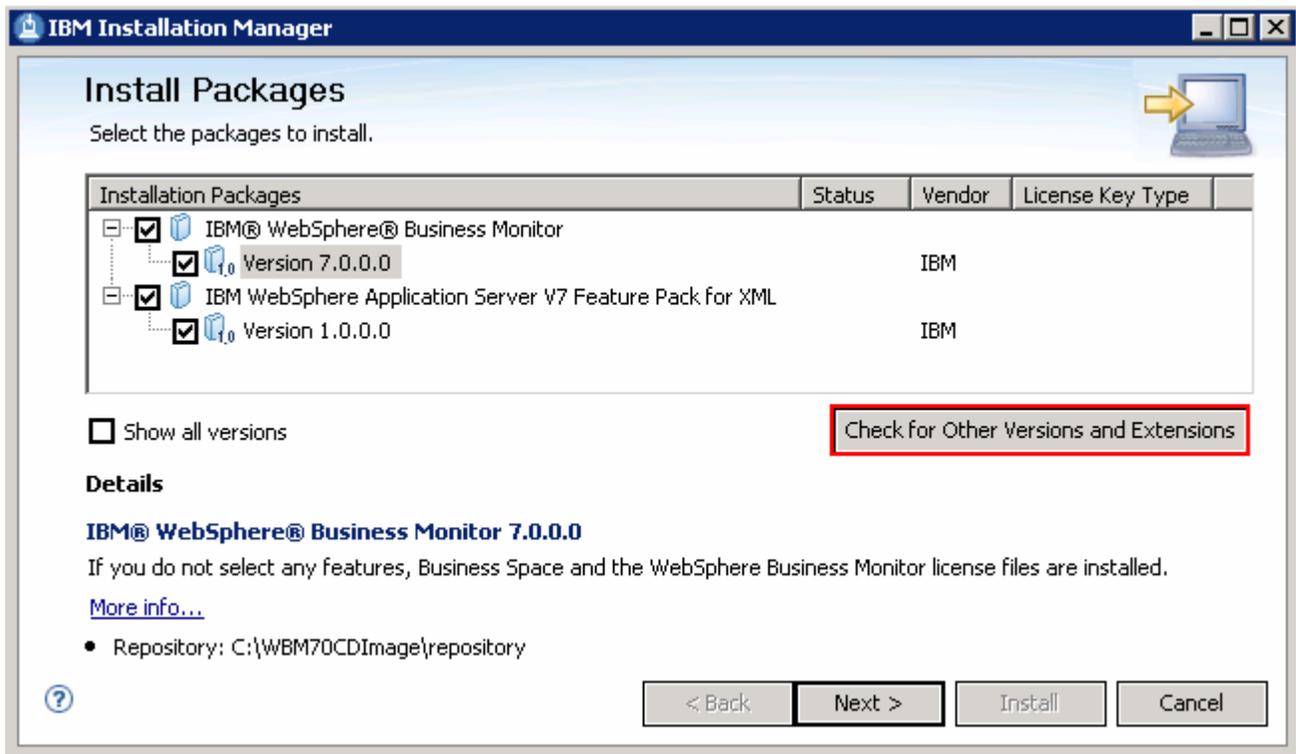
11. The Installation Manager is launched as shown in the picture below. You should see a list of the packages shown below:

- 1) **IBM WebSphere Business Monitor → Version 7.0.0.0**
- 2) **IBM WebSphere Application Server V7 Feature Pack for XML → Version 1.0.0.0**

---

**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.

---

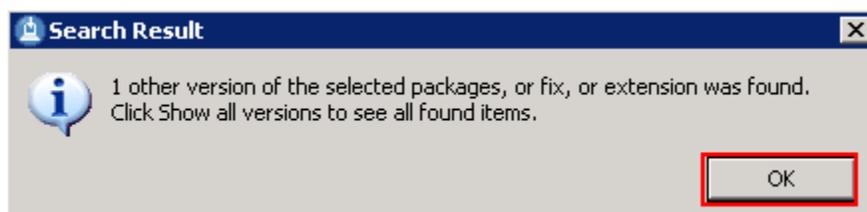


**Note:** If you do **not** want to update with the latest available refresh pack, fixes and extensions, do not click the **Check for Other Versions and Extensions** button. Select the required packages and click **Next**

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

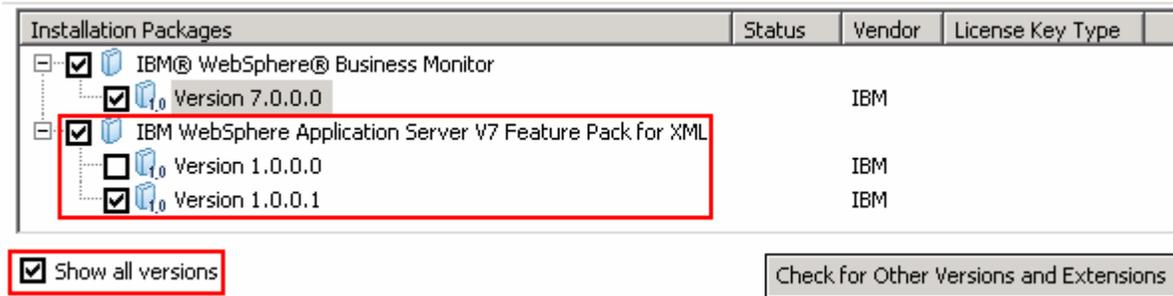
**Note:** At the time of writing this document, there is no refresh pack available for monitor. However the XML feature pack Version 1.0.0.1 Fix Pack is available. Ensure your machine is connected to the network accessible to the WebSphere Business Monitor live repository Web site.

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

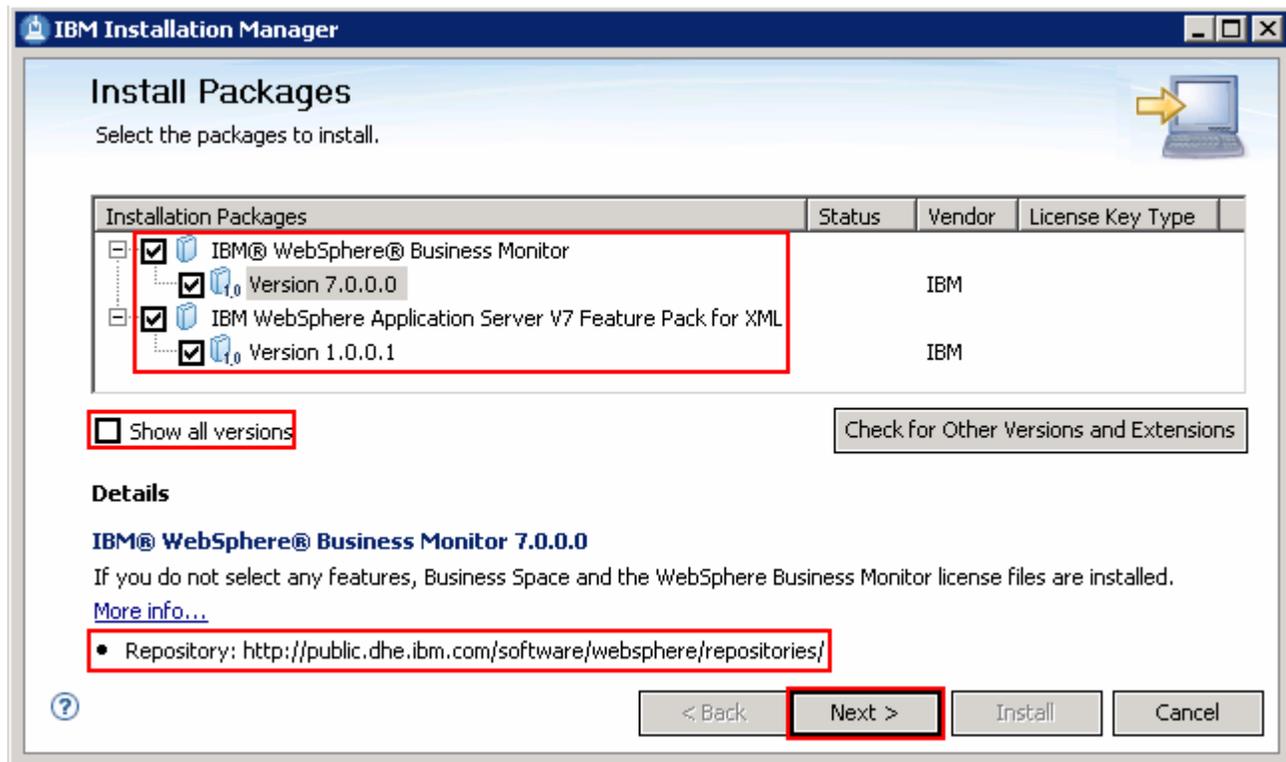
**Note:** The Installation Manager only lists and selects recommended versions of the packages available at the time of search. If you want to install an older version, select the **Show all versions** check box. You should see all the available versions as shown below:



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

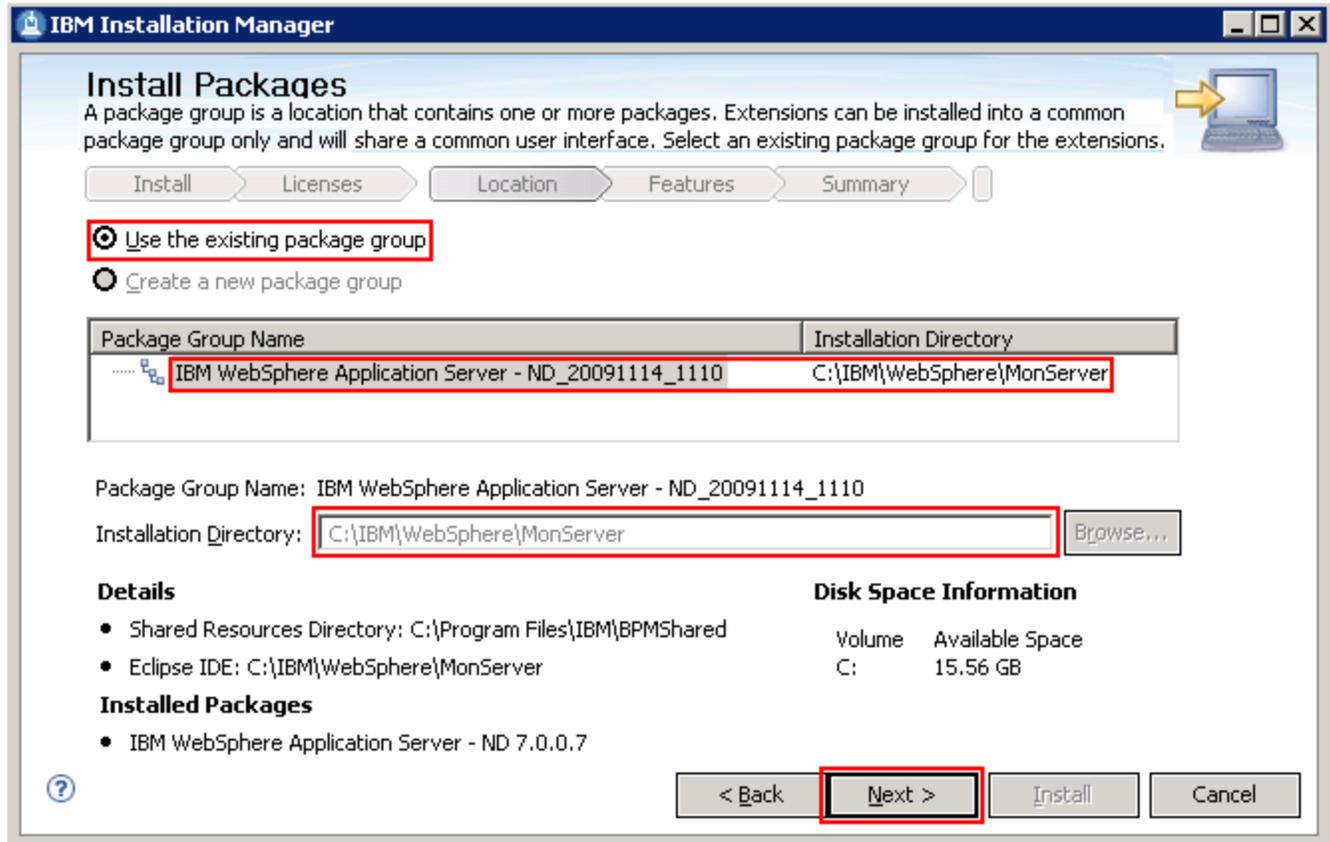
- 1) Select **IBM WebSphere Business Monitor** → **Version 7.0.0.0**
- 2) Select **IBM WebSphere Application Server V7 Feature Pack for XML** → **Version 1.0.0.1**



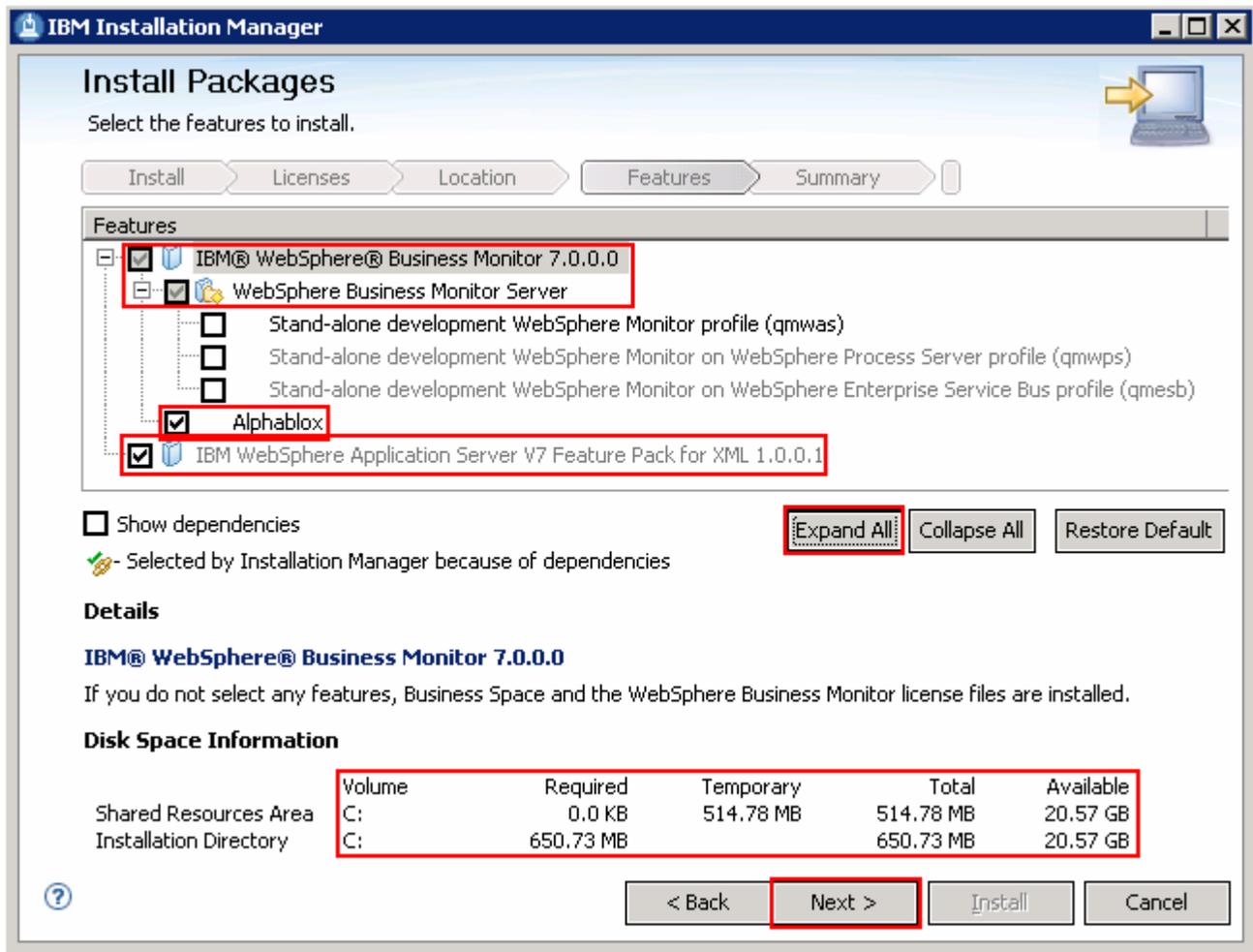
**Note:** If you do not select any features in this panel, Business Space and WebSphere Business Monitor license files are installed on the WebSphere Application Server package group.

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**

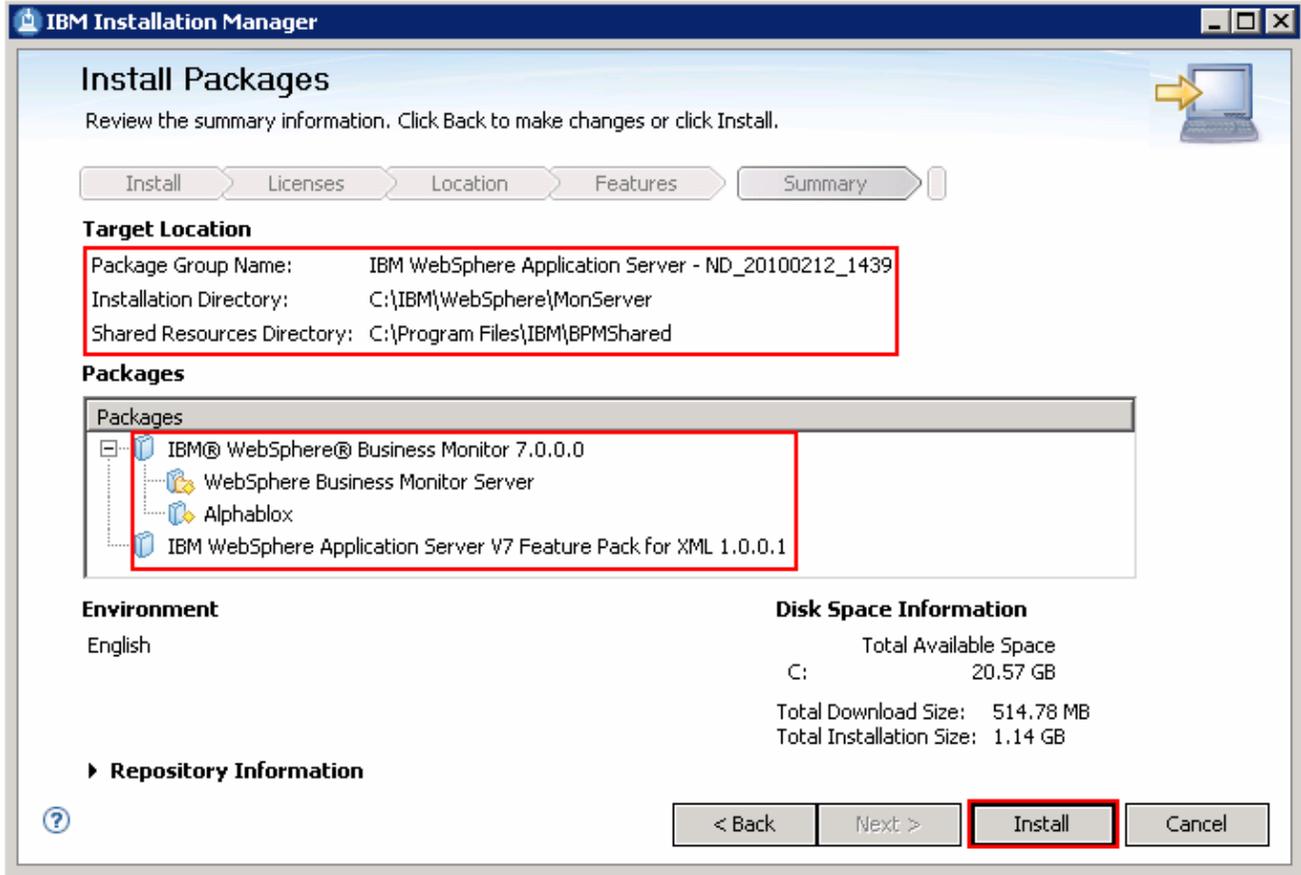


- \_\_\_ 19. Click **Next**
- \_\_\_ 20. In the next panel, click the **Expand All** button to see all the features. Accept the defaults but ensure the features listed below are selected. Do not select any stand-alone profile options.
- 1) **IBM WebSphere Business Monitor Server 7.0.0.0** → **WebSphere Business Monitor Server**
    - a) **Alphablox**
  - 2) **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



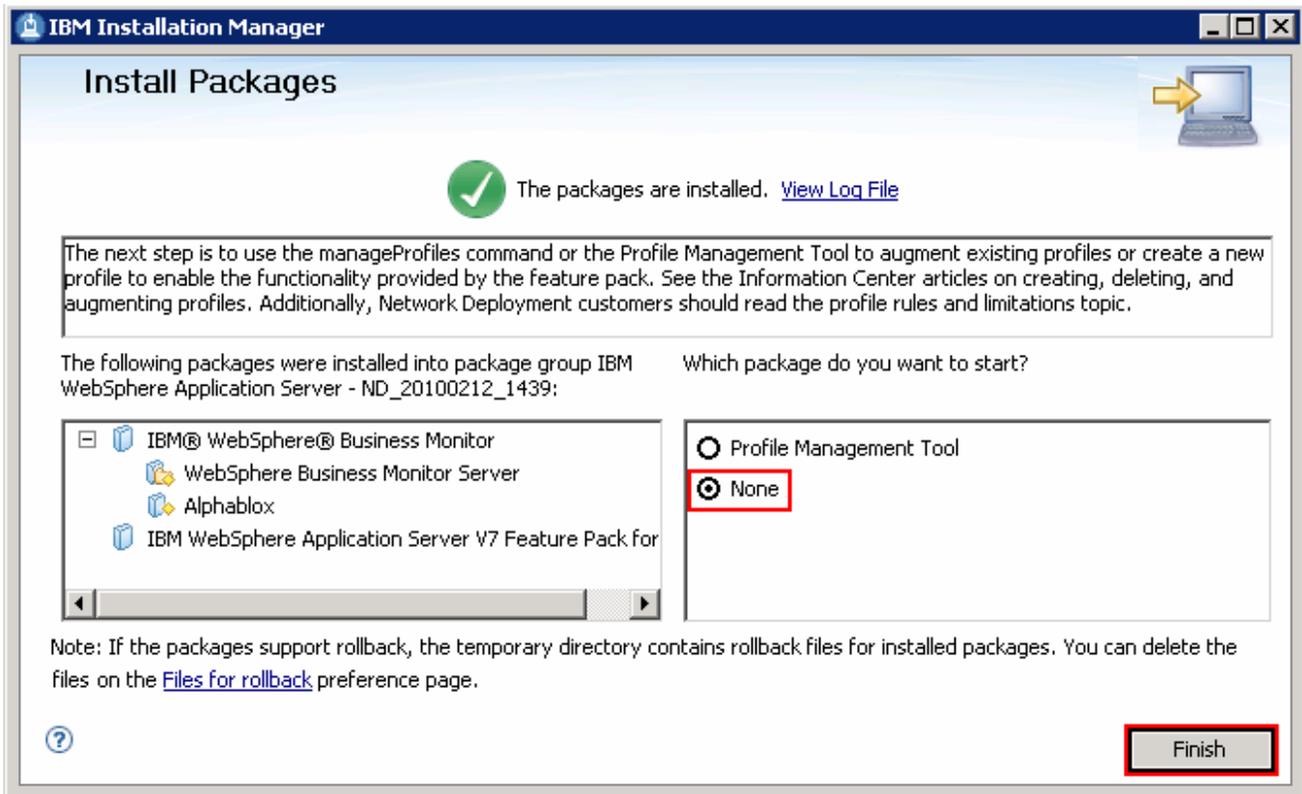
23. Click **Install** to continue with the installation. The WebSphere Business Monitor V7.0 installation progresses

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

---

**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.

---

## 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, 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 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

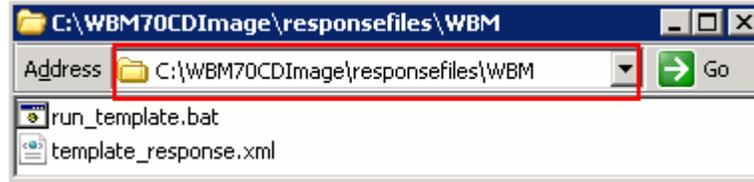
---

**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.

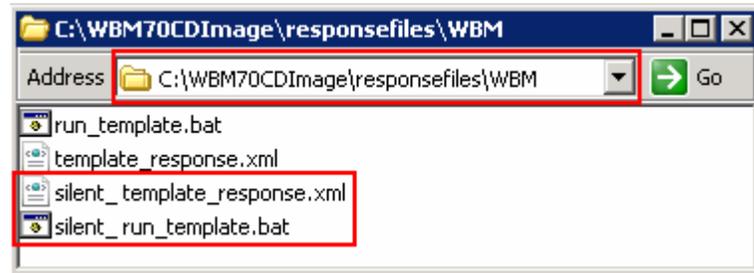
---

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 **PARAMTRS** 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 -f

```

**Note:** Comment the WebSphere Application Server Network Deployment installation command, 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" -log "%IM_IMAGE%\installc" --launcher.ini "%IM_IMAGE%\silent-install.ini" -input "%PROGDIR%\silent_template_response.xml" -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"

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

```

k!-- #####
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

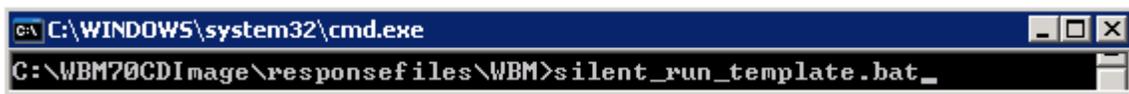
See the online documentation for more information about modifying
this node.
If you would like to create the default profile, you will need to enable the proper feature id
The format is: <prod>.profile.feature for example wdpe.profile.feature
For example your WDPE install node would become:
<offering 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

```

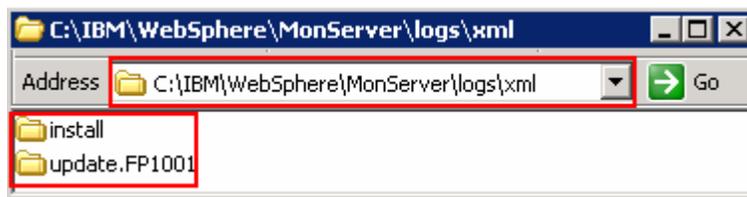
C:\WINDOWS\system32\cmd.exe
C:\WBM70CDImage\responsefiles\WBM>silent_run_template.bat
0
"..\..\IM\installc" --launcher.ini "..\..\IM\silent-install.ini" -input "C:\WBM
70CDImage\responsefiles\WBM\silent_template_response.xml" -log "C:\IBM\WebSpher
e\MonServer\logs\wbm\silent_install.log"
The next step 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

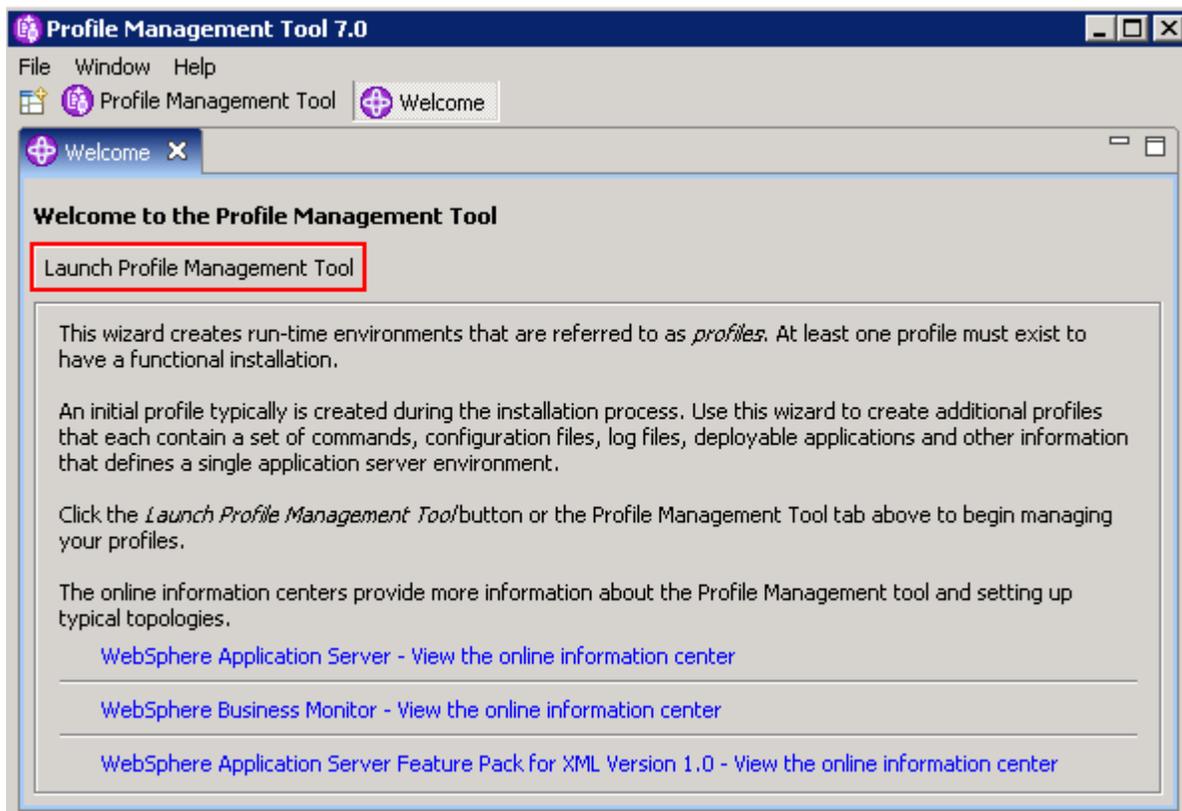
In this part of the exercise, you will create a WebSphere Business Monitor deployment manager profile using the profile management tool (32 bit users only). If you are on a 64 bit operating system, you can use the manage profiles command.

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

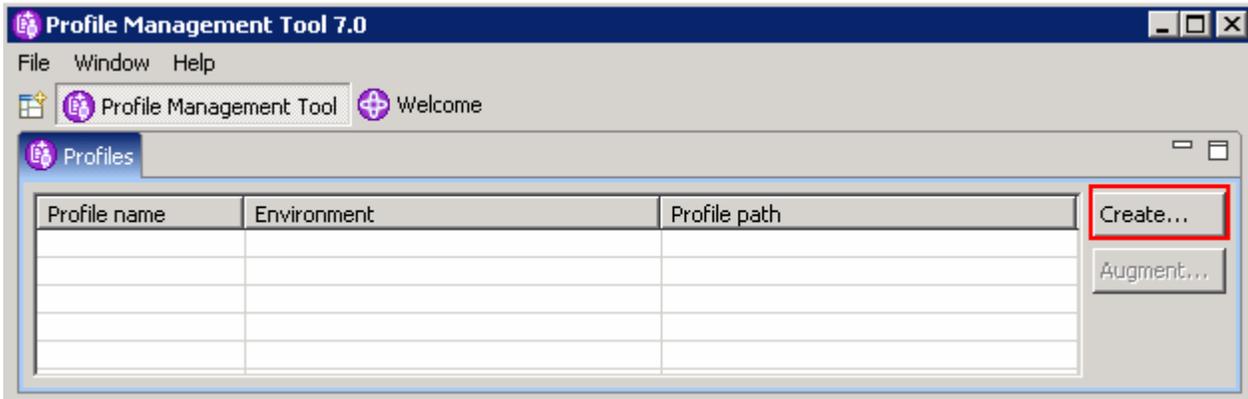
Complete the instructions below to create a WebSphere Business Monitor V7.0 deployment manager profile:

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

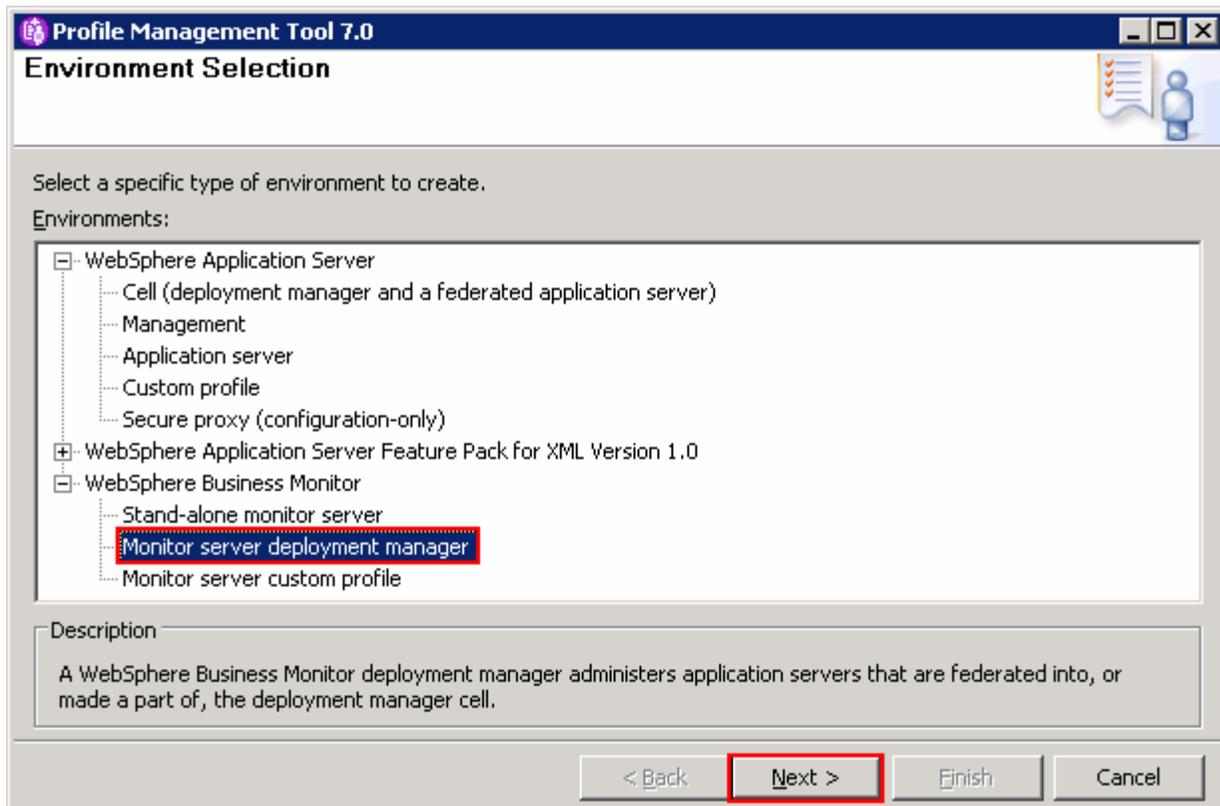
**Note:** Alternatively to launch the Profile Management Tool, navigate to `<WBM_HOME>\bin\ProfileManagement`, double click `pmt.bat`



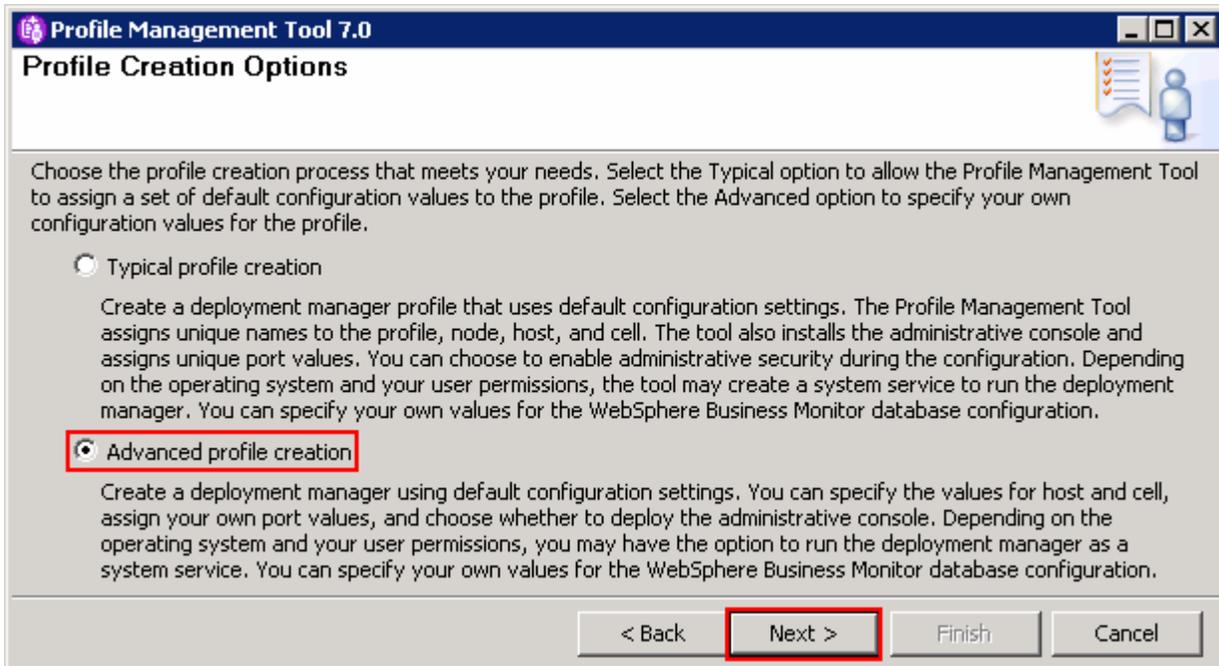
- \_\_\_ 2. Select the **Profile Management Tool** button



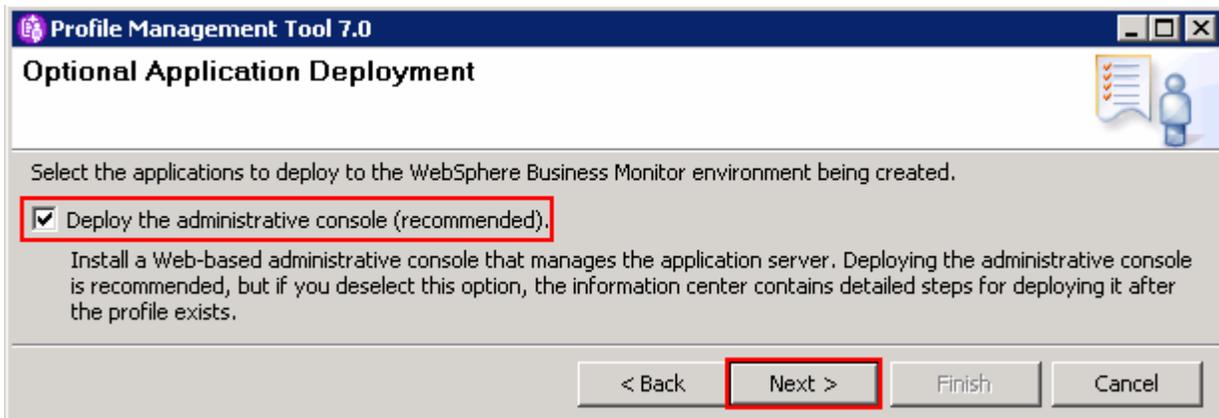
- \_\_\_ 3. Click the **create** button. The **Environment** selection panel is launched
- \_\_\_ 4. In the **Environment Selection** panel, expand **WebSphere Business Monitor** and select **Monitor server deployment manager**



- \_\_\_ 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

**Profile Name and Location**

Specify a profile name and directory path to contain the files for the run-time environment, such as commands, configuration files, and log files. Click **Browse** to select a different directory.

Profile name:

Profile directory:

**Important:** Deleting the directory a profile is in does not completely delete the profile. Use the **manageprofiles** command to completely delete a profile.

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: / \ \* , ; = + ? | < > % ' " [ ] # \$ ^ { } ( )

< Back   **Next >**   Finish   Cancel

\_\_\_ 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 : **wbmCell101**

**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:  
••••••

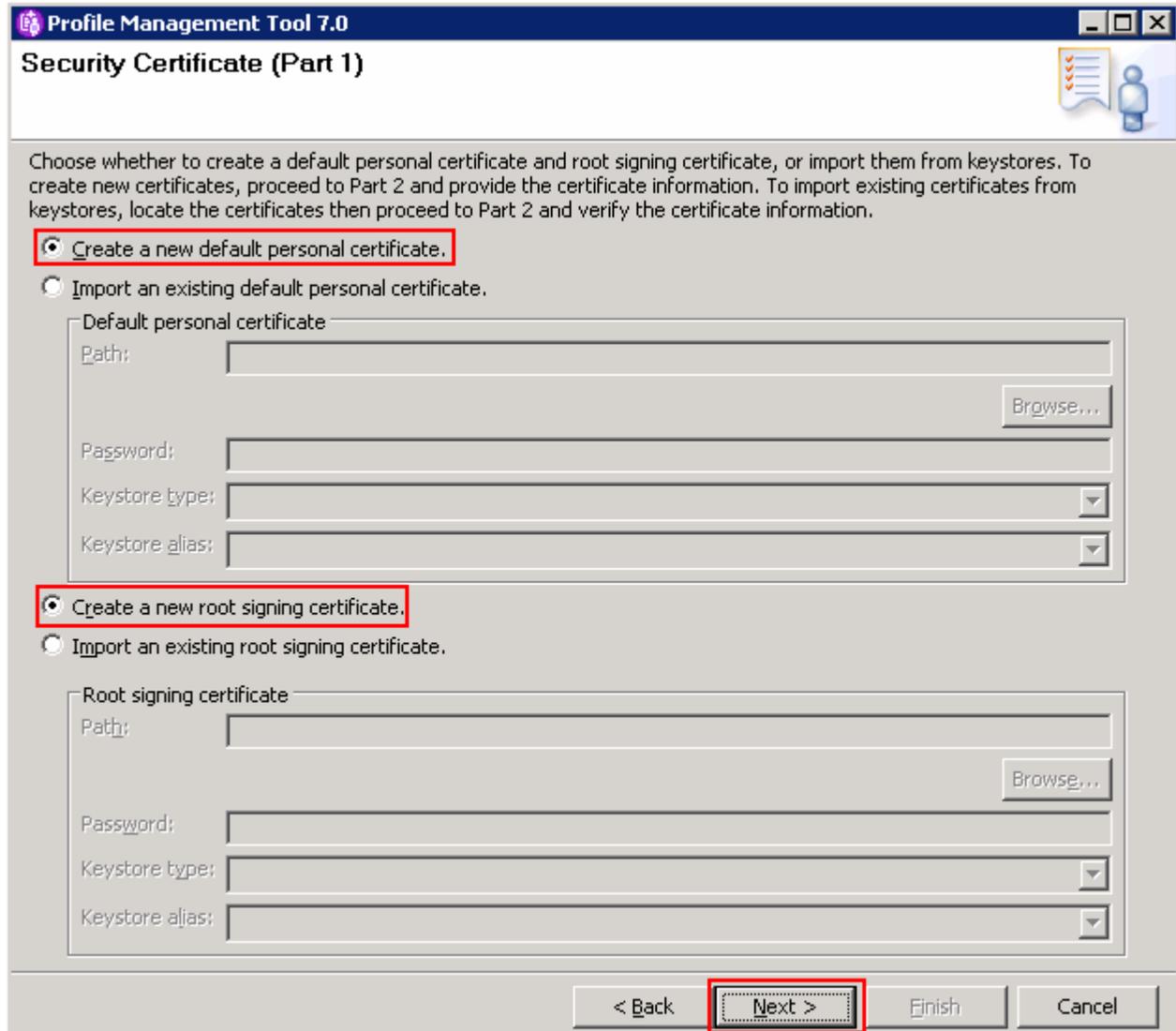
Confirm password:  
••••••

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:

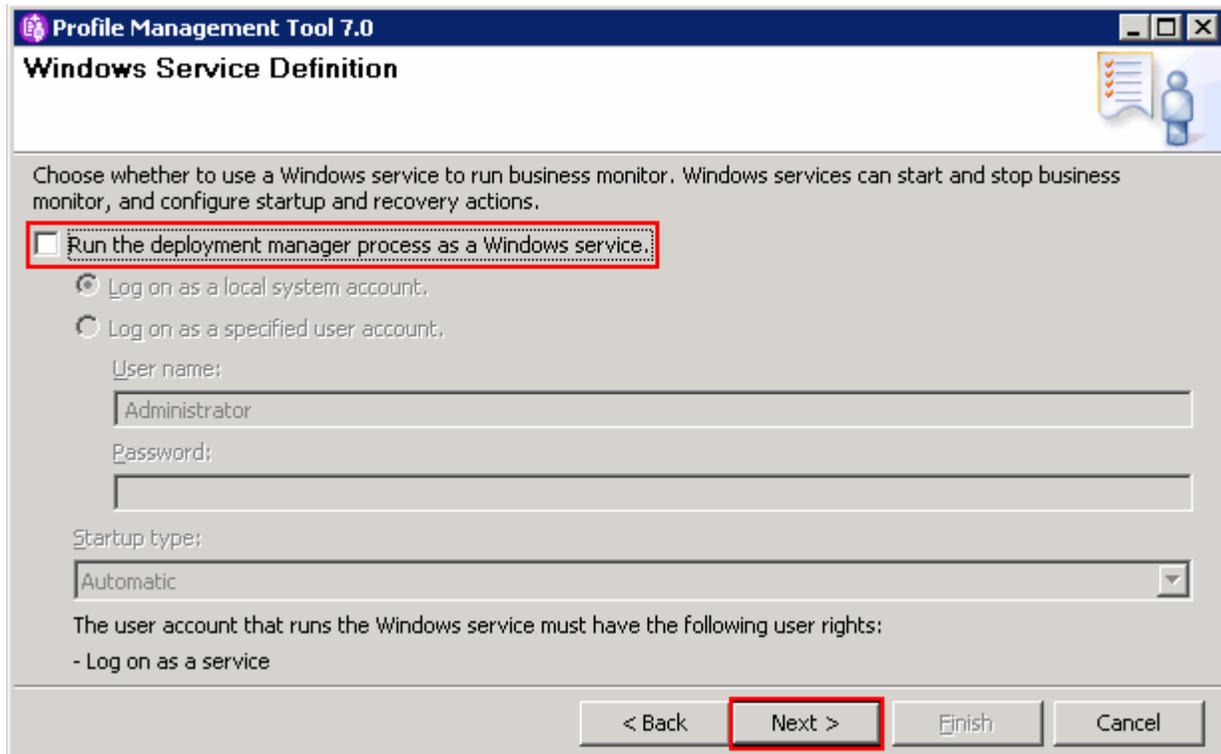
Default keystore password:

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**

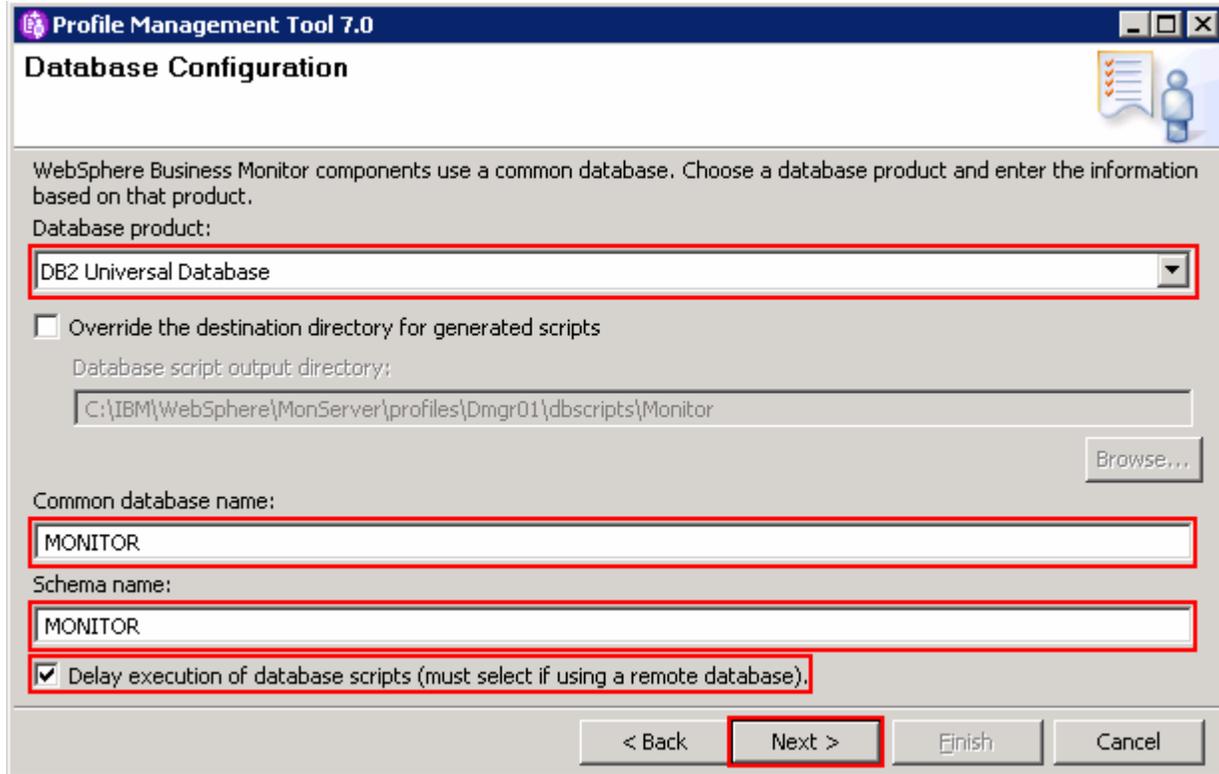
\_\_\_ 24. In the next **Database Configuration** panel, specify the parameters for the monitor database type:

\_\_ 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, specify 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**

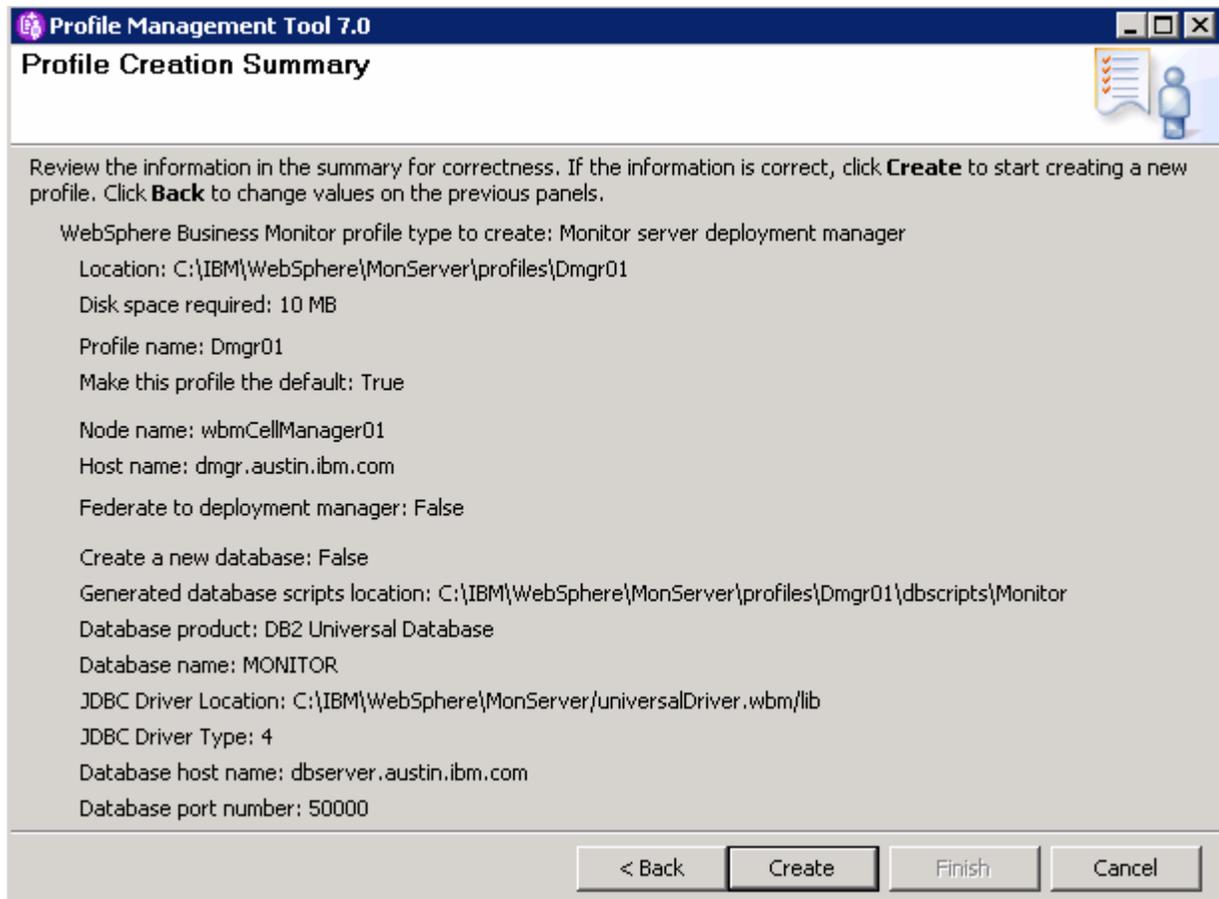
\_\_\_ 28. The **Database validation failure** dialog pops-up

**Database validation failure**

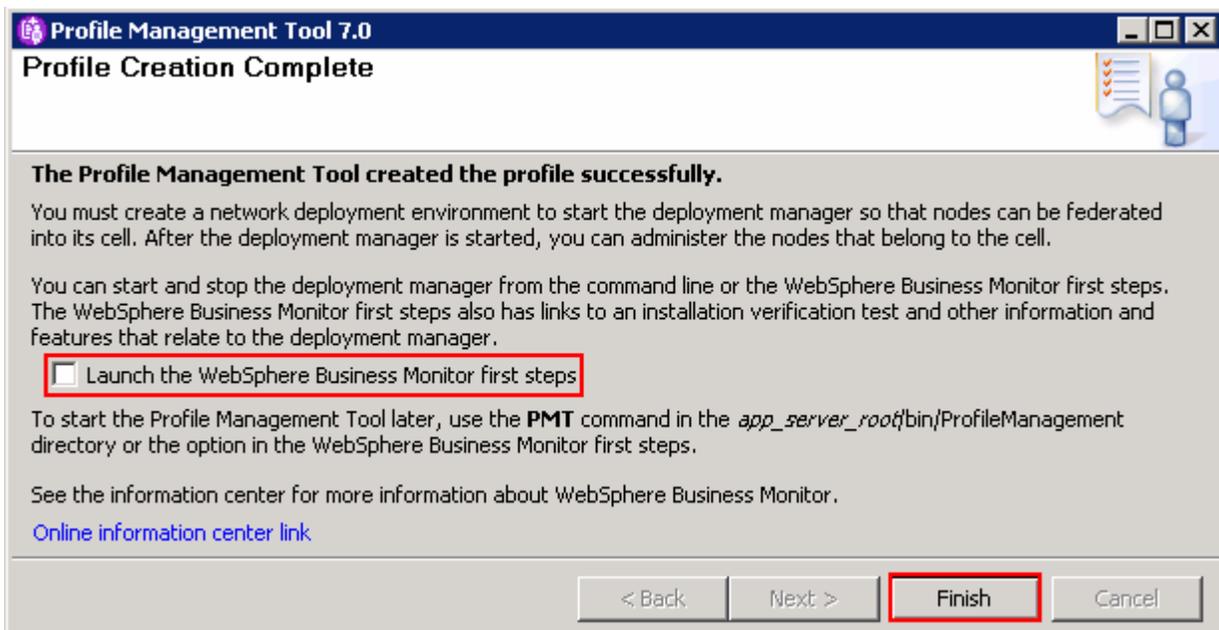
The database does not exist on this system.  
 You can create the database after the installation by running the generated database scripts on your database server.  
 If you plan to create the database later, please ignore this warning.  
 Are you sure you want to proceed?

\_\_\_ 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**

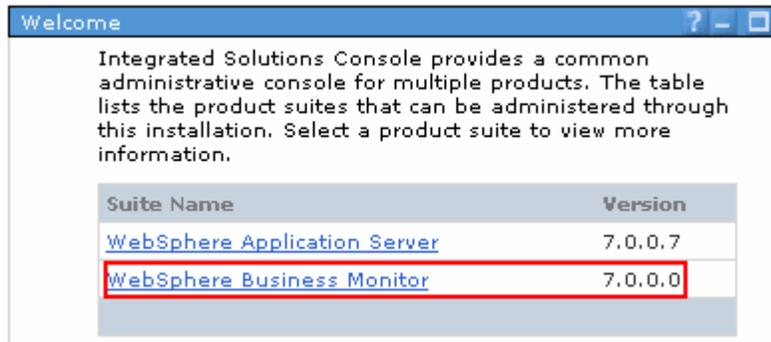
---

**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

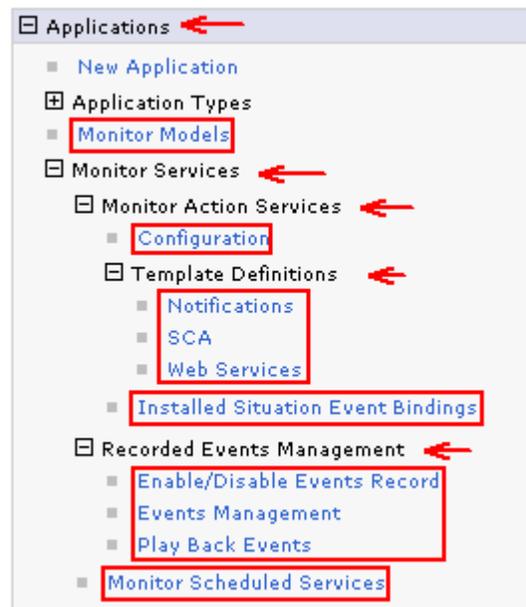
- \_\_\_\_ 34. Start the WebSphere Business Monitor deployment manager process, launch the administrative console and log in using the security credentials.
- \_\_\_\_ 35. In the left navigation pane, click the **Welcome** link and ensure the correct WebSphere Business Monitor version is displayed



- \_\_\_\_ 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 **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 the command below:

```
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 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:

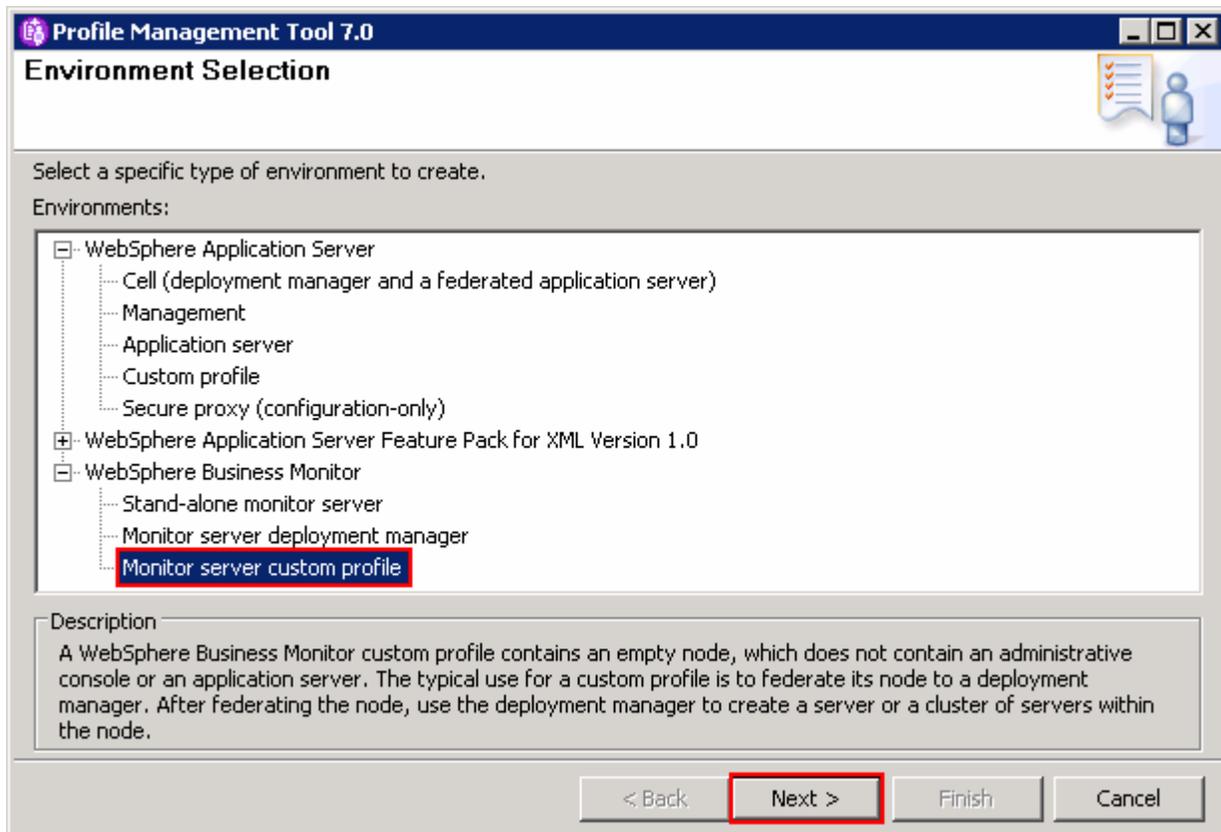
1. Launch the Profile Management Tool
  - a. From the start menu, select **IBM WebSphere** → **Business Monitor 7.0** → **Profile Management Tool**

---

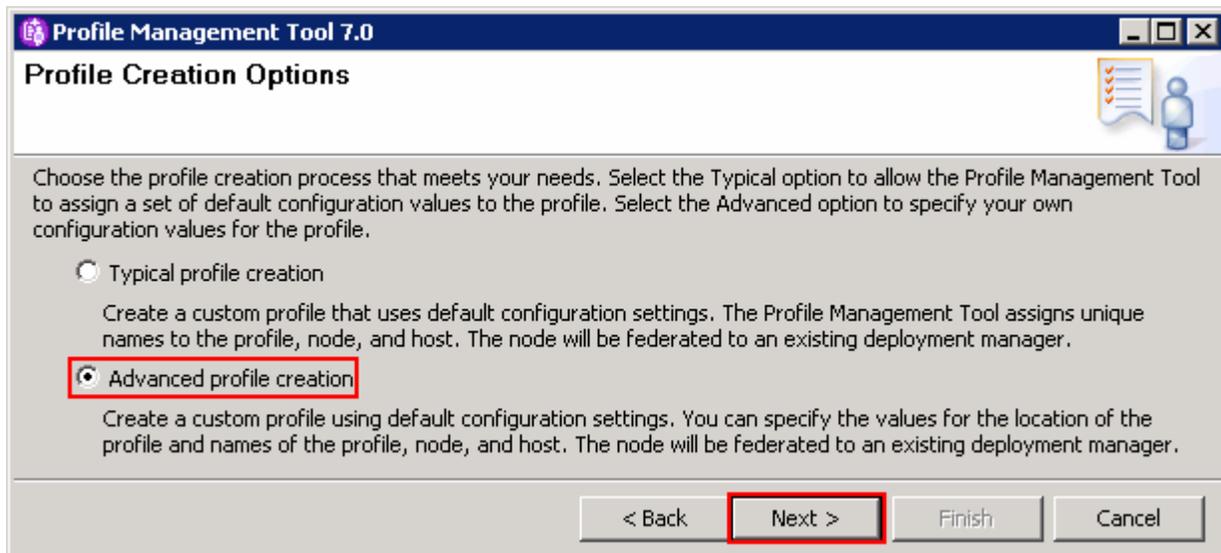
**Note:** Alternatively to launch the Profile Management Tool, navigate to `<WBM_HOME>\bin\ProfileManagement`, double click `pmt.bat`

---

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**



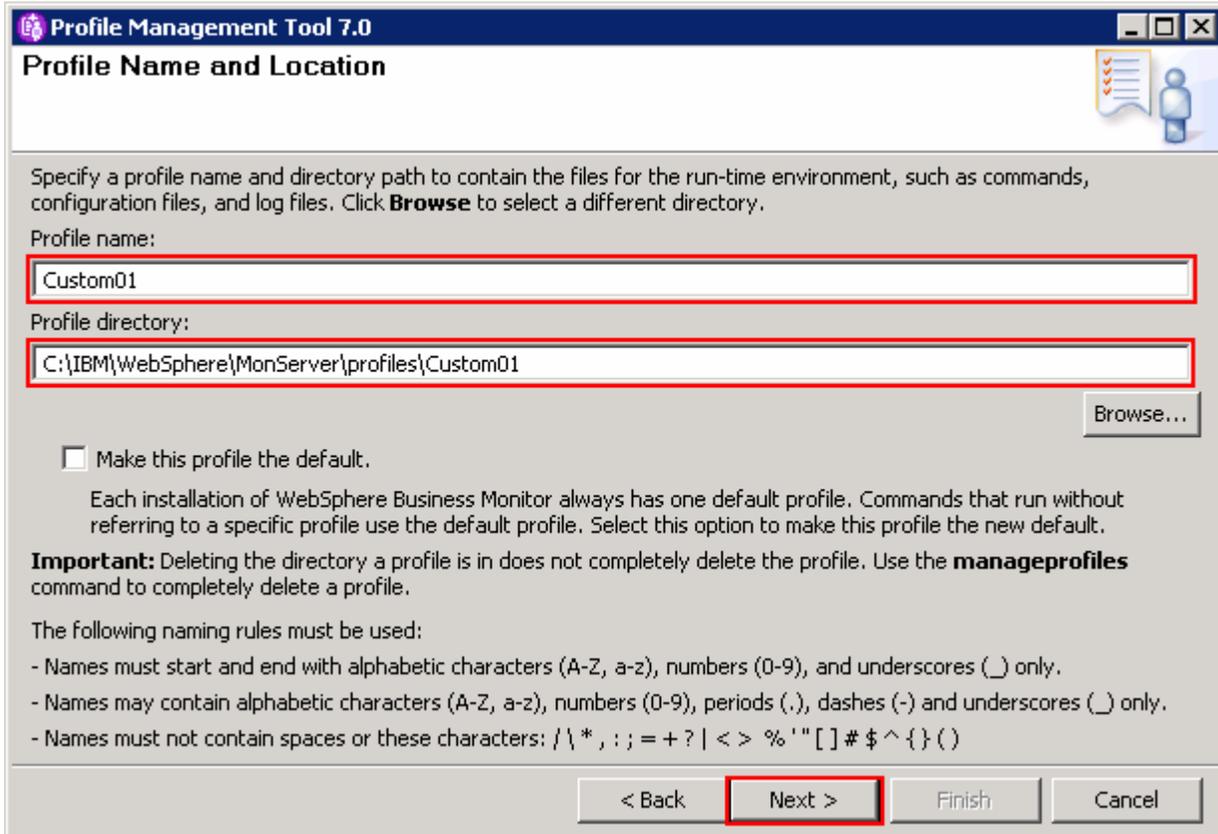
- \_\_\_ 7. Click **Next**

\_\_\_ 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)

---

**Best Practice:** Keep the node name short.

**Note:** The topology mapping table (Visit the **Introduction** or **Part 5** sections), gives you an opportunity to foresee the naming pattern and helps assigning the member servers to a cluster. On generating the deployment environment, the clusters and their member servers are named by appending to the Deployment Environment name and the node name. Remember the clusters and their member server names can be lengthy if the node name is long.

---

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, specify the node federation parameters:

- \_\_\_ 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 not be running 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:

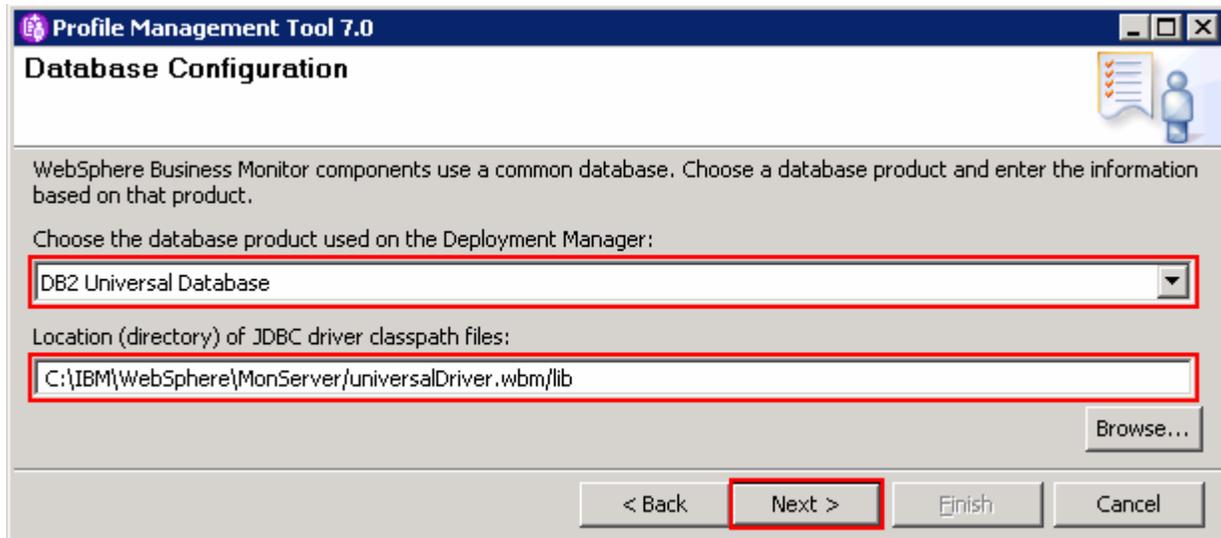
Federate this node later.

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

- is not running
- has the SOAP connector disabled

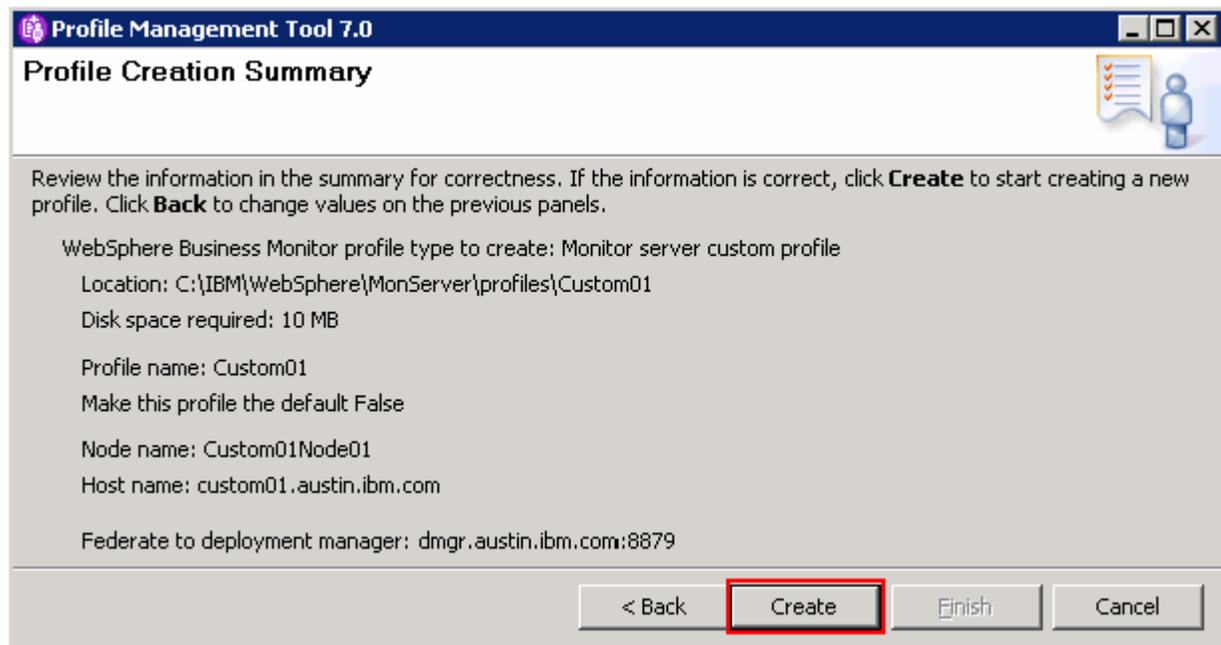
< Back   **Next >**   Finish   Cancel

- \_\_\_ 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, specify these parameters for the WebSphere Business Monitor database:
  - \_\_\_ 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`

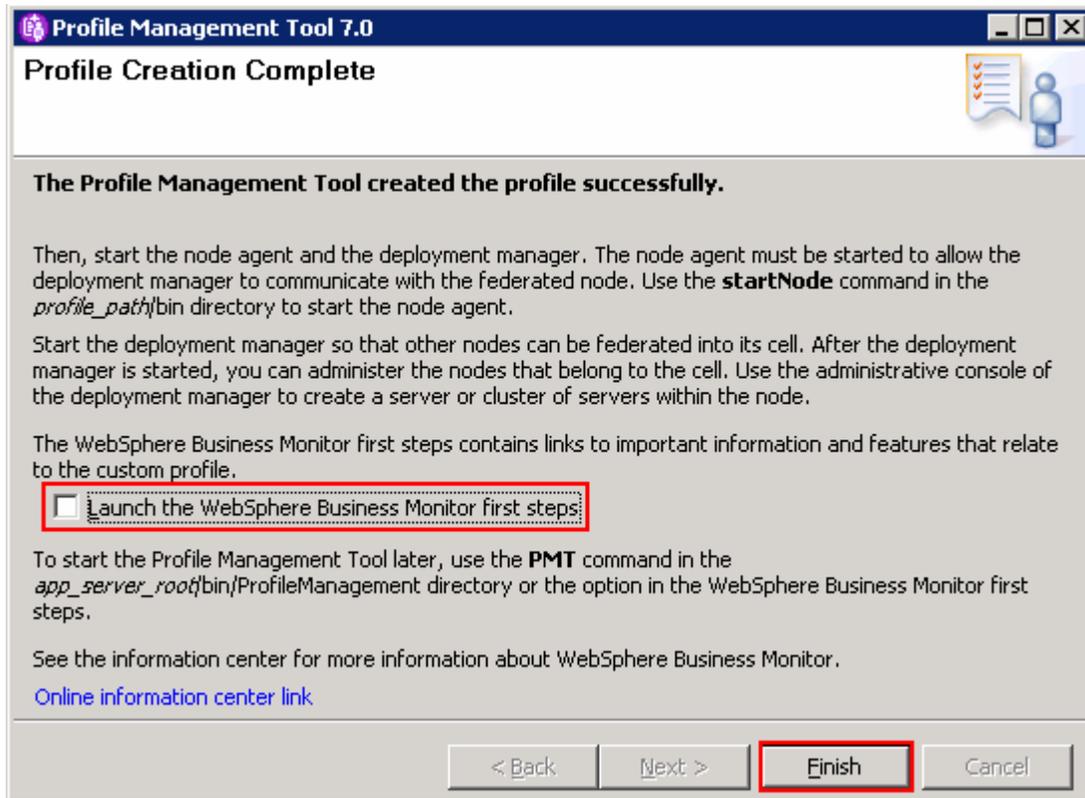


\_\_\_ 17. Click **Next**

\_\_\_ 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 WebSphere Business Monitor First steps** console and click **Finish**
- \_\_\_ 21. Similarly create the remaining custom profiles and name them as **Custom02**, **Custom03** and **Custom04** by repeating these instructions on the designated host machines. In this exercise, the nodes are named as **Custom02Node02**, **Custom03Node03** and **Custom04Node04**
- \_\_\_ 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
You can administer the following resources:					
<input type="checkbox"/>	Custom01Node01	custom01.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	TCP	↔
<input type="checkbox"/>	Custom02Node02	custom02.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	TCP	↔
<input type="checkbox"/>	Custom03Node03	custom03.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	TCP	↔
<input type="checkbox"/>	Custom04Node04	custom04.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	TCP	↔
	wbmCellManager01	dmgr.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	TCP	↔
Total 5					

## 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 the command below:

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

---

Complete the instructions below to create a WebSphere Business Monitor custom profile 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
<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** and **Custom04** by repeating these instructions on the designated host machines. In this exercise, the nodes are named as **Custom02Node02**, **Custom03Node03** and **Custom04Node04**

\_\_\_ 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: Generate a remote messaging, remote support, and Web pattern

In this part of the exercise, you will use the administrative console to generate a remote messaging, remote support, and Web deployment environment. The remote messaging, remote support, and Web pattern defines four clusters, which is a cluster for the application deployment (monitor models), a cluster for the messaging infrastructure, a cluster for the Common Event Infrastructure and other support applications plus a cluster for Business Space and other Web components. This pattern configures an environment that performs well for most of your business integration needs.

As you know four clusters are being created using the remote messaging, remote support, and Web deployment environment pattern option, it is a best practice to plan for the number of member servers each cluster will manage and on which managed node the member servers are created. In this exercise, you will assign two member servers for each cluster as shown below:

**Note:** The topology mapping table below, gives you an opportunity to foresee the naming pattern and helps assigning the member servers to a cluster. On generating the deployment environment, the cluster and their member servers are named by appending to the Deployment Environment and the node names. The cluster and their member server names can get lengthy if the Deployment Environment and node names are long.

The table below shows the naming pattern used in the exercise and the deployment environment is named; **wbm**:

**Clusters → Nodes → Member Servers mapping (Topology) table:**

Clusters	Nodes	Member Servers	Host Name
wbm.AppTarget	Custom01Node01	wbm.AppTarget.Custom01Node01.0	custom01.austin.ibm.com
	Custom02Node02	wbm.AppTarget.Custom02Node02.0	custom02.austin.ibm.com
wbm.Messaging	Custom02Node02	wbm.Messaging.Custom02Node02.0	custom02.austin.ibm.com
	Custom03Node03	wbm.Messaging.Custom03Node03.0	custom03.austin.ibm.com
wbm.Support	Custom03Node03	wbm.Support.Custom03Node03.0	custom03.austin.ibm.com
	Custom04Node04	wbm.Support.Custom04Node04.0	custom04.austin.ibm.com
wbm.WebApp	Custom04Node04	wbm.Web.Custom04Node04.0	custom04.austin.ibm.com
	Custom01Node01	wbm.Web.Custom01Node01.0	custom01.austin.ibm.com

**Node → Server assignment table:**

Nodes	Application Deployment Target	Messaging Infrastructure	Support Infrastructure	Web Infrastructure
Custom01Node01	1	0	0	1
Custom02Node02	1	1	0	0
Custom03Node03	0	1	1	0
Custom04Node04	0	0	1	1

Use the tables below to plan the naming pattern and the member servers for your environment:

**Clusters → Nodes → Member Servers mapping (Topology) table:**

Clusters	Nodes	Member Servers	Host Name

**Node → Server assignment table:**

Nodes	Application Deployment Target	Messaging Infrastructure	Support Infrastructure	Web Infrastructure

**Pre-requisites:**

- Ensure the deployment manager process is running
- Ensure all the node agents 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 the node agents display the start status (🟢)

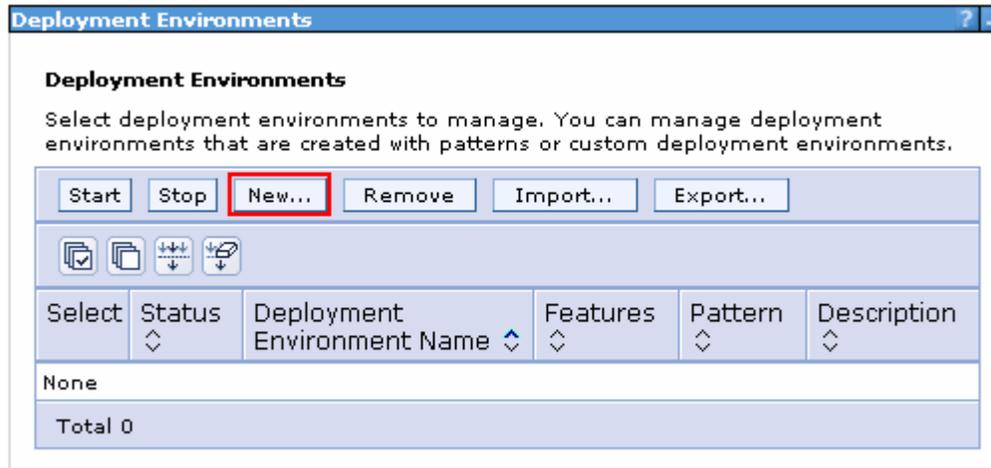
Select	Name	Node	Host Name	Version	Status
You can administer the following resources:					
<input type="checkbox"/>	<a href="#">nodeagent</a>	Custom01Node01	custom01.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	
<input type="checkbox"/>	<a href="#">nodeagent</a>	Custom02Node02	custom02.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	
<input type="checkbox"/>	<a href="#">nodeagent</a>	Custom03Node03	custom03.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	
<input type="checkbox"/>	<a href="#">nodeagent</a>	Custom04Node04	custom04.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	
Total 4					

Complete the instructions below to generate the deployment environment using the administrative console:

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** and click **Deployment Environments**

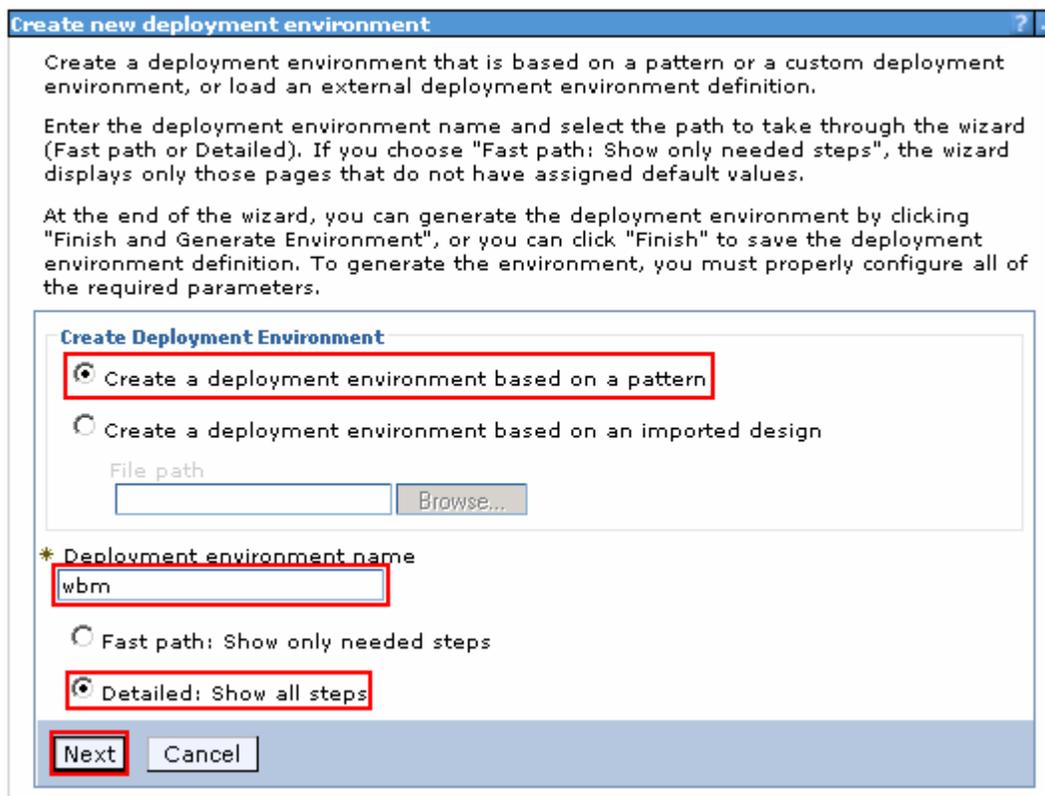


3. In the **Deployment Environments** panel, click **New...** to launch the Deployment Environments wizard



\_\_\_ 4. In the next **Create new deployment environment** panel, provide the information below:

- Select the radio button for **Create a new deployment environment based on pattern**
- Deployment environment name : Ex: **wbm**
- Select the radio button for **Detailed: Show all steps**



\_\_\_ 5. Click **Next**

- \_\_\_ 6. In the next feature selection panel, select the radio button for the **WBM** feature

Create new deployment environment ? -

Select the feature for the deployment environment.

Select	Features	Description
<input checked="" type="radio"/>	WBM	WebSphere Business Monitor
<input type="radio"/>		

Previous Next Cancel

- \_\_\_ 7. Click **Next**
- \_\_\_ 8. In the next deployment environment pattern panel, select the radio button for the **Remote Messaging, Remote Support and Web** pattern

Create new deployment environment ? -

Deployment environment patterns are rules-based configurations of the most commonly used business integration topologies. A pattern provides a template for an environment configuration. Deployment environment patterns represent well-known, tested topologies with component configurations that work together; using patterns ensures reliable deployment environment functionality. You can create custom deployment environments if you require a configuration other than those supplied by the patterns.

Select a pattern that provides the topological characteristics of the deployment environment:

Select	Deployment Environment Patterns	Description
<input type="radio"/>	Single Cluster	The single cluster pattern is the simplest pattern. It defines one application deployment target cluster, which includes the messaging infrastructure, the Common Event Infrastructure (CEI), and supporting applications.
<input checked="" type="radio"/>	Remote Messaging, Remote Support, and Web	The remote messaging, remote support, and Web pattern defines one cluster for application deployment; one remote cluster for the messaging infrastructure; one remote cluster for the Common Event Infrastructure (CEI) and other supporting applications; and one cluster for Business Space and REST services related Web applications.

Previous Next Cancel

- \_\_\_ 9. Click **Next**
- \_\_\_ 10. In the next **Step 1: Select Nodes** panel, select the check boxes for all the four nodes to use in this deployment environment

---

**Note:** Ensure the nodes you select are of the WebSphere Business Monitor version (**WBM 7.0.0.0**)

---

**Step 1: Select Nodes**

Step 2: Clusters  
Step 3: System REST Service Endpoints  
Step 4: Import database configuration  
Step 5: Database  
Step 6: Security  
Step 7: Summary

**Select Nodes**

Select the nodes to use for the development environment. The *Remote Messaging, Remote Support, and Web* deployment environment *wbm* requires at least **1 node**. For high-availability and failover environments, select two nodes. For scalability, select more than two nodes.

Select	Node	Version	Host
<input checked="" type="checkbox"/>	Custom01Node01	WBM 7.0.0.0	custom01.austin.ibm.com
<input checked="" type="checkbox"/>	Custom02Node02	WBM 7.0.0.0	custom02.austin.ibm.com
<input checked="" type="checkbox"/>	Custom03Node03	WBM 7.0.0.0	custom03.austin.ibm.com
<input checked="" type="checkbox"/>	Custom04Node04	WBM 7.0.0.0	custom04.austin.ibm.com

Number of required nodes: 1  
Number of selected nodes: 4

Next Cancel

11. Click **Next**

12. In the next **Step 2: Clusters** panel, enter **1** to assign a member server to a cluster on a designated node and assign **0** to not assign a member server (**Note:** Refer to the **Clusters → Node → Member Server mapping (Topology)** table)

**Note:** By default every cluster in the configuration is mapped to all the nodes in the selection. Assign a number **0** to not assign a member server. The nodes you select must be of WebSphere Business Monitor Version 7.0.

**Step 2: Clusters**

Step 1: Select Nodes  
Step 3: System REST Service Endpoints  
Step 4: Import database configuration  
Step 5: Database  
Step 6: Security  
Step 7: Summary

Map the clusters to the listed nodes by indicating the number of cluster members to configure.

Node	Version	Application Deployment Target	Messaging Infrastructure	Supporting Infrastructure	Web Applications
Custom01Node01	WBM 7.0.0.0	1	0	0	1
Custom02Node02	WBM 7.0.0.0	1	1	0	0
Custom03Node03	WBM 7.0.0.0	0	1	1	0
Custom04Node04	WBM 7.0.0.0	0	0	1	1

Previous Next Cancel

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

\_\_\_ 14. In the next **Step 3: System REST Service Endpoints** panel, accept the defaults

**System REST Service Endpoints**

Use this page to configure service endpoints for Representational State Transfer (REST) system interfaces. If you want widgets to be available in Business Space, you must configure the REST service endpoints for those widgets. For each REST service endpoint, specify the host or virtual host and port that a client uses to communicate with your cluster. If you leave the host and port fields empty, the values default to those of a cluster member host and its HTTP port. For a load-balanced environment, you must later change the default values to the virtual host name and port of your environment.

**REST services**

Protocol:

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

Port:

Context root:

---

**Note:** If you do not have the information for the http protocol, host name and port number for the REST service endpoints, accept the defaults. You can update the values post environment configuration.

---

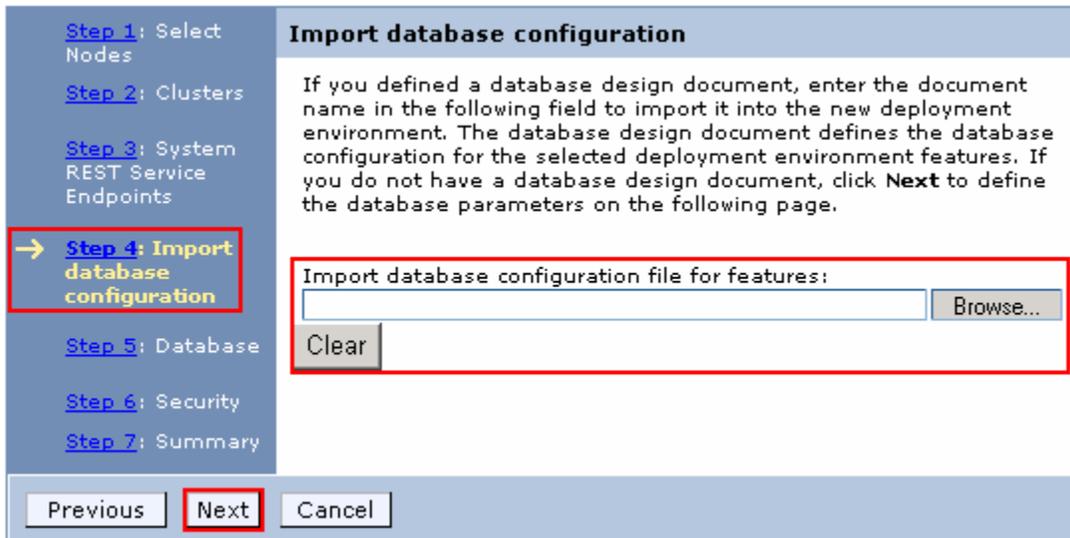
\_\_\_ 15. Click **Next**

\_\_\_ 16. In the next **Step 4 : Import Database configuration** panel, accept the defaults

---

**Note:** Database configuration is out of scope to the document.

---

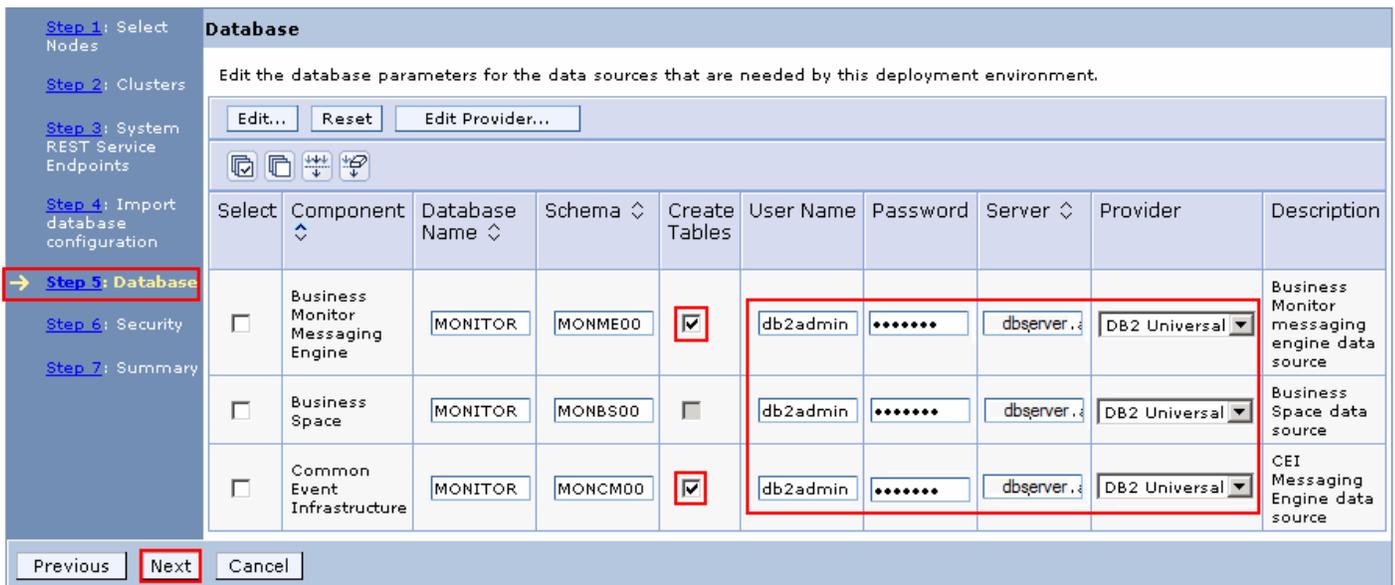


\_\_\_ 17. Click **Next**

\_\_\_ 18. In the next **Step 5 : Database** window, accept the defaults

**Note:** By default the monitor common database name is populated for all the components. If you plan to have exclusive database instances and schema names for various WebSphere Business Monitor components, you should input the values of your choice. You can give a different database name to the Message Engine, Business Space and the Common Event Infrastructure databases.

**Note:** To not create database tables during the deployment environment configuration, clear all the check boxes for **Create Tables** for the data sources where applicable. You might have to clear for creating tables if the database user has insufficient privileges to create tables.



\_\_\_ 19. Click **Next**

\_\_\_ 20. In the next **Step 6 : Security** panel, ensure the administrative security credentials are filled for the authentication aliases mentioned below:

- \_\_\_ a. Common Event Infrastructure
- \_\_\_ b. WBM\_Alphablox

Ex: User name: **admin**

Password: **superSecret**

**Step 1:** Select Nodes  
**Step 2:** Clusters  
**Step 3:** System REST Service Endpoints  
**Step 4:** Import database configuration  
**Step 5:** Database  
**→ Step 6: Security**  
**Step 7:** Summary

**Security**

Edit the user names and passwords for the authentication aliases that are needed by this deployment environment.

Component	User name	Password	Confirm Password	Description
Common Event Infrastructure	admin	*****	*****	Authentication alias for the CEI event service JMS resources
WBM_Alphablox	admin	*****	*****	WebSphere administrator authentication used by Alphablox server

Previous **Next** Cancel

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

\_\_\_ 22. In the next **Step 9: Summary** panel, verify the deployment environment configuration summary

[Step 1: Select Nodes](#)

[Step 2: Clusters](#)

[Step 3: System REST Service Endpoints](#)

[Step 4: Import database configuration](#)

[Step 5: Database](#)

[Step 6: Security](#)

**→ Step 7: Summary**

### Summary

This summary shows an overview of your new deployment environment. To save the deployment environment definition, click on "Finish". To save the definition and generate the deployment environment, click on "Finish and Generate Environment".

#### Overview

Parameter	Value
Deployment Environment Pattern	Remote Messaging, Remote Support, and Web
Deployment environment name	wbm
Features	WBM
Deployment Environment Status	Incomplete

#### Deployment Targets

Cluster	Nodes
Application Deployment Target	Custom01Node01 Custom02Node02
Messaging Infrastructure	Custom02Node02 Custom03Node03
Supporting Infrastructure	Custom03Node03 Custom04Node04
Web Applications	Custom01Node01 Custom04Node04

#### Data Sources

Component	Database Name	Schema	Database Provider	Database Host
Business Space	MONITOR	MONBS00	DB2_UNIVERSAL	dbserver.austin.ibm.com
Common Event Infrastructure	MONITOR	MONCM00	DB2_UNIVERSAL	dbserver.austin.ibm.com
Business Monitor Messaging Engine	MONITOR	MONME00	DB2_UNIVERSAL	dbserver.austin.ibm.com

#### Security

Component	Authentication	User Name
Common Event Infrastructure	CommonEventInfrastructureJMSAuthAlias	admin
WBM_Alphablox	MonitorAlphabloxWASAlias	admin

Previous   Finish   **Finish and Generate Environment**   Cancel

**Note:** Click **Finish** to save this deployment environment configuration session. You can verify and generate the environment at a later time. To verify, navigate through **Servers** → **Deployment Environments** and then click the name of the deployment environment (Ex: **wbm**) you saved. On the deployment environment panel, you can verify the topology, data sources, and authentication aliases that are created during the environment generation. Click **Generate Environment** once the verification is complete.

- \_\_\_ 23. Click **Finish and Generate Environment** to generate the WebSphere Business Monitor deployment environment
- \_\_\_ 24. Once the environment generation is complete, verify the **Configuration Status** and ensure that every action is successful

```

2009-12-06 00:59:28 Beginning configuration ...
2009-12-06 00:59:28 CWLDB9015I: Deployment environment wbm is being generated.
2009-12-06 00:59:28 CWLDB9009I: Creating cluster wbm.AppTarget.
2009-12-06 00:59:29 CWLDB9010I: Creating cluster member wbm.AppTarget.Custom01Node01.0 on node Custom01Node01 for cluster wbm.AppTarget.
2009-12-06 00:59:36 CWLDB9010I: Creating cluster member wbm.AppTarget.Custom02Node02.0 on node Custom02Node02 for cluster wbm.AppTarget.
2009-12-06 00:59:41 CWLDB9009I: Creating cluster wbm.Support.
2009-12-06 00:59:41 CWLDB9010I: Creating cluster member wbm.Support.Custom03Node03.0 on node Custom03Node03 for cluster wbm.Support.
2009-12-06 00:59:46 CWLDB9010I: Creating cluster member wbm.Support.Custom04Node04.0 on node Custom04Node04 for cluster wbm.Support.
2009-12-06 00:59:51 CWLDB9009I: Creating cluster wbm.Messaging.
2009-12-06 00:59:51 CWLDB9010I: Creating cluster member wbm.Messaging.Custom02Node02.0 on node Custom02Node02 for cluster wbm.Messaging.
2009-12-06 00:59:55 CWLDB9010I: Creating cluster member wbm.Messaging.Custom03Node03.0 on node Custom03Node03 for cluster wbm.Messaging.
2009-12-06 00:59:59 CWLDB9009I: Creating cluster wbm.WebApp.
2009-12-06 00:59:59 CWLDB9010I: Creating cluster member wbm.WebApp.Custom01Node01.0 on node Custom01Node01 for cluster wbm.WebApp.
2009-12-06 01:00:04 CWLDB9010I: Creating cluster member wbm.WebApp.Custom04Node04.0 on node Custom04Node04 for cluster wbm.WebApp.
2009-12-06 01:00:08 CWLDB9013I: Configuring component WBI_CEI on deployment target wbm.Support.
2009-12-06 01:00:24 CWLDB9022I: Creating authentication alias CEIME_wbm.Messaging_Auth_Alias for component WBI_CEI.
2009-12-06 01:00:27 CWLDB9021I: Datasource CEI ME data source is configured at scope Cluster=wbm.Messaging
2009-12-06 01:00:27 CWLDB9022I: Creating authentication alias CEIME_wbm.Messaging_Auth_Alias for component WBI_CEI.
2009-12-06 01:00:49 CWLDB9013I: Configuring component WBM_MessagingEngine on deployment target wbm.Messaging.
2009-12-06 01:00:49 CWLDB9022I: Creating authentication alias MonitorME_wbm.Messaging_Auth_Alias for component WBM_MessagingEngine.
2009-12-06 01:00:53 CWLDB9021I: Datasource Monitor ME data source is configured at scope Cluster=wbm.Messaging
2009-12-06 01:00:53 CWLDB9022I: Creating authentication alias MonitorME_wbm.Messaging_Auth_Alias for component WBM_MessagingEngine.
2009-12-06 01:00:55 CWLDB9013I: Configuring component WBM_EventEmitterFactory on deployment target wbm.Support.
2009-12-06 01:00:56 CWLDB9013I: Configuring component WBM_ActionServices on deployment target wbm.Support.
2009-12-06 01:01:41 CWLDB9013I: Configuring component WBI_RESTSERVICES on deployment target wbm.WebApp.
2009-12-06 01:01:43 CWLDB9013I: Configuring component WBM_Alphablox on deployment target wbm.WebApp.
2009-12-06 01:02:21 CWLDB9013I: Configuring component WBI_BSPACE on deployment target wbm.WebApp.
2009-12-06 01:04:19 CWLDB9022I: Creating authentication alias BSPACE_Auth_Alias for component WBI_BSPACE.
2009-12-06 01:04:23 CWLDB9021I: Datasource Business Space data source is configured at scope Cluster=wbm.WebApp
2009-12-06 01:04:25 CWLDB9013I: Configuring component WBM_MobileDashboard on deployment target wbm.WebApp.
2009-12-06 01:04:31 CWLDB9013I: Configuring component WBM_ScheduledServices on deployment target wbm.Support.
2009-12-06 01:04:49 CWLDB9013I: Configuring component WBM_EventEmitterServices on deployment target wbm.Support.
2009-12-06 01:05:16 CWLDB9013I: Configuring component WBI_BSPACE on deployment target wbm.WebApp.
2009-12-06 01:05:16 The configuration has ended.

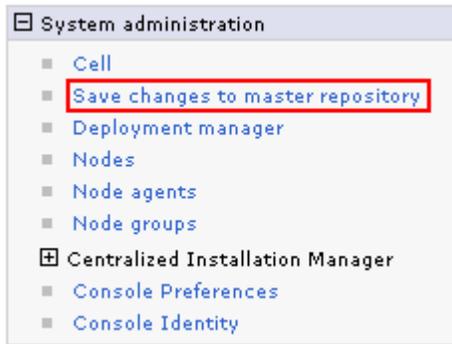
```

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

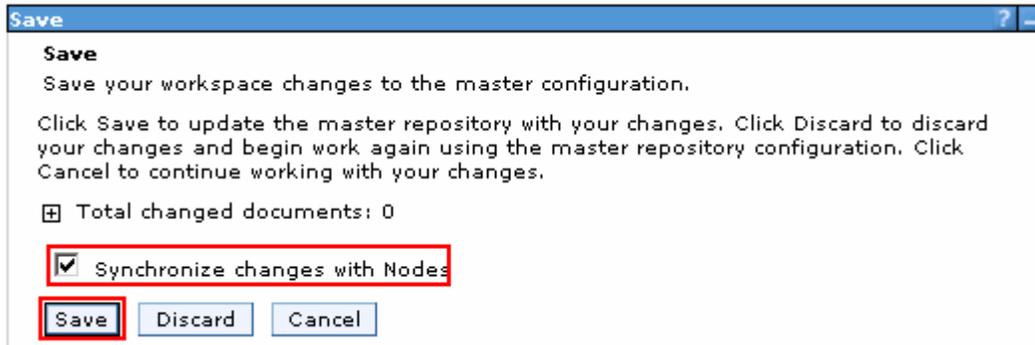
\_\_\_ 25. Click **save Changes**

\_\_\_ 26. Synchronize changes with the nodes

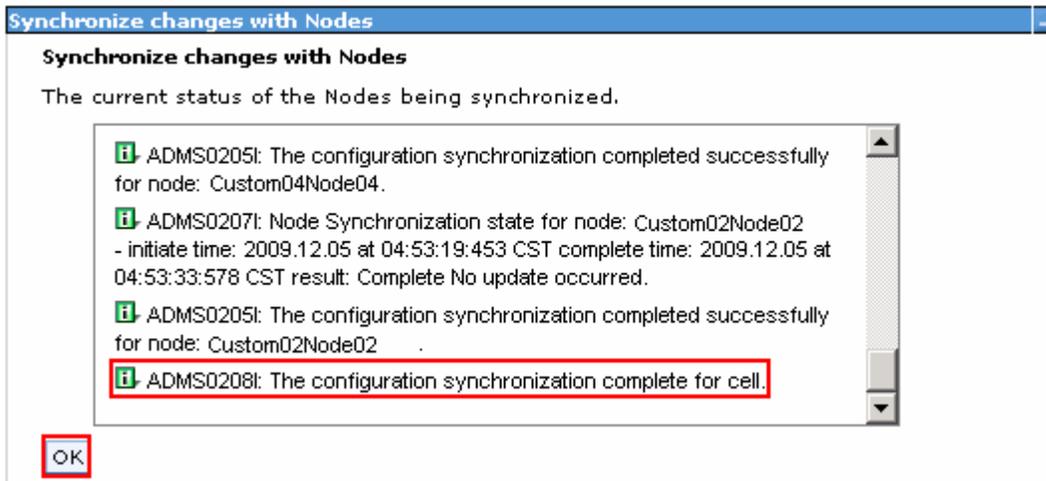
\_\_\_ a. In the left navigation pane, expand **System Administration** and click **Save changes to master repository**



\_\_ b. In the save window, select the check box for **synchronize changes with Nodes**



\_\_ c. Click **save**. The next window shows the status of the synchronization. Ensure there is no failure



\_\_ d. Click **ok**

\_\_\_ 27. Restart the deployment manager

\_\_\_ 28. Restart all the node agents

## Part 6: Verify and update the deployment environment configuration

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

### Pre-requisites:

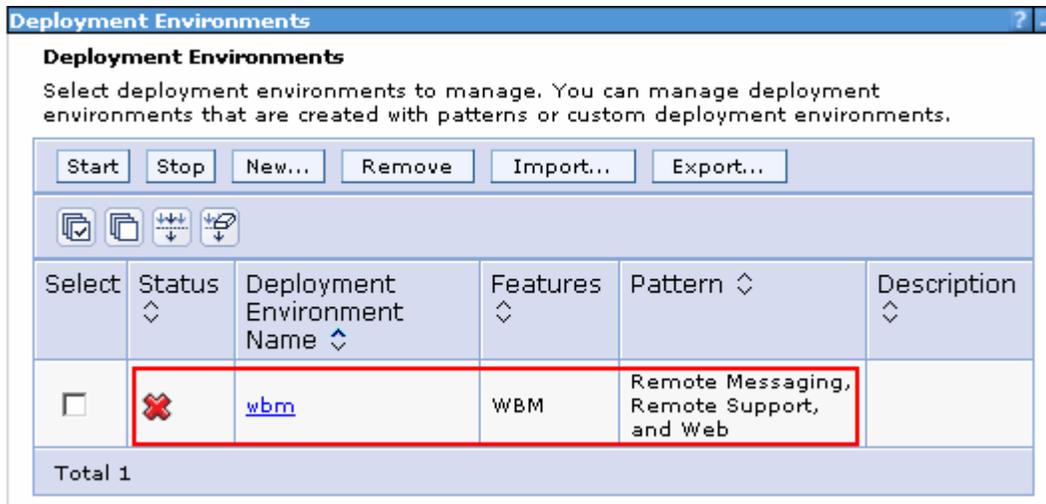
- Ensure the DB2 server is running
- Restart the deployment manager
- Restart the node agents

### Deployment Environment Status icons:

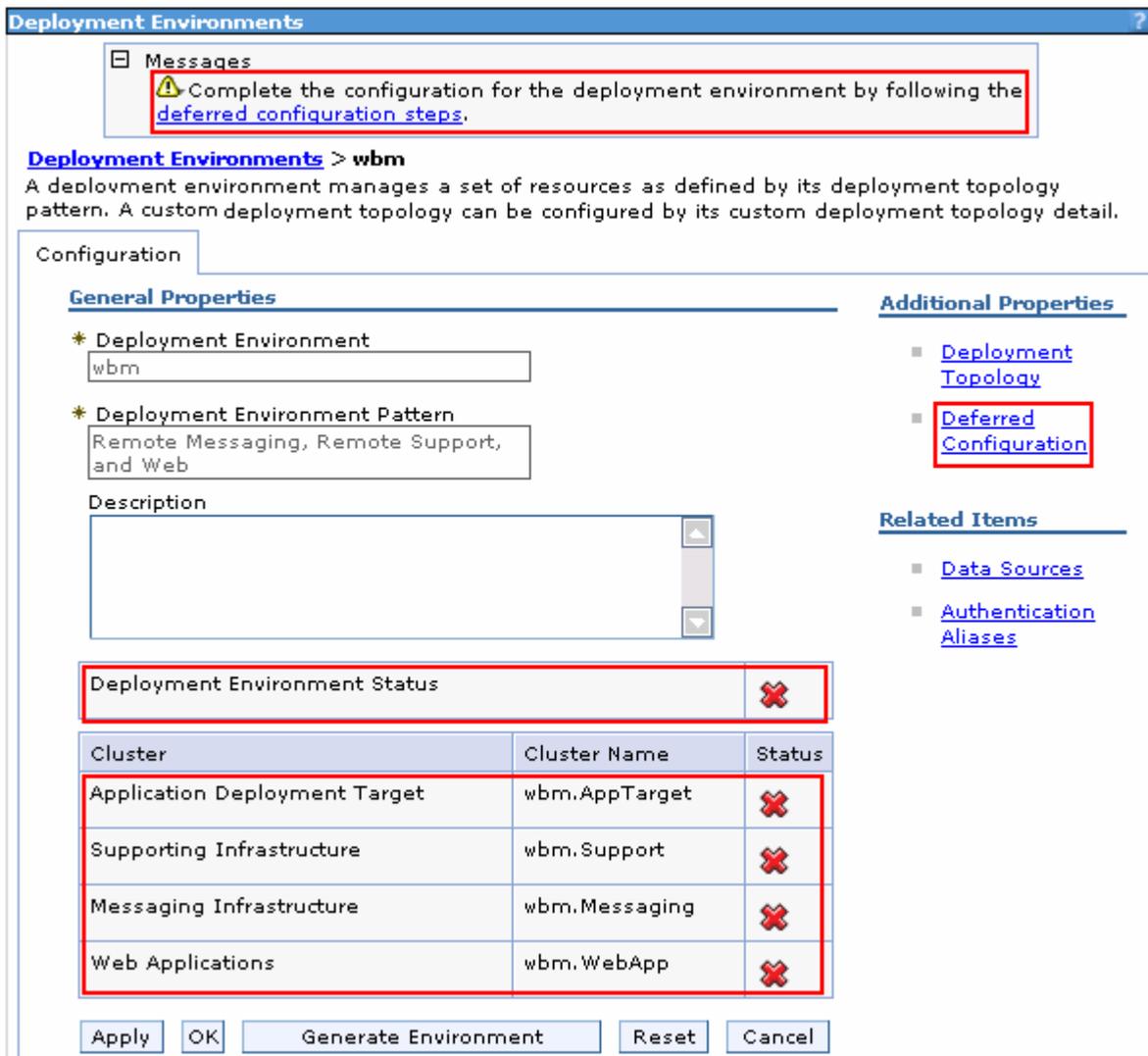
Status icon	Warning icon	State	Description
	None	Unknown	The system cannot determine the current state of the deployment environment.
		Incomplete	The deployment environment is not missing any elements but is incomplete in some way. The warning message contains additional details.
		Not configured	The configuration is known and complete but has not yet been generated.
		Deferred configuration	The deployment environment has been generated but deferred configuration has not been completed.
		Unavailable	The deployment environment is complete but at least one function is unavailable.
		Partially stopped	The deployment environment is available but at least one function is stopped or partially stopped.
		Stopped	All functions are stopped.
		Partially running	The deployment environment is available but at least one function is partially running.
		Running	The deployment environment is available and all functions are running.

Complete the instructions below to verify the deployment environment configuration:

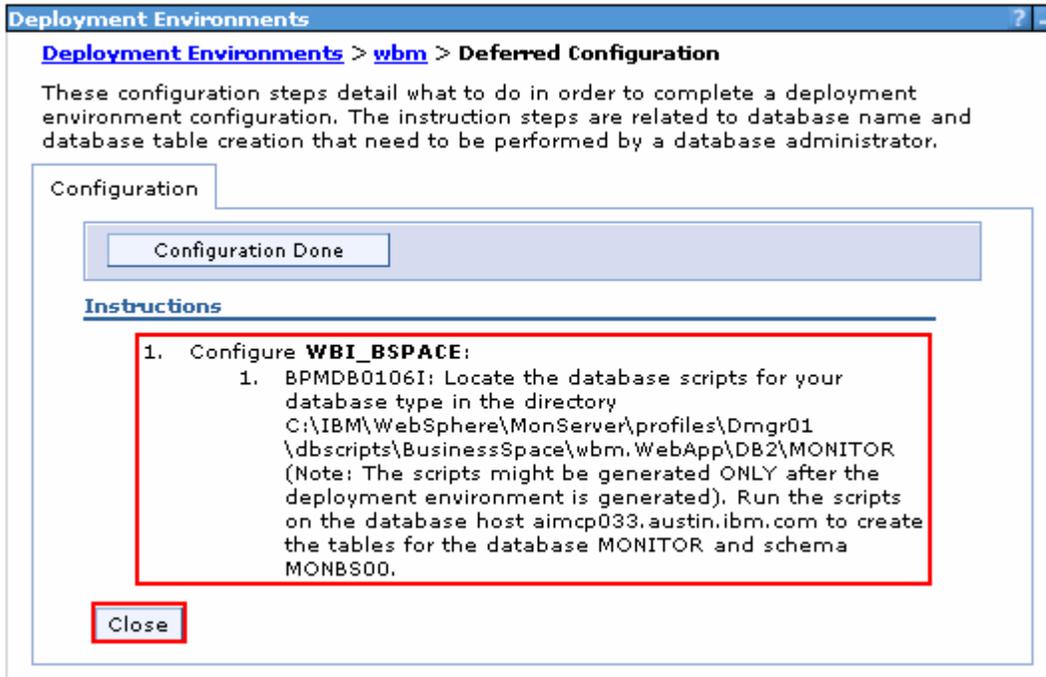
1. In the left navigation pane of the administrative console, expand **servers** and then click the **Deployment Environments** link. The status of the deployment environment should display either as **Stopped** (Red Icon) or **Started** (Green Icon)



2. Click the [wbm](#) (the name of the deployment environment) link



- 3. You should see four clusters listed and a warning in the **Messages** box over the top, referring to a deferred configuration. Click the **Deferred Configuration** link under the **Additional Properties** section



- 4. Read the instructions. As per the instruction, you have to manually run a Business Space database script, which is done later in this exercise. Click **Close**
- 5. Click **Cancel** over the Deployment Environments panel
- 6. Now, verify the four clusters that were created. In the left navigation pane of the administrative console, expand **Servers** → **Clusters** and then click **WebSphere application server clusters** link



7. Now, 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="#">wbm.AppTarget.Custom01Node01.0</a>	Custom01Node01	custom01.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	wbm.AppTarget	✘
<input type="checkbox"/>	<a href="#">wbm.AppTarget.Custom02Node02.0</a>	Custom02Node02	custom02.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	wbm.AppTarget	✘
<input type="checkbox"/>	<a href="#">wbm.Messaging.Custom02Node02.0</a>	Custom02Node02	custom02.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	wbm.Messaging	✘
<input type="checkbox"/>	<a href="#">wbm.Messaging.Custom03Node03.0</a>	Custom03Node03	custom03.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	wbm.Messaging	✘
<input type="checkbox"/>	<a href="#">wbm.Support.Custom03Node03.0</a>	Custom03Node03	custom03.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	wbm.Support	✘
<input type="checkbox"/>	<a href="#">wbm.Support.Custom04Node04.0</a>	Custom04Node04	custom04.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	wbm.Support	✘
<input type="checkbox"/>	<a href="#">wbm.WebApp.Custom01Node01.0</a>	Custom01Node01	custom01.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	wbm.WebApp	✘
<input type="checkbox"/>	<a href="#">wbm.WebApp.Custom04Node04.0</a>	Custom04Node04	custom04.austin.ibm.com	ND 7.0.0.7 WBM 7.0.0.0 XML FEP 1.0.0.0	wbm.WebApp	✘
Total 8						

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

**Cluster Topology**

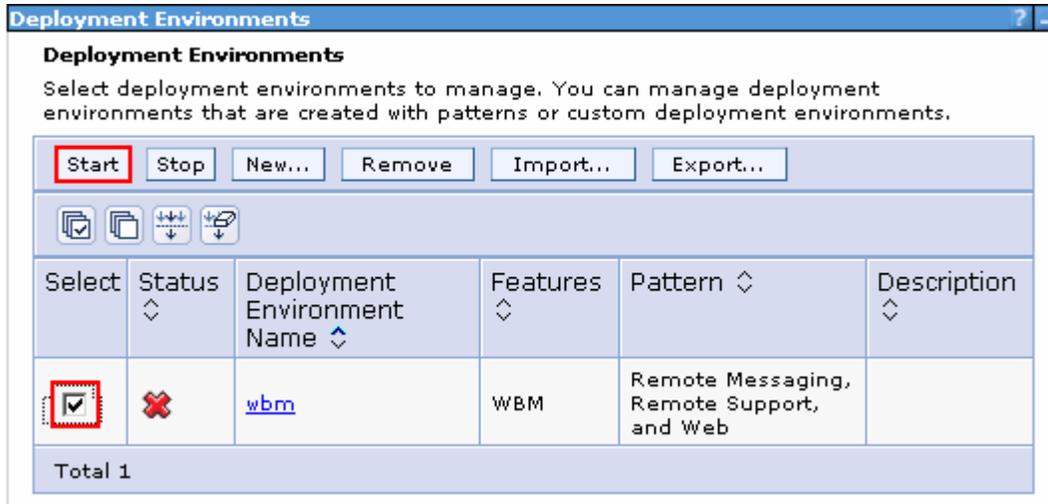
Use this page to view a list of WebSphere application server clusters and proxy server clusters in a tree format.

Local Topology

**Cell**

- [-] [wbm.Support](#)
  - [-] Nodes
    - [-] [Custom03Node03 \(ND 7.0.0.7, WBM 7.0.0.0, XML FEP 1.0.0.0\)](#)
      - [-] Cluster members
        - [wbm.Support.Custom03Node03.0](#)
    - [-] [Custom04Node04 \(ND 7.0.0.7, WBM 7.0.0.0, XML FEP 1.0.0.0\)](#)
      - [-] Cluster members
        - [wbm.Support.Custom04Node04.0](#)
  - [-] [wbm.AppTarget](#)
    - [-] Nodes
      - [-] [Custom01Node01 \(ND 7.0.0.7, WBM 7.0.0.0, XML FEP 1.0.0.0\)](#)
        - [-] Cluster members
          - [wbm.AppTarget.Custom01Node01.0](#)
        - [-] [Custom02Node02 \(ND 7.0.0.7, WBM 7.0.0.0, XML FEP 1.0.0.0\)](#)
          - [-] Cluster members
            - [wbm.AppTarget.Custom02Node02.0](#)
      - [-] [wbm.Messaging](#)
        - [-] Nodes
          - [-] [Custom02Node02 \(ND 7.0.0.7, WBM 7.0.0.0, XML FEP 1.0.0.0\)](#)
            - [-] Cluster members
              - [wbm.Messaging.Custom02Node02.0](#)
            - [-] [Custom03Node03 \(ND 7.0.0.7, WBM 7.0.0.0, XML FEP 1.0.0.0\)](#)
              - [-] Cluster members
                - [wbm.Messaging.Custom03Node03.0](#)
          - [-] [wbm.WebApp](#)
            - [-] Nodes
              - [-] [Custom01Node01 \(ND 7.0.0.7, WBM 7.0.0.0, XML FEP 1.0.0.0\)](#)
                - [-] Cluster members
                  - [wbm.WebApp.Custom01Node01.0](#)
                - [-] [Custom04Node04 \(ND 7.0.0.7, WBM 7.0.0.0, XML FEP 1.0.0.0\)](#)
                  - [-] Cluster members
                    - [wbm.WebApp.Custom04Node04.0](#)

- \_\_\_ 9. Restart the **Node Agents** if not done earlier. In the left navigation pane, expand **System Administration** and then click **Node agents**. You should see three node agents listed
- \_\_\_ a. Select the check boxes for all the node agents and then click **Restart**
- \_\_\_ 10. Start the deployment environment. In the left navigation pane, expand **Servers** and then click **Deployment Environments**
- \_\_\_ a. Select the check box for **wbm** (the name of the deployment environment) and then click **Start**

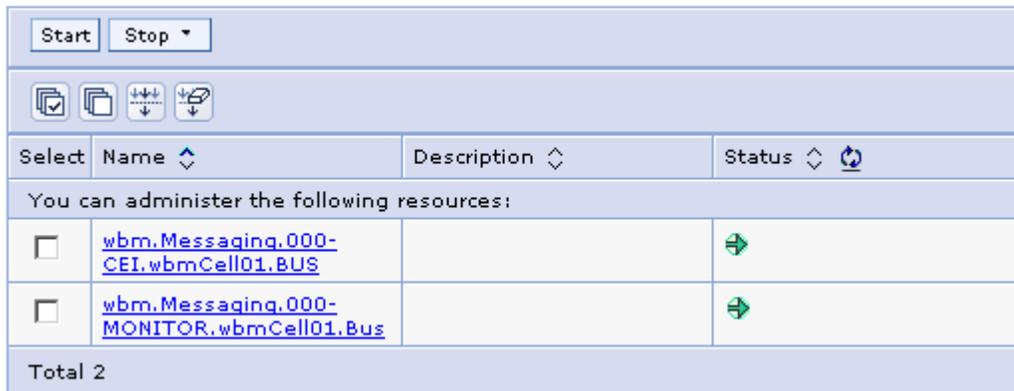


\_\_\_ 11. This action starts all the four clusters. Ensure all the member servers are successfully started

**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.

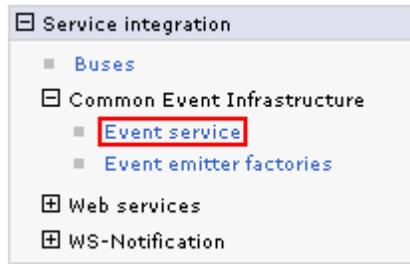
- \_\_\_ 12. In the left navigation pane, expand **Servers** → **Clusters** and then click **WebSphere application server clusters**
- \_\_\_ 13. In the **WebSphere application server clusters** panel to the right, click **wbm.Messaging**
- \_\_\_ 14. In the next **WebSphere application server clusters** → **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



**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

- \_\_\_ 15. In the left navigation pane, expand **Service Integration** → **Common Event Infrastructure** and then click **Event service**



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

**Additional Properties**

- [Event services](#)
- [Map security roles to users or groups](#)

17. 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  |                     |                           |                         |                                  |

18. In the next panel, verify the configuration

**General Properties**

\* Scope  
cells:wbmCell01:clusters:wbm.Support

\* Name  
Default Common Event Infrastructure event server

\* JNDI name  
com/ibm/events/configuration/event-server/Default

Description  
The profile of the event server shipped with the Common Event Infrastructure.

Category

Enable event distribution

Enable event data store

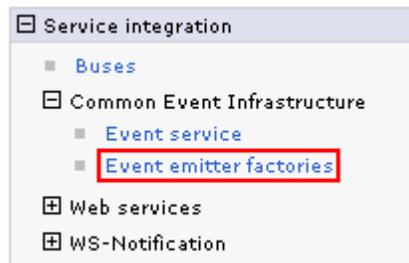
Event data store EJB JNDI name  
ejb/com/ibm/events/datastore/impl/DefaultDataStoreEJBLocalHome

Apply OK Reset Cancel

**Additional Properties**

- [Event groups](#)
- [Event data store](#)
- [Custom properties](#)

- \_\_\_ 19. Click the **Event groups** link to verify the event groups created. You should see two groups created
- \_\_\_ 20. In the left navigation pane, expand **Service Integration** → **Common Event Infrastructure** and then click **Event emitter factories**



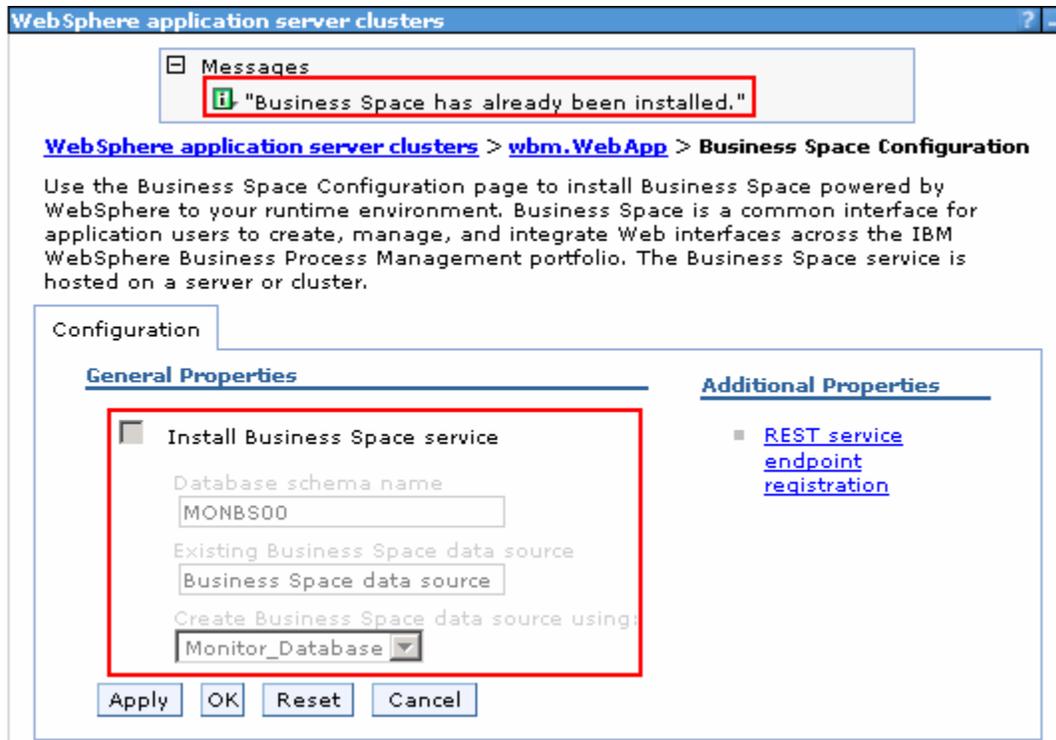
- \_\_\_ 21. In the next panel, verify all the event emitter factory configurations

| 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 WebApp Cluster:

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

- \_\_\_ 22. In the left navigation pane, expand **Servers** → **Clusters** and then click **WebSphere application server clusters**
- \_\_\_ 23. In the **WebSphere application server clusters** panel, click the **wbm.WebApp**
- \_\_\_ 24. In the **WebSphere application server clusters** → **wbm.WebApp** 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



- \_\_\_ 25. Click **Cancel**
- \_\_\_ 26. In the **WebSphere application server clusters** → **wbm.WebApp** 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 WebApp 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      |

- \_\_\_ 27. Click **Cancel**

\_\_\_ 28. Launch the Business Space site

**URL:** [http://<WebApp\\_hostname:port>/BusinessSpace](http://<WebApp_hostname:port>/BusinessSpace)

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

---

**Note 1:** Business Space is deployed to the WebApp 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.

---

\_\_\_ 29. 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.WebApp** cluster

\_\_\_ 30. 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)

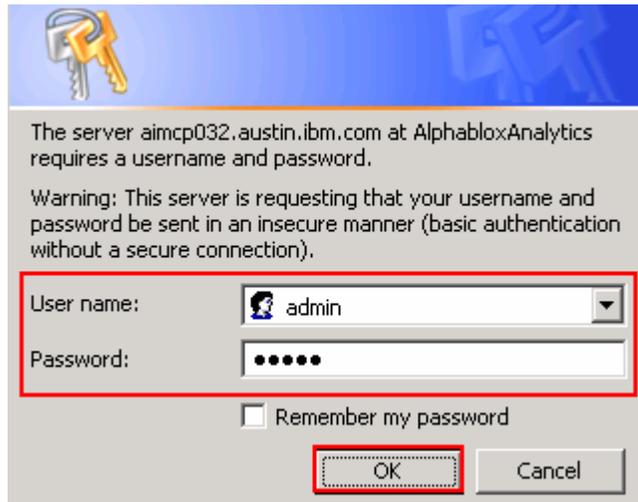
**Ex:** <http://bspace.austin.ibm.com:9080/AlphabloxAdmin/home>

---

**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.

---



\_\_\_ 31. 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

\_\_\_ 32. 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 \(DHTML\)](#)

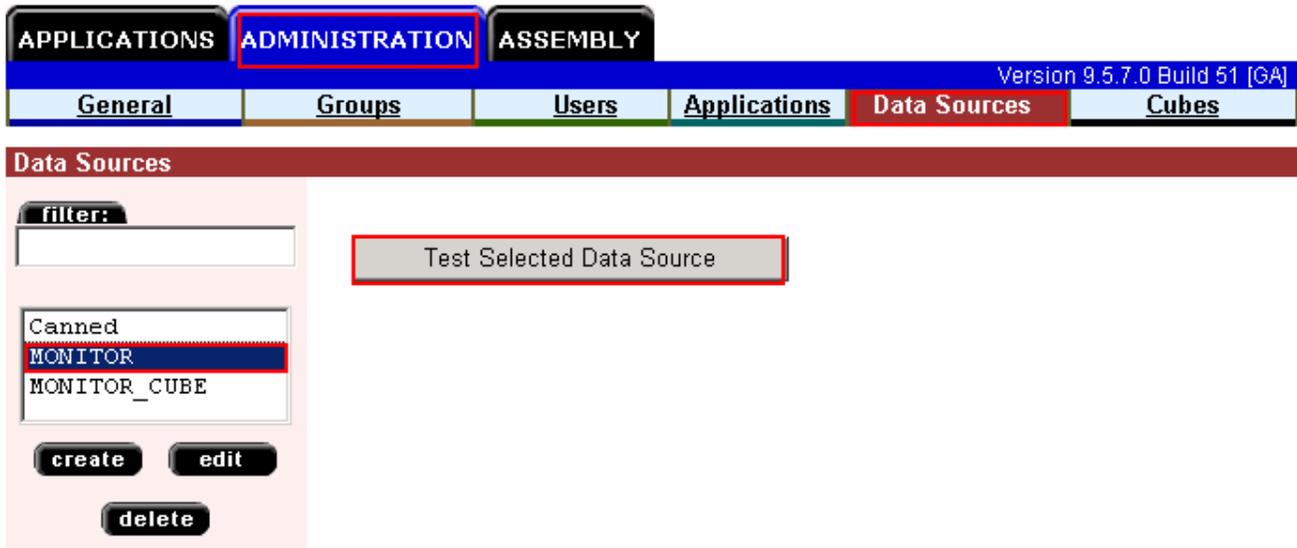
**Console**

- [Start Console Session](#)

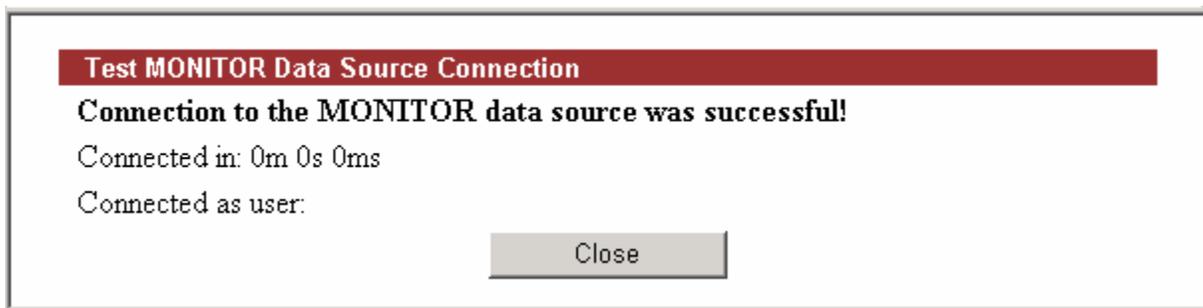
**Utilities**

- [Essbase Setup](#)

- \_\_\_ 33. 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:



- \_\_\_ 34. Click the **Test Selected Data Source** button and ensure the data base connection is successful



- \_\_\_ 35. Click **Close**
- \_\_\_ 36. Similarly select **MONITOR\_CUBE** from the data source text area and test for a successful database connection
- \_\_\_ 37. Now, navigate through the remaining administration activities like managing groups, users, applications and cubes.

## Verify the WebSphere Business Monitor components

In this section, you will verify the WebSphere Business Monitor components.

- \_\_\_ 38. In the left navigation pane, expand **servers** and then click **WebSphere Business Monitor configuration**



39. 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**

**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.WebApp  |
| <a href="#">Dashboards for mobile devices</a>                 | Deployed on wbm.WebApp  |
| <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.WebApp |
| <a href="#">Business Space</a>        | Deployed on wbm.WebApp |

40. Click each of the component link, to verify the specific configuration of that component

## Part 7: Create Business Space database tables

In this part of the exercise, you will create the business space database tables using the generated scripts. Eventually you will mark the Deployment Environment's deferred configuration as done.

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

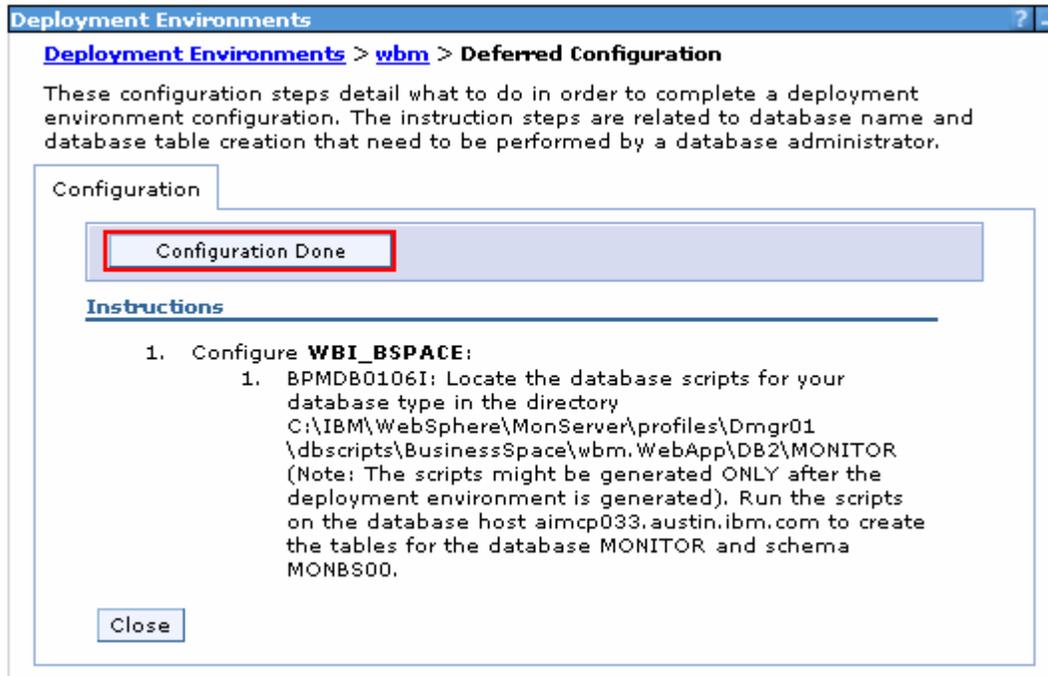
- \_\_\_ 1. The Business Space database scripts are generated to the location mentioned below, on the business monitor deployment manager machine:

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

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



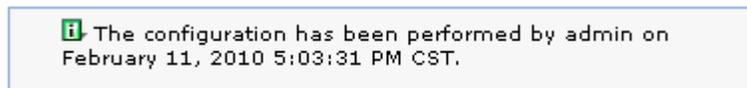
- \_\_\_ 2. Open the DB2 command window from **Start → Programs → IBM DB2 → Command Line Tools → Command Window** and change the directory to the location of the scripts
- \_\_\_ a. Edit this script, modify to suit your needs and run with the recommended usage to create the Business Space tables against the specified database:
- ```
configBusinessSpaceDB.bat
```
- \_\_\_ b. Ensure the Business Space tables are created successfully. In this exercise the Business Space tables are created against the MONTIOR database
- \_\_\_ 3. Close the DB2 command window
- \_\_\_ 4. Mark the deferred configuration as done, 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. You should see a message stating the configuration is done as shown below:



\_\_\_ 6. Click **close**

## Task 1: Manually create WebSphere Business Monitor database 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:

<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. The scripts create the Monitor database, that is MONITOR and create Monitor database tables
4. Close the DB2 command window

This page is left intentionally blank.