Installing and Configuring the Business Process Server for WebSphere Business Monitor Version 6.0

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What this exercise is about

The objective of this lab is to provide you with instruction on how to install WebSphere Process Server 6.0.1 as the BPEL runtime engine that wil be monitored by WebSphere Business Monitor Version 6.0.

WebSphere Business Monitor typically runs on two servers, and these are considered as the 'Monitor Server' and the 'Dashboard Client'. You should install the BPEL runtime engine on a third server. This 'BPEL runtime engine' is referred to throughout this lab as the 'Business Process Server'

You must also configure the Service Integration Bus link between the Monitor Server and the Business Process Server so that events produced by applications on the Business Process Server will flow to the Monitor Server. This lab also describes how to do this.

Lab Requirements

List of system and software required for the student to complete the lab.

- Supported Microsoft Windows operating system for installing WebSphere Process Server 6.0.1, such as Microsoft Windows 2003 Server.

- IBM WebSphere Business Monitor Server 6.0, already installed – see the lab for installing the Monitor Server.

Note: This lab should optimally be started using a 'clean' machine (i.e. a machine without previous installations of the pre-requisites or the Monitor Server). If your machine is not clean, uninstall previous versions of the pre-requisite software, and then delete the installation folders and the vpd.properties file from C:\Windows\.

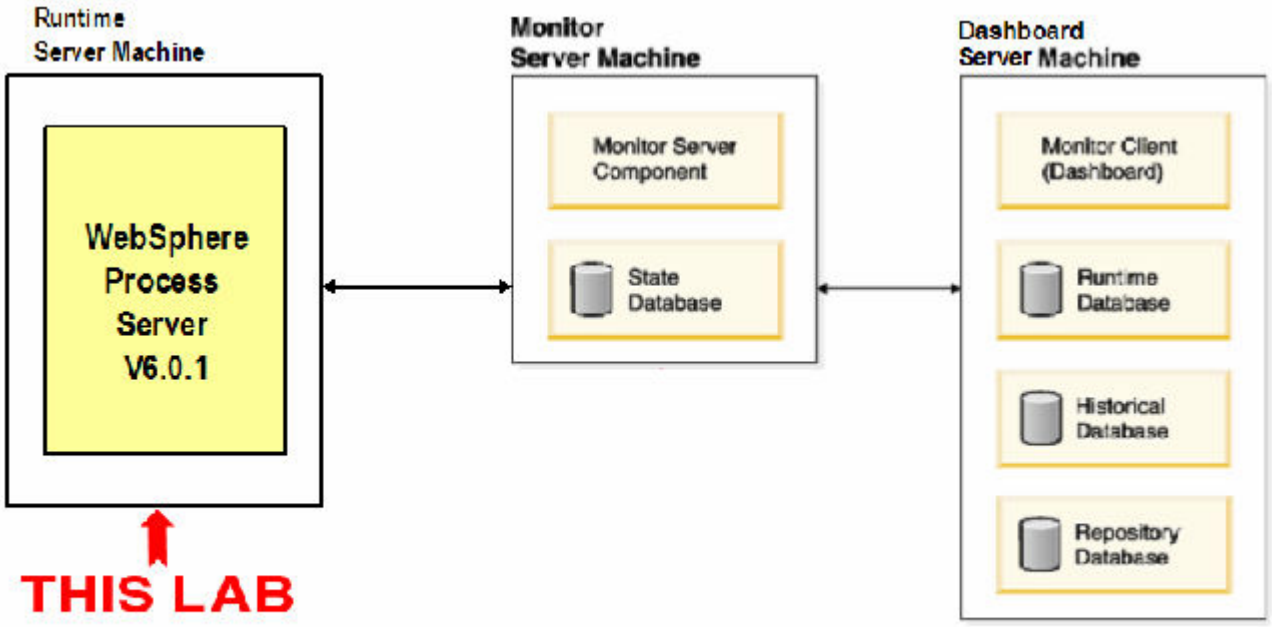
What you should be able to do

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

- Install WebSphere Process Server 6.0.1
- Configure the Service Integration Bus on the Monitor Server and Business Process Server
- Verify that the SI Bus configuration is working

Introduction

This is one of three labs that show you how to build an overall WebSphere Business Monitor V6 environment as shown in the picture below. **In this lab you will be building the Runtime Server Machine.**



This lab will show you how to install WebSphere Process Server 6.0.1 as the BPEL runtime engine which will be monitored by WebSphere Business Monitor Version 6.0. In this document, this is called the

Business Process Server. You should install the Business Process Server on a separate server from the Monitor servers.

This lab will also show you how to configure the Common Event Infratructure using the Service Integration Bus on the Monitor Server and the Business Process Server.

Note – Please install the Monitor Server before executing this lab. There is a separate lab for installing the Monitor Server, so you should follow those instructions first.

Part 1: Installing WebSphere Process Server 6.0.1

____ 1. Download the product files and place them into a directory, e.g., C:\Drivers.

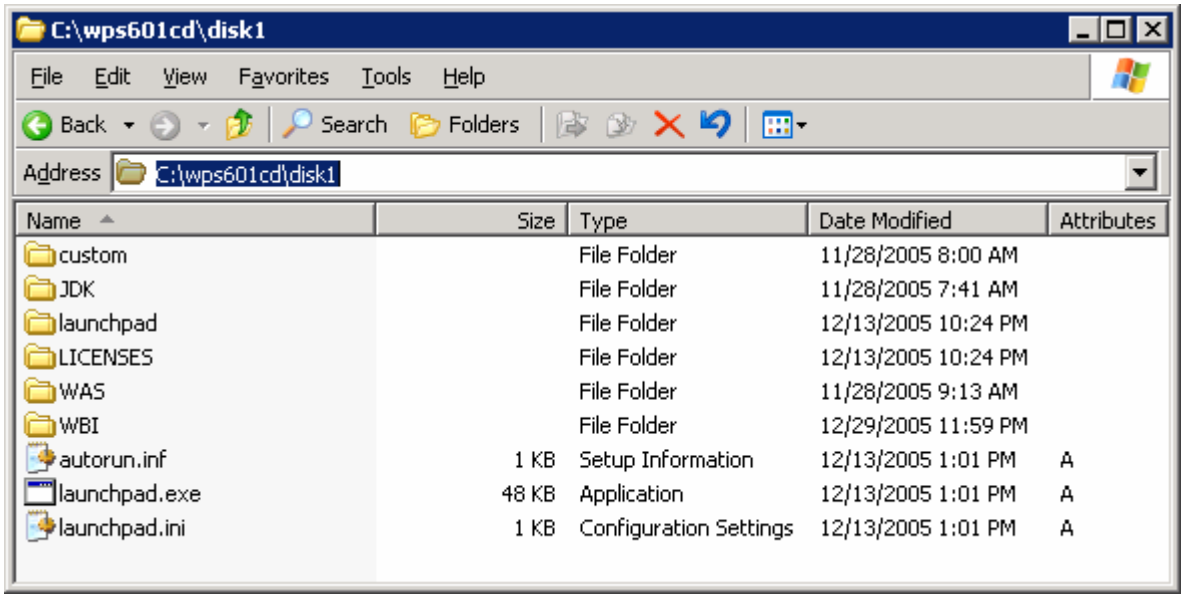
```
C883FML.zip

C883GML.zip
```

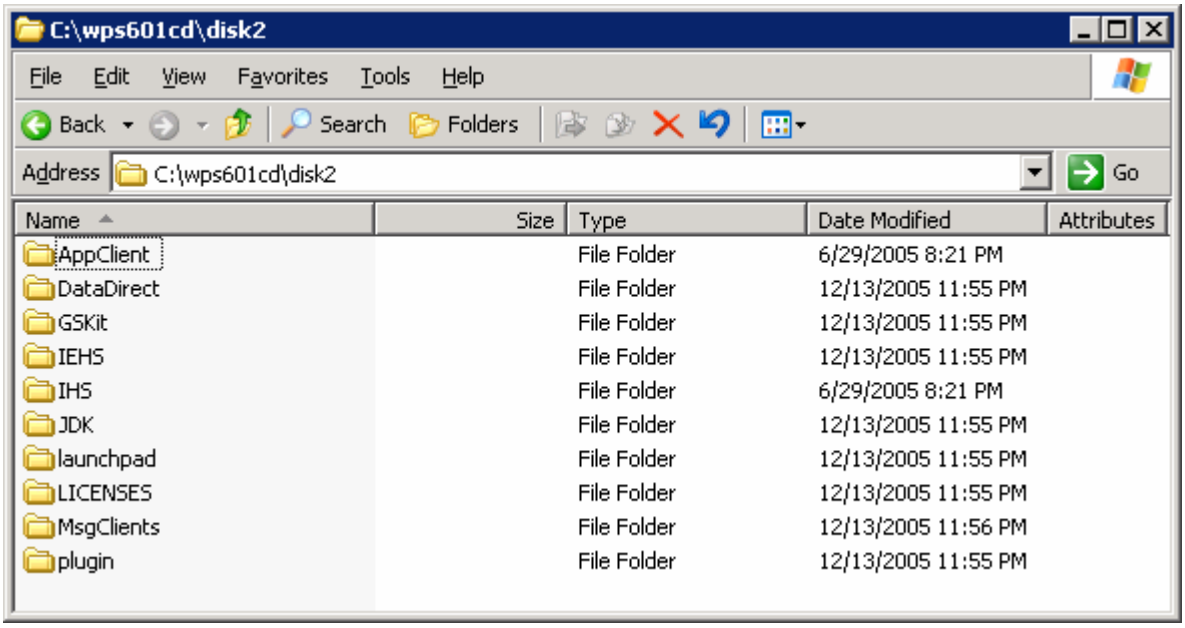
____ 2. Using unzip (**not** winzip), extract all the files into a directory, e.g., C:\wps601cd.

```
cd C:\Drivers
unzip C883FML.zip -d C:\wps601cd\disk1
unzip C883GML.zip -d C:\wps601cd\disk2
```

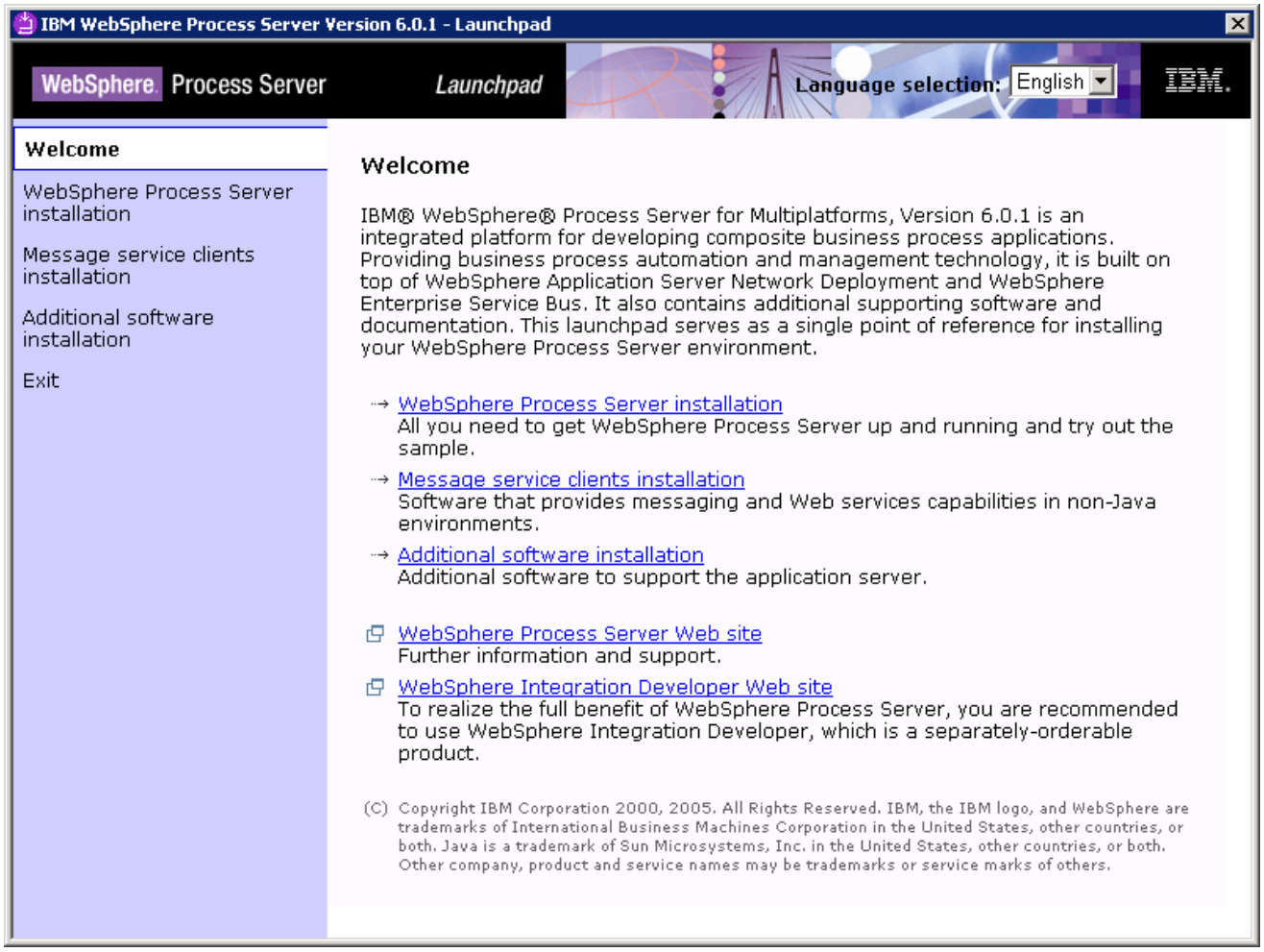
NOTE: Winzip could have problems extracting the number of files and/or the directory structure depth from the source zip files. Use unzip instead, which can be downloaded from the Internet at http://www.info-zip.org/pub/infozip/.

____ 3. Confirm that the directory structure was extracted correctly; it should appear similar to the picture below.

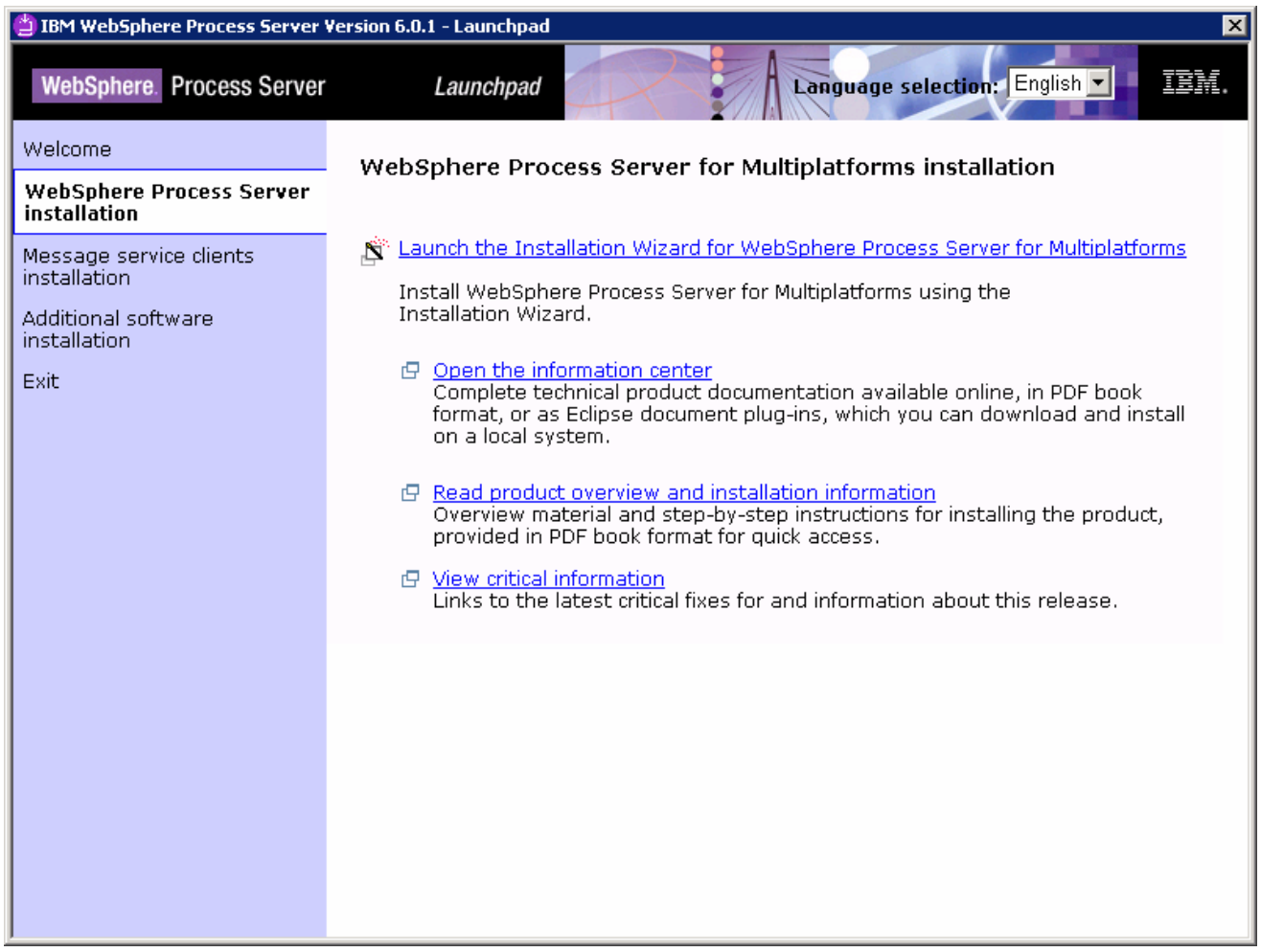




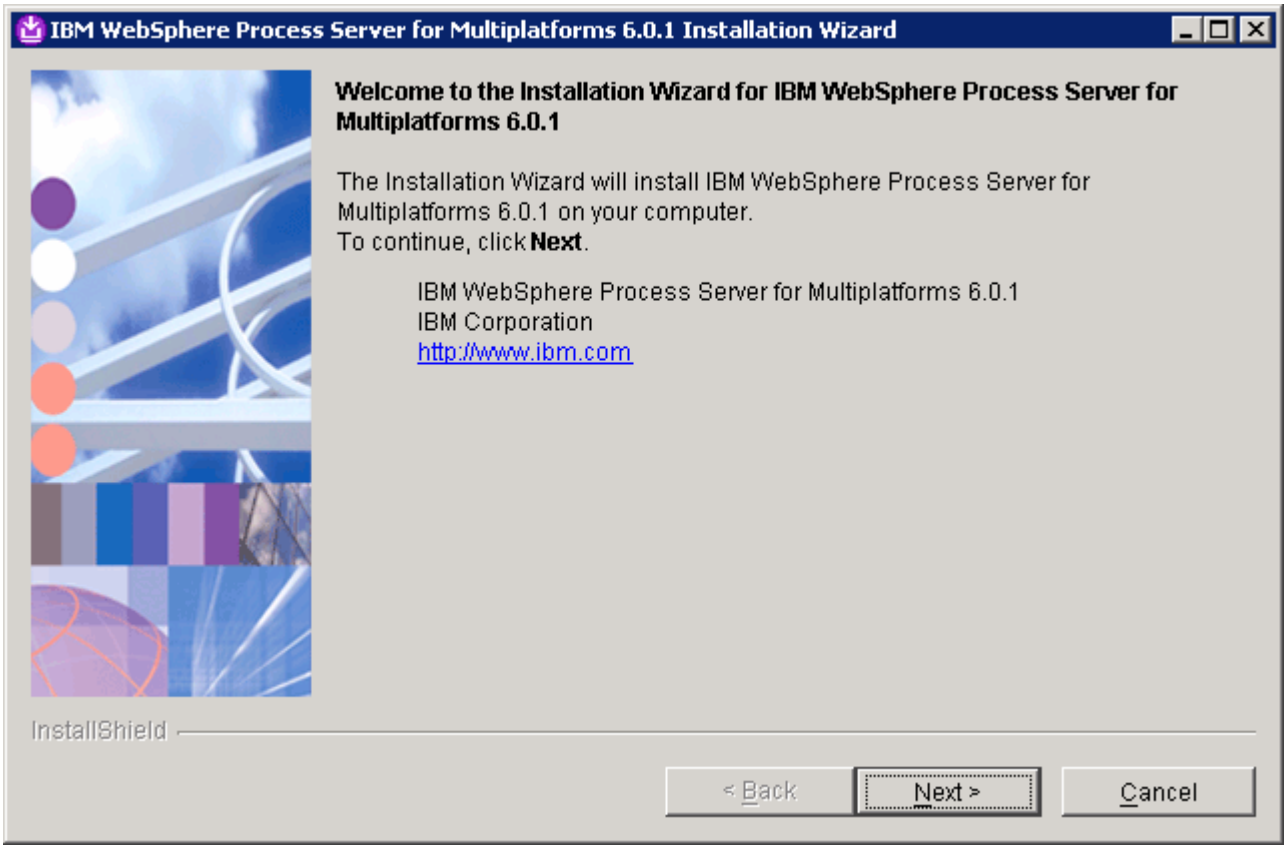
____ 4. Double click on launchpad.exe in the 'disk1' folder to start the Launchpad installer



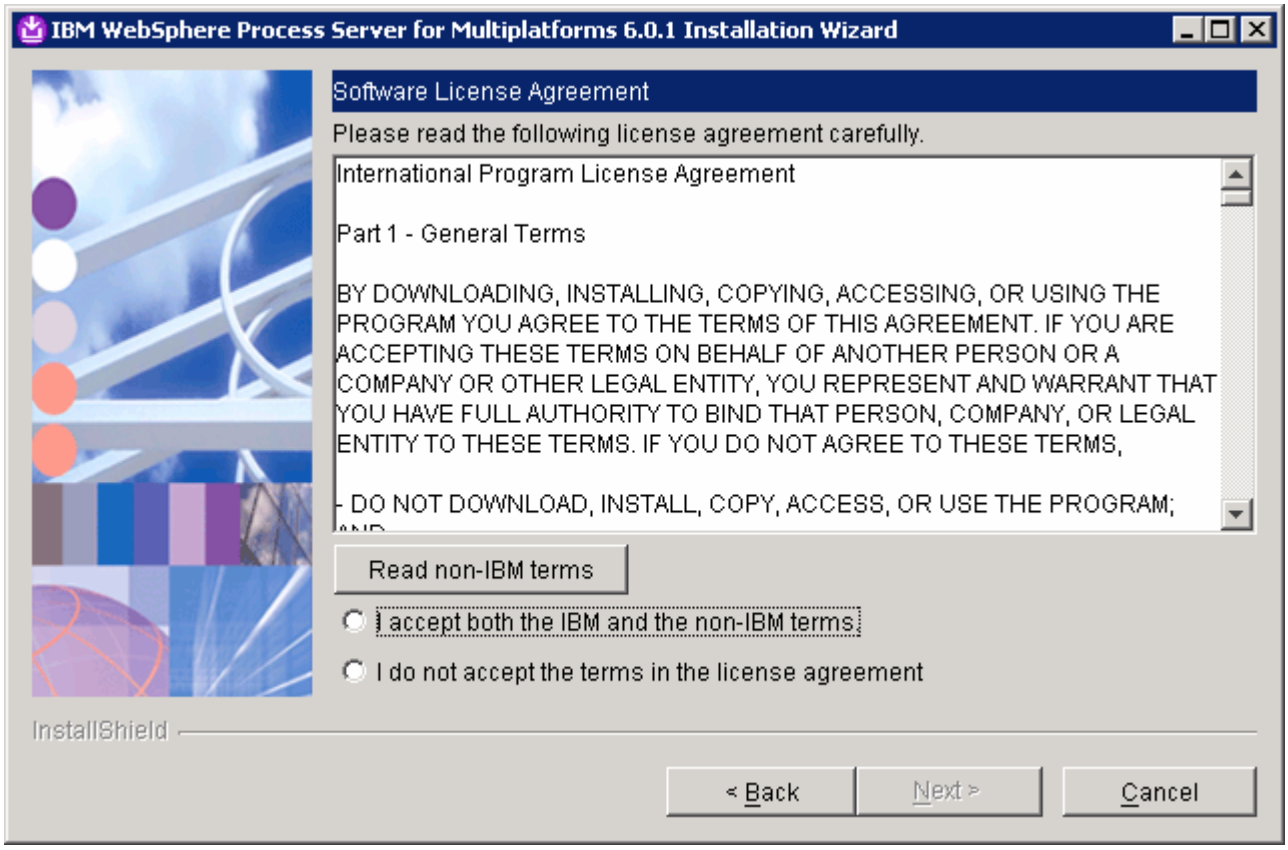
____ 5. Click '**WebSphere Process Server**' installation



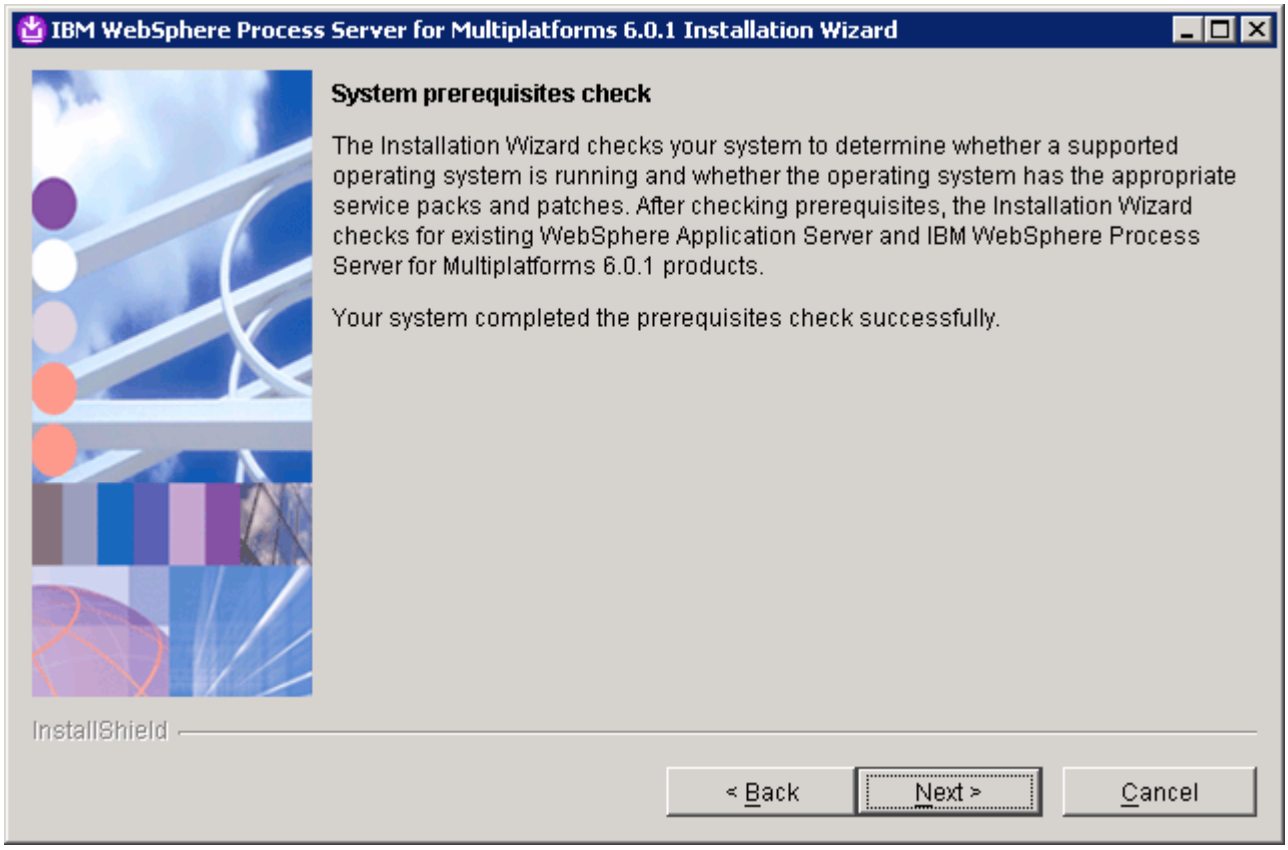
____ 6. Click 'Launch the Installation Wizard for WebSphere Process Server for Multiplatforms'



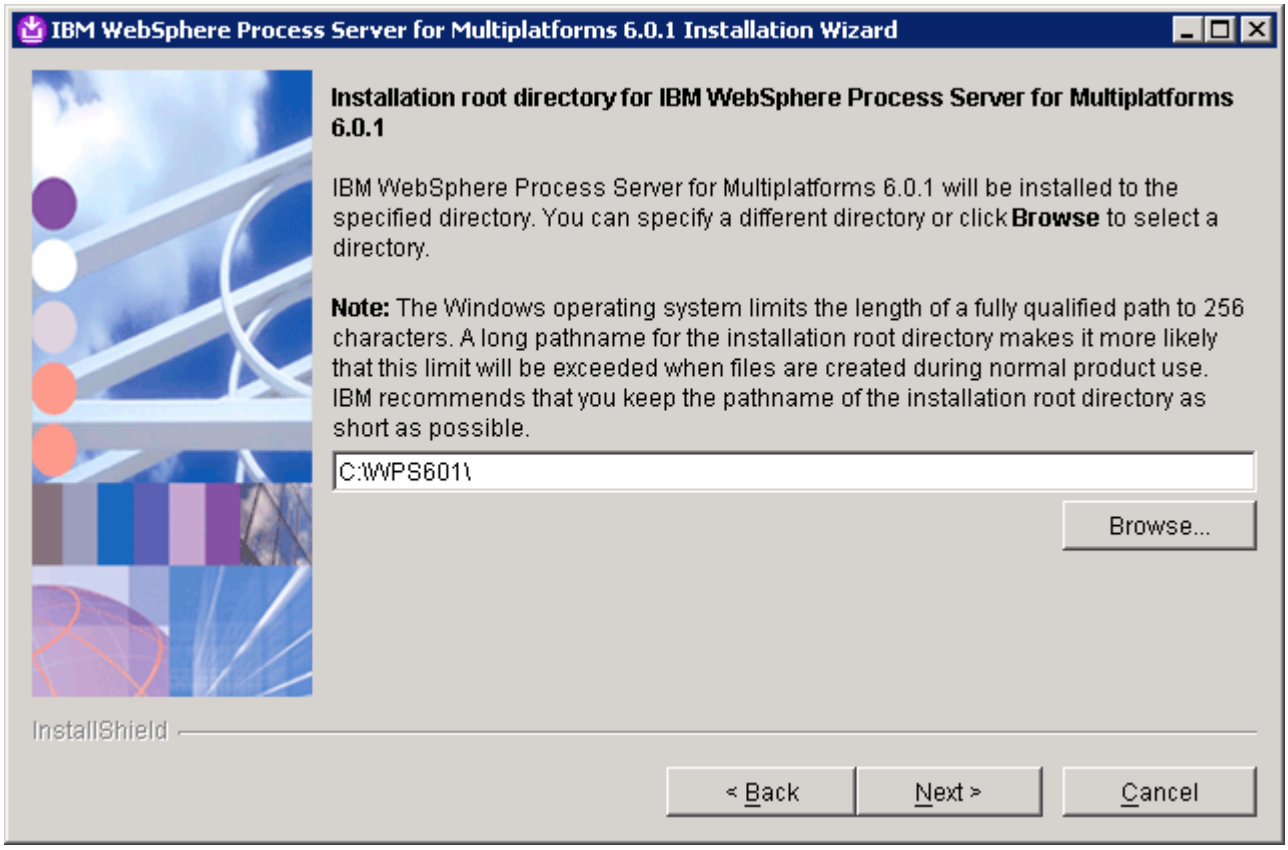
____ 7. Click **Next**.



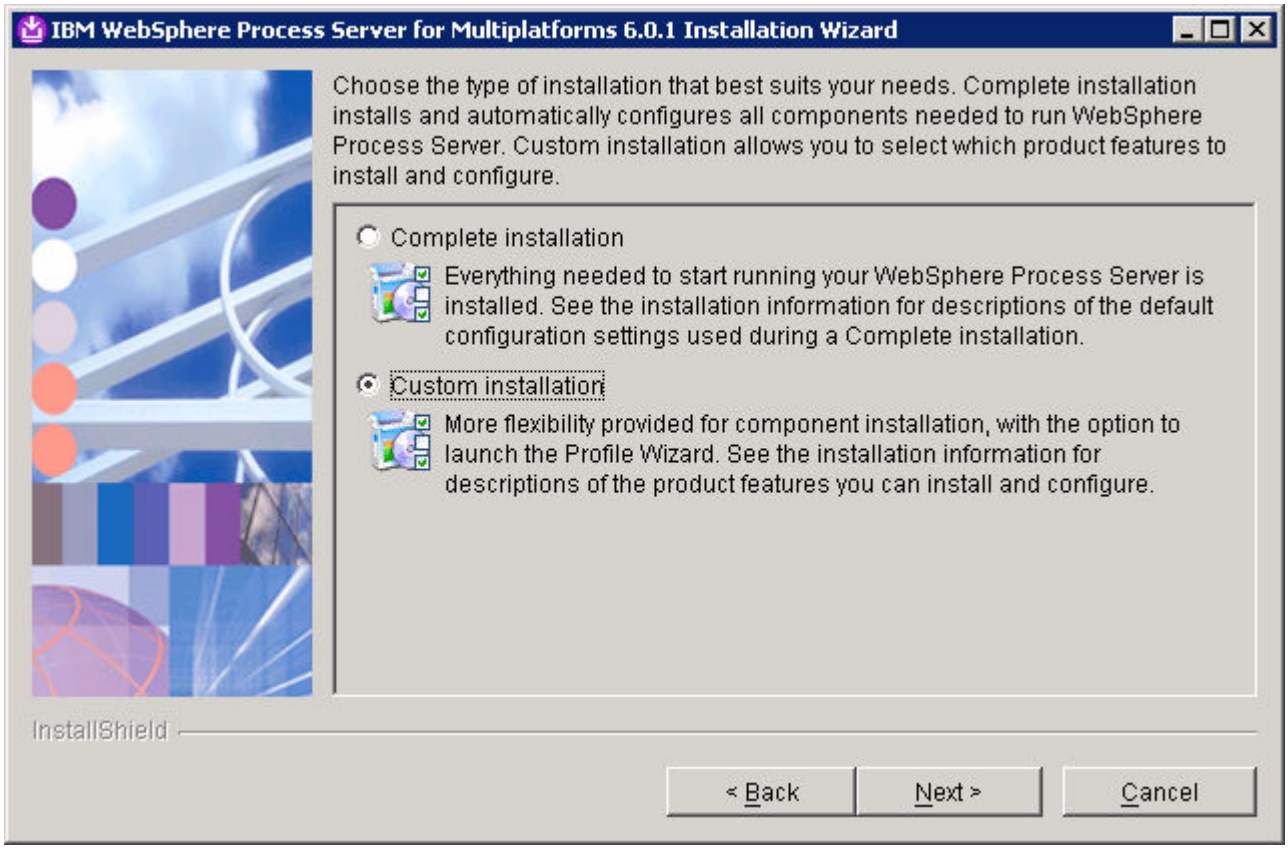
____ 8. Read the license agreement and the non-IBM terms (by clicking the button), then select that you accept the terms to the license, and then click **Next**.



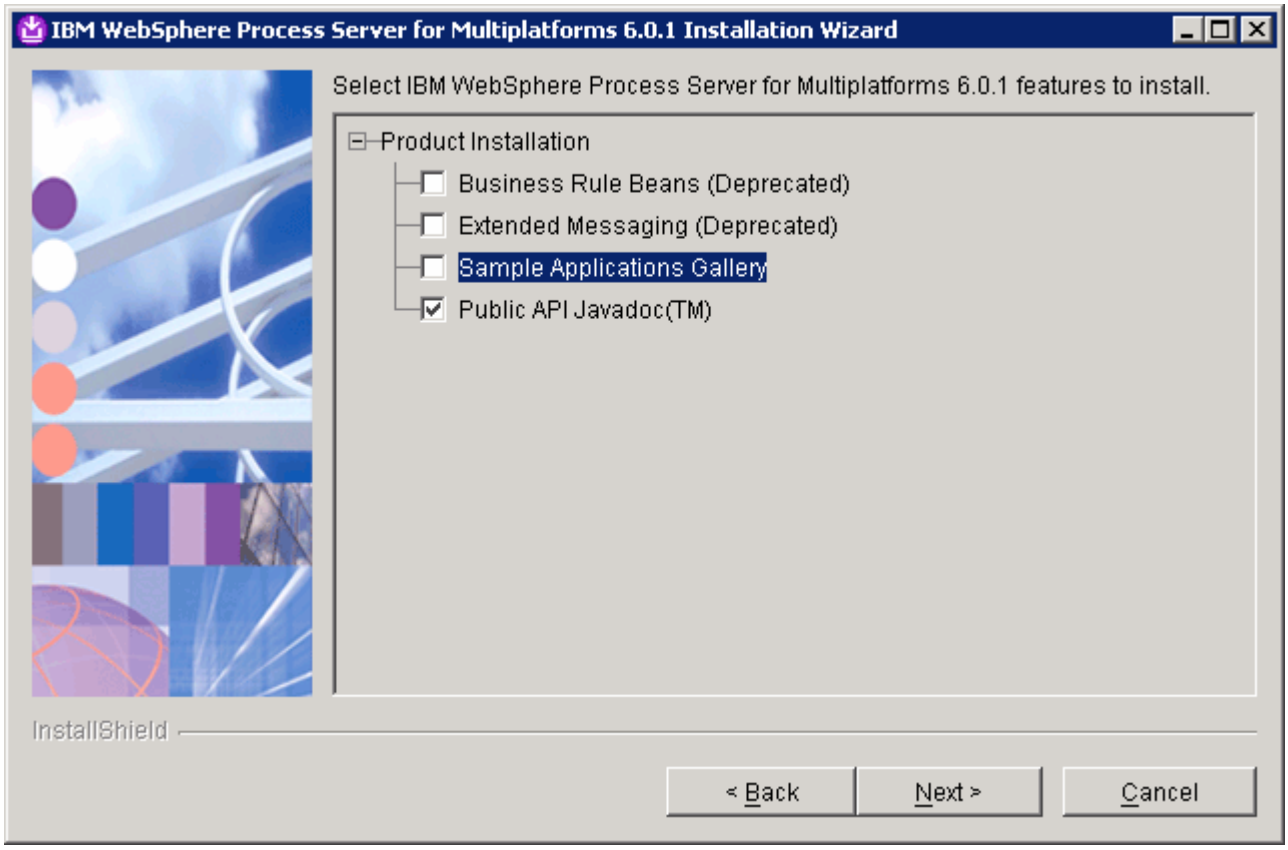
____ 9. Click **Next**.



____ 10. To avoid name length issues, change the **installation root directory** to be a short name such as **C:\WPS601**. Click **Next**.

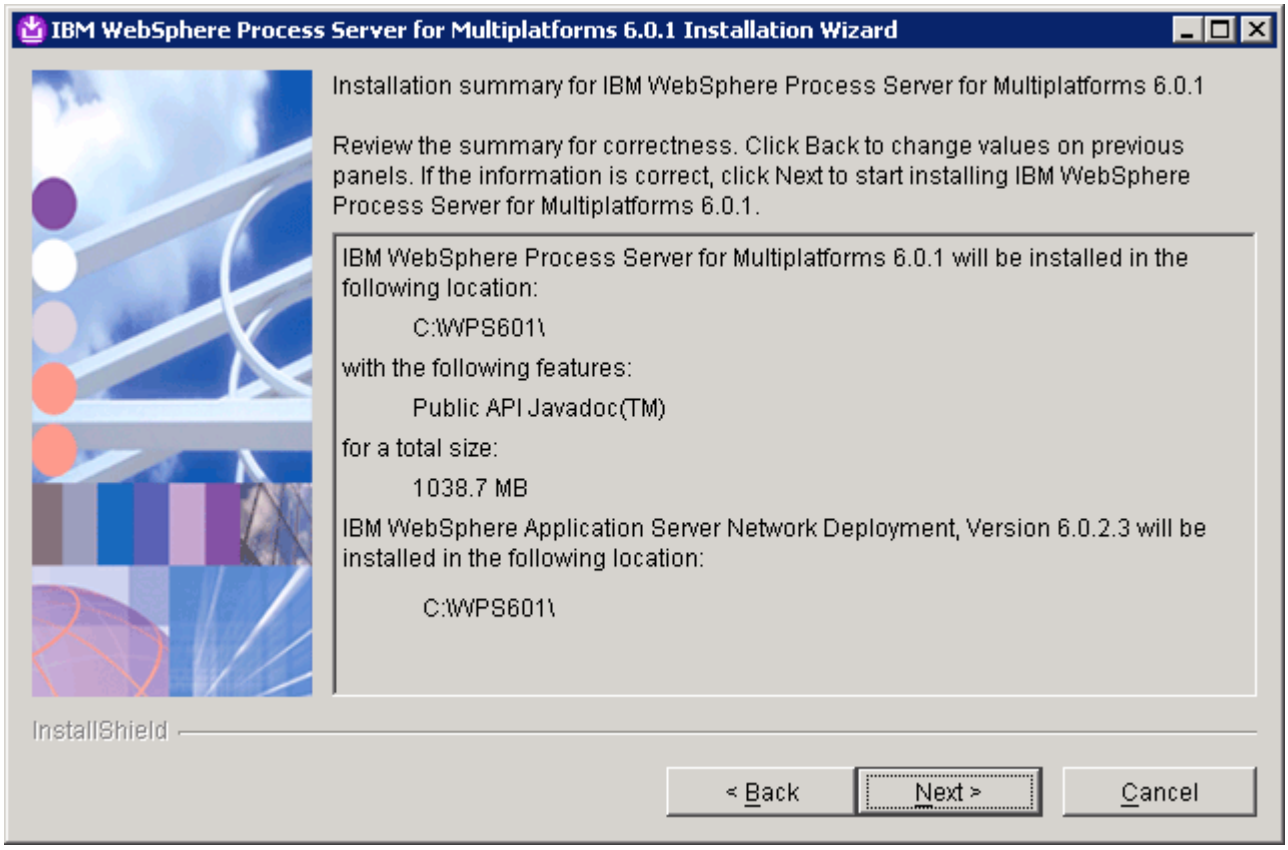


____ 11. Select **Custom installation**. Click **Next**.

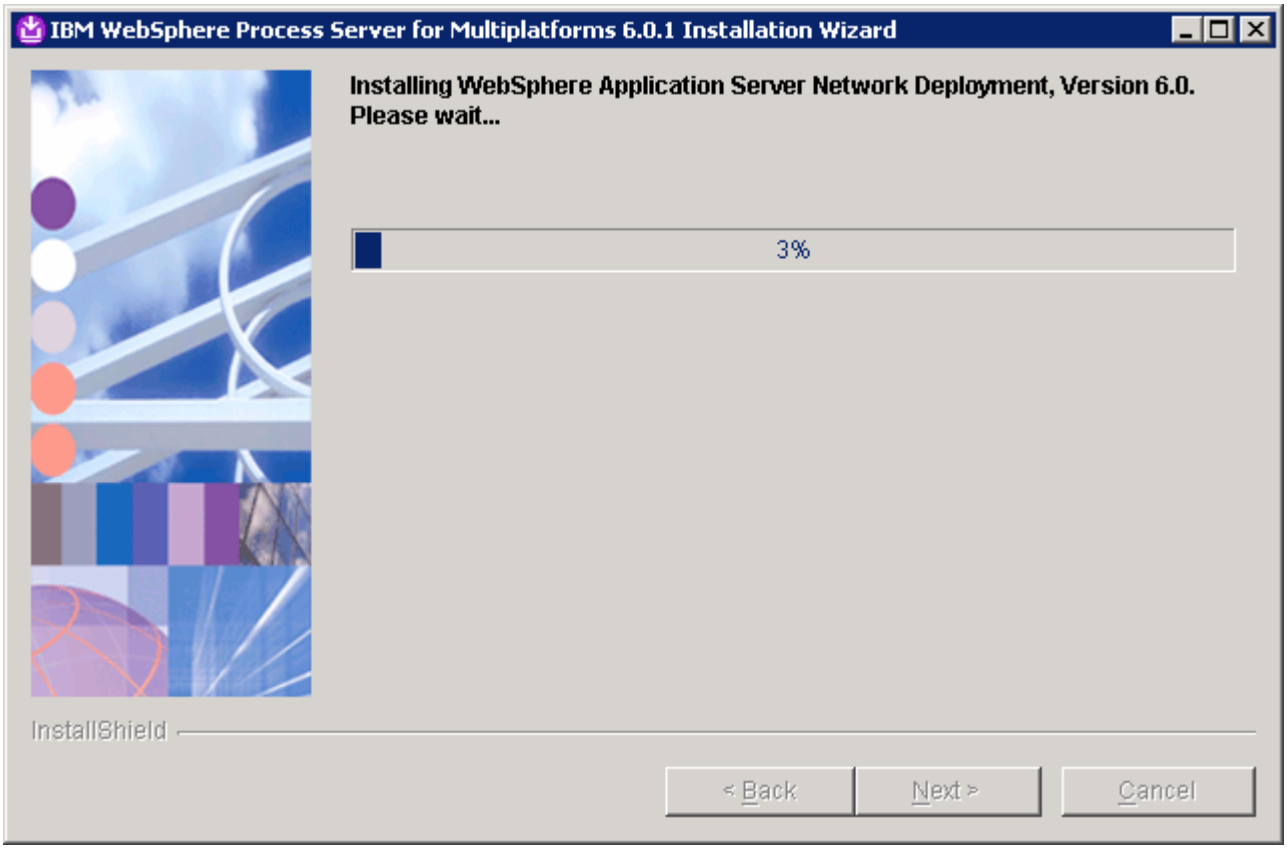


____ 12. **De-select** the **Samples Applications Gallery** and click **Next**.

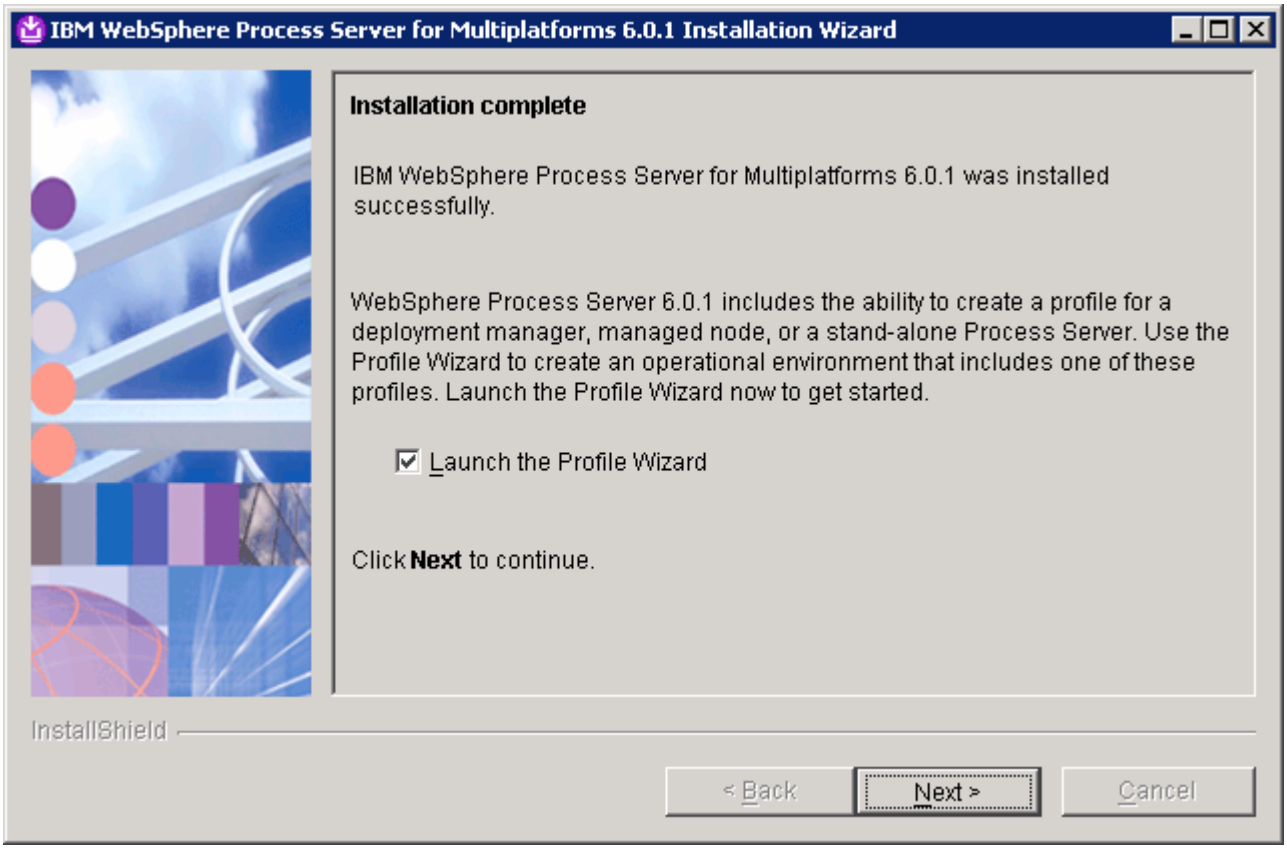
Note: Be very careful that you have de-selected the samples if you do not need them. This will dramatically improve the server startup time.



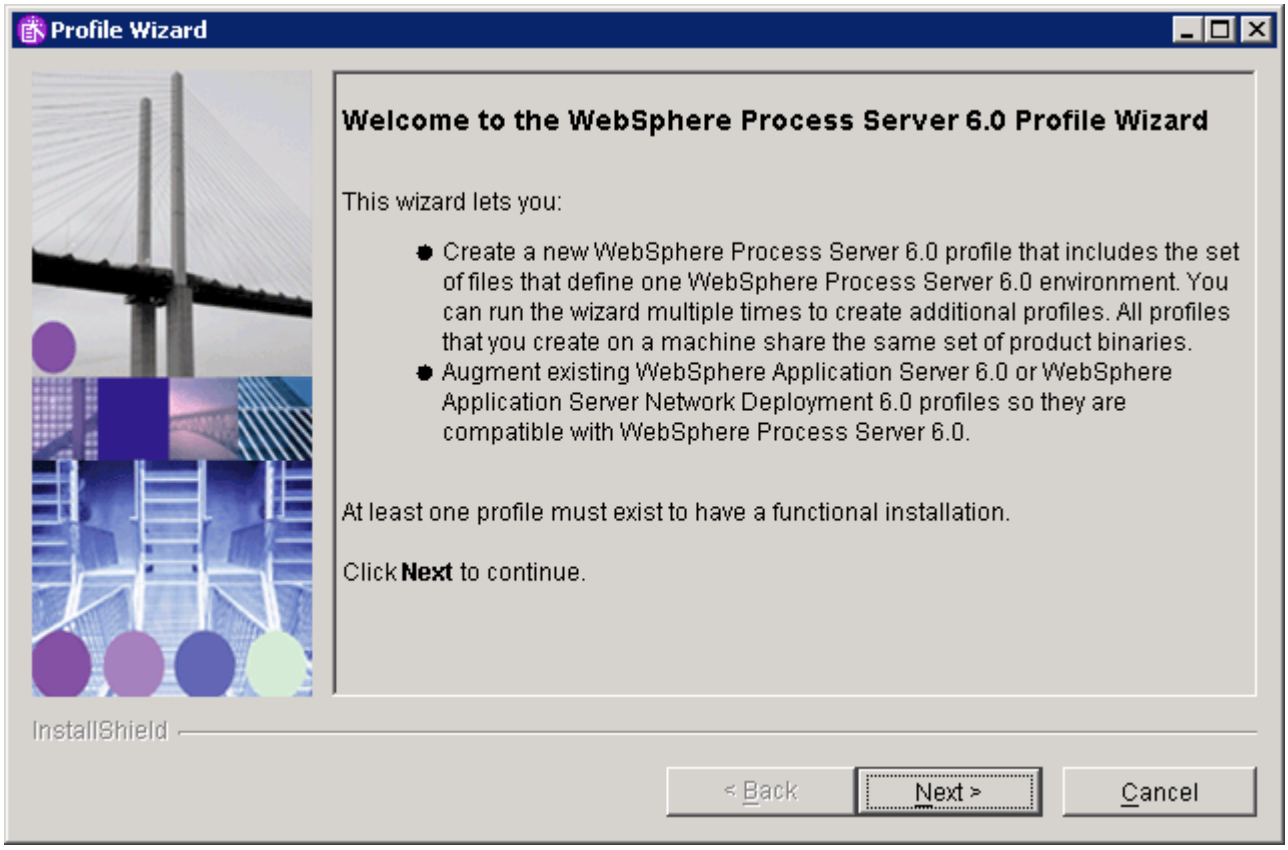
____ 13. Click **Next**.



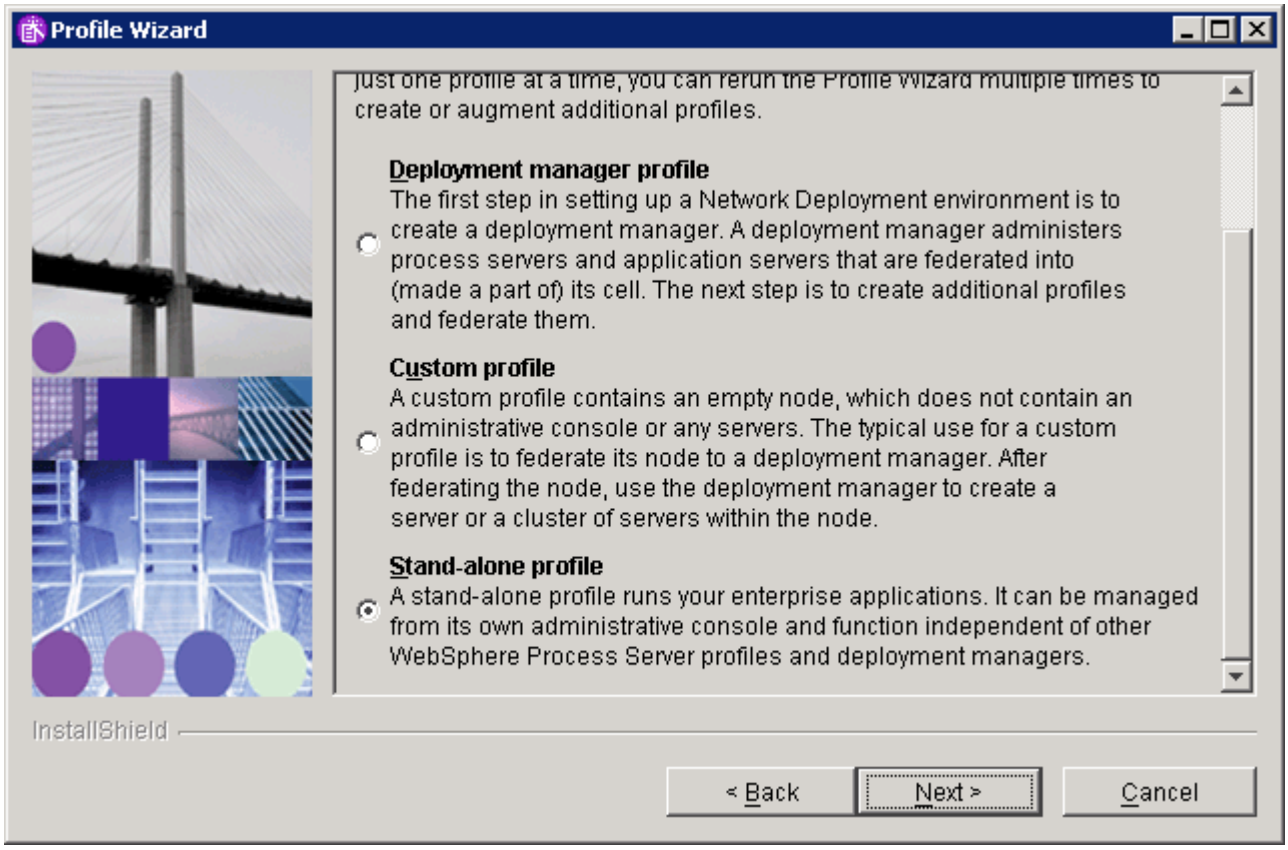
____ 14. The installation progresses for 15 minutes or so.



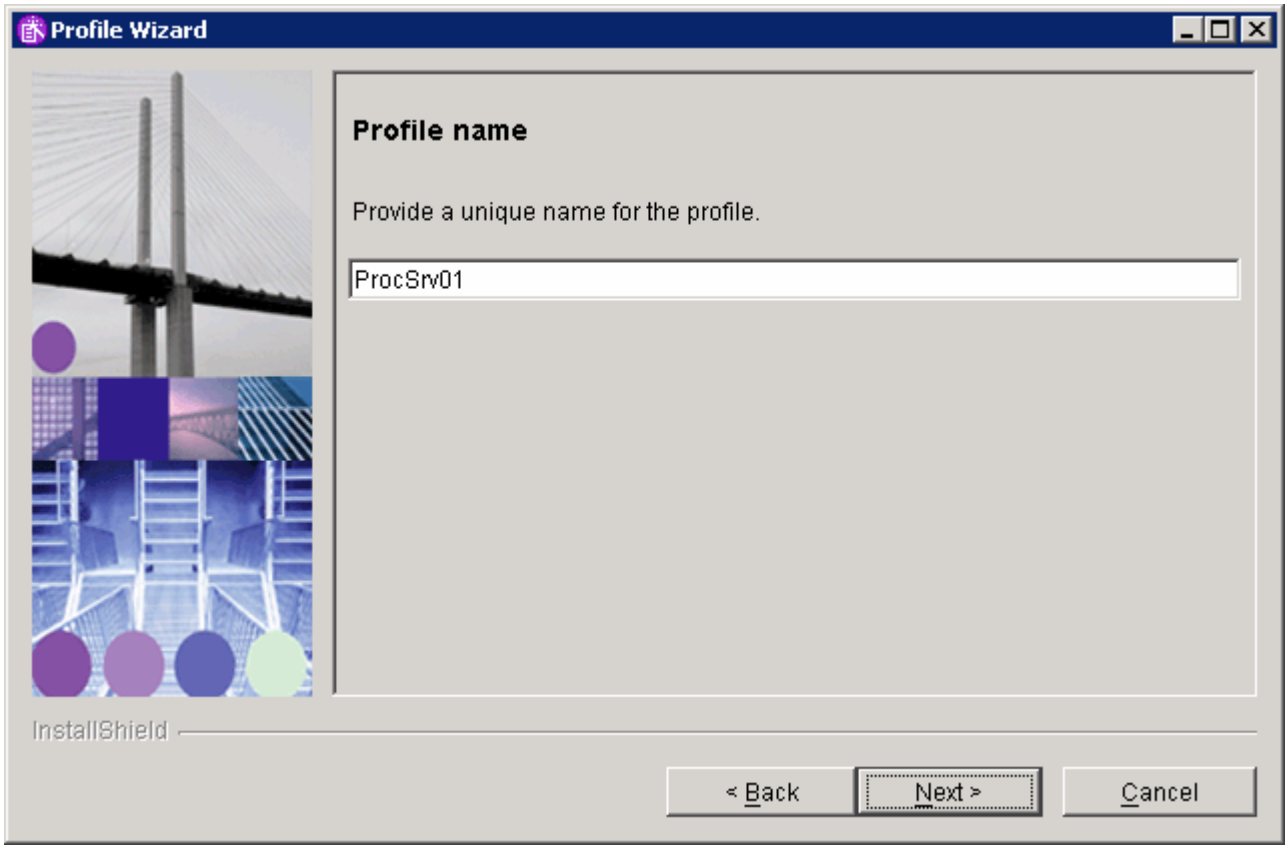
____ 15. Make sure **Launch the Profile Wizard** is selected. Click **Next**.



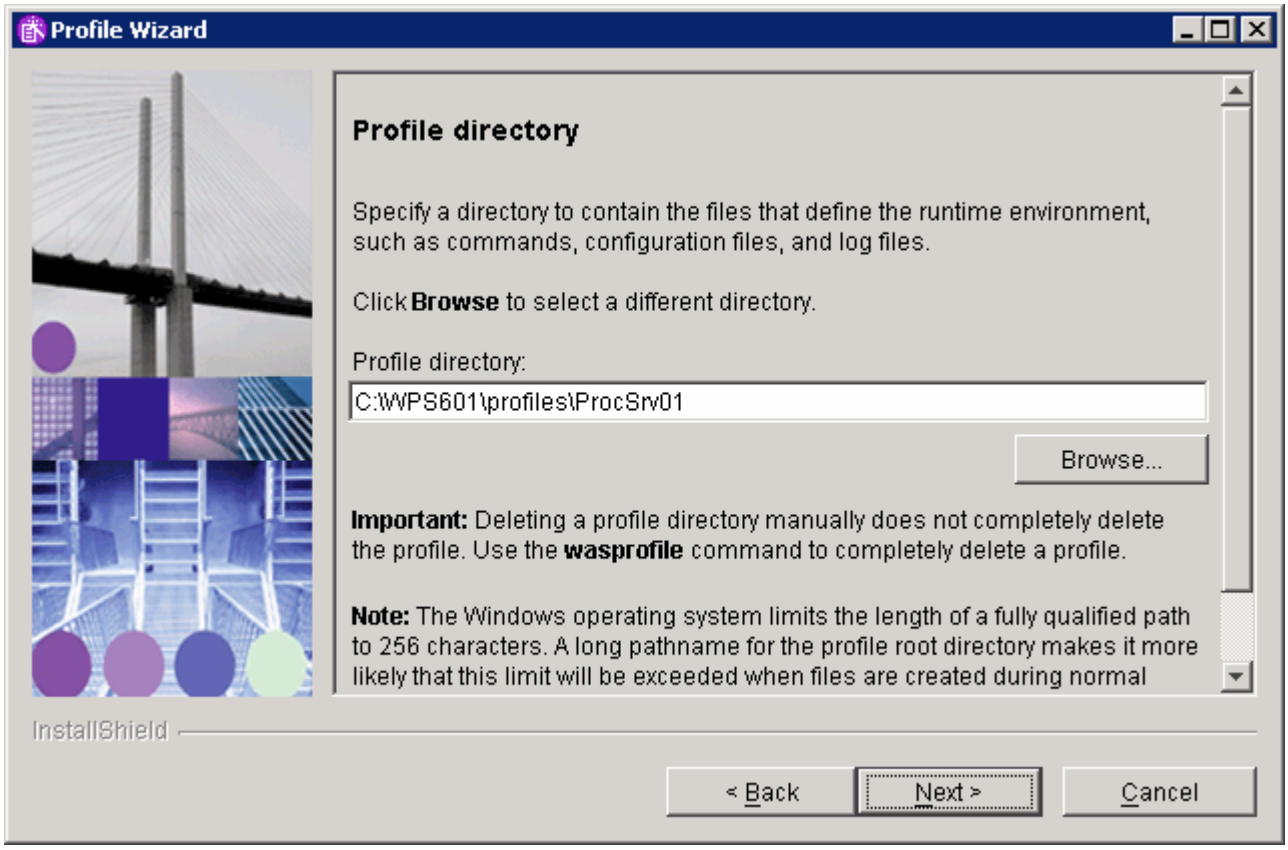
____ 16. Click **Next**.



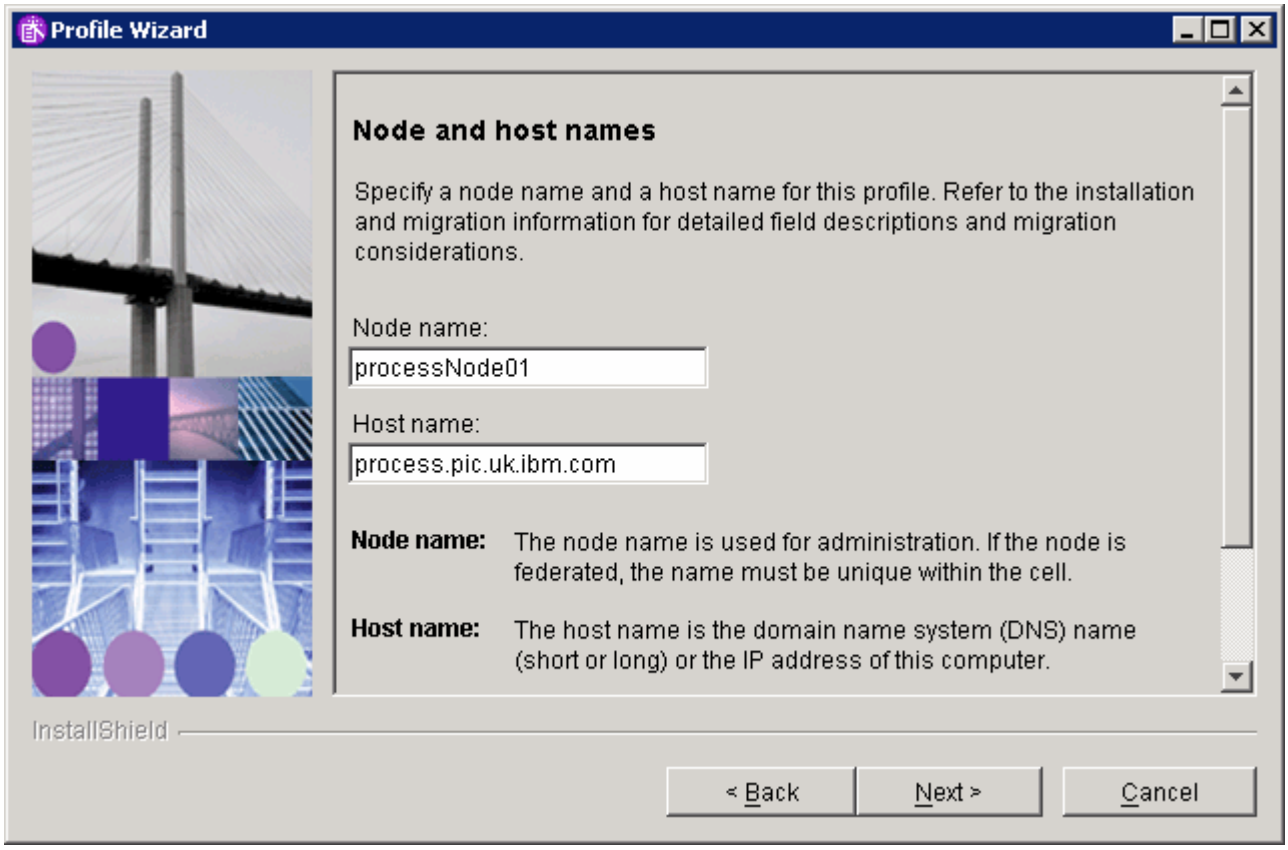
____ 17. Make sure that you select **Stand-alone profile**. Click **Next**.



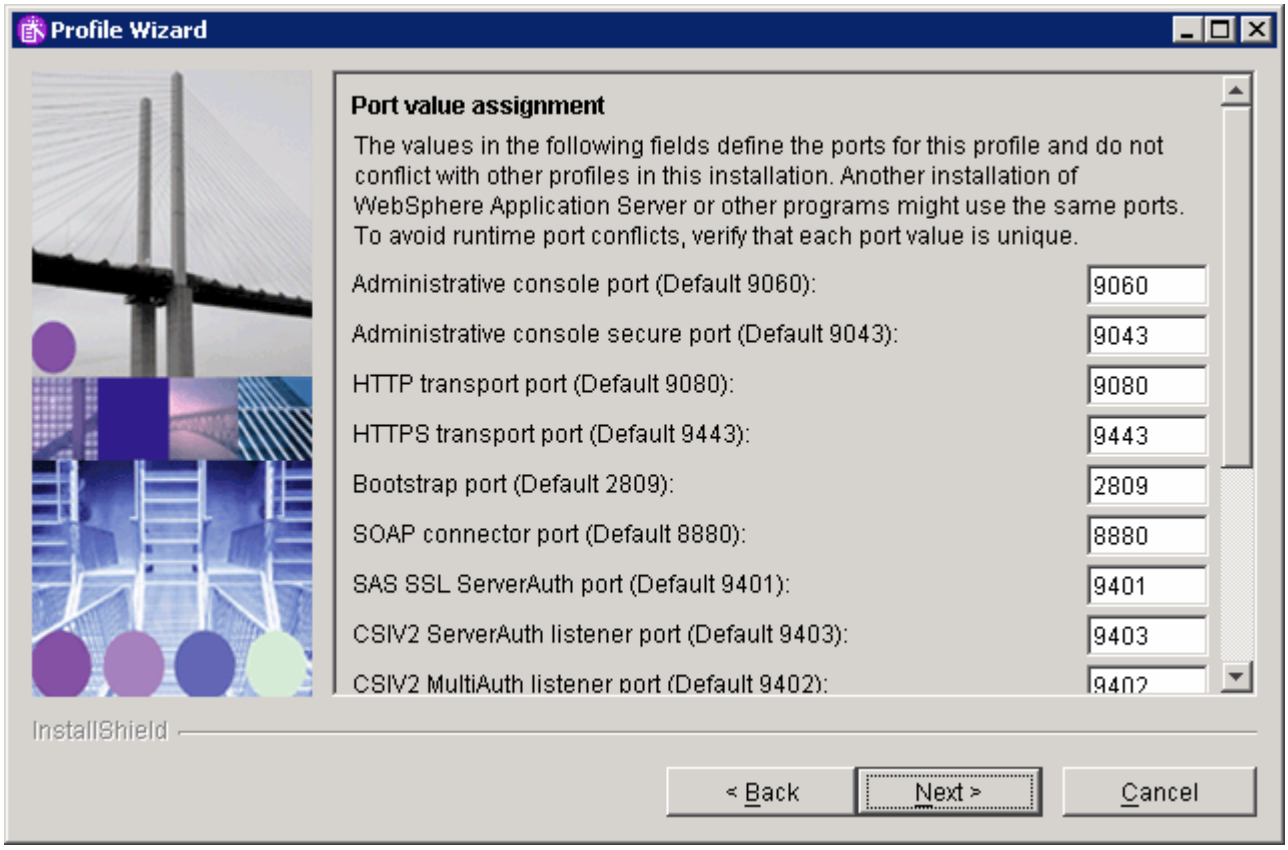
____ 18. Click **Next**.



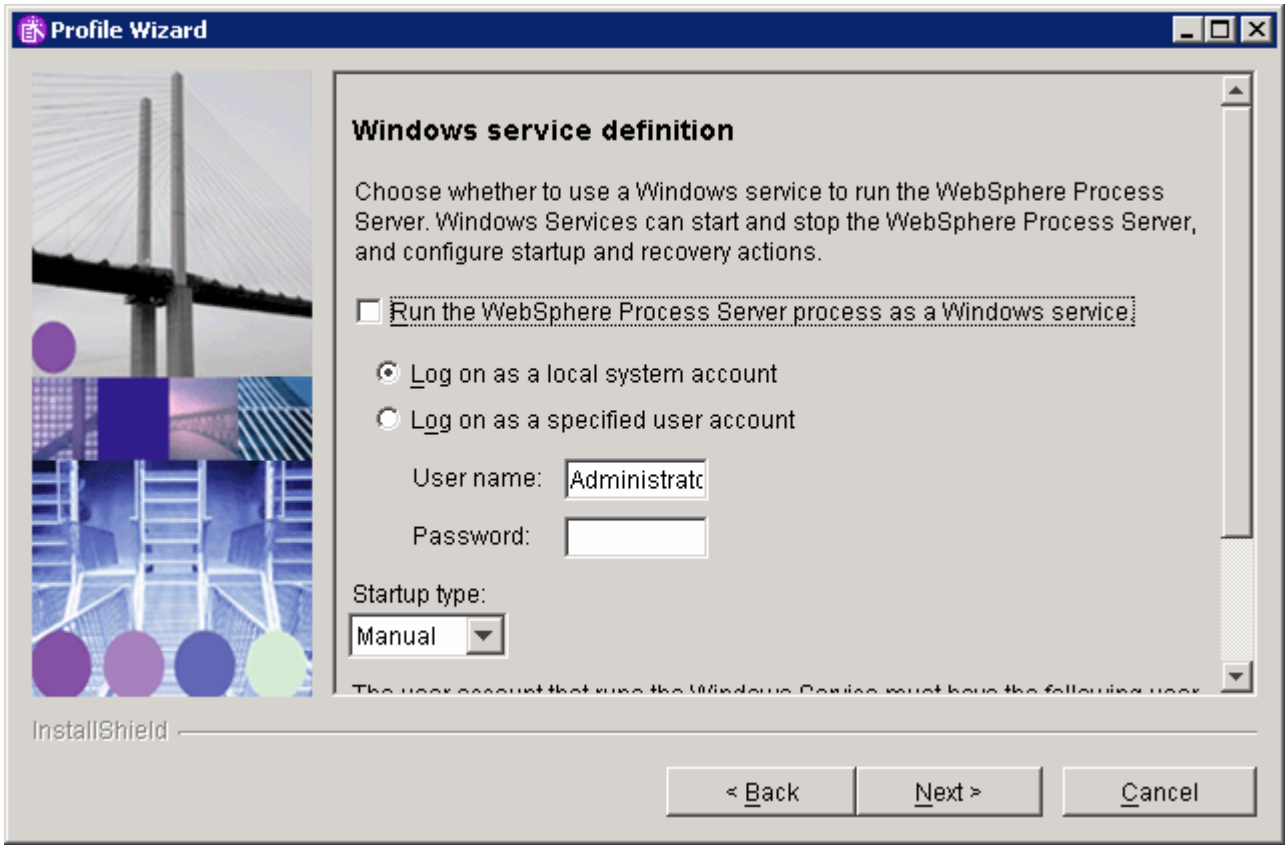
____ 19. Click **Next**.



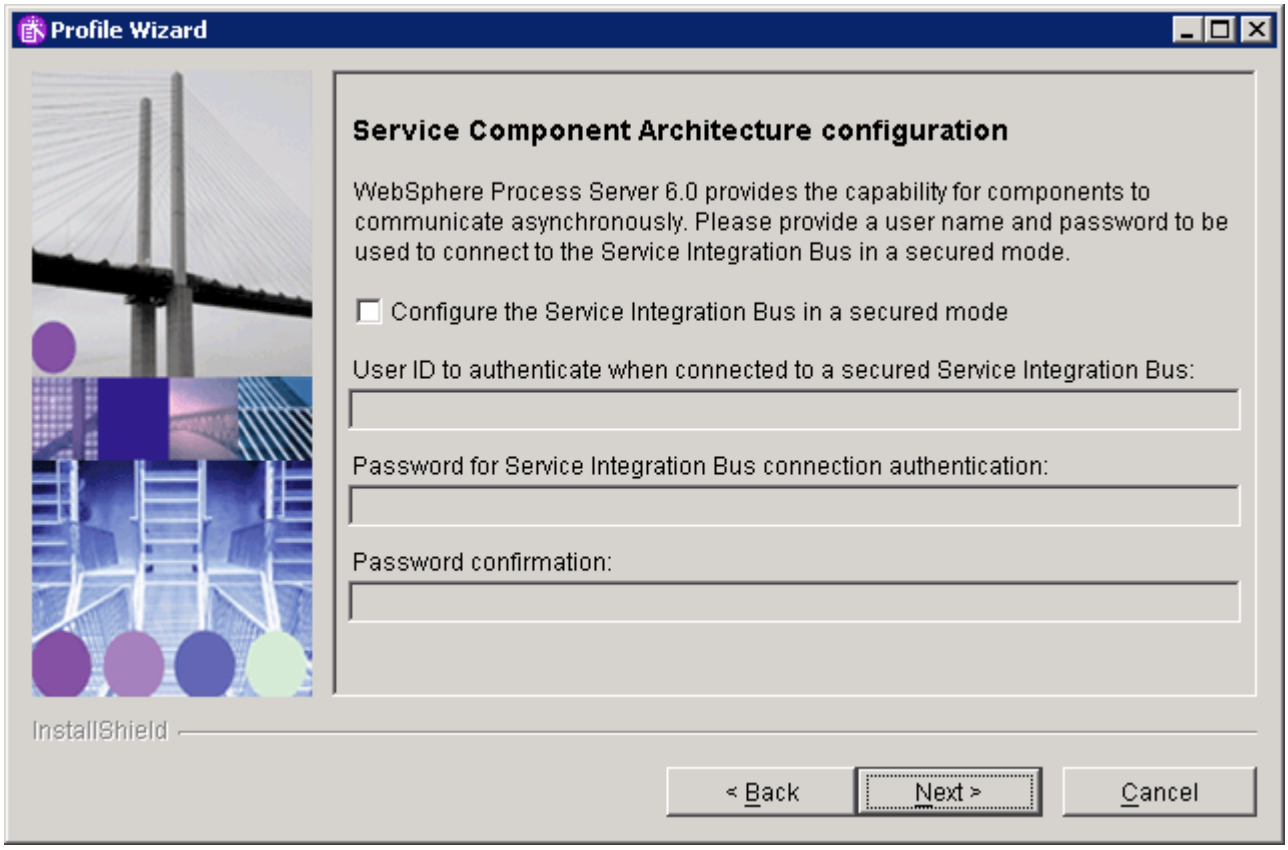
____ 20. Click **Next**.



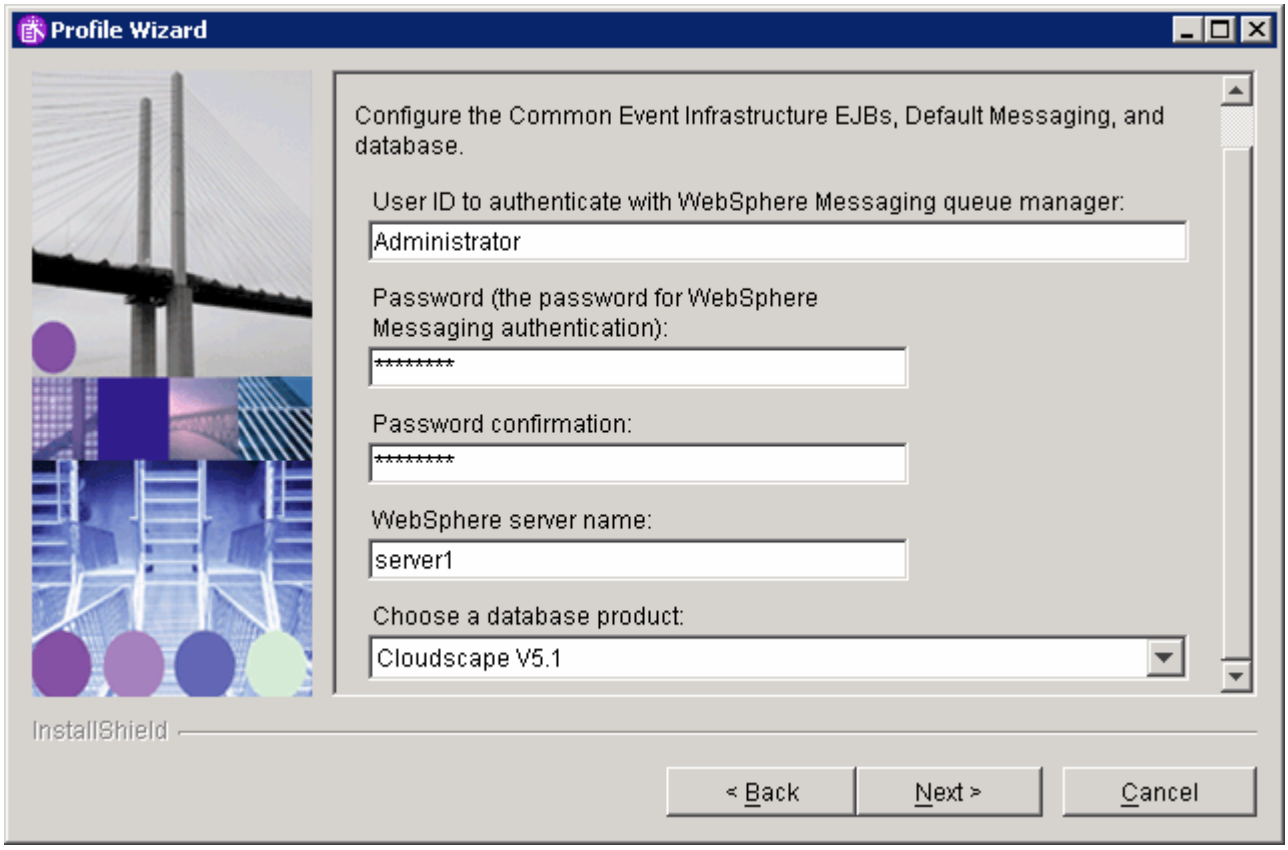
____ 21. Click **Next**.



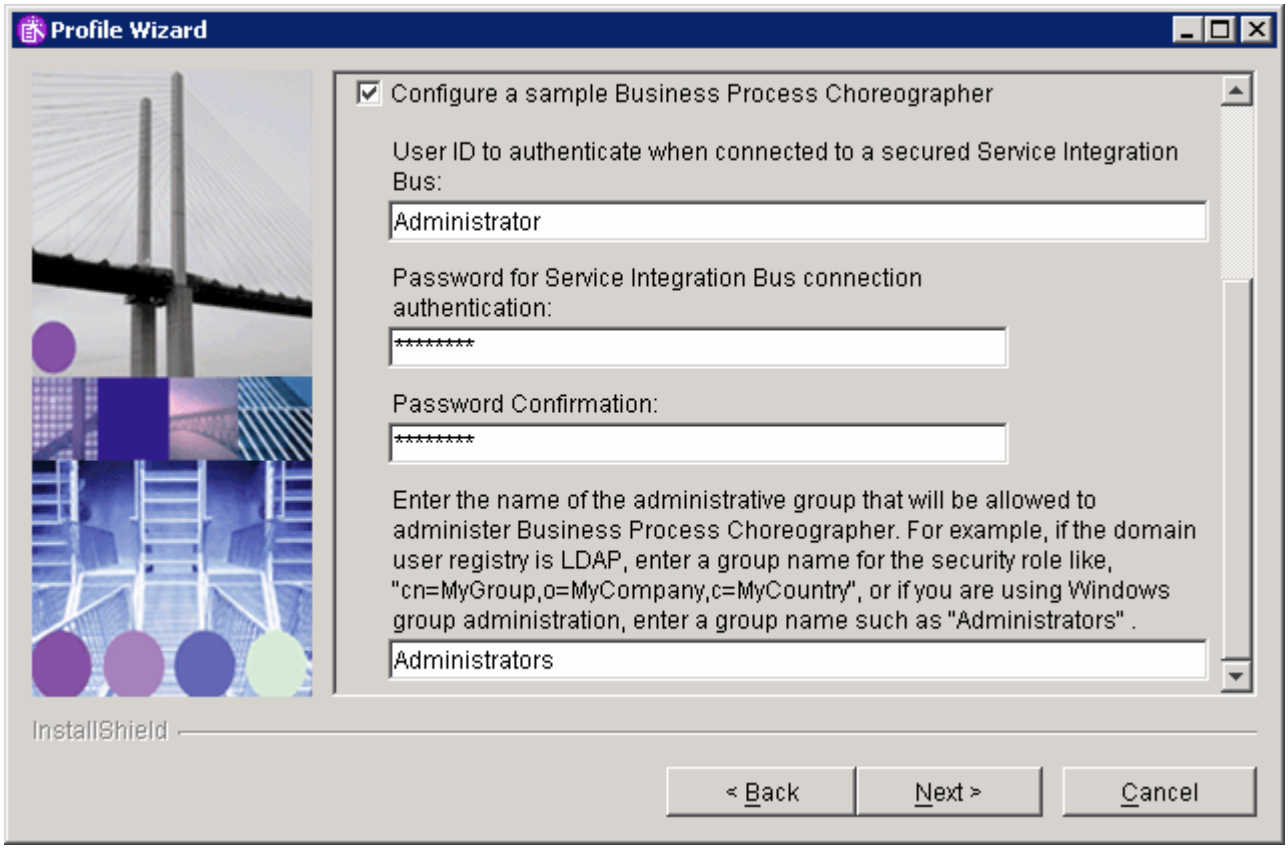
____ 22. **De-select** the **Run the WebSphere Process Server process as a Windows service** option and click **Next**.



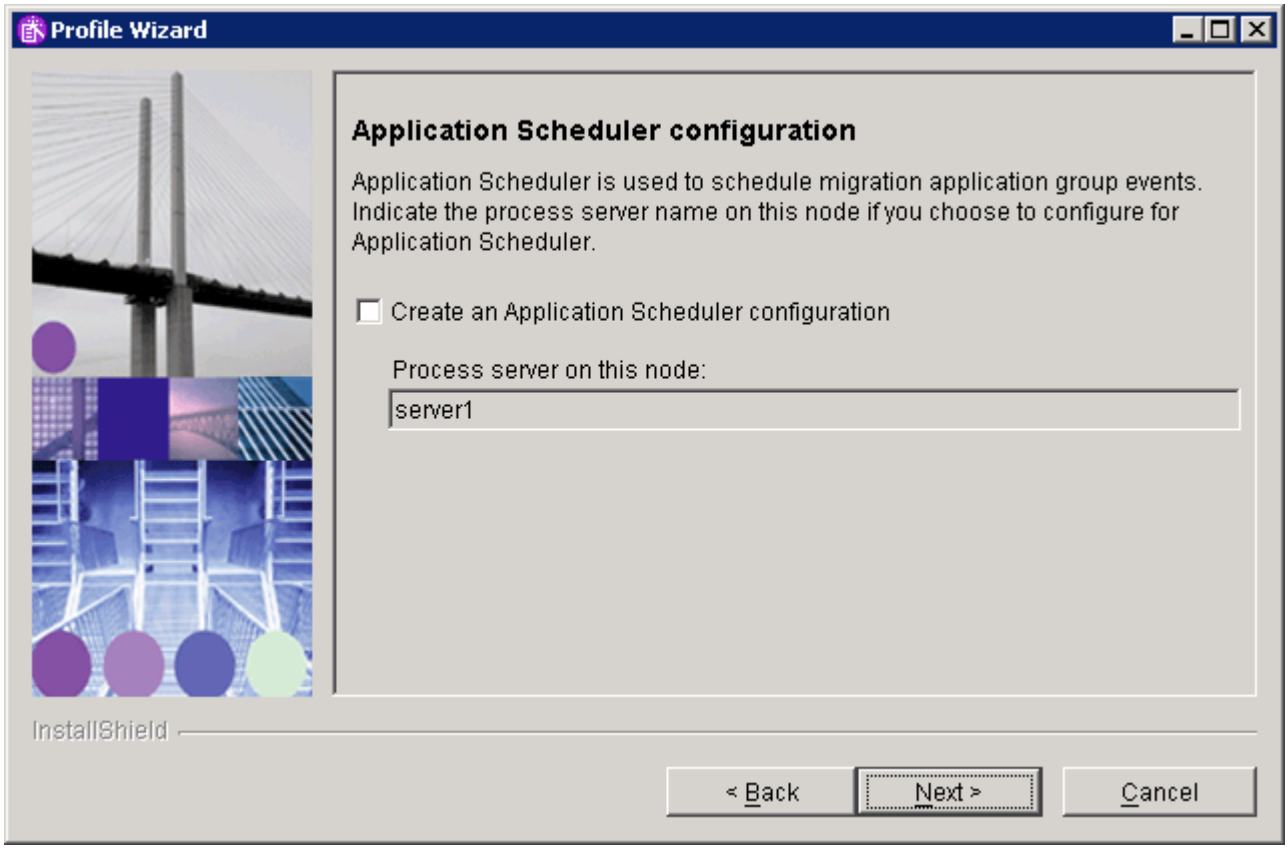
____ 23. **Do not select** the **Configure the Service Integration Bus in a secured mode**. Click **Next.**



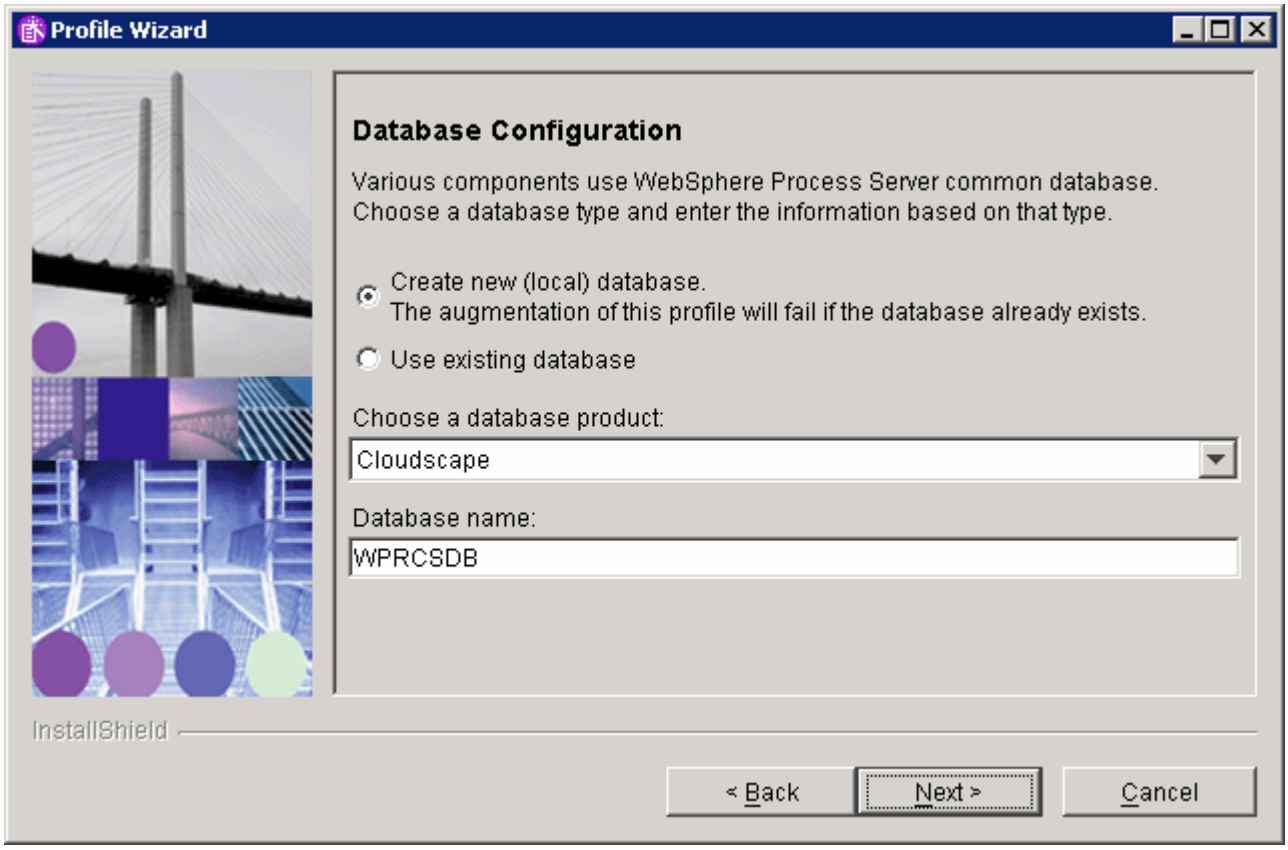
____ 24. Enter your Windows userid and password here. Click **Next**.



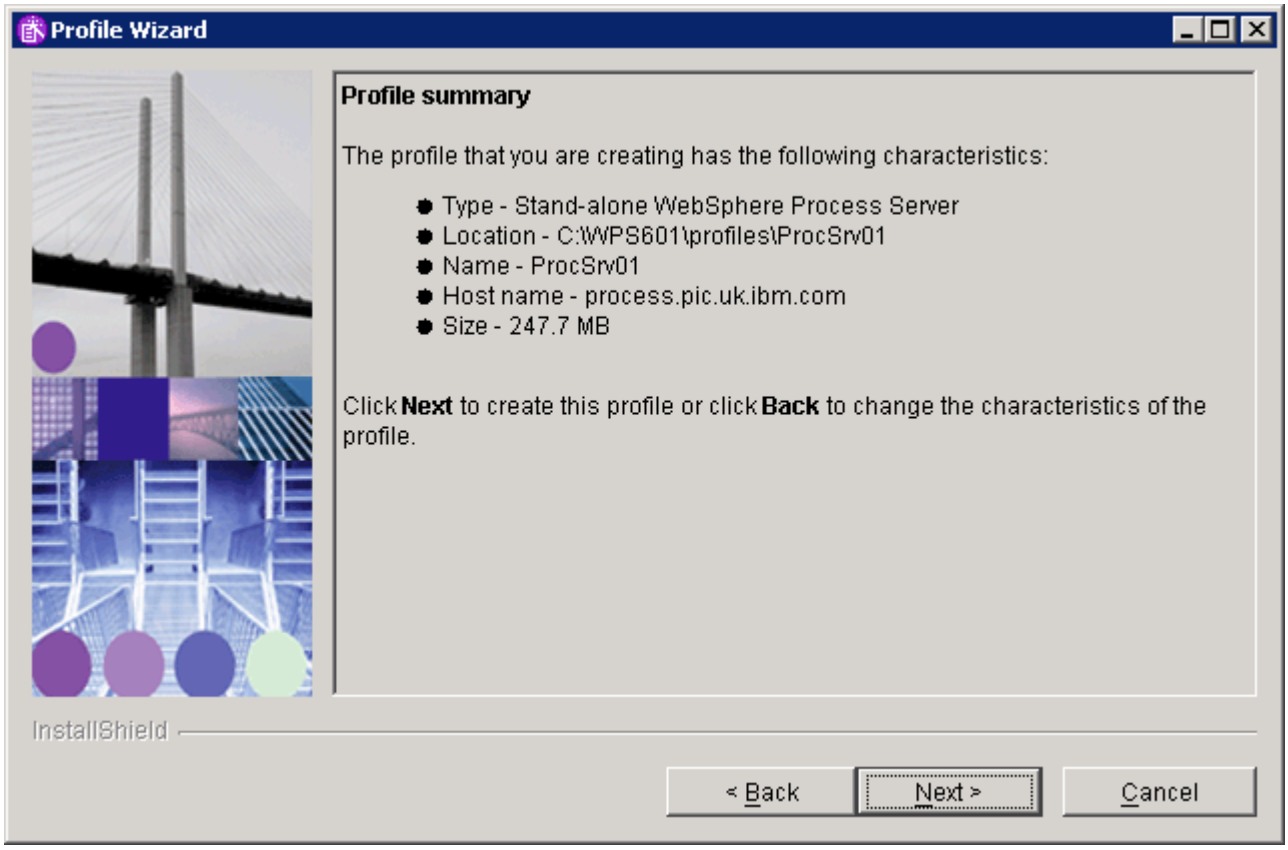
____ 25. Select **Configure a sample Business Process Choreographer**, and enter your Windows userid and password, and the Windows group for administrators. Click **Next**.



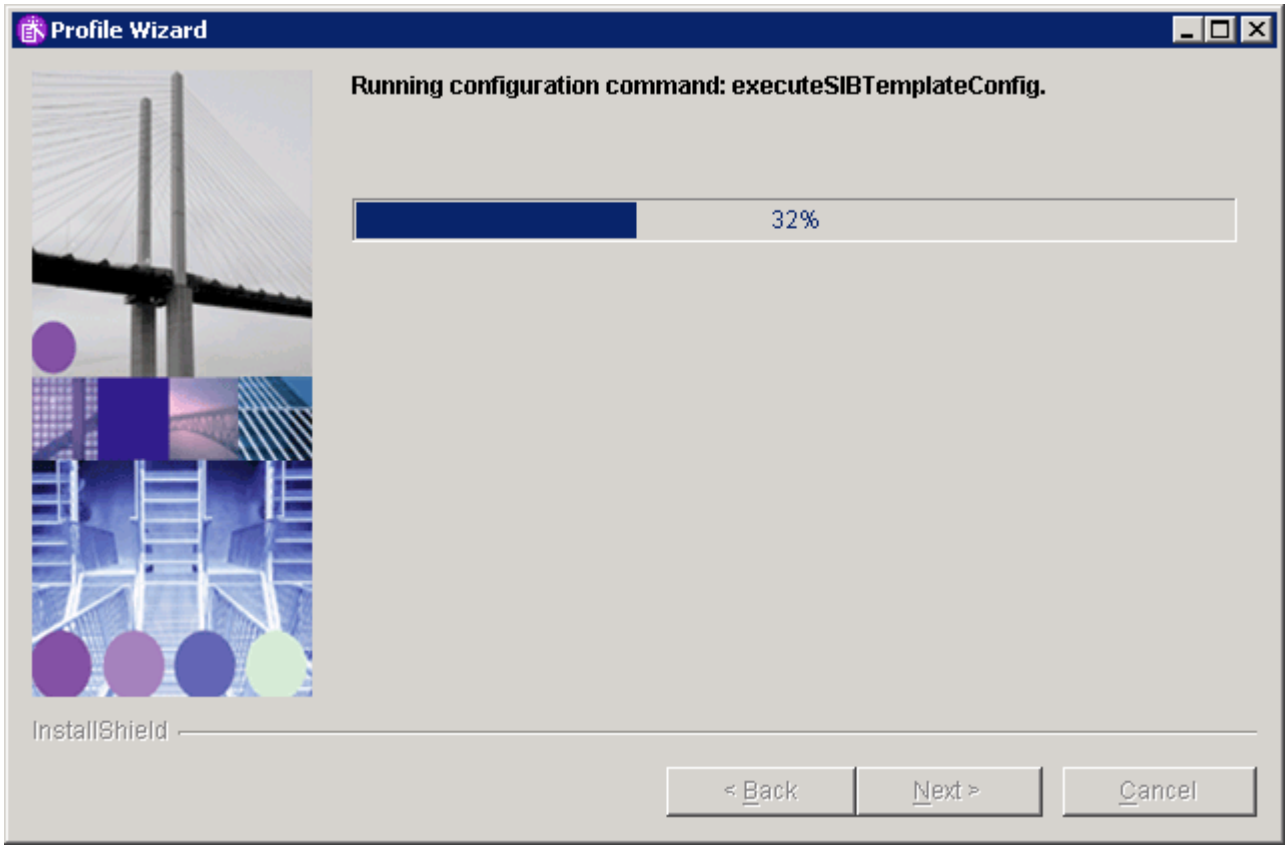
____ 26. Click **Next**.



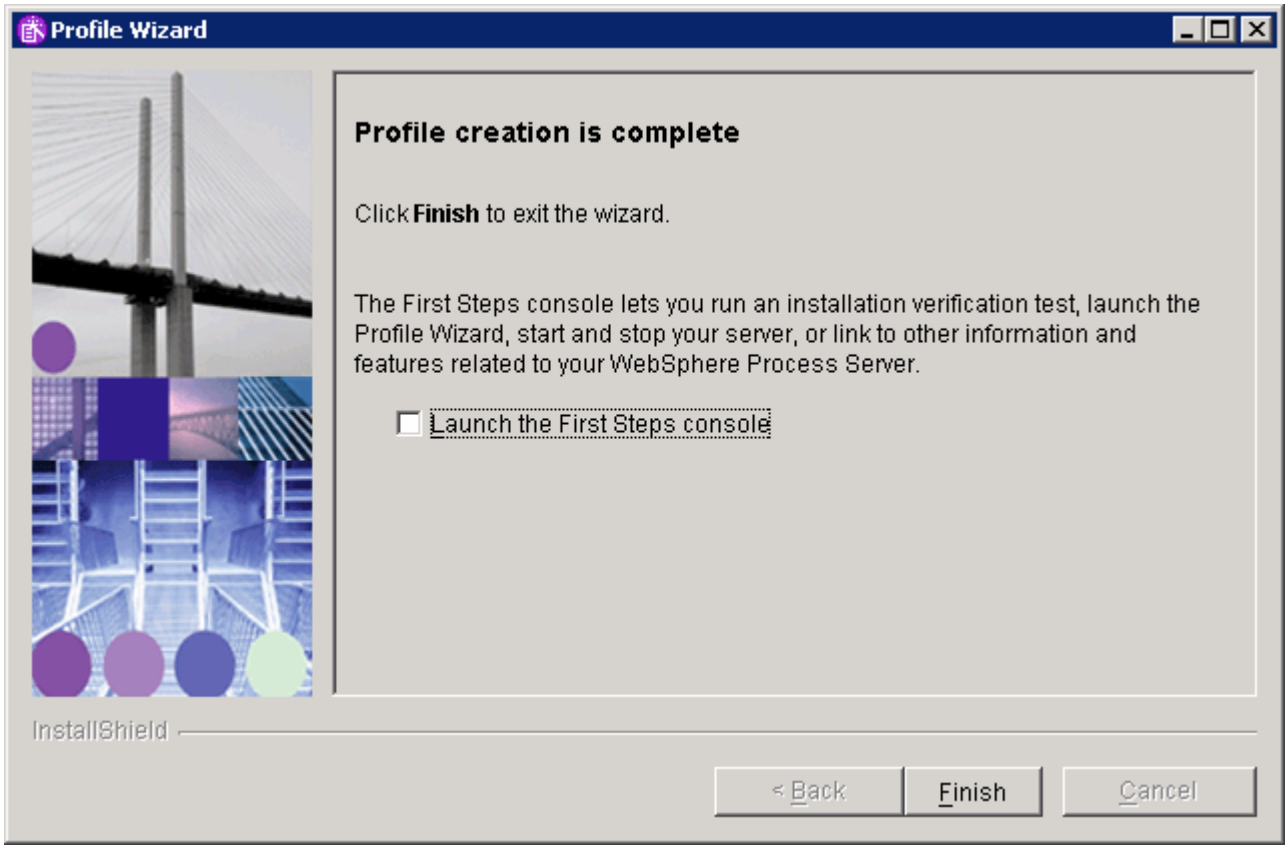
____ 27. Click **Next.**



____ 28. Click **Next**.

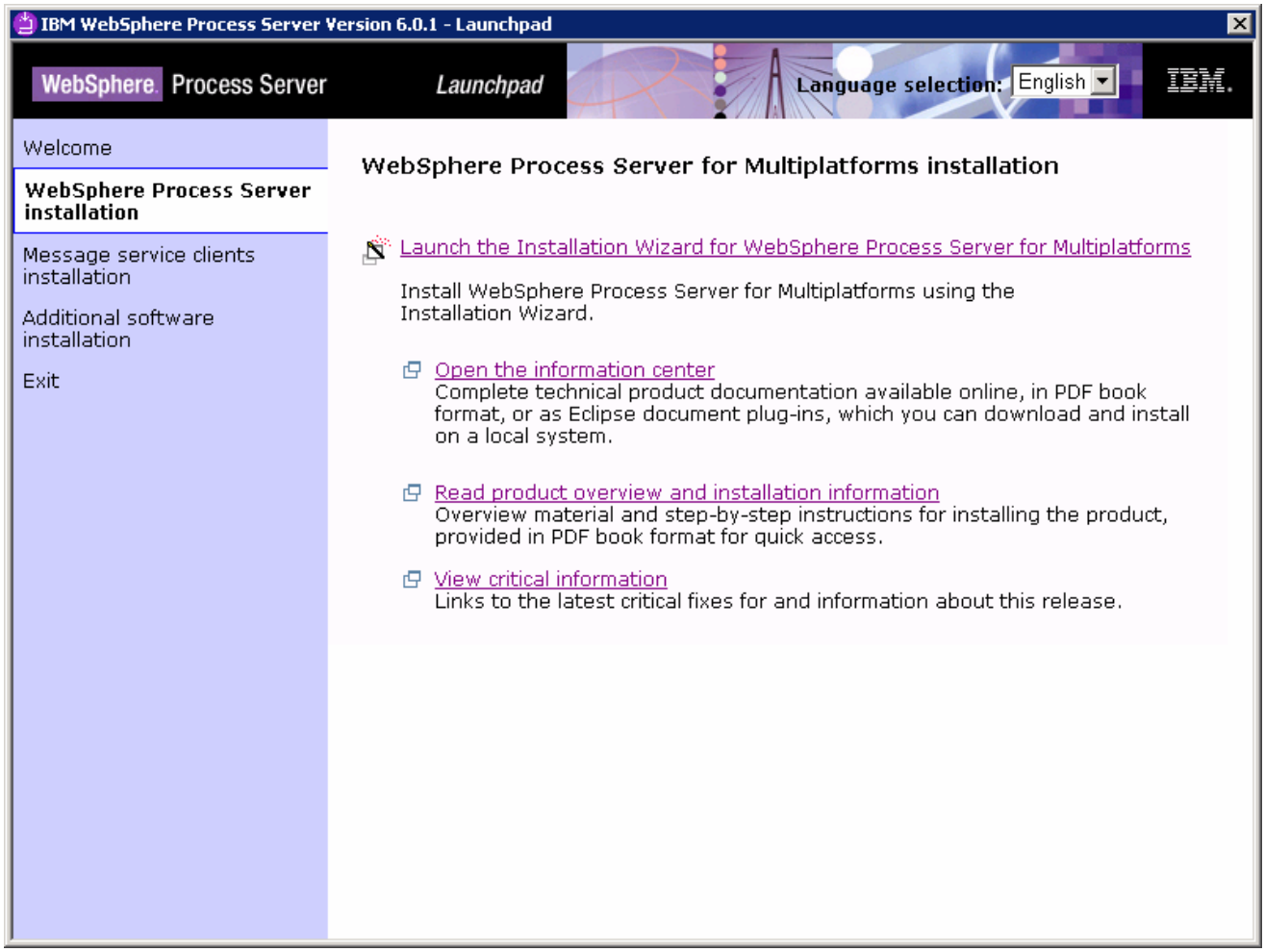


____ 29. Configuration of the profile will progress for 15 minutes or so.



____ 30. Uncheck **Launch the First Steps console**. Click **Finish**.

____ 31. Click **Exit** on the Launchpad and then click **OK** to confirm.



Part 2: Configuring WebSphere Process Server

Now that you have installed WebSphere Process Server, you will perform some simple configuration to enable CEI events to be produced (these are the events that WebSphere Business Monitor will monitor at runtime). You will also configure the server in 'development mode' which allows you to quickly install and uninstall applications that contain BPEL processes, without having to perform the additional steps to stop and remove any process templates and human tasks that belong to the application.

____ 1. Start the server.

__ a. **Start > Programs > IBM WebSphere > Process Server 6.0 > Profiles > ProcSrv01 > Start the server**.

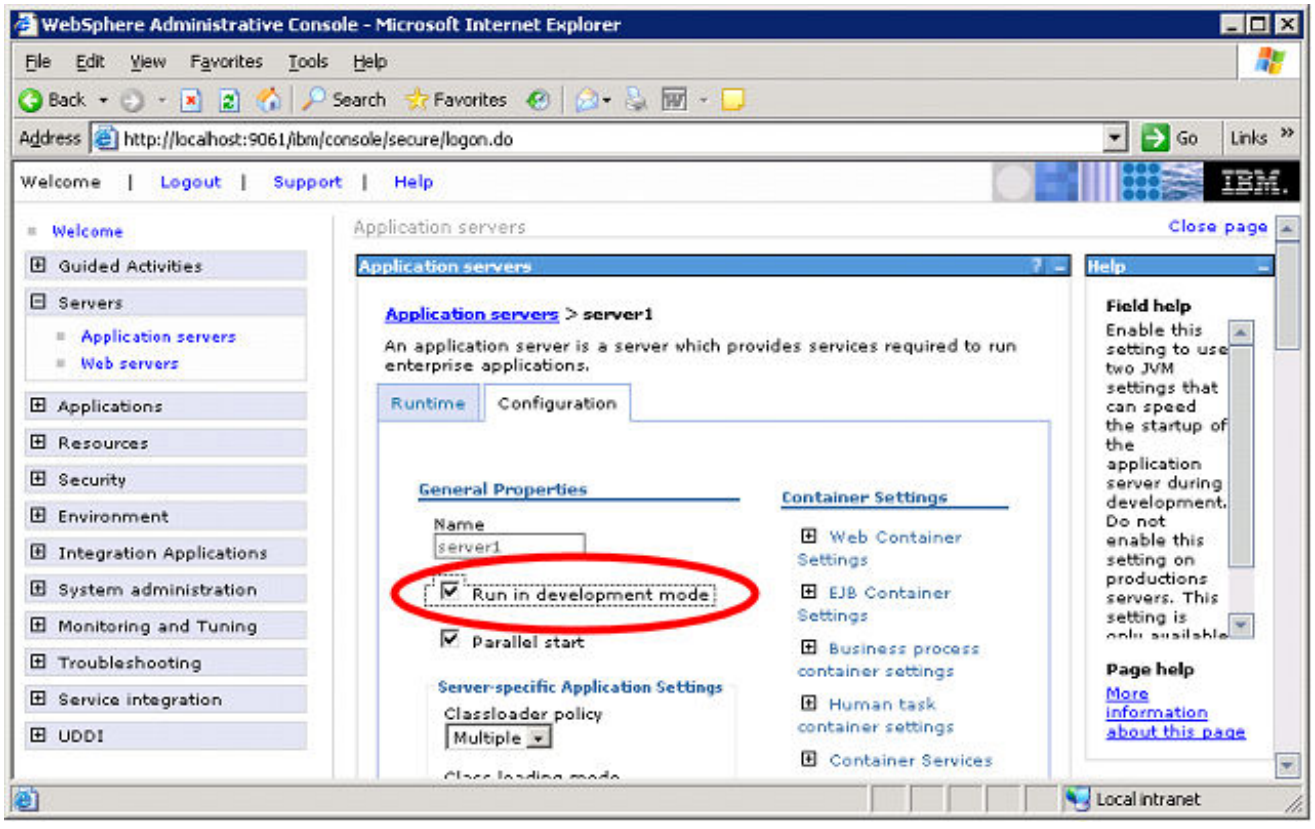
____ 2. Open the admin console.

__ a. **Start > Programs > IBM WebSphere > Process Server 6.0 > Profiles > ProcSrv01 > Administrative console**.

__ b. Click the **Log in** button.

____ 3. Run the server in development mode to make it easier to update and uninstall business process applications.

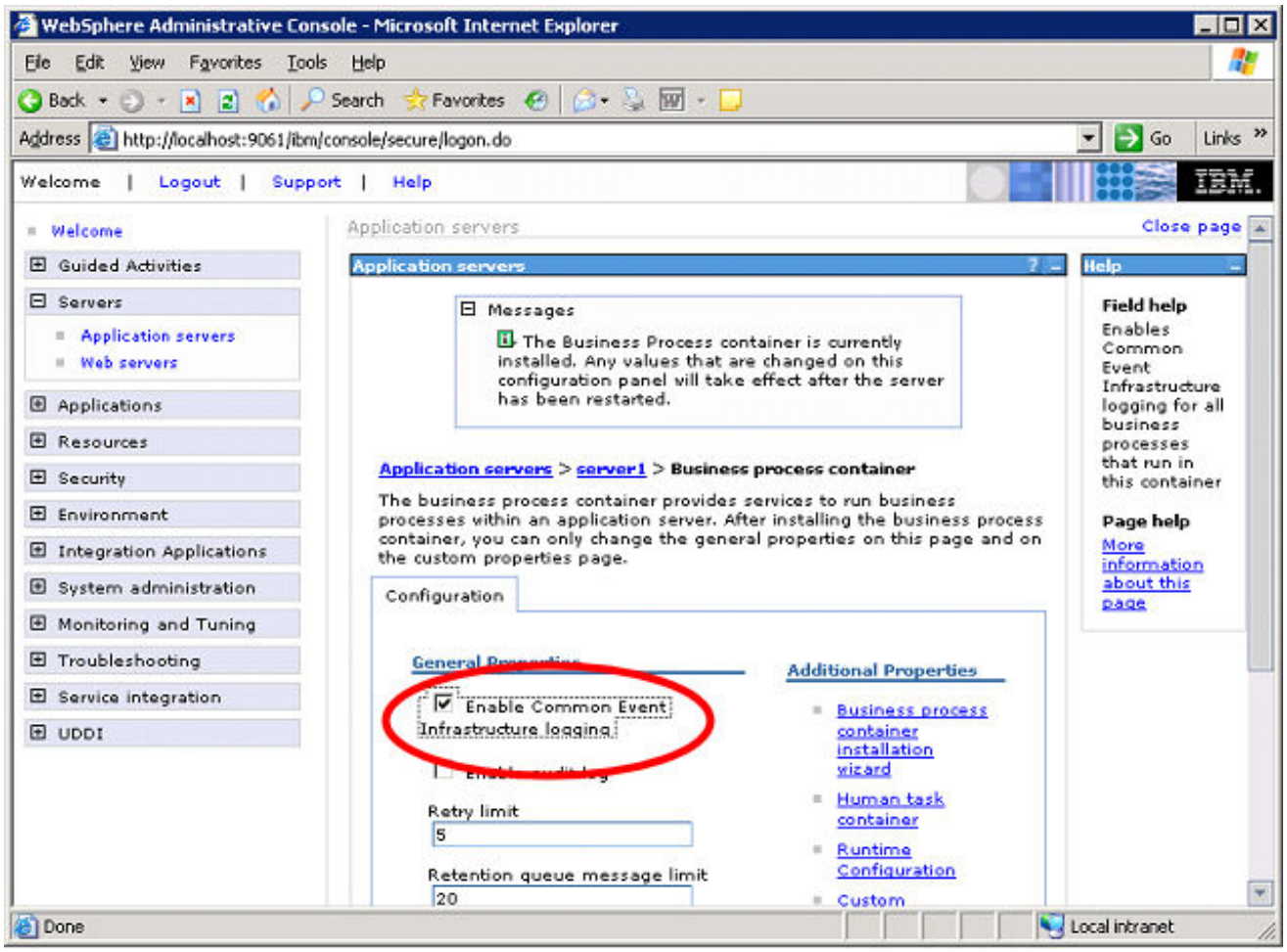
__ a. **Admin Console > Servers > Application servers > server1 > Run in development mode.**



____ 4. Click **OK** after selecting the checkbox.

____ 5. Enable CEI logging on the server.

__ a. **Admin Console > Servers > Application servers > server1 > Business process container settings > Business process container > Enable Common Event Infrastructure logging.**



__ b. Click **OK** after selecting the checkbox.

__ c. Click the **Save** link, and then click the **Save** button to save this change.

____ 6. Logout of the Administrative Console

__ a. Click **Logout**

____ 7. You do *not* need to restart the server at this point. You will do that after the SI Bus is configured.

Part 3: Using Scripts to Configure the Service Integration Bus

The section shows you how to use scripts that will configure the Service Integration Bus on the Monitor Server and the Business Process Server. These scripts should work for Windows and AIX servers. For reference, the process for doing this manually is shown in the Appendix.

Note: To configure the Service Integration link between the two servers, you must execute a *different* configuration script on each machine. Both of the scripts will share the *same* parameter file that you must customize.

The overall procedure is:

- Customize the script parameter file for your environment on the Monitor Server
- Copy the scripts and script parameter file to the Business Process Server
- Execute the 'configureMonitorCrossCell' script on the Monitor Server
- Execute the 'configureCrossCell' script on the Business Process Server

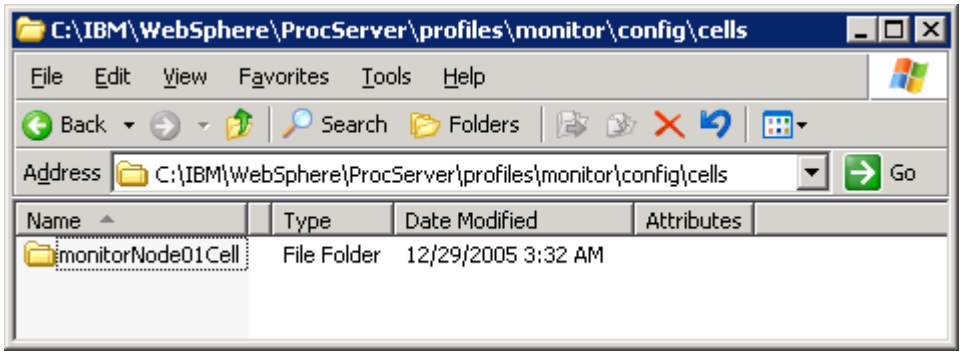
The following steps describe how to do this:

____ 1. The scripts and parameter file are located on the Monitor Server in `<MONITOR_ROOT>\install\monsrv\configuration\crosscell`.

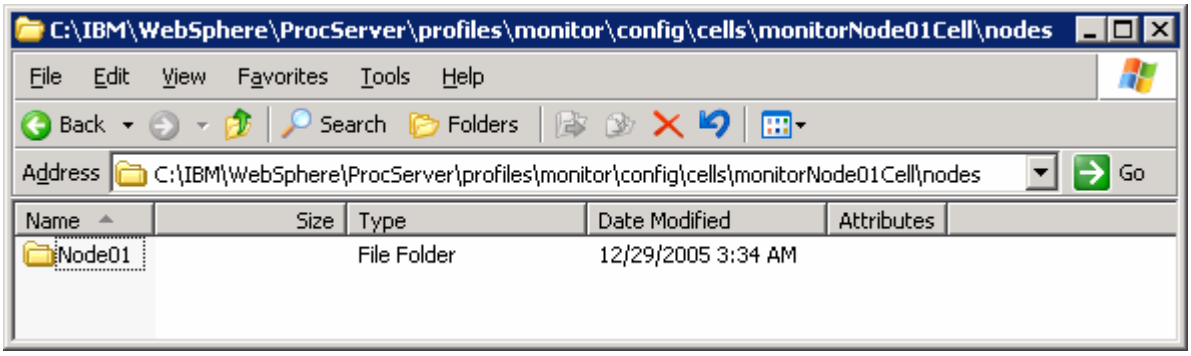
____ 2. Customize the script parameter file **crossCellParameters.tcl** for your environment.

The parameter names in the file are self-descriptive. The following steps show you how to determine each value:

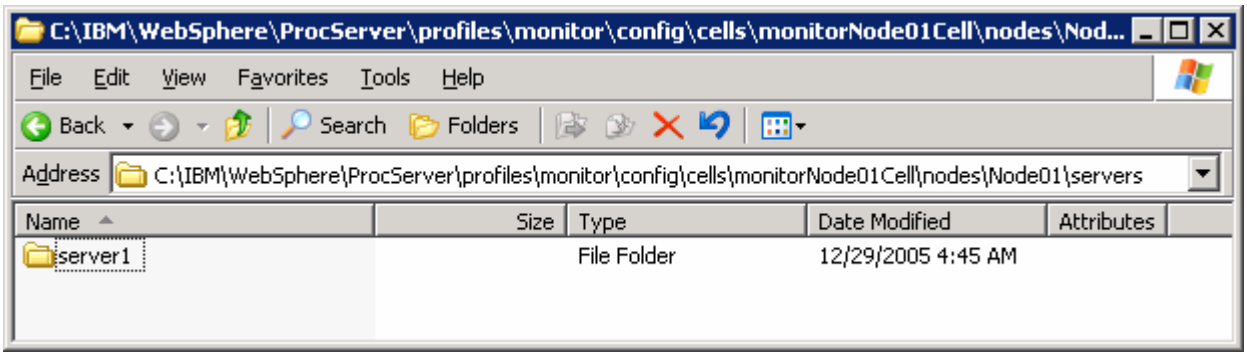
__ a. To determine your MONITOR_SERVER_CELL_NAME, go to the *Monitor Server* and navigate to C:\IBM\WebSphere\ProcServer\profiles\monitor\config\cells\. The name of the subdirectory inside the 'cells' directory is the name of the cell on your Monitor Server.



__ b. To determine your MONITOR_SERVER_NODE_NAME, go to the *Monitor Server* and navigate to C:\IBM\WebSphere\ProcServer\profiles\monitor\config\cells\<cell>\nodes\ where <cell> is the name of the Monitor Server cell you just determined. The name of the subdirectory inside the 'nodes' directory is the name of the node on your Monitor Server.

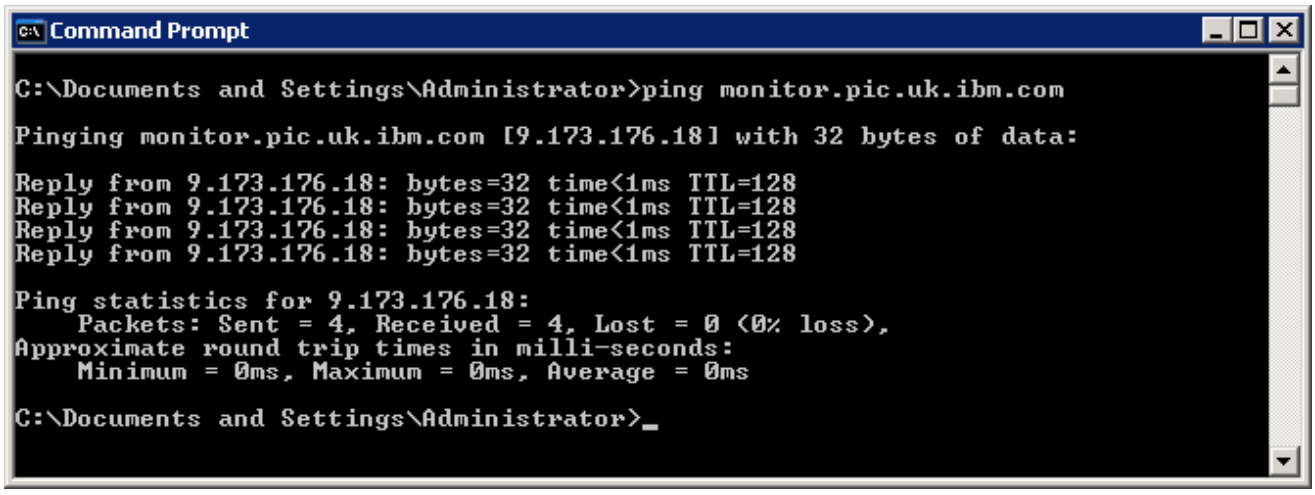


__ c. To determine your MONITOR_SERVER_SERVER_NAME, go to the *Monitor Server* and navigate to C:\IBM\WebSphere\ProcServer\profiles\monitor\config\cells\<cell>\nodes\<node>\servers\ where <cell> and <node> are the values you just determined. The name of the subdirectory inside the 'servers' directory is the name of the server on your Monitor Server.

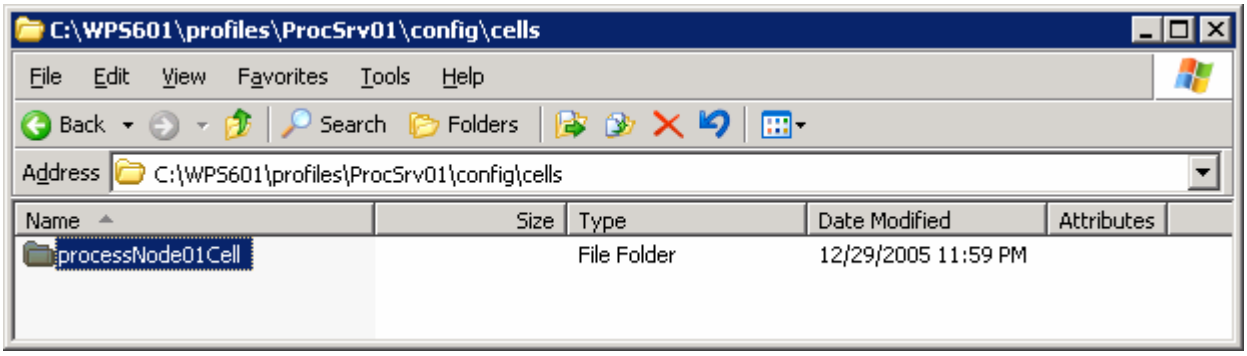


__ d. The MONITOR_SERVER_HOSTNAME is the DNS name that the *Business Process Server uses to access your Monitor Server*. Typically this is same as the actual DNS name of the Monitor Server although your network configuration may vary. You should check the value you provide by trying this command on the Business Process Server:

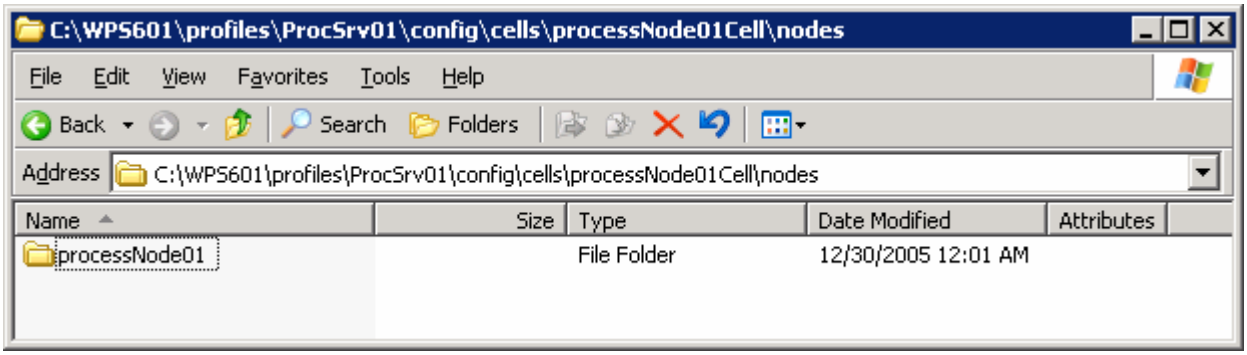
```
ping <MONITOR_SERVER_HOSTNAME>
```



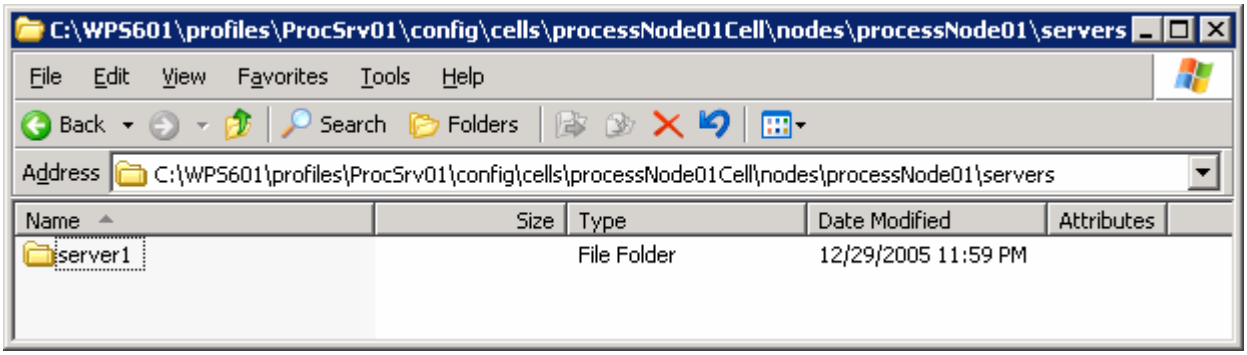
__ e. To determine your PROCESS_SERVER_CELL_NAME, go to the *Business Process Server* and navigate to <installPath>\profiles\ProcSrv01\config\cells\. The name of the subdirectory inside the 'cells' directory is the name of the cell on your Business Process Server.



__ f. To determine your PROCESS_SERVER_NODE_NAME, go to the *Business Process Server* and navigate to <installPath>\profiles\ProcSrv01\config\cells\<cell>\nodes\ where <cell> is the name of the Business Process Server cell you just determined. The name of the subdirectory inside the 'nodes' directory is the name of the node on your Business Process Server.

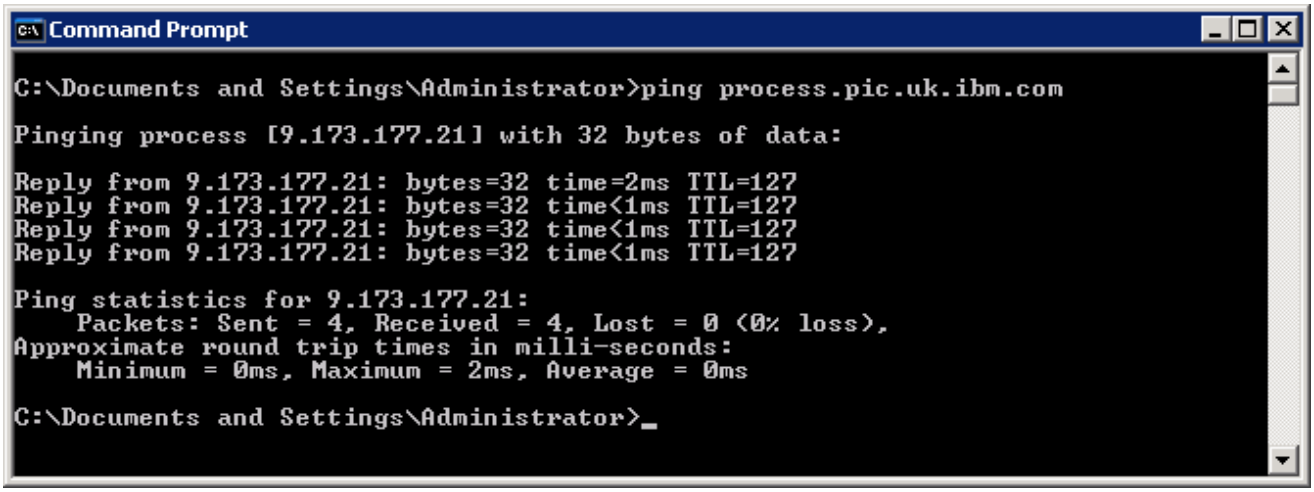


__ g. To determine your PROCESS_SERVER_SERVER_NAME, go to the *Business Process Server* and navigate to <installPath>\profiles\ProcSrv01\config\cells\<cell>\nodes\<node>\servers\ where <cell> and <node> are the values you just determined. The name of the subdirectory inside the 'servers' directory is the name of the server on your Business Process Server.



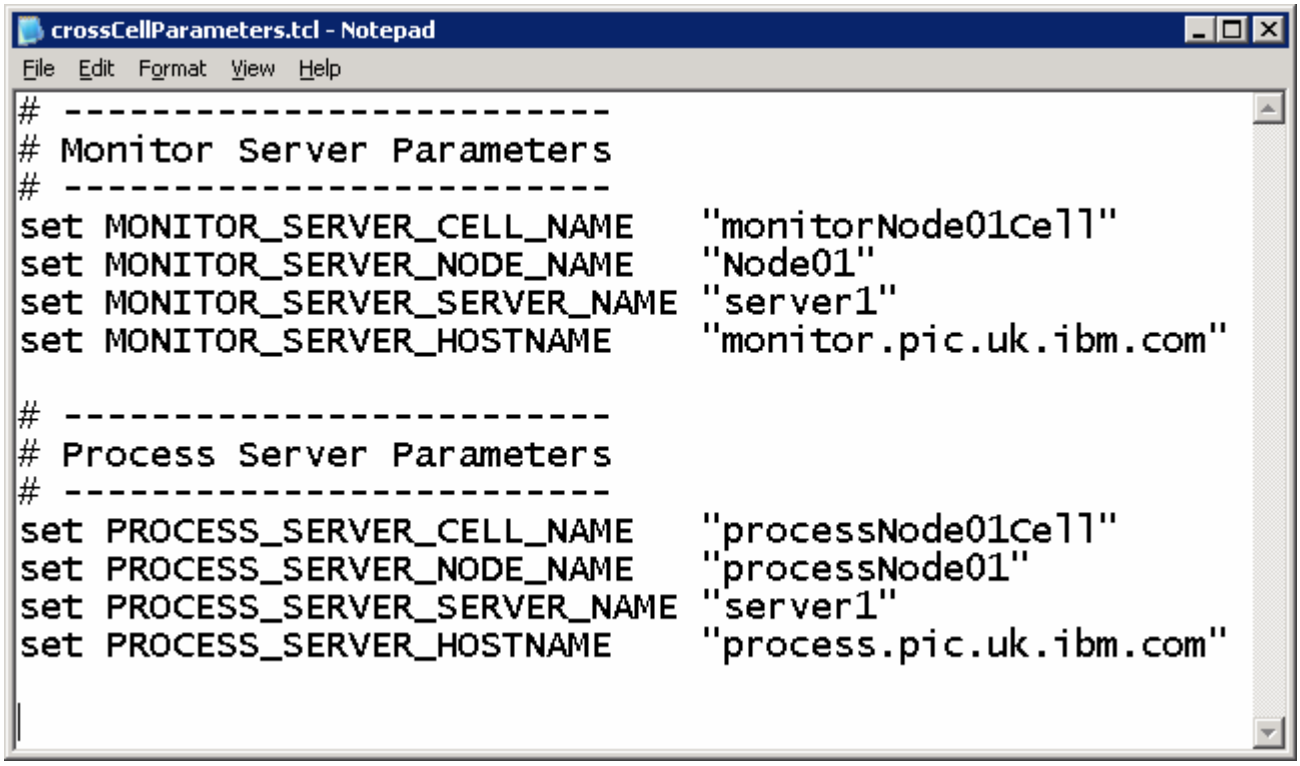
__ h. The PROCESS_SERVER_HOSTNAME is the DNS name that the *Monitor Server uses to access your Business Process Server*. Typically this is same as the actual DNS name of the Business Process Server although your network configuration may vary. You should check the value you provide by trying this command on the Monitor Server:

```
ping <PROCESS_SERVER_HOSTNAME>
```



____ 3. **Save** the file.

____ 4. Here is a screenshot of a sample configuration:



Note: All values (except hostnames) are case-sensitive. Be very careful you have specified them exactly correctly.

____ 5. Start both the Monitor Server and the Business Process Server

__ a. On the Monitor Server machine, **Start > All Programs > IBM WebSphere > Process Server 6.0 > Profiles > monitor > Start the server**

__ b. On the Business Process Server machine, **Start > All Programs > IBM WebSphere > Process Server 6.0 > Profiles > ProcSrv01 > Start the server**

____ 6. Open a command window on the *Monitor Server*.

____ 7. Change the directory to the folder containing the scripts

```
cd <MONITOR_ROOT>\install\monsrv\configuration\crosscell
```

for example:

```
cd C:\IBM\WebSphere\Monitor\install\monsrv\configuration\crosscell\
```

____ 8. Configure the SI Bus on the Monitor Server by executing this command:

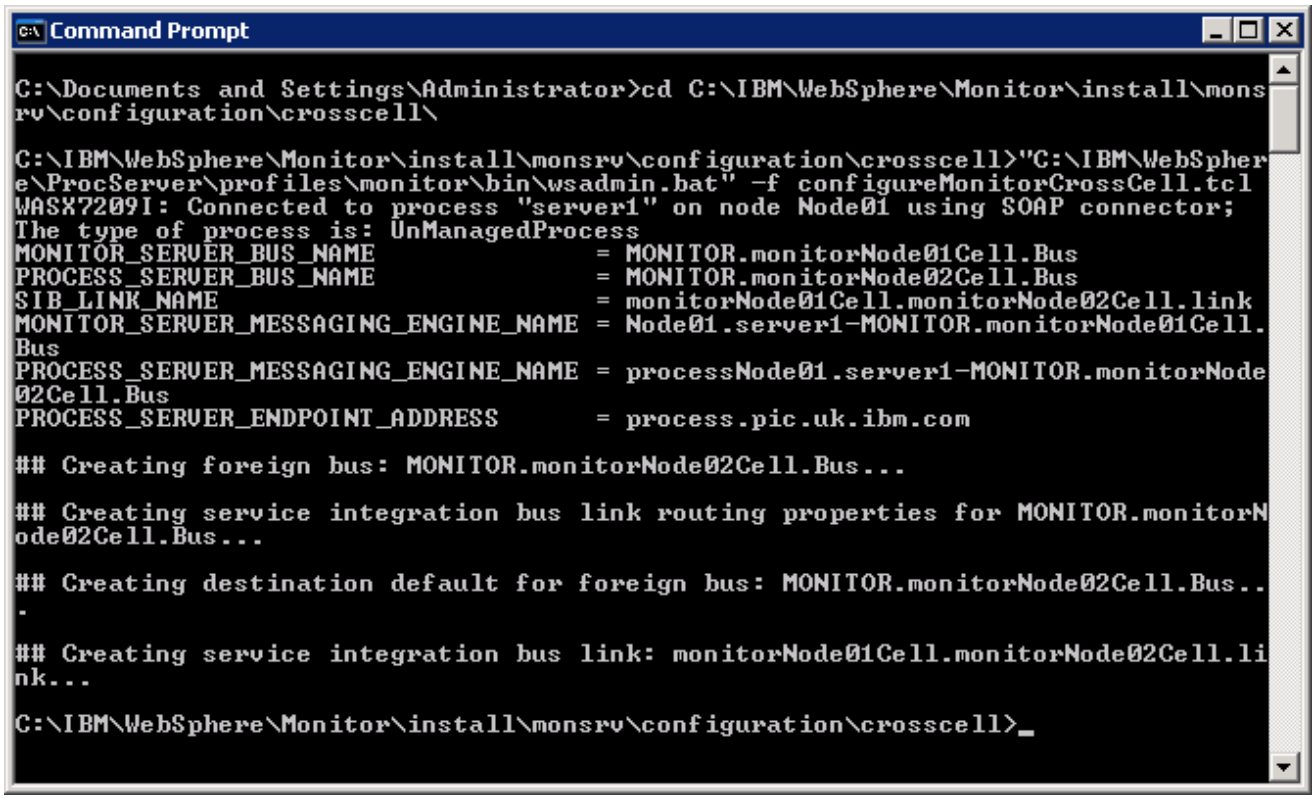
```
"<Monitor_Server_WPS_Home>\profiles\monitor\bin\wsadmin.bat" -f
configureMonitorCrossCell.tcl
```

for example:

```
"C:\IBM\WebSphere\ProcServer\profiles\monitor\bin\wsadmin.bat" -f
configureMonitorCrossCell.tcl
```

Note: Be sure to run the correct script – there are two scripts with similar names.

____ 9. You should see results similar to this:



Note: The above script output screen capture is an example only, and it does not correspond exactly to the example values shown in the previous screenshots. Your own output will also be different to reflect your own unique cell, node, server and host names.

____ 10. Restart the Monitor Server.

__ a. **Start > All Programs > IBM WebSphere > Process Server 6.0 > Profiles > monitor > Stop the server**

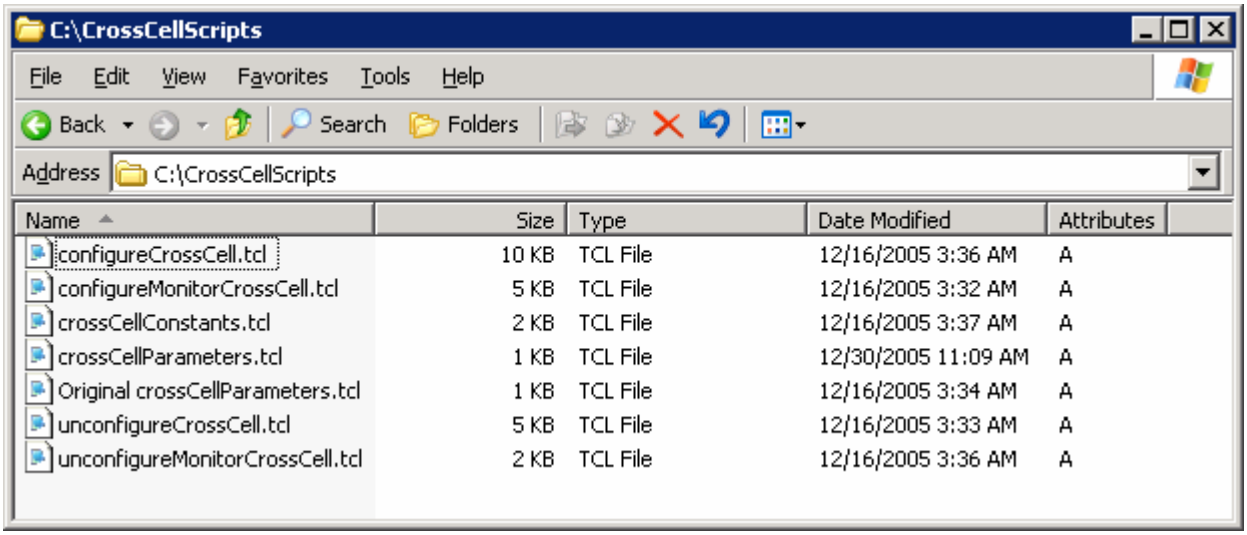
__ b. **Start > All Programs > IBM WebSphere > Process Server 6.0 > Profiles > monitor > Start the server**

Note: Now you will configure the Business Process server. The Monitor Server configuration is complete

---

____ 11. Copy the script files to the *Business Process server*.

__ a. Copy the files from the Monitor Server in folder `<MONITOR_ROOT>\install\monsrv\configuration\crosscell` to a new directory on the Business Process Server. Be sure to include the customized crossCellParameters.tcl.



__ b. Open a command window *on the Business Process server.*

__ c. Change the directory to the folder containing the scripts, for example:

```
cd c:\CrossCellScripts\
```

Note: You do not need to change the parameters file. The same file is used on both servers, by both scripts.

____ 12. Configure the SI Bus on the Business Process Server by executing this command – be very careful to execute the different script from the one you used on the Monitor Server:

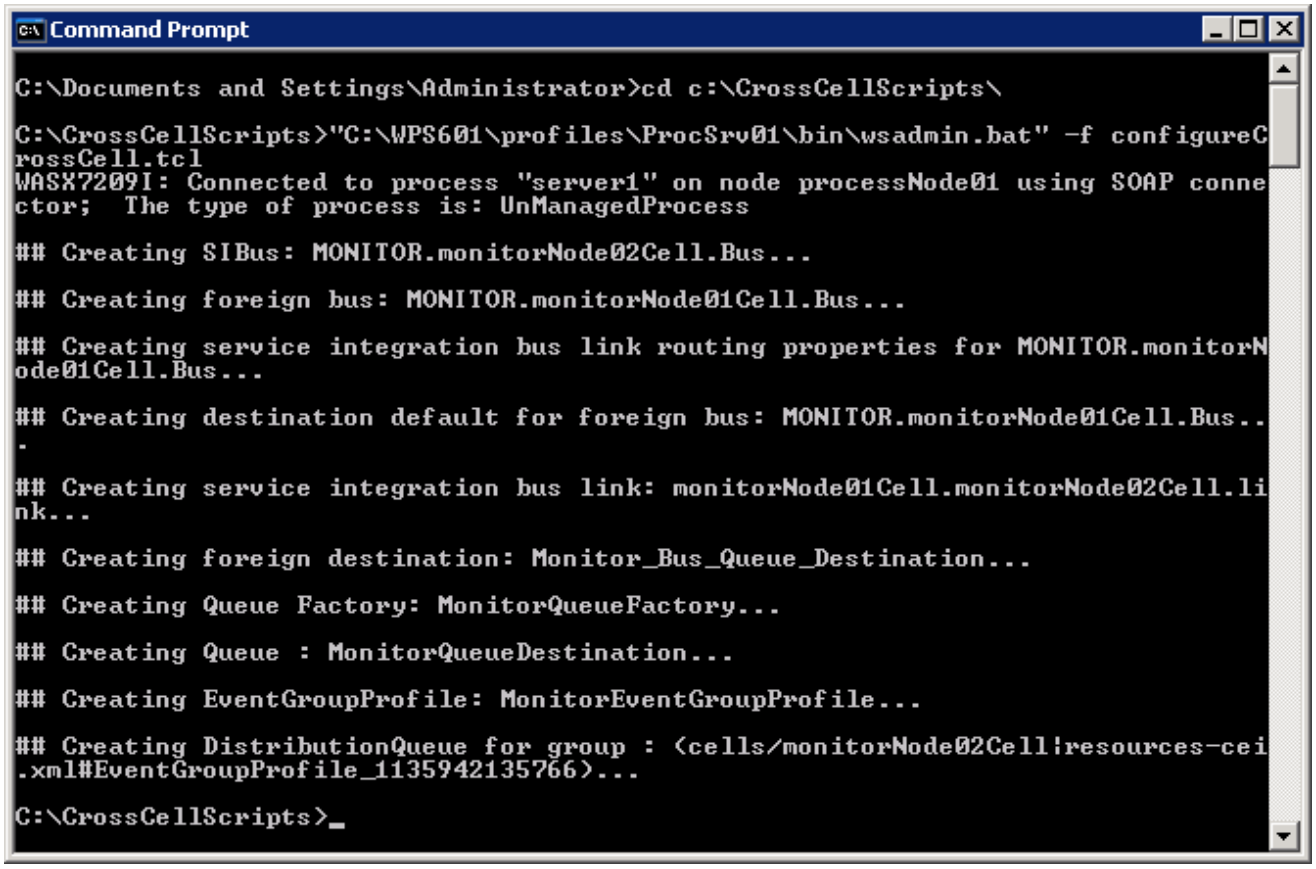
```
"<BusProc_Server_WPS_Home>\profiles\ProcSrv01\bin\wsadmin.bat" -f
configureCrossCell.tcl
```

for example

```
"C:\WPS601\profiles\ProcSrv01\bin\wsadmin.bat" -f
configureCrossCell.tcl
```

Note: Again be sure to use the correct script as there are two with similar names.

____ 13. You should see results similar to this:



Note: The above script output screen capture is an example only, and it does not correspond exactly to the example values shown in the previous screenshots. Your own output will also be different to reflect your own unique cell, node, server and host names.

____ 14. Restart the Business Process Server.

__ a. **Start > All Programs > IBM WebSphere > Process Server 6.0 > Profiles > ProcSrv01 > Stop the server**

__ b. **Start > All Programs > IBM WebSphere > Process Server 6.0 > Profiles > ProcSrv01 > Start the server**

Part 4: Verify That The Link Has Been Established

____ 1. Make sure that CEI logging has been enabled on the Business Process server.

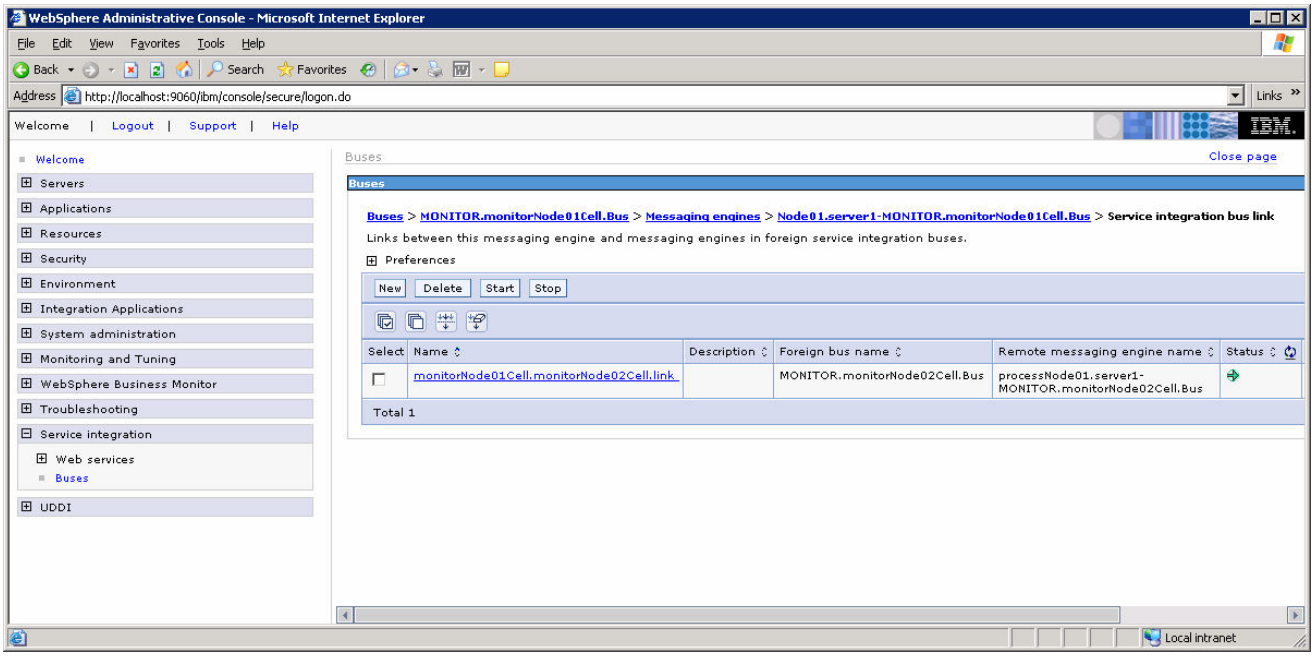
__ a. Admin Console > Servers > Application servers > server1 > Business process container settings > Business process container > Enable Common Event Infrastructure logging

____ 2. After both servers are restarted, check that the bus link between the two servers has been configured properly. To do this, you can check the log on the Monitor server, or alternatively you can use the Administrative Console on the Monitor server.

__ a. Option 1: After both servers are restarted, check the Monitor server log (C:\IBM\WebSphere\ProcServer\ profiles\ProcSrv01\logs\server1) and you should see a message similar to that shown below (try searching from the bottom up for the message identifier, CWSIT0032I):

```
CWSIT0032I: The inter-bus connection
monitorNode01Cell.monitorNode02Cell.link from messaging engine
Node01.server1-MONITOR.monitorNode01Cell.Bus in bus
MONITOR.monitorNode01Cell.Bus to messaging engine
processNode01.server1-MONITOR.monitorNode02Cell.Bus in bus
MONITOR.monitorNode02Cell.Bus started.
```

__ b. Option 2: After both servers are restarted, start the Monitor server Adminstrative Console, then navigate to Service integration > Buses > Monitor.<yourNode>.Bus > Messaging Engines > Node01.server1-MONITOR.<yourNode>.Bus > Service integration bus link. The status column should show a green arrow which means it is started, as in this screen shot:



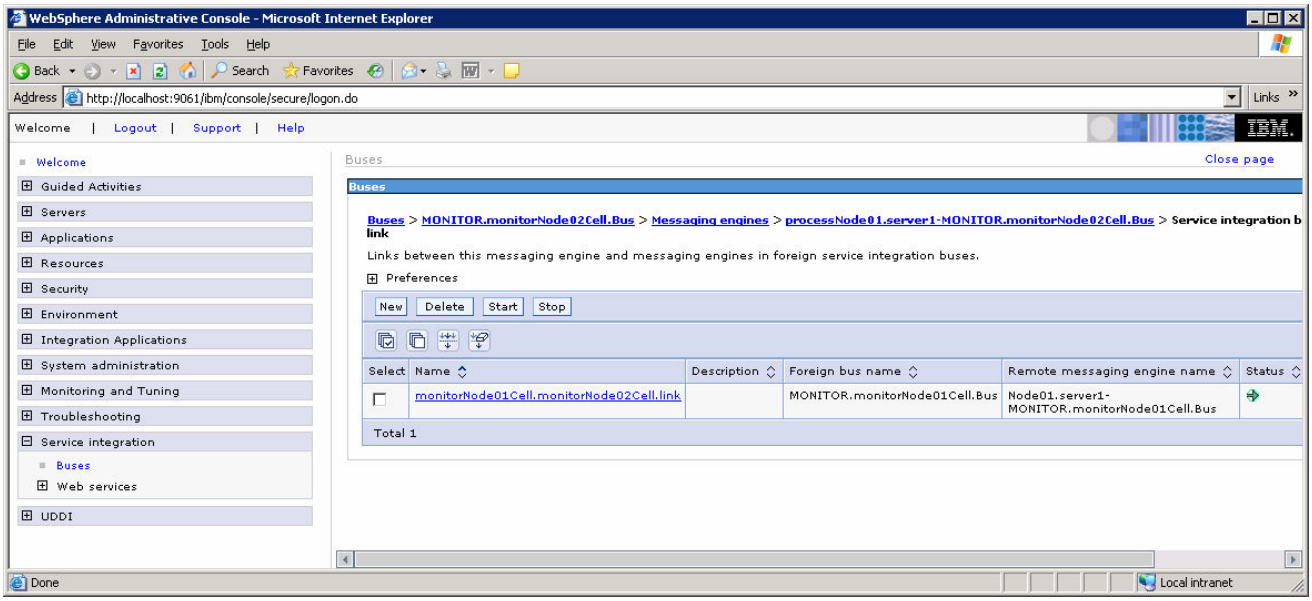
____ 3. After both servers are restarted, check that the Business Process server bus has been configured properly. To do this, you can check the log on the Business Process server, or alternatively you can use the Administrative Console on the Business Process server.

__ a. Option1: After both servers are restarted, check the Business Process server log (<BusProc_Server_WPS_Home>\profiles\ProcSrv01\logs\server1) and you should see a

message similar to that shown below (try searching from the bottom up for the message identifier, CWSIT0032I):

```
CWSIT0032I: The inter-bus connection
monitorNode01Cell.monitorNode02Cell.link from messaging engine
processNode01.server1-MONITOR.monitorNode02Cell.Bus in bus
MONITOR.monitorNode02Cell.Bus to messaging engine Node01.server1-
MONITOR.monitorNode01Cell.Bus in bus MONITOR.monitorNode01Cell.Bus
started..
```

__ b. Option 2: After both servers are restarted, start the Business Process server Adminstrative Console, then navigate to Service integration > Buses > Monitor.<yourNode>.Bus > Messaging Engines > <yourNode>.server1-MONITOR.<yourNode>.Bus > Service integration bus link. The status column should show a green arrow which means it is started, as in this screen shot:



____ 4. [Optional] If you would like to see your messages flowing across the bus, enable the SIBus trace group, e.g., *=info:SIBMessageTrace=finest

__ a. Admin Console > Troubleshooting > Logs and Trace > server1 > Change Log Detail Levels.

What you did in this exercise

In this lab, you installed and configured WebSphere Business Process Server 6.0.1 as the Business Process Server for use in running applications for monitoring by WebSphere Business Monitor 6.0.

You also configured the Service Integration Bus on the Monitor Server and the Business Process Server so that events fired by your applications running on the Business Process Server can be consumed and monitored by WebSphere Business Monitor.

Appendix – Manually Configuring the Service Integration Bus

The following sections show you how to manually configure the Service Integration Bus on the Monitor Server and the Business Process Server. This is reference material, because the scripts specified in the previous sections will automate this for you.

If you install WebSphere Process Server 6.0.1 on the same machine as Monitor Server, then, during the configuration, you will enter the same IP address for both the Monitor Server and the Business Process Server.

Note: Some parts of section 'Create a Bus on the Monitor Server' may already be done for you. Artifacts such as these may already be created: bus and bus member for **MONITOR.<cell01name>.Bus, queue** destination **Monitor_Bus_Queue_Destination.** But you should make sure that they are there and that they are configured as specified in the instructions.

Appendix – Create A Bus On The Monitor Server

____ 1. Create a bus.

__ a. Start the admin console for the Monitor Server: http://localhost:9060/ibm/console.

__ b. Select **Service Integration** > **Buses** > **New**.

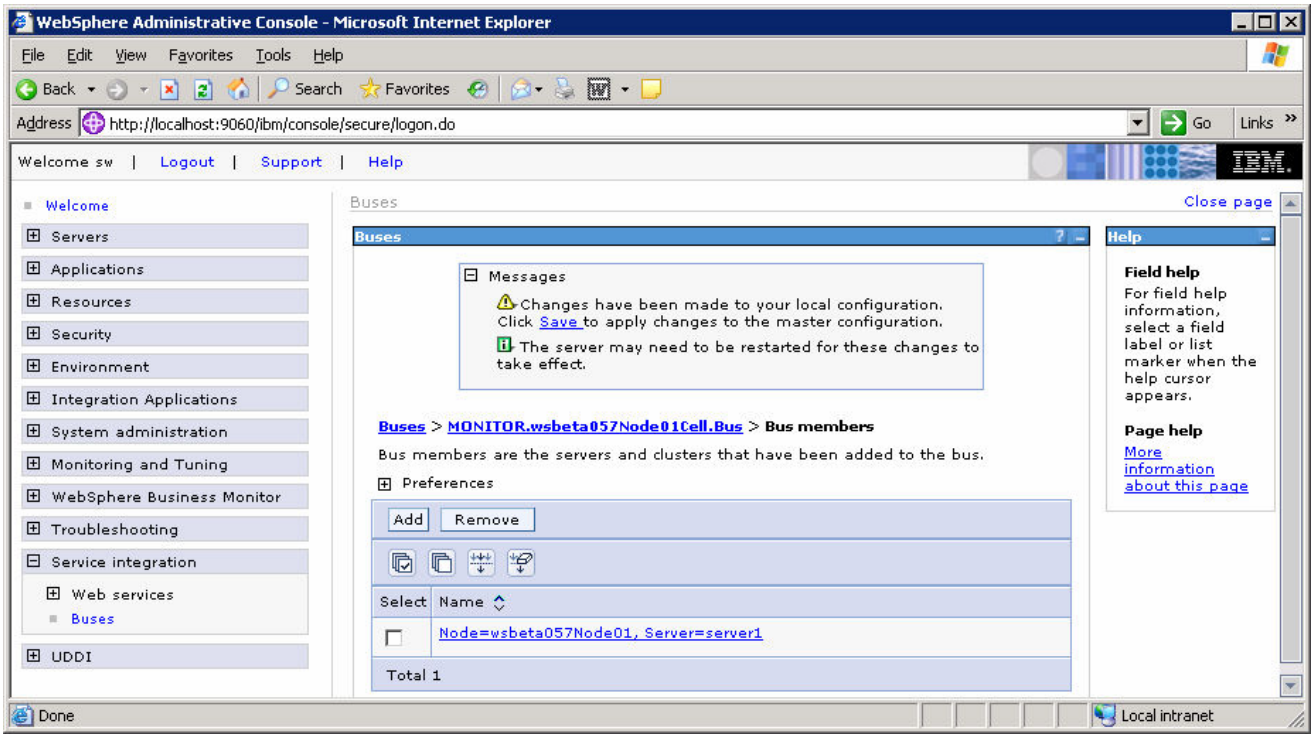
__ c. Specify **Name** as **MONITOR.<cell01name>.Bus**, e.g., MONITOR.wsbeta057Node01Cell.Bus

__ d. Click **Apply**. The **Additional Properties** should now be active.

__ e. Select **Additional Properties** > **Bus members** > **Add**.

__ f. For **Step 1: Select server or cluster**, click **Next**.

__ g. Click **Finish.**



____ 2. Create the destinations.

__ a. Select **Service Integration** > **Buses** > **MONITOR.<cell01name>.Bus**.

__ b. Select **Additional Properties** > **Destinations**.

__ c. Create a new queue destination: **Monitor_Bus_Queue_Destination**.

1) Click **New**.

2) Select **Queue** and click **Next**.

3) Enter Identifier **Monitor_Bus_Queue_Destination** and click **Next.**

4) For step 2, Assign queue to a bus member, click **Next**.

5) Click **Finish**.

__ d. Create a new queue destination: **ActionManagerQueueDestination**.

1) Click **New**.

2) Select **Queue** and click **Next**.

3) Enter Identifier **ActionManagerQueueDestination** and click **Next.**

4) For step 2, Assign queue to a bus member, click **Next**.

5) Click **Finish**.

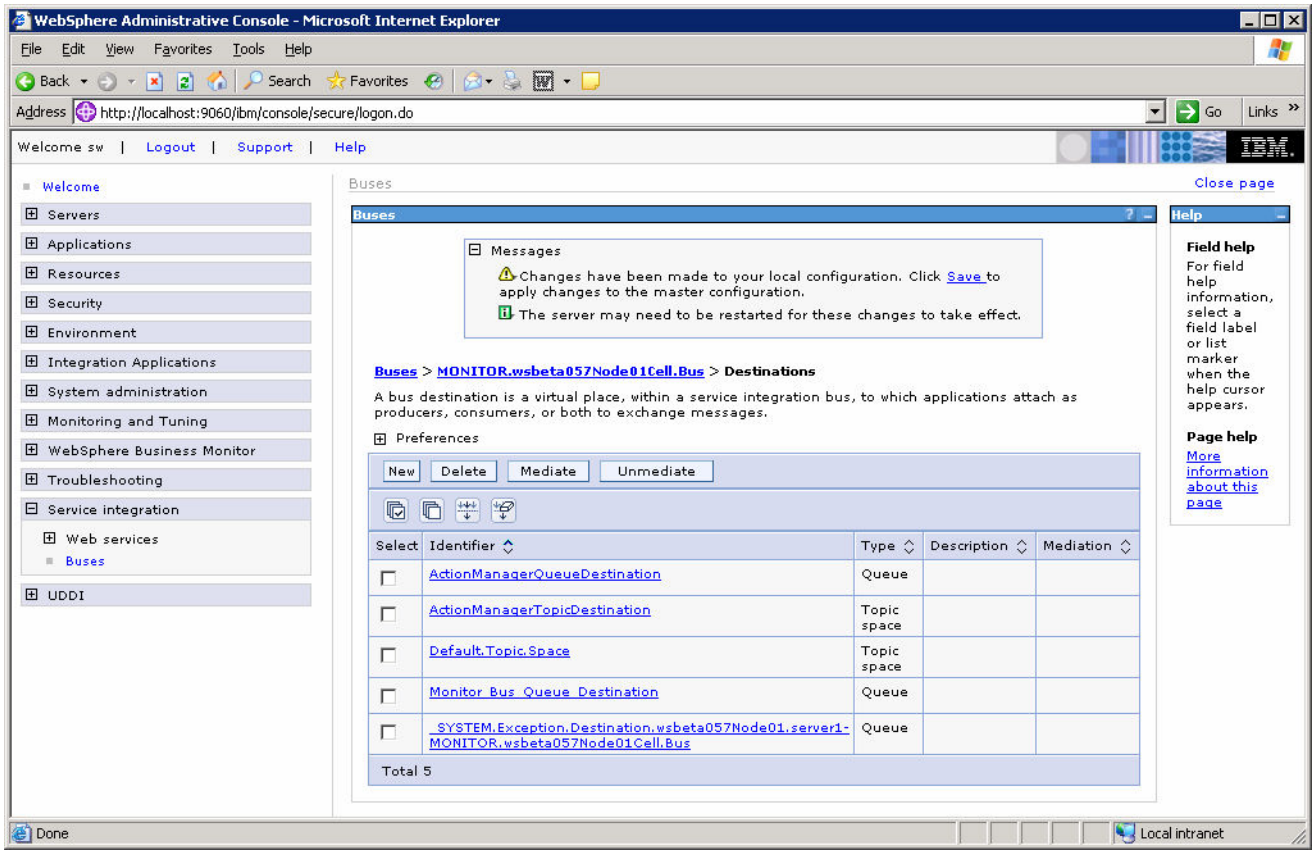
__ e. Create a new topic space destination: **ActionManagerTopicDestination**.

1) Click **New**.

2) Select **Topic Space** and click **Next**.

3) Enter Identifier **ActionManagerTopicDestination** and click **Next.**

4) Click **Finish**.



____ 3. Re-configure the JMS artifacts.

__ a. Select **Resources > JMS Providers > Default messaging**.

__ b. Set the scope to **Server** and click **Apply**.

__ c. Select **Connection Factories** > **JMS queue connection factory**.

__ d. Edit both **Action Manager QueueConnFactory** and **MonitorQueueFactory**, changing the **Connection**/**Bus name** property from **CommonEventInfrastructure_Bus** to **MONITOR.<cell01name>.Bus**.

__ e. Return to **Resources > JMS Providers > Default messaging**.

__ f. Select **Destinations > JMS queue**.

__ g. Edit both **Action Manager Queue** and **MonitorQueueDestination**, changing the **Connection**/**Bus name** property from **CommonEventInfrastructure_Bus** to **MONITOR.<cell01name>.Bus**.

__ h. Return to **Resources > JMS Providers > Default messaging**.

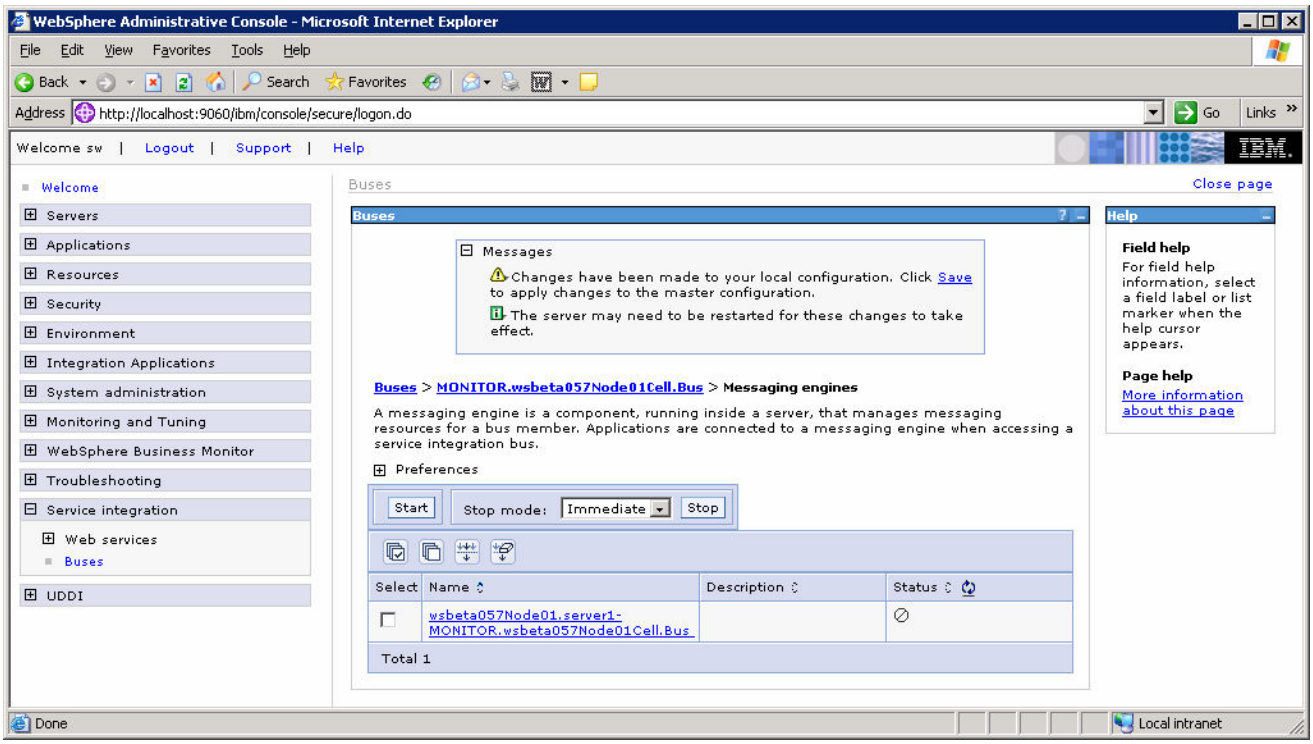
__ i. Select **Activation Specifications > JMS activation specification > Action Manager ActivationSpec**.

__ j. Change the **Destination**/**Bus name** property from **CommonEventInfrastructure_Bus** to **MONITOR.<cell01name>.Bus**.

____ 4. Get the name of the messaging engine and the bus.

__ a. Select **Service Integration > Buses > MONITOR.<cell01name>.Bus**. You will need to remember the name of the bus.

__ b. Select **Additional Properties** > **Messaging Engines**. There should be only one messaging engine defined. You will need to remember its name, e.g., wsbeta057Node01.server1-MONITOR.wsbeta057Node01Cell.Bus.



____ 5. Save your changes.

__ a. Click **Save** near the top of the window.

__ b. Click the **Save** button.

Appendix – Configure the SI Bus Link On The Business Process Server

____ 1. Create a bus.

__ a. Start the admin console for the Business Process Server: http://localhost:9061/ibm/console.

__ b. Select **Service Integration** > **Buses** > **New**.

__ c. Specify **Name** as **MONITOR.<cell02name>.Bus**, e.g., MONITOR.wsbeta057Node02Cell.Bus

---

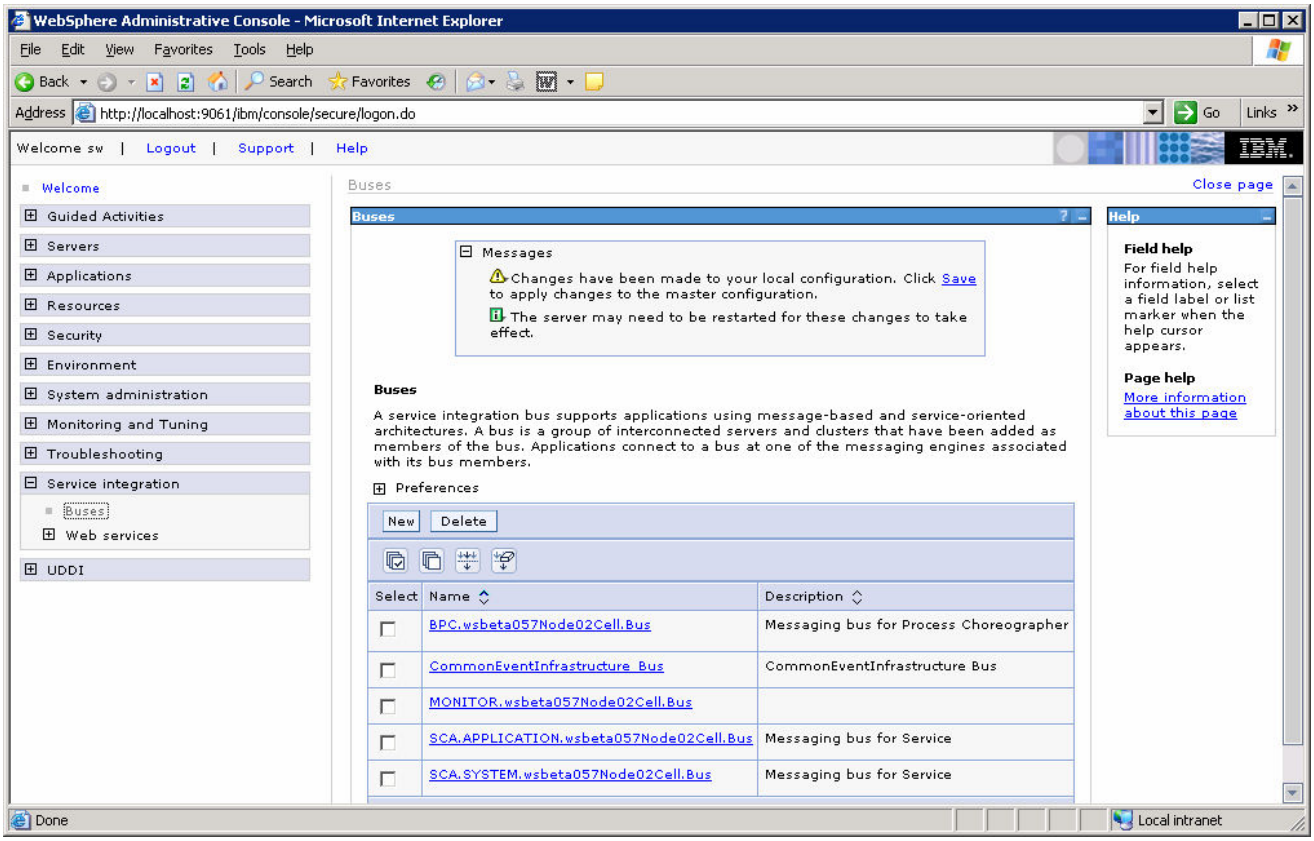
Note: You can check your <cell02name> value by looking at the configuration directory for the Business Process Server, for example: C:\wps601\profiles\ProcSrv01\config\cells**wsbeta057Node02Cell**\

__ d. Click **Apply**. The **Topology** should now be active.

__ e. Select **Topology** > **Bus members** > **Add**.

__ f. Click **Next**.

__ g. Click **Finish.**



____ 2. Define a foreign bus.

__ a. Select **Service Integration > Buses > MONITOR.<cell02name>.Bus**.

__ b. Select **Topology** > **Foreign buses** > **New**.

__ c. Specify the **Name** of the bus on the Monitor server, for example: **MONITOR.<cell01name>.Bus**, e.g., MONITOR.wsbeta057Node01Cell.Bus. This is the bus name that you took note of earlier when configuring the Monitor Server.

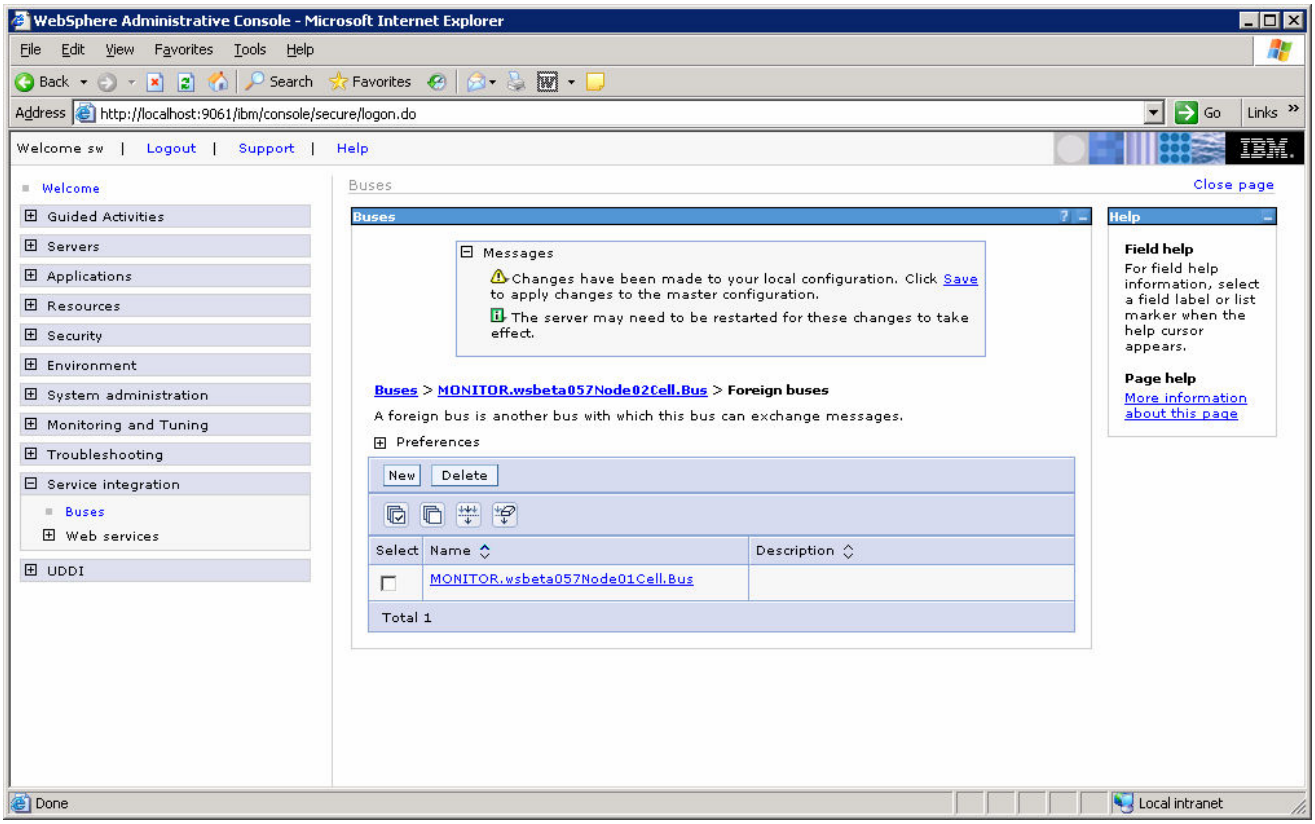
__ d. Click **Next**.

__ e. Take the default **Routing type** - **Direct, service integration bus link.**

__ f. Click **Next.**

__ g. Do not specify anything for **Inbound user ID** or **Outbound user ID**, just click **Next**.

__ h. Click **Finish.**



____ 3. Define a foreign destination.

__ a. Select **Service Integration > Buses > MONITOR.<cell02name>.Bus**.

__ b. Select **Destination Resources** > **Destinations** > **New**.

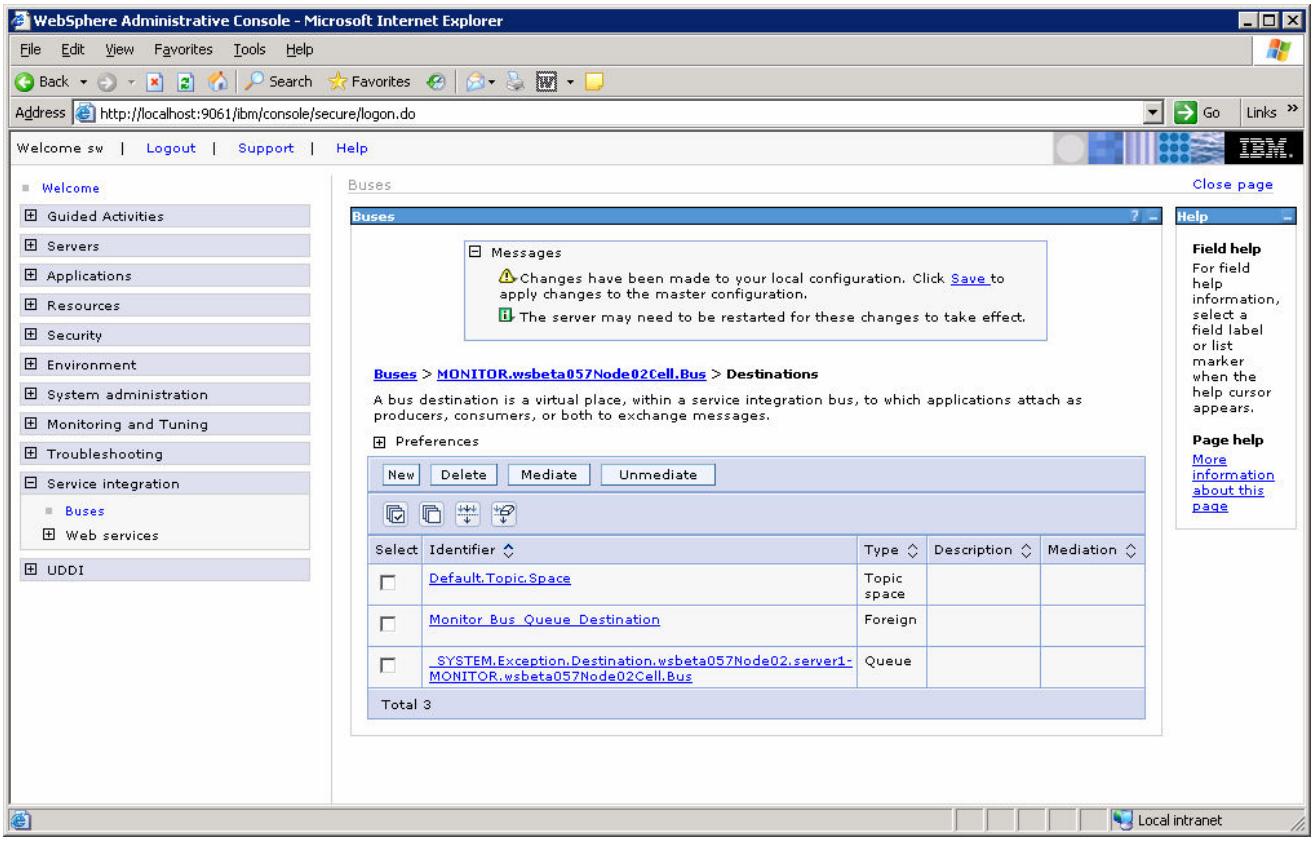
__ c. Select **Foreign** for the destination type, then click **Next**.

__ d. Specify **Monitor_Bus_Queue_Destination** for **Identifier.**

__ e. Select the name of the foreign (Monitor server) **Bus,** e.g., **MONITOR.<cell01name>.Bus**. Again this is the bus name you noted earlier when configuring the Monitor Server.

__ f. Click **Next**

__ g. Click **Finish.**



____ 4. Define a Service Integration Bus Link.

__ a. Select **Service Integration > Buses > MONITOR.<cell02name>.Bus**. Note the bus name for later

__ b. Select **Topology** > **Messaging Engines**. There should be only one messaging engine defined. Note the messaging engine name for later.E.g. wsbeta057Node02.server1-MONITOR.wsbeta057Node02Cell.Bus.

__ c. Click on the messaging engine.

__ d. Select **Additional Properties** > **Service integration bus link** > **New**.

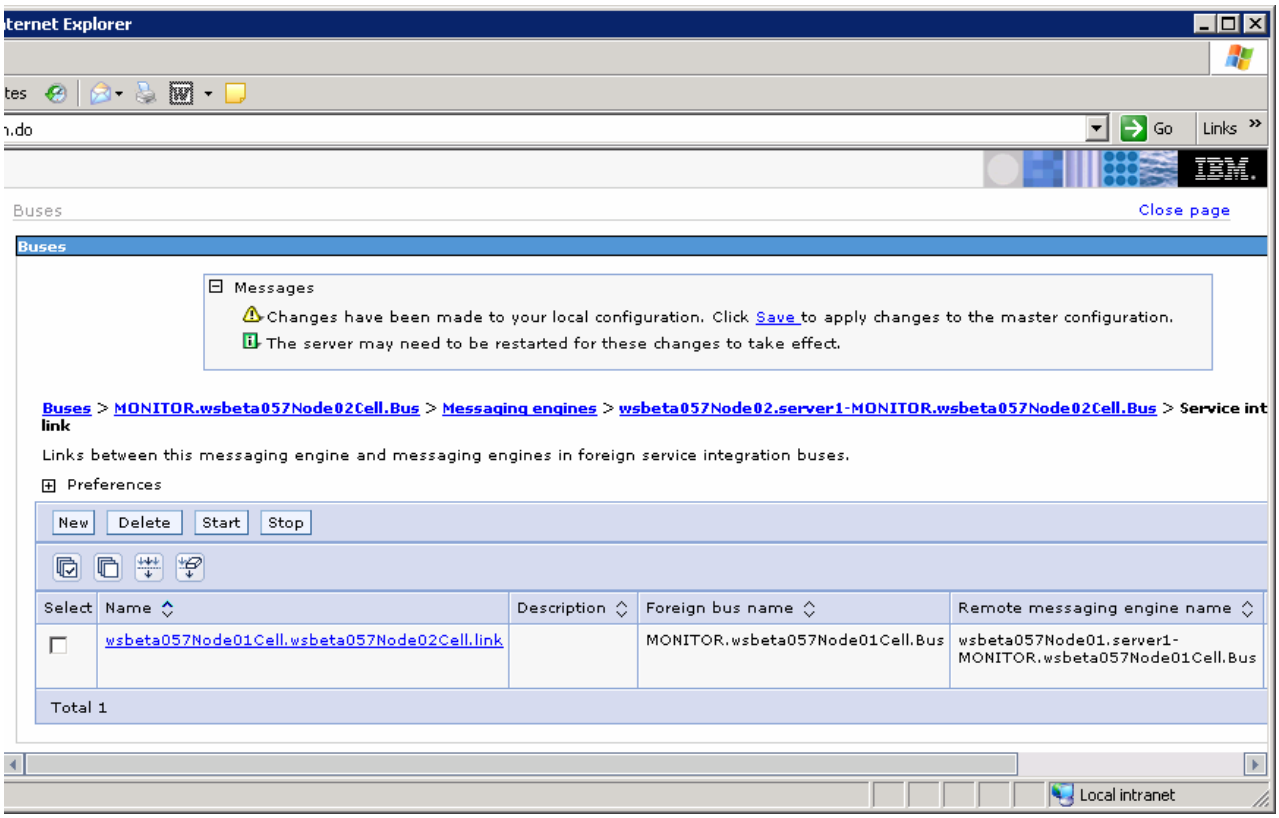
__ e. Specify a **Name**. For example <**cell01name>.<cell02name>.link**, e.g., wsbeta057Node01Cell.wsbeta057Node02Cell.link.

__ f. Select the **Foreign Bus Name**, **MONITOR.<cell01name>.Bus**.

__ g. Specify the **Remote messaging engine name**. This is the messaging engine on the Monitor server. You should have noted the name of it earlier. E.g. wsbeta057Node01.server1-MONITOR.wsbeta057Node01Cell.Bus

__ h. Specify the IP address of the Monitor server as the value of **Bootstrap endpoints**.

__ i. Select **OK**.



____ 5. Save your changes.

__ a. Click **Save** near the top of the window.

__ b. Click the **Save** button.

Appendix – Configure The SI Bus Link On The Monitor Server

____ 1. Define a foreign bus.

__ a. Start the admin console for the Monitor Server: http://localhost:9060/ibm/console.

__ b. Select **Service Integration > Buses > MONITOR.<cell01name>.Bus**.

__ c. Select **Additional Properties** > **Foreign buses** > **New**.

__ d. Specify the **Name** of the bus on the Business Process server, for example: **MONITOR.<cell02name>.Bus**, e.g., MONITOR.wsbeta057Node02Cell.Bus

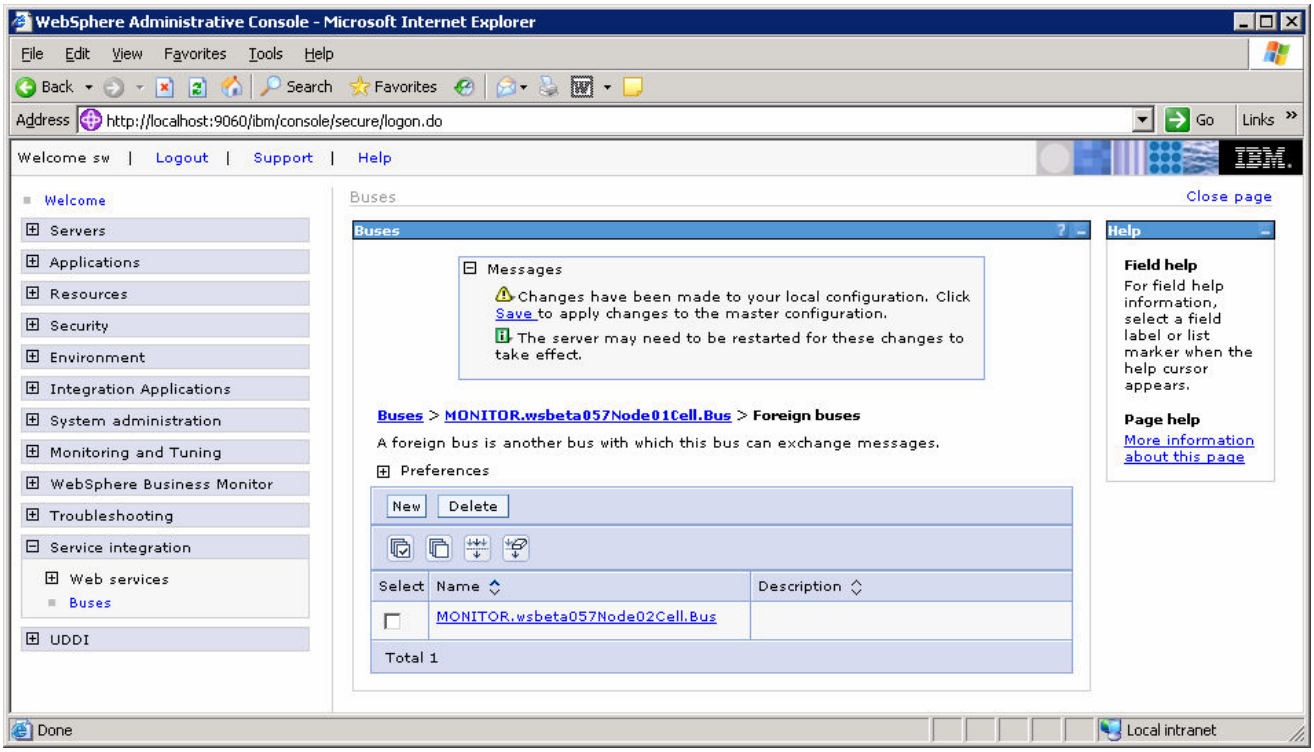
__ e. Click **Next**.

__ f. Take the default **Routing type** - **Direct, service integration bus link.**

__ g. Click **Next.**

__ h. Do not specify anything for **Inbound user ID** or **Outbound user ID**, just click **Next**.

__ i. Click **Finish.**



____ 2. Define a Service Integration Bus Link.

__ a. Select **Service Integration > Buses > MONITOR.<cell01name>.Bus**.

__ b. Select **Additional Properties** > **Messaging Engines**. E.g. wsbeta057Node01.server1-MONITOR.wsbeta057Node01Cell.Bus.

__ c. Click on the messaging engine.

__ d. Select **Additional Properties** > **Service integration bus link** > **New**.

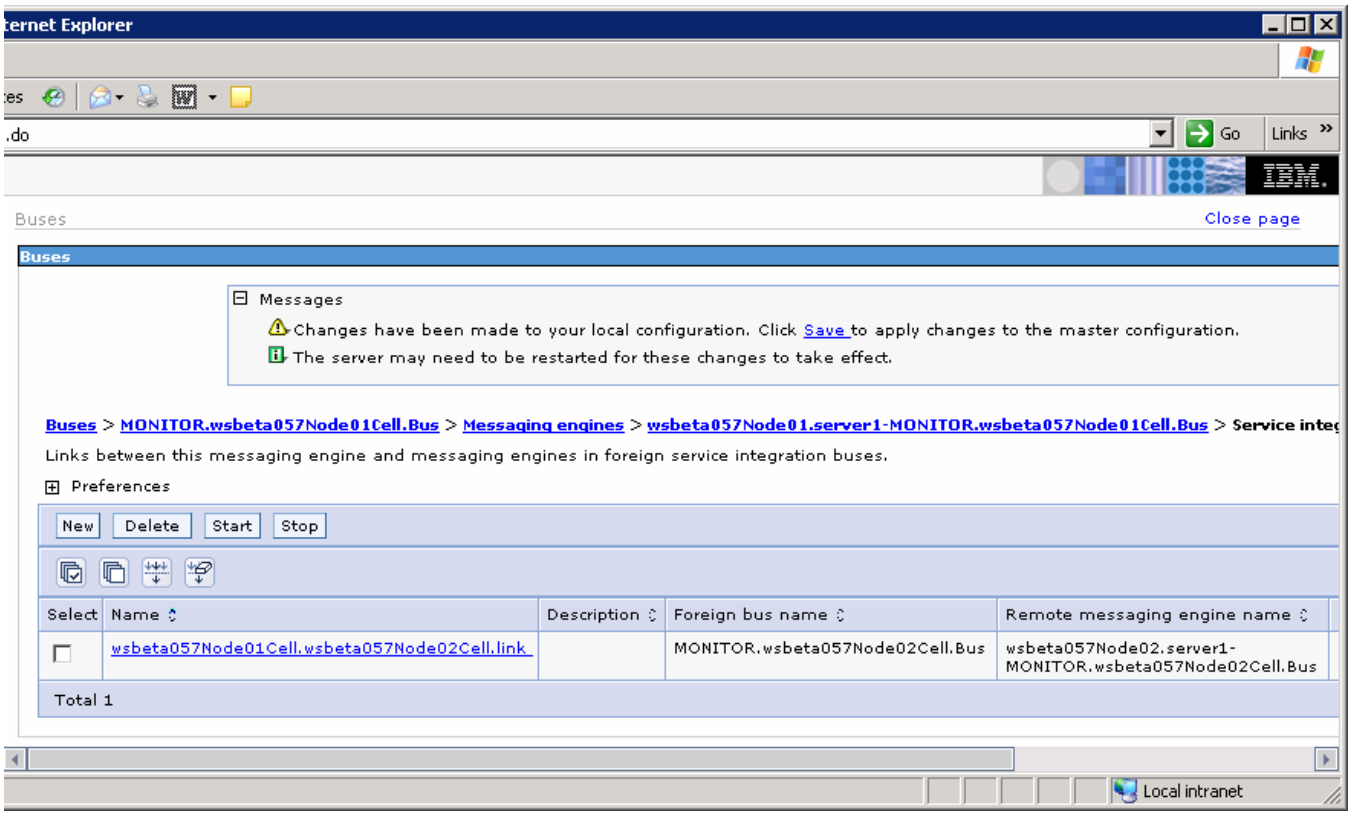
__ e. Specify a **Name**. This needs to match the name of the link created on the Business Process server. For example <**cell01name>.<cell02name>.link**. e.g. wsbeta057Node01Cell.wsbeta057Node02Cell.link

__ f. Select the **Foreign Bus Name**, **MONITOR.<cell02name>.Bus**.

__ g. Specify the **Remote messaging engine name**. This is the messaging engine on the Business Process server that you noted earlier, e.g., wsbeta057Node02.server1-MONITOR.wsbeta057Node02Cell.Bus

__ h. Specify the IP address of the Business Process server as the value of **Bootstrap endpoints**.

__ i. Select **OK**.



____ 3. Save your changes.

__ a. Click **Save** near the top of the window.

__ b. Click **Save**

Appendix – Configure The Business Process Server

____ 1. Define a JMS queue connection factory.

__ a. Start the admin console for the Business Process Server: http://localhost:9061/ibm/console.

__ b. Select **Resources > JMS Providers > Default messaging**.

__ c. Set the scope to **Server** and click **Apply**.

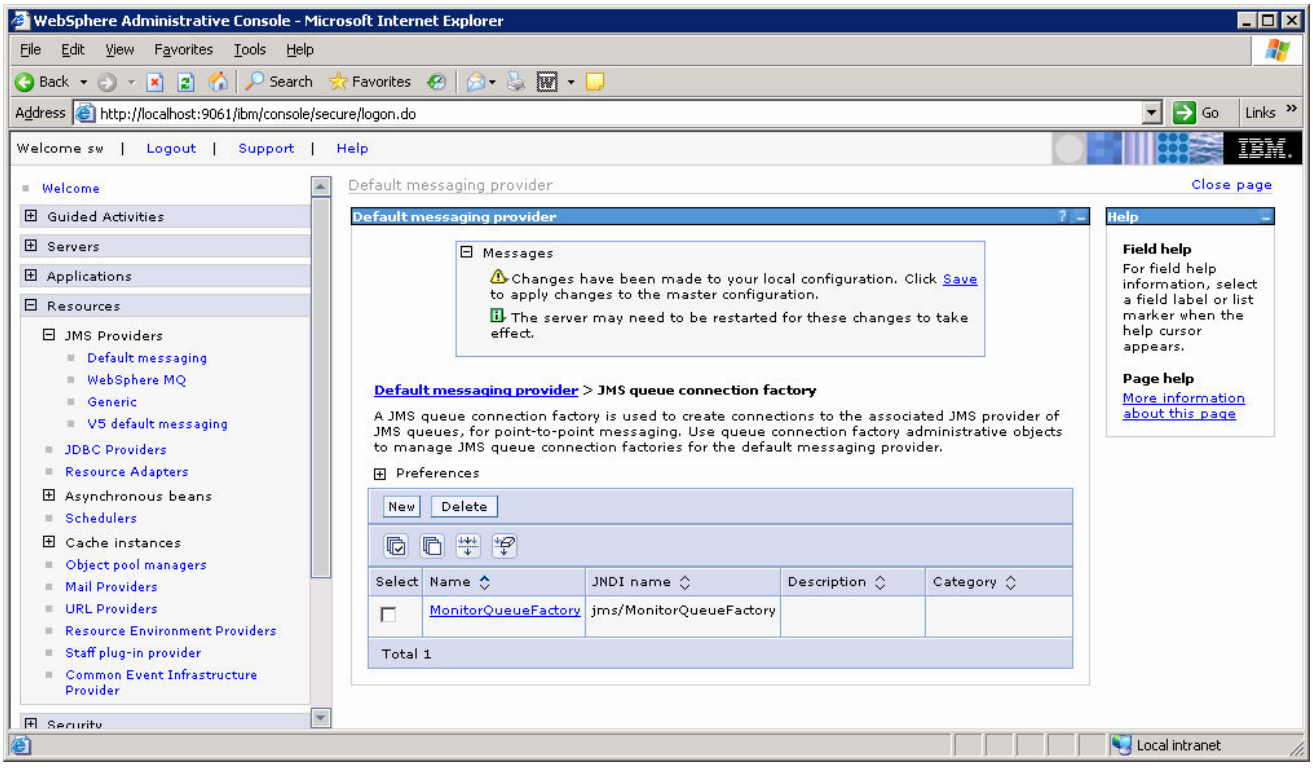
__ d. Select **Connection Factories > JMS queue connection factory > New**.

__ e. Specify a value for **Name** (i.e., **MonitorQueueFactory**).

__ f. Specify a value for **JNDI Name** (i.e., **jms/MonitorQueueFactory**).

__ g. For the **Bus name** field, select the name of the monitor bus created on this server (not the foreign bus). In this example you would specify **MONITOR.<cell02name>.Bus**, e.g., MONITOR.wsbeta057Node02Cell.Bus

__ h. Select **OK**.



____ 2. Define a JMS queue

__ a. Return to **Resources > JMS Providers > Default messaging**.

__ b. The scope should still be set to **Server**.

__ c. Select **Destinations > JMS queue > New**.

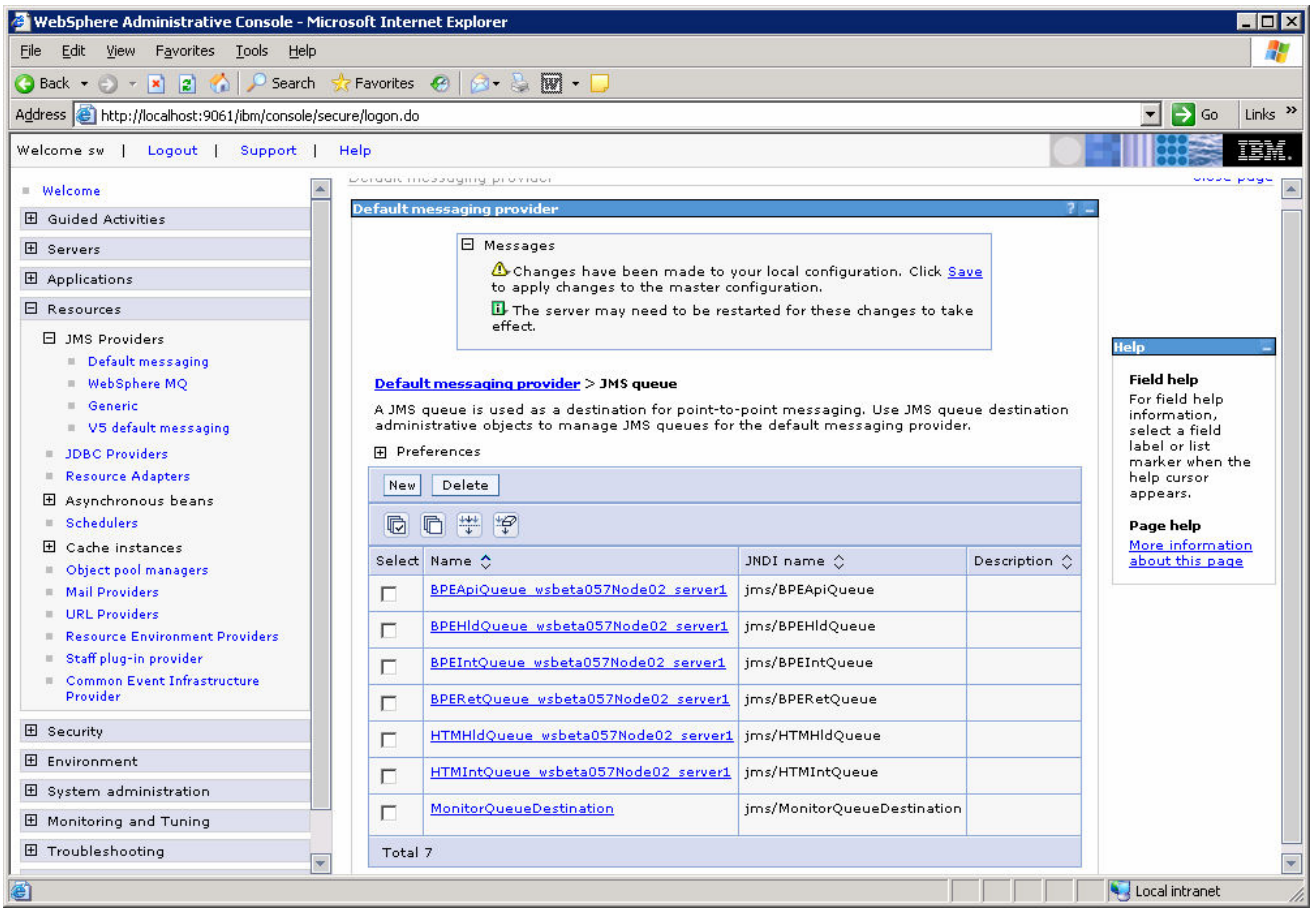
__ d. Specify a value for **Name** (i.e., **MonitorQueueDestination**).

__ e. Specify a value for **JNDI Name** (i.e., **jms/MonitorQueueDestination**).

__ f. For the **Bus name** field, select the name of the foreign bus. In this example you would specify **MONITOR.<cell01name>.Bus**. **e.g.** MONITOR.wsbeta057Node01Cell.Bus

__ g. Specify **Monitor_Bus_Queue_Destination** as the **Queue name**.

__ h. Select **OK**.



____ 3. Define a CEI Event Group Profile.

__ a. **Select Resources > Common Event Infrastructure Provider**.

__ b. Set the scope to **Cell** and click **Apply**.

__ c. Select **Additional Properties > Event Group Profile List > Event groups list > Additional Properties > Event Group Profiles > New**.

__ d. Specify a value for **Event Group Name** (i.e., **MonitorEventGroupProfile**).

__ e. Specify **CommonBaseEvent[@globalInstanceId]** as the value of **Event Selector String**.

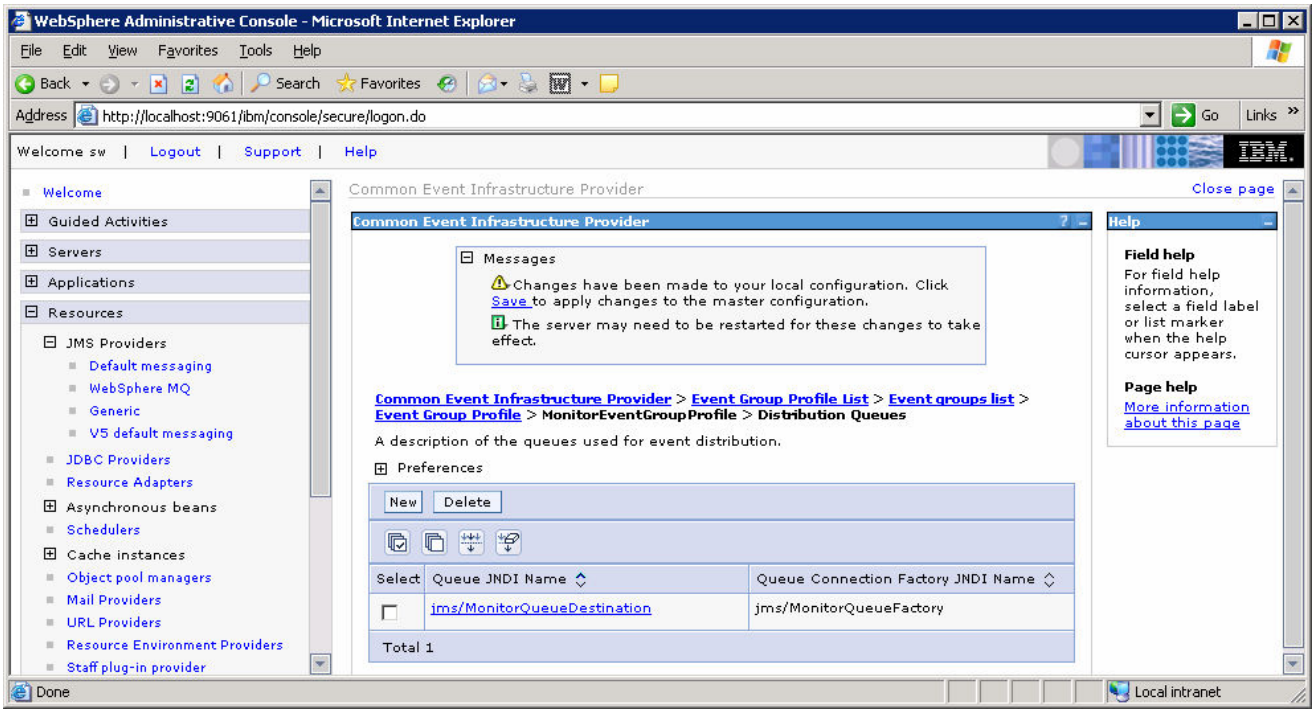
__ f. Click the **Apply** button. The **Additional Properties** should now be active.

__ g. Select **Additional Properties > Distribution Queues > New**.

__ h. Specify **jms/MonitorQueueDestination** for **Queue JNDI Name**.

__ i. Specify **jms/MonitorQueueFactory** for **Queue Connection Factory JNDI Name**.

__ j. Select **OK**.



____ 4. Save your changes.

__ a. Click **Save** near the top of the window.

__ b. Click **Save.**