IBM WEBSPHERE BUSINESS MONITOR 6.0 - LAB EXERCISE

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 will 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 <u>http://www.info-zip.org/pub/infozip/</u>.

__3. Confirm that the directory structure was extracted correctly; it should appear similar to the picture below.

🗁 C:\wps601cd\disk1				_ 🗆 ×
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u>	ools <u>H</u> elp			1
🔇 Back 🔻 🕥 🖌 🏂 Search 🌔 Folders 🛛 🕼 🎲 🗙 💙 🛄 🕶				
Address C:\wps601cd\disk1				•
Name 🔺	Size	Туре	Date Modified	Attributes
Custom		File Folder	11/28/2005 8:00 AM	
🛅 ЈОК		File Folder	11/28/2005 7:41 AM	
Calaunchpad		File Folder	12/13/2005 10:24 PM	
CICENSES		File Folder	12/13/2005 10:24 PM	
🗀 WAS		File Folder	11/28/2005 9:13 AM	
🛅 WBI		File Folder	12/29/2005 11:59 PM	
🥵 autorun.inf	1 KB	Setup Information	12/13/2005 1:01 PM	A
launchpad.exe	48 KB	Application	12/13/2005 1:01 PM	A
🦻 launchpad.ini	1 KB	Configuration Settings	12/13/2005 1:01 PM	A

🗁 C:\wps601cd\disk2				_ 🗆 ×
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u>	ools <u>H</u> elp			1
😋 Back 👻 🕥 🖌 🏂 Search 🌔 Folders 🛛 🕸 🌫 🔀 🛄 🕶				
Address 🛅 C:\wps601cd\disk2			-	🔁 Go
Name 🔺	Size	Туре	Date Modified	Attributes
		File Folder	6/29/2005 8:21 PM	
DataDirect		File Folder	12/13/2005 11:55 PM	
🛅 GSKit		File Folder	12/13/2005 11:55 PM	
iehs 🔁		File Folder	12/13/2005 11:55 PM	
🛅 IHS		File Folder	6/29/2005 8:21 PM	
🛅 ЈОК		File Folder	12/13/2005 11:55 PM	
🗀 launchpad		File Folder	12/13/2005 11:55 PM	
		File Folder	12/13/2005 11:55 PM	
i Cients Clients		File Folder	12/13/2005 11:56 PM	
🚞 plugin		File Folder	12/13/2005 11:55 PM	

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

🎒 IBM WebSphere Process Server \	Persion 6.0.1 - Launchpad
WebSphere. Process Server	Language selection: English 💌 🖽.
Welcome	Welcome
WebSphere Process Server installation Message service clients installation	IBM® WebSphere® Process Server for Multiplatforms, Version 6.0.1 is an integrated platform for developing composite business process applications. Providing business process automation and management technology, it is built on top of WebSphere Application Server Network Deployment and WebSphere Enterprise Service Bus. It also contains additional supporting software and
Additional software installation	documentation. This launchpad serves as a single point of reference for installing your WebSphere Process Server environment.
Exit	 WebSphere Process Server installation All you need to get WebSphere Process Server up and running and try out the sample. Message service clients installation Software that provides messaging and Web services capabilities in non-Java environments. Additional software installation Additional software to support the application server. WebSphere Process Server Web site Further information and support. WebSphere Integration Developer Web site To realize the full benefit of WebSphere Process Server, you are recommended to use WebSphere Integration Developer, which is a separately-orderable product. Copyright IBM Corporation 2000, 2005. All Rights Reserved. IBM, the IBM logo, and WebSphere are trademarks of International Business Machines Corporation in the United States, other countries, or both. Java is a trademark of Sun Microsystems, Inc. in the United States, other countries, or both. Java is a trademark of Sun Microsystems may be trademarks or service marks of others.

5. Click 'WebSphere Process Server' installation

쒈 IBM WebSphere Process Server V	Yersion 6.0.1 - Launchpad 🛛 🛛 🔀
WebSphere. Process Server	Language selection: English 💌 🖽
Welcome	WebSphere Process Server for Multiplatforms installation
WebSphere Process Server installation	
Message service clients installation Additional software installation Exit	 Launch the Installation Wizard for WebSphere Process Server for Multiplatforms Install WebSphere Process Server for Multiplatforms using the Installation Wizard. Open the information center Complete technical product documentation available online, in PDF book format, or as Eclipse document plug-ins, which you can download and install on a local system. Read product overview and installation information Overview material and step-by-step instructions for installing the product, provided in PDF book format for quick access. View critical information Links to the latest critical fixes for and information about this release.

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

업 IBM WebSphere Process	Server for Multiplatforms 6.0.1 Installation Wizard	
7	Welcome to the Installation Wizard for IBM WebSphere Process Server for Multiplatforms 6.0.1	
	The Installation Wizard will install IBM WebSphere Process Server for Multiplatforms 6.0.1 on your computer. To continue, click Next .	
	IBM WebSphere Process Server for Multiplatforms 6.0.1 IBM Corporation <u>http://www.ibm.com</u>	
InstallShield	< <u>B</u> ack <u>Next > C</u> ance	

____7. Click **Next**.

🖄 IBM WebSphere Process	5 Server for Multiplatforms 6.0.1 Installation Wizard	- 🗆 🗵
	Software License Agreement	
	Please read the following license agreement carefully.	
	International Program License Agreement	
	Part 1 - General Terms	
	BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, OR USING THE	-
X	ACCEPTING THESE TERMS ON BEHALF OF ANOTHER PERSON OR A	-
	COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT AND WARRANT T	HAT
	ENTITY TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS.	AL
A New York		
	F DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, OR USE THE PROGRAM	
KAA	Read non-IBM terms	
	C] accept both the IBM and the non-IBM terms	
	C I do not accent the terms in the license agreement	
InstallShield		
	< <u>B</u> ack <u>N</u> ext > <u>C</u> an	cel

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**.

🖄 IBM WebSphere Process	s Server for Multiplatforms 6.0.1 Installation Wizard
The South Part of South	System prerequisites check
	The Installation Wizard checks your system to determine whether a supported operating system is running and whether the operating system has the appropriate service packs and patches. After checking prerequisites, the Installation Wizard checks for existing WebSphere Application Server and IBM WebSphere Process Server for Multiplatforms 6.0.1 products.
	Your system completed the prerequisites check successfully.
InstallShield	
	< <u>B</u> ack <u>Next</u> <u>C</u> ancel

9. Click Next.

皆 IBM WebSphere Process	s Server for Multiplatforms 6.0.1 Installation Wizard
	Installation root directory for IBM WebSphere Process Server for Multiplatforms 6.0.1
	IBM WebSphere Process Server for Multiplatforms 6.0.1 will be installed to the specified directory. You can specify a different directory or click Browse to select a directory.
	Note: The Windows operating system limits the length of a fully qualified path to 256 characters. A long pathname for the installation root directory makes it more likely that this limit will be exceeded when files are created during normal product use. IBM recommends that you keep the pathname of the installation root directory as short as possible.
	C:WVPS601\
	Browse
InstallShield	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

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

🗳 IBM WebSphere Proces	s Server for Multiplatforms 6.0.1 Installation Wizard	_ 🗆 🗵
	Choose the type of installation that best suits your needs. Complete ins installs and automatically configures all components needed to run We Process Server. Custom installation allows you to select which product install and configure.	tallation bSphere features to
	 Complete installation Everything needed to start running your WebSphere Process installed. See the installation information for descriptions of t configuration settings used during a Complete installation. Custom installation More flexibility provided for component installation, with the op launch the Profile Wizard. See the installation information for descriptions of the product features you can install and configuration 	Server is he default otion to gure.
InstallShield	< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel

_____11. Select Custom installation. Click Next.

🖄 IBM WebSphere Proces	s Server for Multiplatforms 6.0.1 Installation Wizard	- 🗆 🗵
	Select IBM WebSphere Process Server for Multiplatforms 6.0.1 features to insta	all.
	□-Product Installation	
	Business Rule Beans (Deprecated)	
	Extended Messaging (Deprecated)	
	Sample Applications Gallery	
	└─IV Public API Javadoc(TM)	
InstallShield		
	a Deale Nexts	.
	<u>Back</u> <u>Next></u> <u>Cance</u>	<u>,</u>

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.

皆 IBM WebSphere Proces	s Server for Multiplatforms 6.0.1 Installation Wizard	- 🗆 ×
11	Installation summary for IBM WebSphere Process Server for Multiplatforms 6.0).1
	Review the summary for correctness. Click Back to change values on previous panels. If the information is correct, click Next to start installing IBM WebSphere Process Server for Multiplatforms 6.0.1.	e
	IBM WebSphere Process Server for Multiplatforms 6.0.1 will be installed in the following location:	3
	C:WVPS601V	
	with the following features:	
	Public API Javadoc(TM)	
	for a total size:	
	1038.7 MB	
	IBM WebSphere Application Server Network Deployment, Version 6.0.2.3 will installed in the following location:	be
R	C:WVPS601\	
InstallShield		
	< <u>B</u> ack <u>Next</u> <u>C</u> anc	el

_____ 13. Click Next.

🖄 IBM WebSphere Process	5erver for Multiplatforms 6.	0.1 Installation Wiza	rd	
	Installing WebSphere App Please wait	lication Server Netw	ork Deployment,	Version 6.0.
		3%		
InstallShield		< <u>B</u> ack	<u>N</u> ext ≻	<u>C</u> ancel

_____14. The installation progresses for 15 minutes or so.

쓥 IBM WebSphere Process	Server for Multiplatforms 6.0.1 Installation Wizard
74 (A)	Installation complete
	IBM WebSphere Process Server for Multiplatforms 6.0.1 was installed successfully.
	WebSphere Process Server 6.0.1 includes the ability to create a profile for a deployment manager, managed node, or a stand-alone Process Server. Use the Profile Wizard to create an operational environment that includes one of these profiles. Launch the Profile Wizard now to get started.
	☑ Launch the Profile Wizard
	Click Next to continue.
InstallShield	
	< <u>B</u> ack <u>Next</u> > <u>C</u> ancel

_____15. Make sure Launch the Profile Wizard is selected. Click Next.

💣 Profile Wizard	
	Welcome to the WebSphere Process Server 6.0 Profile Wizard
	 This wizard lets you: Create a new WebSphere Process Server 6.0 profile that includes the set of files that define one WebSphere Process Server 6.0 environment. You can run the wizard multiple times to create additional profiles. All profiles that you create on a machine share the same set of product binaries. Augment existing WebSphere Application Server 6.0 or WebSphere Application Server Network Deployment 6.0 profiles so they are compatible with WebSphere Process Server 6.0. At least one profile must exist to have a functional installation.
	Click Next to continue.
InstallShield	< <u>B</u> ack <u>Next</u> <u>C</u> ancel

```
_____16. Click Next.
```

📸 Profile Wizard	
	Just one profile at a time, you can rerun the Profile vvizard multiple times to create or augment additional profiles.
	Deployment manager profile The first step in setting up a Network Deployment environment is to create a deployment manager. A deployment manager administers process servers and application servers that are federated into (made a part of) its cell. The next step is to create additional profiles and federate them.
	Custom profile A custom profile contains an empty node, which does not contain an administrative console or any servers. The typical use for a custom profile is to federate its node to a deployment manager. After federating the node, use the deployment manager to create a server or a cluster of servers within the node.
	Stand-alone profile A stand-alone profile runs your enterprise applications. It can be managed from its own administrative console and function independent of other WebSphere Process Server profiles and deployment managers.
InstallShield	
	< <u>B</u> ack <u>Next ></u> <u>C</u> ancel

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

🚯 Profile Wizard		_ 🗆 ×
	Profile name	
	Provide a unique name for the profile.	
	ProcSrv01	
InstallShield		
	< <u>B</u> ack <u>N</u> ext > <u>C</u> a	incel

_____18. Click **Next**.

🗊 Profile Wizard		. 🗆 🗙
	Profile directory	^
	Specify a directory to contain the files that define the runtime environment, such as commands, configuration files, and log files.	
	Click Browse to select a different directory.	
	Profile directory:	
	C:\WPS601\profiles\ProcSrv01	
	Browse	
	Important: Deleting a profile directory manually does not completely delete the profile. Use the wasprofile command to completely delete a profile.	
	Note: The Windows operating system limits the length of a fully qualified path to 256 characters. A long pathname for the profile root directory makes it more likely that this limit will be exceeded when files are created during normal	•
InstallShield		
	< <u>B</u> ack <u>Next</u> <u>C</u> ance	!

_____ 19. Click Next.

📸 Profile Wizard			IX
	Node and I	nost names	1
	Specify a nod and migratior consideratior	e name and a host name for this profile. Refer to the installation n information for detailed field descriptions and migration ns.	
	Node name:		
	processNode	01	
	Host name:		
	process.pic.u	k.ibm.com	
	Node name:	The node name is used for administration. If the node is federated, the name must be unique within the cell.	
	Host name:	The host name is the domain name system (DNS) name (short or long) or the IP address of this computer.	-
InstallShield			
		< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel	

____ 20. Click Next.

📸 Profile Wizard		_ 🗆 🗵
	Port value assignment	<u> </u>
	The values in the following fields define the ports for this profile ar conflict with other profiles in this installation. Another installation o WebSphere Application Server or other programs might use the s To avoid runtime port conflicts, verify that each port value is unique	nd do not f ame ports.).
Statement of the local division of the local	Administrative console port (Default 9060):	9060
	Administrative console secure port (Default 9043):	9043
	HTTP transport port (Default 9080):	9080
	HTTPS transport port (Default 9443):	9443
	Bootstrap port (Default 2809):	2809
	SOAP connector port (Default 8880):	8880
	SAS SSL ServerAuth port (Default 9401):	9401
	CSIV2 ServerAuth listener port (Default 9403):	9403
	CSIV2 MultiAuth listener port (Default 9402):	9402
InstallShield		
	< <u>B</u> ack <u>Next</u> >	<u>C</u> ancel

_____21. Click Next.

🚯 Profile Wizard	
	Windows service definition
	Choose whether to use a Windows service to run the WebSphere Process Server. Windows Services can start and stop the WebSphere Process Server, and configure startup and recovery actions.
	C Log on as a specified user account
	User name: Administratc
	Password:
	Startup type:
	Manual 🔽
InstallShield	The user essent that runs the Windows Convise must have the following user
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

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

<table-of-contents> Profile Wizard</table-of-contents>	
	Service Component Architecture configuration WebSphere Process Server 6.0 provides the capability for components to communicate asynchronously. Please provide a user name and password to be used to connect to the Service Integration Bus in a secured mode. Configure the Service Integration Bus in a secured mode User ID to authenticate when connected to a secured Service Integration Bus: Password for Service Integration Bus connection authentication:
InstallShield	Password confirmation: < Back

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

📸 Profile Wizard	
	Configure the Common Event Infrastructure EJBs, Default Messaging, and database.
	User ID to authenticate with WebSphere Messaging queue manager:
	Administrator
	Password (the password for WebSphere Messaging authentication):

	Password confirmation:

	WebSphere server name:
	server1
	Choose a database product:
	Cloudscape V5.1
Inctall@biold	_
motanometu	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

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

🚯 Profile Wizard	
	Configure a sample Business Process Choreographer
	User ID to authenticate when connected to a secured Service Integration Bus:
2011	Administrator
	Password for Service Integration Bus connection authentication:
	Password Confirmation:
	Enter the name of the administrative group that will be allowed to administer Business Process Choreographer. For example, if the domain user registry is LDAP, enter a group name for the security role like, "cn=MyGroup,o=MyCompany,c=MyCountry", or if you are using Windows
	group administration, enter a group name such as "Administrators" .
	Administrators
InstallShield	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

__25. Select **Configure a sample Business Process Choreographer**, and enter your Windows userid and password, and the Windows group for administrators. Click **Next**.

🚯 Profile Wizard	
	Application Scheduler configuration
	Application Scheduler is used to schedule migration application group events. Indicate the process server name on this node if you choose to configure for Application Scheduler.
	Create an Application Scheduler configuration
	Process server on this node:
	jserver1
InstallShield	
	< <u>B</u> ack <u>Next</u> > <u>C</u> ancel

26. Click Next.

🚯 Profile Wizard		_ 🗆 X
Profile Wizard	Database Configuration Various components use WebSphere Process Server common database. Choose a database type and enter the information based on that type. Create new (local) database. The augmentation of this profile will fail if the database already exists. Use existing database Choose a database product: Cloudscape Database name: WPRCSDB	
	< <u>B</u> ack <u>Next</u> ≽ <u>C</u> ar	ncel

_____ 27. Click Next.

🚯 Profile Wizard					
	Profile summary				
	The profile that you are creating has the following characteristics:				
Type - Stand-alone WebSphere Process Server Location - C:\WPS601\profiles\ProcSrv01 Name - ProcSrv01 Host name - process.pic.uk.ibm.com Size - 247.7 MB					
	Click Next to create this profile or click Back to change the characteristics of the profile.				
InstallShield					
	< <u>B</u> ack <u>Next</u> <u>C</u> ancel				

28. Click Next.

🚯 Profile Wizard		
	Running configuration command: executeSIBTemplateConfig.	
	32%	
Installshield -	< <u>B</u> ack <u>N</u> ext > <u>C</u> an	cel

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

<table-of-contents> Profile Wizard</table-of-contents>	
	Profile creation is complete
	Click Finish to exit the wizard.
	The First Steps console lets you run an installation verification test, launch the Profile Wizard, start and stop your server, or link to other information and features related to your WebSphere Process Server. Launch the First Steps console
InstallShield	
	< <u>B</u> ack <u>F</u> inish <u>C</u> ancel

- 30. Uncheck Launch the First Steps console. Click Finish.
- 31. Click **Exit** on the Launchpad and then click **OK** to confirm.

🏥 IBM WebSphere Process Server \	Yersion 6.0.1 - Launchpad 🛛 🛛 🔀
WebSphere. Process Server	Language selection: English 💌 🖽
Welcome	WebSphere Process Server for Multiplatforms installation
WebSphere Process Server installation	
Message service clients installation	Launch the Installation Wizard for WebSphere Process Server for Multiplatforms
Additional software installation	Installation Wizard.
Exit	Open the information center Complete technical product documentation available online, in PDF book format, or as Eclipse document plug-ins, which you can download and install on a local system.
	Read product overview and installation information Overview material and step-by-step instructions for installing the product, provided in PDF book format for quick access.
	View critical information Links to the latest critical fixes for and information about this release.

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.

😫 WebSphere Administrative Cons	ole - Microsoft Internet Explorer		- 🗆 ×
File Edit View Favorites Tools	Help		
🔇 Back 🔹 🕥 🖌 💽 🛃 🔑	Search 🔥 Favorites 🛷 🛛 😂 🐨 - 🖵		
Address 🙋 http://localhost:9061/ibm/o	:onsole/secure/logon.do		💌 🛃 Go 🛛 Links 🎇
Welcome Logout Suppo	rt Help		IBM.
= Welcome	Application servers		Close page 🔺
Guided Activities	Application servers	7 -	Help -
 Servers Application servers Web servers 	Application servers > server1 An application server is a server which pro enterprise applications.	vides services required to run	Field help Enable this setting to use two JVM
Applications	Runtime Configuration		settings that can speed the startup of
E Security	General Properties	Container Settings	application server during development.
Integration Applications System administration	Name server1	Web Container Settings	enable this setting on productions
Monitoring and Tuning	Parallel start	Settings Business process	servers. This setting is colu ausilable
E Service integration	Server-specific Application Settings Classloader policy	container settings Human task	Page help More information
E UDDI	Multiple	Container Settings	about this page
<u>1</u>			Nocal intranet 🛛 🖉

- 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.

🗁 C:\IBM\WebSphe	re\ProcServe	er\profiles\monitor\c	onfig\cells	
<u>File E</u> dit <u>V</u> iew F	avorites <u>T</u> od	ols <u>H</u> elp		A 19
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Address 🛅 C:\IBM\W	'ebSphere\Proc	Server\profiles\monitor\c	onfig\cells	💌 🄁 Go
Name 🔺	Туре	Date Modified	Attributes	
monitorNode01Cell	File Folder	12/29/2005 3:32 AM		

____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:\IBM\V	VebSphere\ProcS	erver\profiles\	monitor\confi	g\cells\monit	orNode01C	ell\nodes	_ 🗆 🗙
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Name 🔺	Size	Туре	Date M	odified	Attributes		
Node01		File Folder	12/29/2	2005 3:34 AM			

_ 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.

C:\IBM\WebSphere\ProcServ	ver\profiles\mon	itor\config\cells\mon	itorNode01Cell\node	s\Nod 💶	
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Address 🛅 C:\IBM\WebSphere\Pro	Address 🛅 C:\IBM\WebSphere\ProcServer\profiles\monitor\config\cells\monitorNode01Cell\nodes\Node01\servers				
Name 🔺	Size	Туре	Date Modified	Attributes	
Server1		File Folder	12/29/2005 4:45 AM		
]					

__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>

📾 Command Prompt	_ D ×
C:\Documents and Settings\Administrator>ping monitor.pic.uk.ibm.com	
Pinging monitor.pic.uk.ibm.com [9.173.176.18] with 32 bytes of data:	
Reply from 9.173.176.18: bytes=32 time<1ms TTL=128 Reply from 9.173.176.18: bytes=32 time<1ms TTL=128 Reply from 9.173.176.18: bytes=32 time<1ms TTL=128 Reply from 9.173.176.18: bytes=32 time<1ms TTL=128	
Ping statistics for 9.173.175.18: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = Oms, Maximum = Oms, Average = Oms	
C:\Documents and Settings\Administrator>_	-

__ 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.

🗁 C:\WP5601\profiles\ProcSrv01\config\cells					
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Name 🔺	Size	Туре	Date Modified	Attributes	
processNode01Cell		File Folder	12/29/2005 11:59 PM		

____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.

C:\WPS601\profiles\ProcSrv01\config\cells\processNode01Cell\nodes						
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u>	ools <u>H</u> elp			-	N	
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Name 🔺	Size	Туре	Date Modified	Attributes		
processNode01		File Folder	12/30/2005 12:01 AM			

____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.

🔁 C:\WPS601\profiles\ProcSrv01\config\cells\processNode01Cell\nodes\processNode01\servers 🗖 🗖 🗙							
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u>	ools <u>H</u> elp				2		
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Address 🛅 C:\WP5601\profiles\Pro	ocSrv01\config\cells'	\processNode01Cell\node	es\processNode01\server	s	•		
Name 🔺	Size	Туре	Date Modified	Attributes			
Server1		File Folder	12/29/2005 11:59 PM				

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>

ex Command Prompt	_ 🗆 🗵
C:\Documents and Settings\Administrator>ping process.pic.uk.ibm.com	
Pinging process [9.173.177.21] with 32 bytes of data:	
Reply from 9.173.177.21: bytes=32 time=2ms TTL=127 Reply from 9.173.177.21: bytes=32 time<1ms TTL=127 Reply from 9.173.177.21: bytes=32 time<1ms TTL=127 Reply from 9.173.177.21: bytes=32 time<1ms TTL=127	
Ping statistics for 9.173.177.21: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = Oms, Maximum = 2ms, Average = Oms	
C:\Documents and Settings\Administrator>_	•

3. Save the file.

4. Here is a screenshot of a sample configuration:

scrossCellParameters.tcl - Notepad _ | 🗆 🗙 File Edit Format View Help # Monitor Server Parameters "monitorNode01Cell" set MONITOR_SERVER_CELL_NAME "Node01" set MONITOR_SERVER_NODE_NAME "server1" set MONITOR_SERVER_SERVER_NAME "monitor.pic.uk.ibm.com" set MONITOR SERVER HOSTNAME # # Process Server Parameters # processNode01Cell" set PROCESS_SERVER_CELL_NAME processNode01" set PROCESS_SERVER_NODE_NAME ... server1" set PROCESS_SERVER_SERVER_NAME process.pic.uk.ibm.com" set PROCESS_SERVER_HOSTNAME

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:

🔤 Command Prompt

C:\Documents and Settings\Administrator>cd C:\IBM\WebSphere\Monitor\install\mons C:\IBM\WebSphere\Monitor\install\monsrv\configuration\crosscell>"C:\IBM\WebSphere ProcServer\profiles\monitor\bin\wsadmin.bat" -f configureMonitorCrossCell.tcl WASK72091: Connected to process "server1" on node Node01 using SOAP connector; The type of process is: UnManagedProcess MONITOR_SERVER_BUS_NAME = MONITOR.monitorNode01Cell.Bus PROCESS_SERVER_BUS_NAME = MONITOR.monitorNode02Cell.Bus SIB_LINK_NAME = monitorNode01Cell.monitorNode02Cell.link MONITOR_SERVER_MESSAGING_ENGINE_NAME = Node01.server1-MONITOR.monitorNode01Cell. Bus PROCESS_SERVER_MESSAGING_ENGINE_NAME = processNode01.server1-MONITOR.monitorNode 02Cell.Bus PROCESS_SERVER_ENDPOINT_ADDRESS = process.pic.uk.ibm.com ## Creating foreign bus: MONITOR.monitorNode02Cell.Bus... ## Creating service integration bus link routing properties for MONITOR.monitorNode02Cell.Bus... ## Creating destination default for foreign bus: MONITOR.monitorNode02Cell.Bus... ## Creating service integration bus link: monitorNode01Cell.monitorNode02Cell.Bus... ## Creating service integration bus link: monitorNode01Cell.monitorNode02Cell.Bus...

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.

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Address 🛅 C:\CrossCellScripts					•	
Name 🔺	Size	Туре	Date Modified	Attributes		
ConfigureCrossCell.tcl	10 KB	TCL File	12/16/2005 3:36 AM	A		
📄 configureMonitorCrossCell.tcl	5 KB	TCL File	12/16/2005 3:32 AM	A		
📄 crossCellConstants.tcl	2 KB	TCL File	12/16/2005 3:37 AM	А		
🕒 crossCellParameters.tcl	1 KB	TCL File	12/30/2005 11:09 AM	A		
Piginal crossCellParameters.tcl	1 KB	TCL File	12/16/2005 3:34 AM	A		
🕒 unconfigureCrossCell.tcl	5 KB	TCL File	12/16/2005 3:33 AM	A		
📄 unconfigureMonitorCrossCell.tcl	2 KB	TCL File	12/16/2005 3:36 AM	A		

- ____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:

🖼 Command Prompt	K
C:\Documents and Settings\Administrator>cd c:\CrossCellScripts\	
C:\CrossCellScripts>"C:\WPS601\profiles\ProcSrv01\bin\wsadmin.bat" -f configureC rossCell.tcl	
WASX7209I: Connected to process "server1" on node processNode01 using SOAP conne ctor; The type of process is: UnManagedProcess	
## Creating SIBus: MONITOR.monitorNode02Cell.Bus	
## Creating foreign bus: MONITOR.monitorNode01Cell.Bus	
## Creating service integration bus link routing properties for MONITOR.monitorN ode01Cell.Bus	
## Creating destination default for foreign bus: MONITOR.monitorNode01Cell.Bus •	
## Creating service integration bus link: monitorNode01Cell.monitorNode02Cell.li nk	
## Creating foreign destination: Monitor_Bus_Queue_Destination	
## Creating Queue Factory: MonitorQueueFactory	
## Creating Queue : MonitorQueueDestination	
## Creating EventGroupProfile: MonitorEventGroupProfile	
## Creating DistributionQueue for group : <cells monitornode02cell¦resources-cei<br="">.xml#EventGroupProfile_1135942135766></cells>	
C:\CrossCellScripts>	-1

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 Administrative 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:

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Address 🕘 http://localhost:9060/ibm/console/secure/logon.de	lo				▼ Links ≫
Welcome Logout Support Help					IBM.
= Welcome	Buses			c	Close page
🗄 Servers	Buses				
Applications	Buses > MONITOR.monitorNode01Cell.Bus > Mess	aging engines 2	Node01.server1-MONITOR.monito	Node01Cell.Bus > Service integratio	on bus link
E Resources	Links between this messaging engine and messag	ing engines in f	oreign service integration buses.		
🗄 Security	Preferences				
🗄 Environment	New Delete Start Stop				
Integration Applications					
System administration		1			
Monitoring and Tuning	Select Name 🕈	Description ()	Foreign bus name 🗧	Remote messaging engine name 🗧	Status 🗧 ሷ
🗄 WebSphere Business Monitor	monitorNode01Cell.monitorNode02Cell.link	-	MONITOR.monitorNode02Cell.Bus	processNode01.server1- MONITOR.monitorNode02Cell.Bus	€
Troubleshooting	Total 1				
Service integration					
⊞ Web services					
= Buses					
I UDDI					
	•				
				Local intra	anet //

- _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):

```
CWSIT00321: 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 Administrative 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:

🚈 WebSphere Administrative Console - Microsoft In	ternet Expl	prer				_ 🗆 🗙
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Welcome Logout Support Help						IBM.
= Welcome	Buses				Close	page
🗄 Guided Activities	Buses					
Servers	Buses	> MONITOR monitorNode02Cell Bus > Mess	aging engines `	processNode@1.server1-MONITOF	monitorNode02Cell_Bus > Service int	egration b
Applications	link		aquiq ciquics		<u> </u>	
I Resources	Links b	etween this messaging engine and messag	ing engines in f	oreign service integration buses.		
⊞ Security	🕀 Pref	erences				
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Integration Applications	D	ē # \$				
	Select	Name 🗘	Description 🗘	Foreign bus name 🗘	Remote messaging engine name 🗘	Status 🗘
Monitoring and Tuning	Г	monitorNode01Cell.monitorNode02Cell.link		MONITOR.monitorNode01Cell.Bus	Node01.server1-	-
					MONITOR.monitorNode01Cell.Bus	
Service integration	Total	1				
= Buses						
Web services ■						
I UDDI						
I Done	4				Local intranet	

__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.

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= Welcome	Buses			Close page
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	🖂 Messages			Field help
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🕑 Security	to apply changes to the	master configuration. I to be restarted for these	changes to take	a field label or list marker when the
🗄 Environment	effect.	to be restanced for these	changes to take	help cursor
				Bage belo
	<u>Buses</u> > <u>MONITOR.wsbeta057Node01C</u>	e <mark>ll.Bus</mark> > Messaging engine	25	More information
Monitoring and Tuning	A messaging engine is a component, ru resources for a bus member. Application	nning inside a server, that is are connected to a mes:	: manages messaging saging engine when accessing ;	about this page
🕑 WebSphere Business Monitor	service integration bus.			
	Preferences			
Service integration	Start Stop mode: Immediate	Stop		
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	wsbeta057Node01.server1- MONITOR.wsbeta057Node01Cell	Bus	0	
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- _____ 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.

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- ____ 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.

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- 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.

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- _____ 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.

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____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.

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- ____ 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.

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- 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[@globalInstanceld] 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.