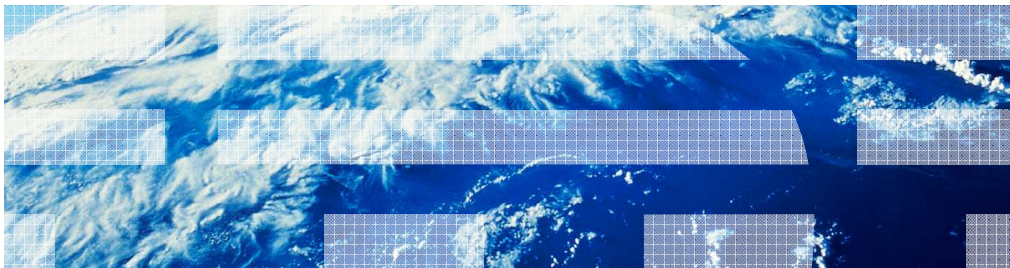

IBM Business Monitor

Configuration



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This presentation should give you an understanding of the component configuration options for IBM Business Monitor.

Goals


- Introduce configuration in IBM Business Monitor including component wizards and deployment environment wizard

This presentation will give you an understanding of the configuration of IBM Business Monitor including the use of the component configuration wizards and the deployment environment wizard.

Agenda

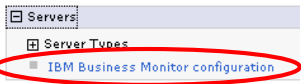
- Component configuration wizards
- Installation and configuration using the component wizards
- Deployment environment patterns
- Installation and configuration using the deployment environment wizard
- Deployment environment example

This is the agenda for this presentation. You will see how to use the component configuration wizards to configure IBM Business Monitor. Also, you will review the deployment environment patterns and how to use the deployment environment wizard to configure IBM Business Monitor. There is also a series of screen captures that show the generation of a single cluster pattern.



Component configuration wizards

- Shows the state of the various Monitor components for stand-alone or cluster topology
 - Does not matter if component was configured manually or using the configuration wizards
- Status when un-configured
 - Required:
 - Optional/shared:
- For each component a wizard is provided to configure the component
- Script commands are available



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

Component	Status
<input checked="" type="checkbox"/> Outbound CEI event service	Configured using the event service on server1 on wac130Node01
<input checked="" type="checkbox"/> Messaging engine	Deployed on server1 on wac130Node01
<input checked="" type="checkbox"/> Action services	Deployed on server1 on wac130Node01
<input checked="" type="checkbox"/> Monitor scheduled services	Deployed on server1 on wac130Node01

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

Component	Status
<input checked="" type="checkbox"/> Cognos	Deployed on server1 on wac130Node01
<input checked="" type="checkbox"/> Dashboards for mobile devices	Deployed on server1 on wac130Node01
<input checked="" type="checkbox"/> Inbound event emitter services (JMS and REST)	Deployed on server1 on wac130Node01

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

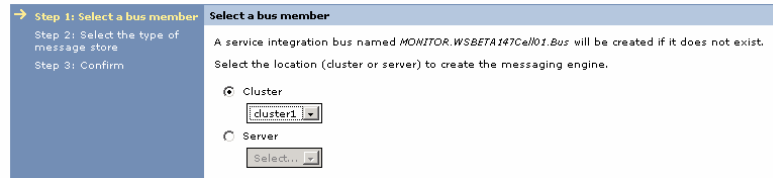
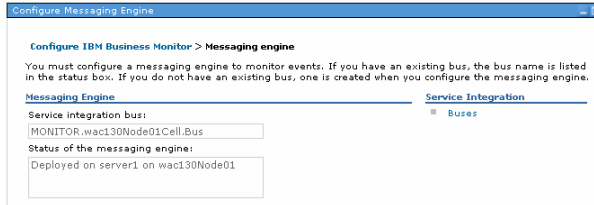
Component	Status
<input checked="" type="checkbox"/> REST Services Gateway	Deployed on server1 on wac130Node01
<input checked="" type="checkbox"/> Business Space	Deployed on server1 on wac130Node01

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Configuration
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In the administrative console, you can view the IBM Business Monitor configuration page which shows you the current installation and configuration of various monitor components. This page shows the status for stand-alone or for clustered configurations. You can click the components to access wizards which guide you through the configuration of the component. You do not have to use the wizards, if you prefer to configure them manually or with scripts. Note that the component configuration status will display properly even if you configure the component without using the wizards. You can find more information about the commands for scripting in the reference section of the Monitor information center.

Component wizard page

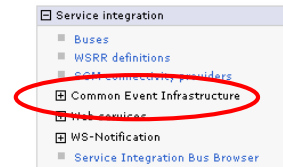
- Displays component status
- When the component has already been configured, the page displays configuration
- If the component has not been configured, a button that launches the component configuration wizard is displayed



This is a sample of the messaging engine component configuration page. It shows the current component status if the component has been configured previously. If the component is not configured, then you will also see a button that will launch the configuration wizard.

Install then configure using component wizards

- Install IBM Business Monitor on each node
- Create the Monitor database
- Create Monitor deployment manager profile and custom node profiles using profile management tool
- Create clusters using deployment manager console
- Create event service using wbmDeployCEIEventService
 - Sync the nodes
 - Restart deployment manager to update GUI
- Use the component wizards and specify the target servers/clusters
- Run business space table script, for example:
`<serverPath>\profiles\Dmgr01\dbscripts\BusinessSpace\cluster1\DB2\MONITOR\configBusinessSpaceDB.bat`
- Sync the nodes and restart deployment manager for business space



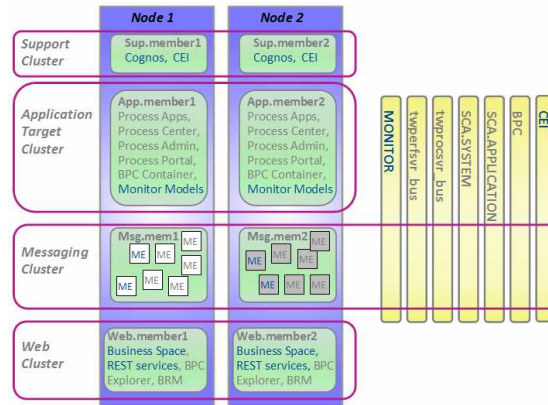
Before you use the component configuration wizards, you should have installed Monitor on each node, created the database and created at least one profile and at least one cluster. You should also have created the event service using the supplied script. After creating the event service you should sync the nodes. Note that you will need to restart the deployment manager in order to see the Common Event Infrastructure listing in the service integration menu in the administrative console.

Then you can use the component wizards to configure the required, optional and shared components, specifying the target servers or clusters.

You will need to setup the business space database and there is a supplied script for that. Finally you can sync the nodes and restart the deployment manager as required by the business space setup.

Deployment environment wizard

- Deployment environment options
 - Create a one cluster topology for proof of concepts and small production environments
 - Create a four cluster topology for increased production scalability and high availability
- IBM Business Monitor configuration steps are automatically run for you



Four cluster topology with two nodes, and IBM Business Monitor installed with IBM Process Manager

You can use the deployment environment configuration wizard to create the clusters and install and configure all the required components for an IBM Business Monitor network deployment topology. Two patterns are available for IBM Business Monitor: the single cluster pattern and the remote messaging, support and web application pattern. The single cluster topology is useful for proof of concept purposes and for small production environments. The four cluster pattern provides increased scalability and high availability for production topologies. When using the deployment environment wizard, the configuration of the monitor components is handled automatically for you, including creation of the event service and cluster configuration.

Select features and patterns

Select the feature for the deployment environment.

Select	Features	Description
<input checked="" type="radio"/>	BPMAPS	BPM Advanced Process Server
<input type="radio"/>	WESB	WebSphere Enterprise Service Bus
<input type="radio"/>	WBM	WebSphere Business Monitor

Choose the first feature

Optionally, select the compatible feature for the deployment environment.

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

Choose a compatible feature

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

If WebSphere Process Server and Monitor selected, only two patterns are listed

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

Features represent the runtime processing capabilities of your deployment environment. The list of available features on the Deployment Environment Features page is based on the deployment manager profile. If your deployment manager profile has been augmented to include other products in addition to IBM Business Monitor, the deployment environment features page lists these features as well. In the example shown, the wizard prompts you to select the first feature such as BPM Advanced Process Server. Then a list of compatible features is shown, so you can then select IBM Business Monitor. You are given the option of choosing the deployment environment pattern, and this list is dictated by the choice of the features. If you choose Monitor then you are given two patterns, the single cluster or four cluster patterns.

Install using deployment environment pattern

- Install WebSphere Application Server and Monitor on each node
- Create the Monitor database
- Create Monitor deployment manager profile and custom node profiles using profile management tool
- Create and generate the deployment environment using deployment environment wizard
- Save the configuration and sync the nodes
- Run business space table script, for example:
`<serverPath>\profiles\Dmgr01\dbscripts\BusinessSpace\<clusterName>DB2\<dbName>\configBusinessSpaceDB.bat`

Before you use the deployment environment wizard, you should have installed Monitor on each node, created the database and created at least one profile. Then you run the deployment environment wizard to create and generate the environment from one of the supplied patterns. You will save the configuration and sync the nodes. And you will need to setup the business space database using the supplied script.

Deployment environment – Example (1 of 4)

The screenshot shows the IBM Business Monitor configuration interface. On the left, a tree view under 'Guided Activities' has 'Deployment Environments' highlighted with a red circle. An arrow points from this tree view to the 'Create Deployment Environment' dialog box. This dialog has two radio buttons: 'Create a deployment environment based on a pattern' (selected) and 'Create a deployment environment based on an imported design'. Below these are fields for 'File path' and 'Deployment environment name' (containing 'MonDE'). There are also radio buttons for 'Fast path: Show only needed steps' and 'Detailed: Show all steps' (selected). A second arrow points from the 'Create Deployment Environment' dialog to the 'Create new deployment environment' dialog box. This second dialog has the title 'Create new deployment environment' and the instruction 'Select the feature for the deployment environment.' It contains a table with the following data:

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

Below the table are 'Previous', 'Next', and 'Cancel' buttons. At the bottom of the main screenshot, the page number '10' and the word 'Configuration' are visible on the left, and the copyright notice '© 2011 IBM Corporation' is on the right.

Here are some screen captures taken while running the deployment environment wizard. From the deployment environment page, you select to create a new deployment environment and provide a name for it. You should select the detailed path option unless you are aware of all the defaults that are applied. On the features page, the list of available features is based on the deployment manager profile. If your deployment manager profile has been augmented to include other products then this page lists these features as well. Select to configure IBM Business Monitor.

Deployment environment – Example (2 of 4)

The image displays two screenshots from the 'Create new deployment environment' wizard.

Top Screenshot: Select Nodes

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

Select	Node	Version	Host
<input checked="" type="checkbox"/>	Custom01Node01	WBM 7.5.0.0	wac130.austin.ibm.com
<input checked="" type="checkbox"/>	aimcp096Node01	WBM 7.5.0.0	aimcp096.austin.ibm.com

Number of required nodes: 1
Number of selected nodes: 2

Bottom Screenshot: Cluster Members

Node	Version	Application Deployment Target
Custom01Node01	WBM 7.5.0.0	1
aimcp096Node01	WBM 7.5.0.0	1

System REST Service Endpoints

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

REST services

Protocol:

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

Port:

Context root:

Next you are given a choice of the pattern, so select either the single cluster pattern or the four cluster pattern.

Now there are a series of steps listed for the configuration. In step one, you can choose from the list of nodes to use for the deployment. Select at least one node for the deployment environment. For high-availability and failover environments, select two nodes. For additional scalability, select more than two nodes. In step two, map the clusters to the nodes. If you select the four cluster pattern, then there are four clusters listed for mapping to nodes.

On the System REST endpoints page, configure service endpoints for Representational State Transfer (REST) interfaces. If you want widgets to be available in Business Space, you must configure the REST service endpoints for those widgets. To enter the information on this page, you must have already set up a proxy server or an HTTP server. Otherwise, skip this page and configure the endpoints later.

Deployment environment – Example (3 of 4)

The screenshot displays the 'Import database configuration' step of the wizard. It includes a 'Browse...' button for selecting a configuration file. Below it, a 'Create new deployment environment' window is shown, featuring a 'Database' section with a table of data sources. The table has columns for Name, Database Name, Schema, Create Tables, User Name, Password, Server, and Provider. The 'Create Tables' column is checked for 'Business Monitor messaging engine data source', 'Cognos Content Store', and 'CEI Messaging engine data source', but unchecked for 'Business Space data source'.

Select	Name	Database Name	Schema	Create Tables	User Name	Password	Server	Provider
<input type="checkbox"/>	Business Monitor messaging engine data source	MON7SSC	MEDM00	<input checked="" type="checkbox"/>	db2admin	*****	wzbeta147	DB2 Universal
<input type="checkbox"/>	Business Space data source	BSP7SSC	BSPB00	<input type="checkbox"/>	db2admin	*****	wzbeta147	DB2 Universal
<input type="checkbox"/>	Cognos Content Store	COG7SSC		<input checked="" type="checkbox"/>	db2admin	*****	wzbeta147	DB2 Universal
<input type="checkbox"/>	CEI Messaging engine data source	MED7SSC	MEDM00	<input checked="" type="checkbox"/>	db2admin	*****	wzbeta147	DB2 Universal

Even before you create an IBM Business Monitor cell or stand-alone server profile, you can design your Monitor databases using the Database Design Tool. The Database Design Tool allows you to design the Monitor, business space, and systems integration bus messaging engine data stores in a single pass. The Database Design Tool wizard will ask about preferred database name, type, schema, and user, and will then create the database scripts customized for your environment. Your database administrator can review the scripts and create the database, in parallel with the creation of the Monitor server environment. The resulting database design can be passed into the Deployment Environment wizard, to ensure that the server environment is properly configured to connect to the databases.

On the 'Import database configuration' page, enter the path to the database design XML document. If you are not using the design tool then leave this blank.

On the Database page, configure the database parameters for data sources of the deployment environment. If you imported a database design document, the information on the Database page reflects the data source configuration as it exists in the database design document that you imported.

The 'Create tables' option is not selected if you are using a DB2 for z/OS or an Oracle database provider. The 'Create tables' option is not selected for the Business Space component. If your deployment environment includes the Business Space component, you need to create database tables for this component manually.

Deployment environment – Example (4 of 4)

The screenshot shows two overlapping windows from the 'Create new deployment environment' wizard.

Left Window (Security Step):

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

Security Configuration:

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

Name	User name	Password
Authentication alias for the CEI event service JMS resources	admin	
Cognos Administration access authentication	admin	

Buttons: Previous, Next, Cancel

Right Window (Summary Step):

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

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

Overview:

Parameter	Value
Deployment Environment Pattern	Single Cluster
Deployment environment name	Monitor
Features	WBM
Deployment Environment Status	Not configured

Deployment Targets:

Cluster	Nodes
Application Deployment Target	Custom01Node01 aimq09Node01

Data Sources:

Name	Database Name	Schema	Database Provider	Database Host
Cognos Content Store	COG7SSC		DB2_UNIVERSAL	vsbeta147.austin.ibm.com
Business Space data source	BSP7SSC	BSP800	DB2_UNIVERSAL	vsbeta147.austin.ibm.com
CEI Messaging Engine data source	MED7SSC	MEDCMD0	DB2_UNIVERSAL	vsbeta147.austin.ibm.com
Business Monitor messaging engine data source	MON7SSC	MEDME00	DB2_UNIVERSAL	vsbeta147.austin.ibm.com

Security:

Name	Authentication	User Name
Authentication alias for the CEI event service JMS resources	CommonEventInfrastructure.MSAuthAlias	admin
Cognos Administration access authentication	Cognos_Admin_Alias	admin

Buttons: Previous, Finish, Finish and Generate Environment, Cancel

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Configuration

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On the security page, enter the user names and passwords for CEI and Cognos. There can be other configuration steps displayed depending on the products that you selected in the feature list. On the summary page, verify that the information is correct before finishing and generating the environment. If you do not generate the Target environment now, you can generate it later.



Deployment environment – Generate

```
Configuration Status
2011-07-12 14:28:04 Beginning configuration...
2011-07-12 14:28:01 CWLDB90151: Deployment environment Monitor is being generated.
2011-07-12 14:28:01 CWLDB90091: Creating cluster Monitor.AppTarget.
2011-07-12 14:28:03 CWLDB90101: Creating cluster member Monitor.AppTarget.Custom01Node01.0 on node Custom01Node01 for cluster Monitor.AppTarget.
2011-07-12 14:28:05 CWLDB90101: Creating cluster member Monitor.AppTarget.aimop09Node01.0 on node aimop09Node01 for cluster Monitor.AppTarget.
2011-07-12 14:28:06 CWLDB90131: Configuring component WBI_CEI on deployment target Monitor.AppTarget.
2011-07-12 14:24:10 CWLDB90221: Creating authentication alias CEIME_Monitor.AppTarget_Auth_Alias for component WBI_CEI.
2011-07-12 14:24:10 CWLDB90221: Creating authentication alias CEIME_Monitor.AppTarget_Auth_XAR for component WBI_CEI.
2011-07-12 14:24:17 CWLDB90211: Database CEI ME data source is configured at scope ClusterMonitor.AppTarget.
2011-07-12 14:24:17 CWLDB90221: Creating authentication alias CEIME_Monitor.AppTarget_Auth_Alias for component WBI_CEI.
2011-07-12 14:24:33 CWLDB90131: Configuring component WBM_EventEventManager on deployment target Monitor.AppTarget.
2011-07-12 14:24:34 CWLDB90131: Configuring component WBM_MessagingEngine on deployment target Monitor.AppTarget.
2011-07-12 14:24:34 CWLDB90221: Creating authentication alias MonitorME_Monitor.AppTarget_Auth_Alias for component WBM_MessagingEngine.
2011-07-12 14:24:35 CWLDB90221: Creating authentication alias MonitorME_Monitor.AppTarget_Auth_XAR for component WBM_MessagingEngine.
2011-07-12 14:24:39 CWLDB90211: Database Monitor ME data source is configured at scope ClusterMonitor.AppTarget.
2011-07-12 14:24:39 CWLDB90221: Creating authentication alias MonitorME_Monitor.AppTarget_Auth_Alias for component WBM_MessagingEngine.
2011-07-12 14:24:41 CWLDB90131: Configuring component WBM_AdminServices on deployment target Monitor.AppTarget.
2011-07-12 14:24:43 CWLDB90131: Configuring component WBI_RESTSERVICES on deployment target Monitor.AppTarget.
2011-07-12 14:24:45 CWLDB90131: Configuring component WBI_SPACE on deployment target Monitor.AppTarget.
2011-07-12 14:26:39 CWLDB90221: Creating authentication alias BSPACE_Auth_Alias for component WBI_SPACE.
2011-07-12 14:26:39 CWLDB90221: Creating authentication alias BSPACE_Auth_XAR for component WBI_SPACE.
2011-07-12 14:26:44 CWLDB90211: Database Business Space data source is configured at scope ClusterMonitor.AppTarget.
2011-07-12 14:26:47 CWLDB90131: Configuring component WBM_COSBOS on deployment target Monitor.AppTarget.
2011-07-12 14:28:43 CWLDB90131: Configuring component WBM_MobileDashboard on deployment target Monitor.AppTarget.
2011-07-12 14:28:44 CWLDB90131: Configuring component WBM_ScheduleServices on deployment target Monitor.AppTarget.
2011-07-12 14:29:25 CWLDB90131: Configuring component WBM_EventEventManagerService on deployment target Monitor.AppTarget.
2011-07-12 14:30:09 CWLDB90131: Configuring component WBI_EventIntrinsics on deployment target Monitor.AppTarget.
2011-07-12 14:30:46 CWLDB90131: Configuring component WBI_SPACE on deployment target Monitor.AppTarget.
2011-07-12 14:30:47 CWLDB90151W: Deployment environment Monitor is successfully generated.
2011-07-12 14:30:47 The configuration has ended.
```

- You cannot create more than one deployment environment in a cell (even if none are generated)

```
Messages
CWLDB9044W: Deployment environment definition MyMonSingleCluster cannot be created because WebSphere Business Monitor does not support multiple deployment environments in a single cell.
```

When the configuration completes, you can examine the configuration files to view the changes. Either save the changes to the master configuration or discard them.

Since Monitor does not support multiple deployment environments in a single cell, note that you cannot create more than one deployment environment in a cell even if none have yet been generated.

Deployment environment – Deferred configuration

Deployment Environments
Select deployment environments to manage. You can manage deployment environments that are created with patterns or custom deployment environments.

Start Stop New... Remove Import... Export...

Select	Status	Deployment Environment Name	Features	Pattern	Description
<input type="checkbox"/>		MonDE	WBM	Single Cluster	

Total 1

[Deployment Environments > MonDE > Deferred Configuration](#)

These configuration steps detail what to do in order to complete a deployment environment configuration. The instruction steps are related to database name and database table creation that need to be performed by a database administrator.

Configuration

Configuration Done

Instructions

1. Configure **WBI_BSPACE**:
 1. BPMDB01061: Locate the database scripts for your database type in the directory C:\mon7serve\profiles\Dmgr03\dbscripts\BusinessSpace\MonDE.AppTarget\DB2\MDE1111. (Note: The scripts might be generated ONLY after the deployment environment is generated). Run the scripts on the database host WSBETA147.austin.ibm.com to create the tables for the database MDE1111 and schema MDEBS00.

Deployment Environments
Select deployment environments to manage. You can manage deployment environments that are created with patterns or custom deployment environments.

Start Stop New... Remove Import... Export...

Select	Status	Deployment Environment Name	Features	Pattern	Description
<input type="checkbox"/>		MonDE	WBM	Single Cluster	

Total 1

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If you click a deployment environment in the list, and there are still configuration steps to perform, you will see a list of deferred configuration steps. In this case you see that the business space database needs to be created.

After you have generated a deployment environment, you should stop and restart all clusters, nodes, and the deployment manager.

Summary

- Covered configuration of IBM Business Monitor

In summary, this presentation covered the configuration of IBM Business Monitor. You learned how to use the configuration component wizards and the deployment environment wizard.



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