



IBM Software Group

# IBM® WebSphere® Application Server V7

## *Flexible management configuration*



@business on demand.

© 2008 IBM Corporation  
Updated February 3, 2014

This presentation explains how to create and configure the new flexible management model introduced in WebSphere Application Server Version 7.

## Agenda

- Overview
- Creating and starting the servers
- Registration



This presentation presents an overview of configuring the flexible management environment. Flexible management is a new model for system administration introduced in WebSphere Application Server version 7. This presentation begins with an overview of the entire process followed by details on creating the profiles and starting the servers. Finally, it discusses registration, the process by which a node becomes part of the flexible management environment.

## Section

# Overview



This section discusses, at a high level, the steps needed to create and configure the flexible management environment.

## Configuration process

- Create the profiles
  - ▶ Base application server profiles
  - ▶ Administrative agent profile
  - ▶ Job manager profile
- Start administrative agent and job manager
- Register application server profiles with administrative agent
- Register application server profiles with job manager through administrative agent
- Optional: register deployment manager with job manager



This slide shows the main steps for creating a flexible management environment. The intent is to create a minimal environment that supports flexible management operations. The first step is to create the profiles. A minimum of three profiles must be created: one for the base application server, one for the administrative agent, and one for the job manager. The profiles can be created in any order. Once the profiles have been created, the administrative agent and job manager should be started. The order of starting the two flexible management processes is not important.

The next step is to register the application server with the administrative agent. Once this is done, the server should register with the job manager. If a deployment manager is to be registered, this can be done any time after the job manager has been started.

The next several slides provide more detail on these steps.

## Section

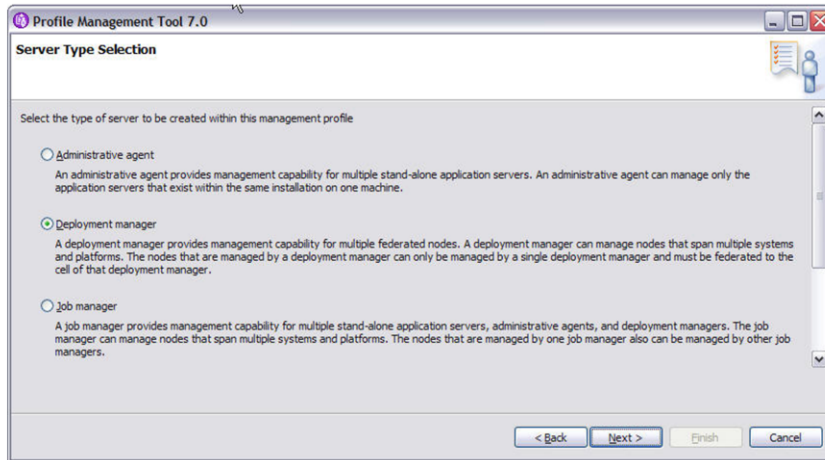
# *Creating and starting the servers*



This section discusses creating the needed profiles and starting the required servers to have a flexible management environment.

## Create the profiles

- Create profiles using manageprofiles command or Profile Management Tool



The profiles are created in the typical way using either the manageprofiles command or the Profile Management Tool. This slide shows a panel from the Profile Management Tool that is displayed after you choose to create a management profile. There are two new server types available within the management profile: administrative agent and job manager. If you choose the administrative agent option, you create a management profile that contains an administrative agent server. Similarly, if you choose the job manager option, you create a management profile that contains a job manager server.

## Using commands to create profiles

```
manageprofiles.bat -create -templatePath  
%WAS_HOME%\profileTemplates\management  
-profilePath %WAS_HOME%\profiles\  
<dir_of_job_manager_profile>  
-profileName <name_of_job_manager_profile>  
-serverType JOB_MANAGER
```

```
manageprofiles.bat -create -templatePath  
%WAS_HOME%\profileTemplates\management  
-profilePath %WAS_HOME%\profiles\  
<dir_of_admin_agent_profile>  
-profileName <name_of_admin_agent_profile>  
-serverType ADMIN_AGENT
```



This slide shows the use of the manageprofiles command to create a job manager profile followed by an administrative agent profile. The first command shows how to create a job manager, and the second command shows how to create an administrative agent. Notice that both commands use the management profile template, and then contain a special value for the serverType parameter. The server types JOB\_MANAGER and ADMIN\_AGENT are new in WebSphere Application Server V7, and they are used to create a profile that contains a job manager server or an administrative agent server.

## Start the servers

- Start administrative agent and job manager in any order
- Starting the administrative agent
  - ▶ Go to the profile's bin directory:  
`${WAS_HOME}/profiles/<name_of_admin_agent_profile>/bin`
  - ▶ Enter this command:  
`startServer.sh adminagent`
- Starting the job manager
  - ▶ Go to the profile's bin directory:  
`${WAS_HOME}/profiles/<name_of_job_manager_profile>/bin`
  - ▶ Enter this command:  
`startServer.sh jobmgr`



This slide shows one way to start the administrative agent and job manager servers. In each case, change to the bin directory of the profile associated with the server that you want to start. Then, invoke the startServer script giving either adminagent or jobmgr, depending on whether you want to start the administrative agent or job manager. The log file structure in addition to what is written to stdout and stderr is similar to the log file structure and output of other WebSphere servers.



## Section

# *Registration*



This section discusses registration, the process by which a node becomes part of a flexible management environment.

## Register with administrative agent

- Use the registerNode command to register the base server profile with the administrative agent
  - ▶ cd \$WAS\_HOME/bin
  - ▶ registerNode.sh -profilePath  
\$WAS\_HOME/profiles/<name\_of\_base\_profile>  
-host <host name> -conntype SOAP  
-port <soap\_port\_for\_admin\_agent>



Now that the profiles have been created and the flexible management server processes have been started, the base server profile can be registered with the administrative agent. To do this, use the “registerNode” command. The sample invocation of the “registerNode” command shown in this slide is a typical one. You need to provide the profile path for the application server profile that you are registering with the administrative agent, and the connection information to allow the application server and the administrative agent to communicate with each other. Additional examples of the commands shown here, along with detailed descriptions of the various parameters, are available in the WebSphere Application Server V7 information center.

## Register with job manager

- Use wsadmin to connect to the administrative agent and then register the base server profile with the job manager
  - ▶ `wsadmin.sh -profileName <admin agent profile> -lang jython`
  - ▶ `AdminTask.registerWithJobManager('[-host <hostname> -port <admin_port_for_job_manager> -managedNodeName <base_server_managed_node_name>]')`



To register the base server profile with the job manager, you will need to use wsadmin to connect to the administrative agent. You will then use the registerWithJobManager command of the AdminTask object to register.

## Optional: register deployment manager

- The deployment manager does not use an administrative agent
  - ▶ Registers directly with job manager
- Use wsadmin to connect to the deployment manager and then register the deployment manager profile with job manager
  - ▶ `wsadmin.sh -profileName <dmgr_profile> -lang jython`
  - ▶ `wsadmin>AdminTask.registerWithJobManager('[-host <jobmgr host> -port <admin_port_of_jobmgr> -managedNodeName <deployment_manager_node_name>]')`



If a deployment manager is to be registered with the job manager, no administrative agent is involved so the `registerNode` command is not used. Instead, use `wsadmin` to connect to the deployment manager, not to the administrative agent. Just as in the case of registering a base server profile with a job manager, use the `registerWithJobManager` command of the `AdminTask` object.

## Section

# Summary



The next section provides a summary of flexible management configuration.

## Summary

- The flexible management configuration process consists of:
  - ▶ Creating the required job manager and administrative agent profiles
  - ▶ Starting the job manager and administrative agent
  - ▶ Registering a managed node with the administrative agent
  - ▶ Registering a managed node with the job manager



In this presentation you have seen an overview of what is needed to configure the new flexible management model introduced in WebSphere Application Server version 7. You have seen the sequence of steps involved followed by a more detailed discussion of creating the needed profiles and starting the required servers.

This was followed by an explanation of registration, the process by which a node becomes part of a flexible management environment.

## Feedback

### Your feedback is valuable

You can help improve the quality of IBM Education Assistant content to better meet your needs by providing feedback.

- Did you find this module useful?
- Did it help you solve a problem or answer a question?
- Do you have suggestions for improvements?

Click to send e-mail feedback:

[mailto:iea@us.ibm.com?subject=Feedback\\_about\\_WASv7\\_FlexMgtConfig.ppt](mailto:iea@us.ibm.com?subject=Feedback_about_WASv7_FlexMgtConfig.ppt)

This module is also available in PDF format at: [..\WASv7\\_FlexMgtConfig.pdf](..\WASv7_FlexMgtConfig.pdf)



You can help improve the quality of IBM Education Assistant content by providing feedback.

## Trademarks, copyrights, and disclaimers

The following terms are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both:

IBM                      WebSphere

A current list of other IBM trademarks is available on the Web at <http://www.ibm.com/legal/copytrade.shtml>

Product data has been reviewed for accuracy as of the date of initial publication. Product data is subject to change without notice. This document could include technical inaccuracies or typographical errors. IBM may make improvements or changes in the products or programs described herein at any time without notice. Any statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. References in this document to IBM products, programs, or services does not imply that IBM intends to make such products, programs or services available in all countries in which IBM operates or does business. Any reference to an IBM Program Product in this document is not intended to state or imply that only that program product may be used. Any functionally equivalent program, that does not infringe IBM's intellectual property rights, may be used instead.

Information is provided "AS IS" without warranty of any kind. THE INFORMATION PROVIDED IN THIS DOCUMENT IS DISTRIBUTED "AS IS" WITHOUT ANY WARRANTY, EITHER EXPRESS OR IMPLIED. IBM EXPRESSLY DISCLAIMS ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT. IBM shall have no responsibility to update this information. IBM products are warranted, if at all, according to the terms and conditions of the agreements (for example, IBM Customer Agreement, Statement of Limited Warranty, International Program License Agreement, etc.) under which they are provided. Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products in connection with this publication and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products.

IBM makes no representations or warranties, express or implied, regarding non-IBM products and services.

The provision of the information contained herein is not intended to, and does not, grant any right or license under any IBM patents or copyrights. Inquiries regarding patent or copyright licenses should be made, in writing, to:

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

© Copyright International Business Machines Corporation 2008. All rights reserved.

Note to U.S. Government Users - Documentation related to restricted rights-Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract and IBM Corp.

