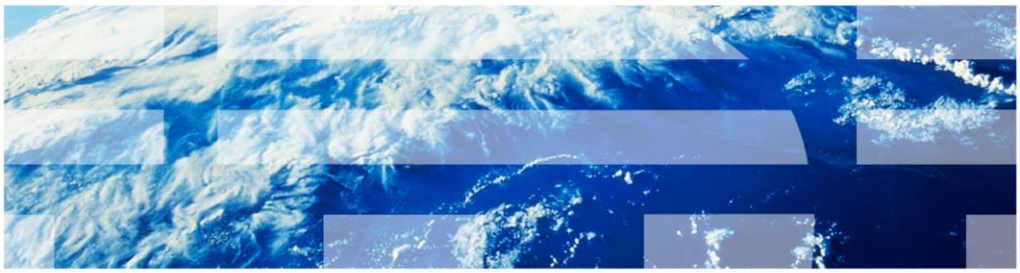
IBM

IBM WebSphere Application Server V8

AddNode–asExistingNode Option



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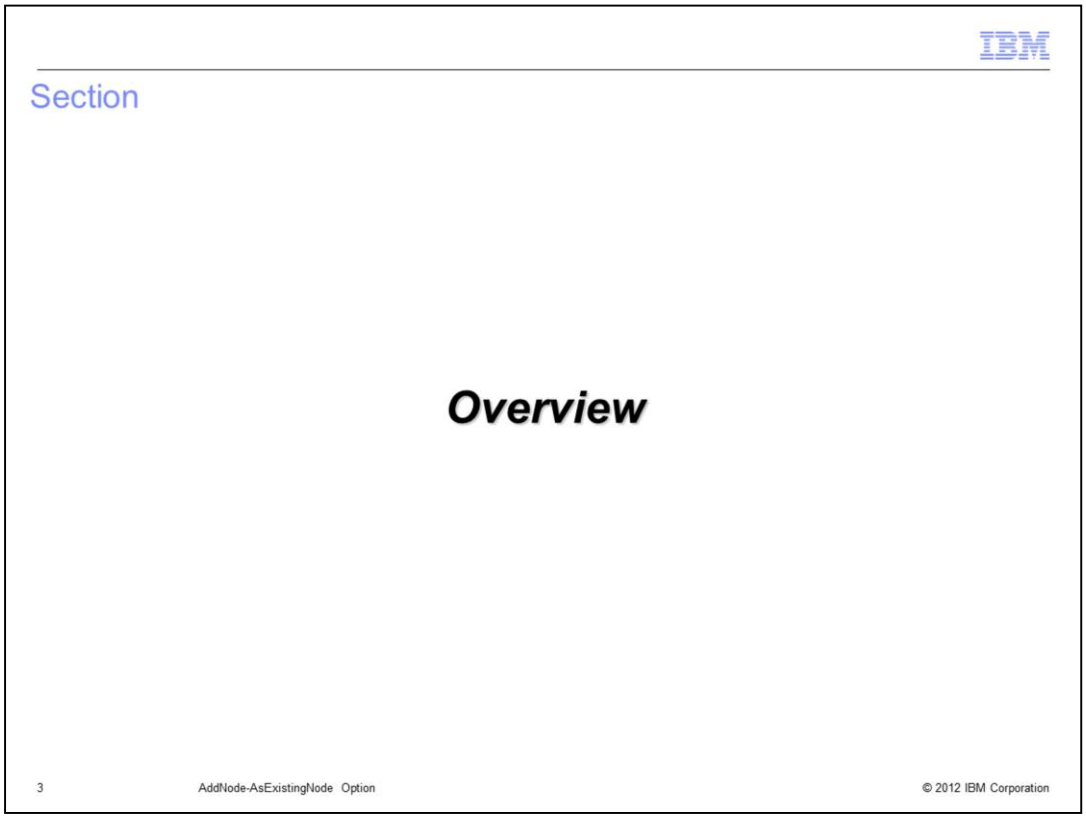
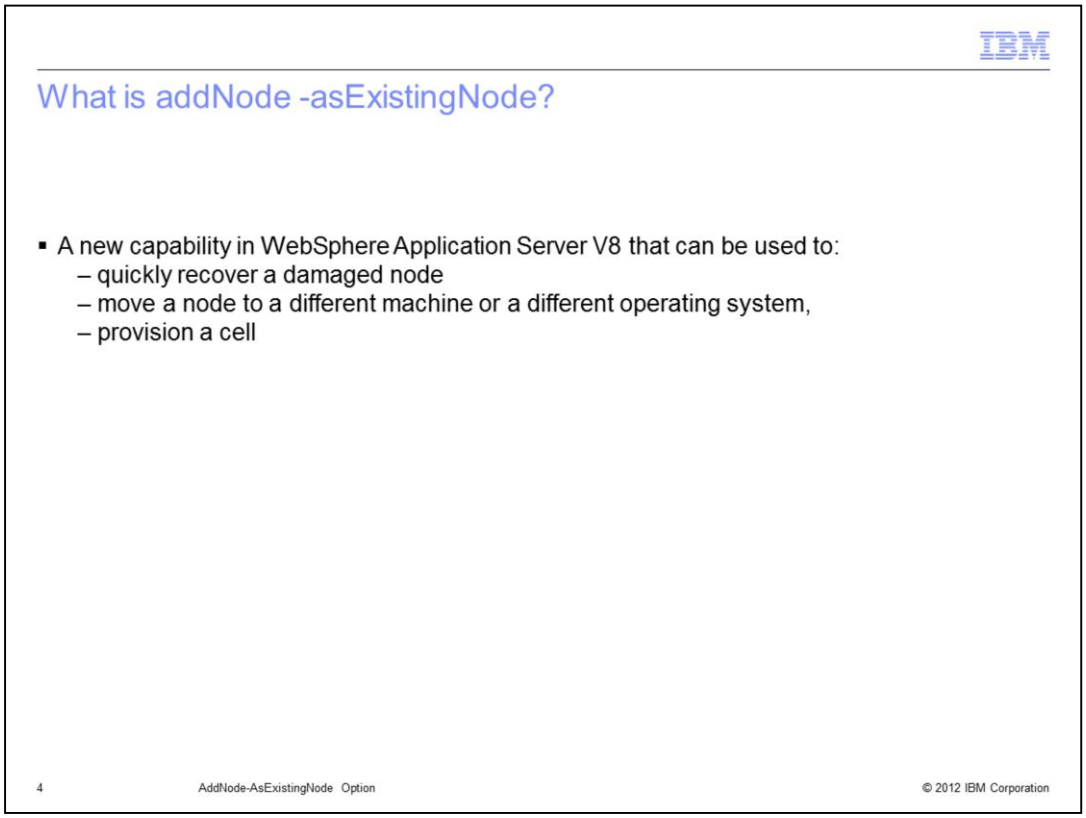
This presentation describes a new option for the addNode command that simplifies topology management tasks in IBM WebSphere Application Server V8.

This presentation describes a new option for the addNode command that can be used to simplify the management of Network Deployment cells.

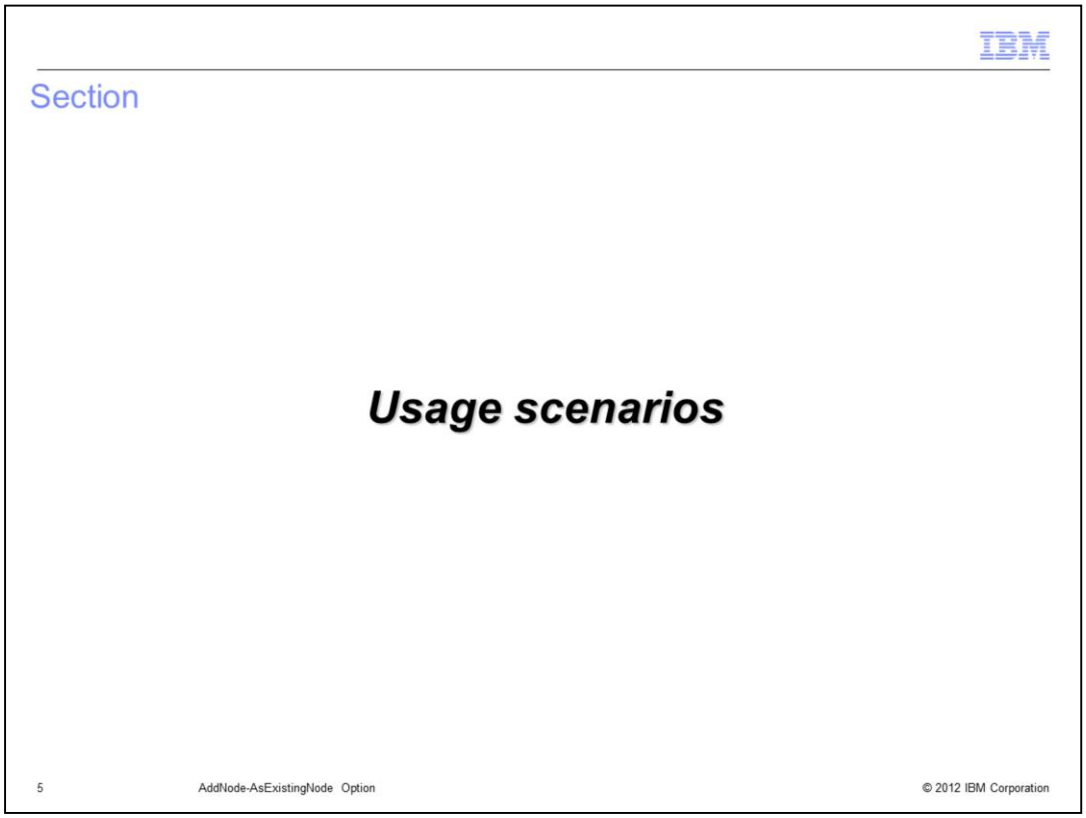
You are provided with a brief overview of this new capability and then the presentation describes some scenarios where it can be applied.



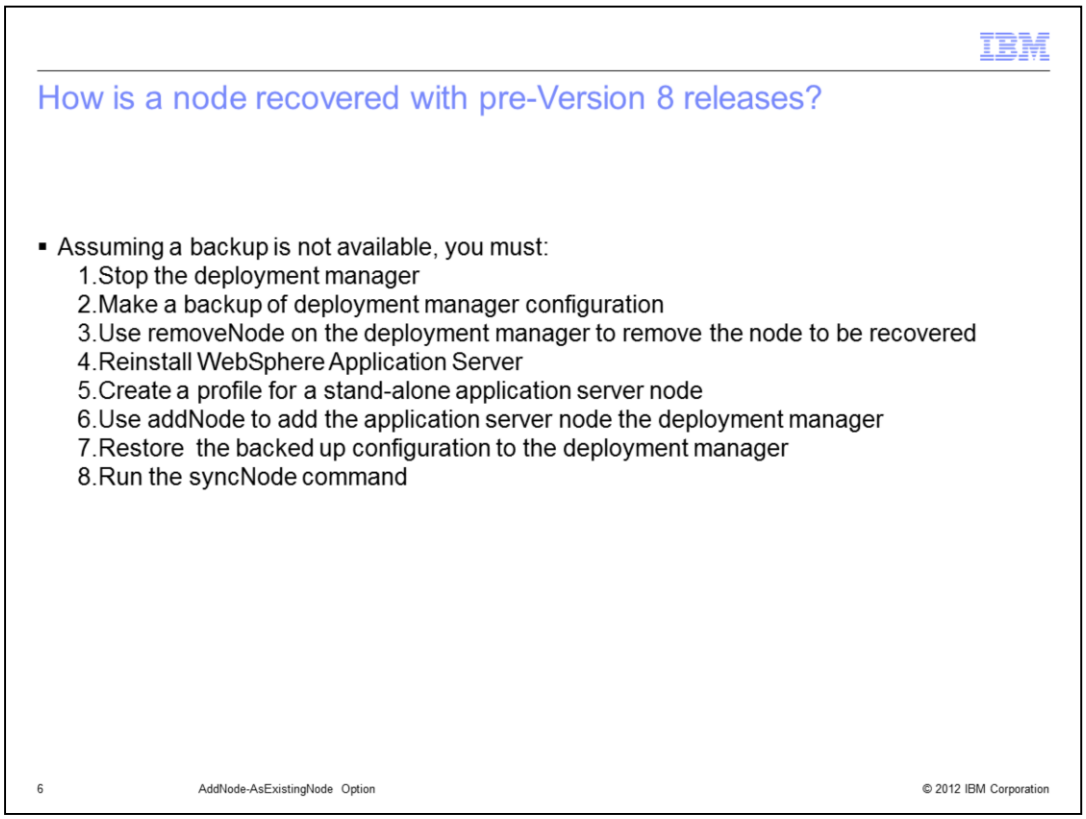
This section will discuss an “AsExisting” option.



The addNode command was created to federate stand-alone WebSphere Application Server nodes to a Network Deployment cell. WebSphere Application Server Version 8.0 provides a new option, “AsExistingNode” for adding nodes to a cell. This option, subject to restrictions, can be used to quickly recover a damaged node, move a node to a different machine – potentially with a different operating system, or to provision a cell.



Following scenarios describe how this new command option can be used.



First, If you are using a version of Network Deployment earlier than version 8, how do you recover a damaged node?

Of course, if the environment were backed up before the damage it can be restored using a backup/restore facility. If however, no backup is available, you must:

Stop the deployment manager.

Make a backup of the deployment manager configuration.

Remove the node to be recovered from the deployment manager using the removeNode command

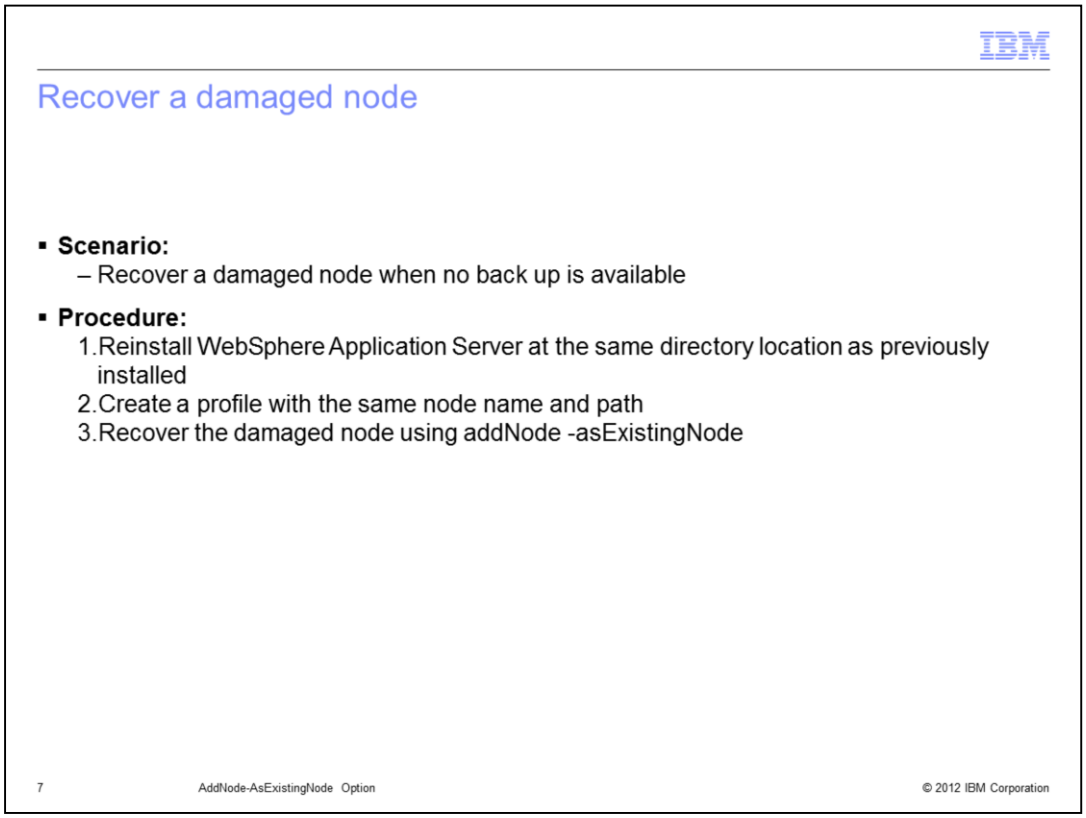
Reinstall WebSphere Application Server

Create a profile for a stand-alone application server node

Use the addNode command to add the stand-alone application server node to the deployment manager

Restore the backed up configuration of the deployment manager

Run the syncNode command.



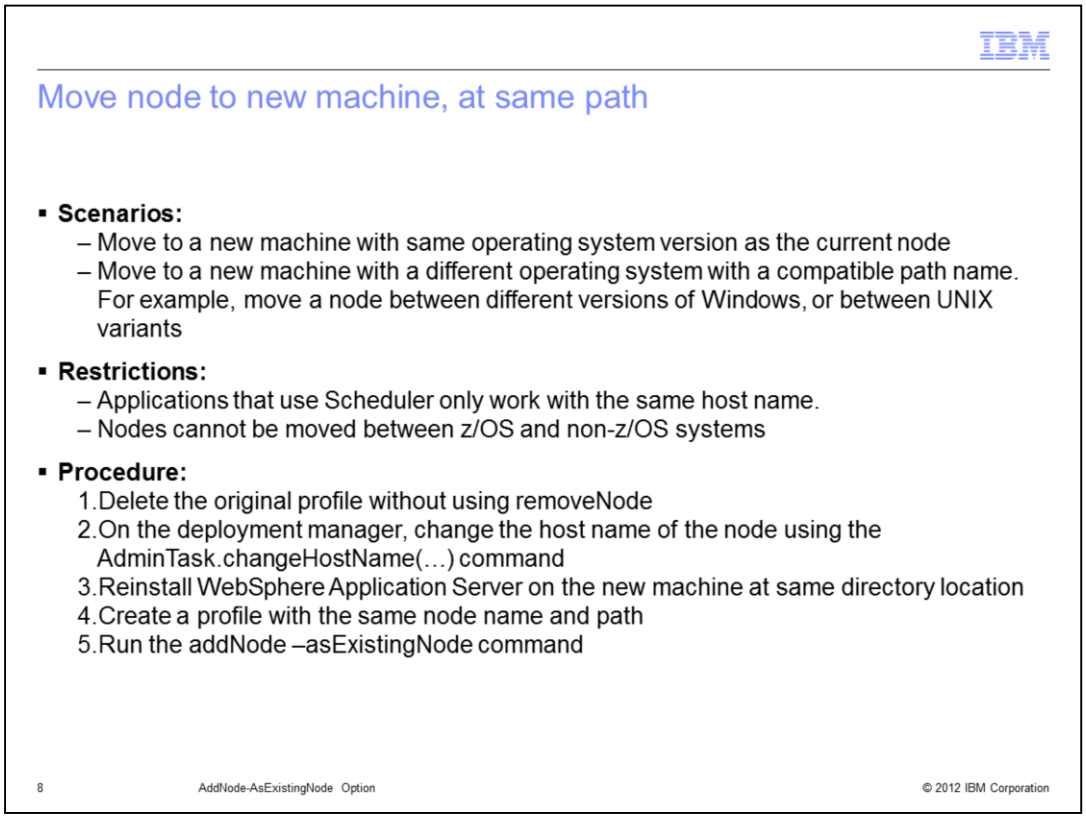
In version 8.0, recovery of a damaged node is greatly simplified with this new command option.

As before, assume that the configuration had not been backed up before damage to the node.

First reinstall WebSphere Application Server to the same directory location where it had been installed previously.

Then create a stand-alone application server profile using the same node and path as the damaged node.

Finally, run the addNode –asExistingNode to recover the damaged node.



With this new command option version 8.0 now supports the ability to move a node to a different machine. This can be done if the machine is running the same operating system as the current node's machine or if the new machine is running a different operating system but with a compatible path name.

In other words, with this procedure you can move a node between different Windows versions or operating system products, or between different UNIX operating systems. However you cannot move a node between Windows and UNIX or between z/OS and machines running a distributed operating system with this procedure.

One additional restriction is that the applications using the scheduler require that host name remain the same.

To move a node to a different machine but with the same path:

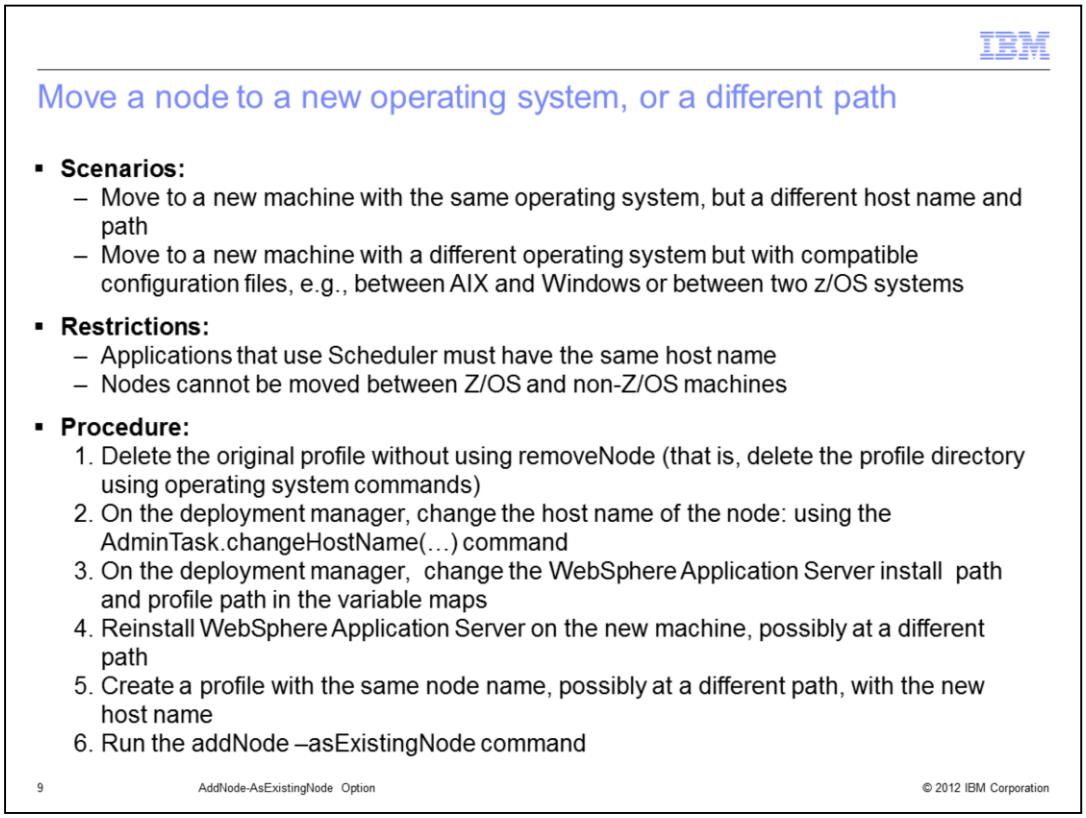
First: Do not use removeNode, but delete the original profile.

Then: On the deployment manager, use the AdminTask changeHostName command to change the node's host name to the new host name

Next: Install or reinstall WebSphere Application Server on the new machine at the same directory location as on the original host.

Next: Create a stand-alone application server with same node name and path as on the original host.

Finally: Run the addNode –asExistingNode command.



You can also move a node to a machine running a different operating system or to a different path on the destination machine.

The restrictions are similar to other scenarios. Applications using the scheduler require the same host name. Nodes cannot be moved between z/OS and other, non-z/OS machines. However, nodes can be moved between Windows and UNIX or Linux operating system machines as long as the configuration files are compatible.

The task is also similar to the more restrictive move operation:

First: without using the removeNode command, delete the profile of the node you are moving.

Then: On the deployment manager, use the AdminTask changeHostName command to change the node's host name to the new host name

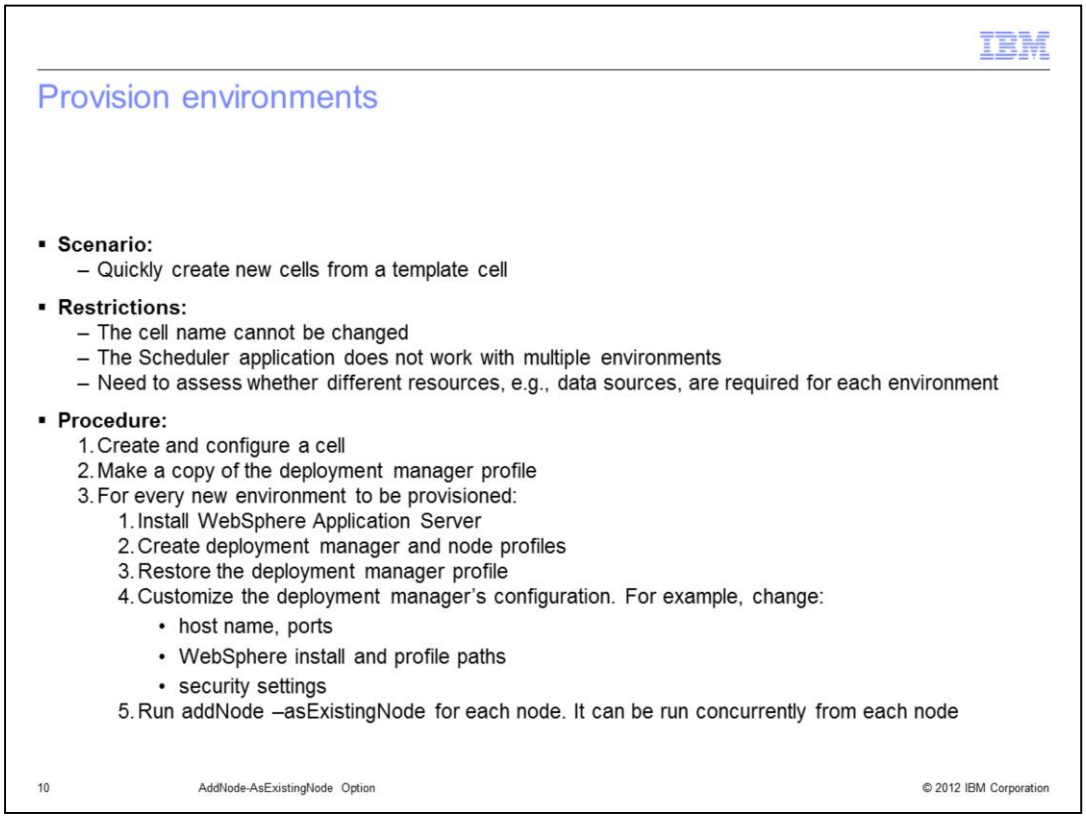
Next, there is an additional step to handle the change in path between the original machine and the destination machine –

On the deployment manager, in the variable maps, change the WebSphere Application Server install path and profile path in the variable maps.

Then: Install or reinstall WebSphere Application Server on the new machine at the installation path specified on the deployment manager

Next: Create a stand-alone application server profile with the path specified on the deployment manager

Last: Run the addNode –asExistingNode command.



If your environment is to include multiple network deployment cells with similar configurations, this new addNode command can be used to simplify the provisioning of these cells.

This task is subject to these restrictions:

The provisioned cells must have the same cell name as the original, template cell.

The scheduler system is restricted to a single cell.

If different resources are required for different cells, these will need to manually configured.

To provision an environment with multiple cells:

First create and configure a cell to serve as a template.

Next make a copy of the deployment manager profile.

Then for each cell to be created:

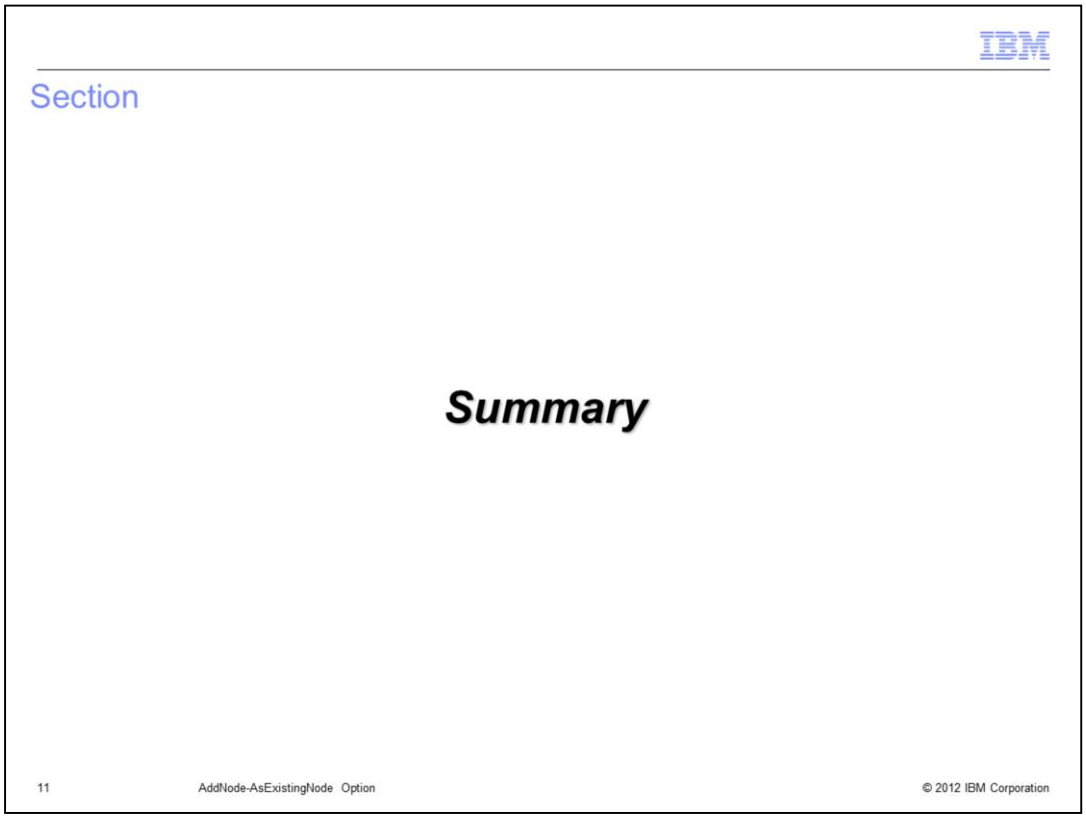
Install WebSphere Application Server on each of the machines that are hosting WebSphere Application Server deployment manager and application server nodes.

Create deployment manager and node profiles on these machines

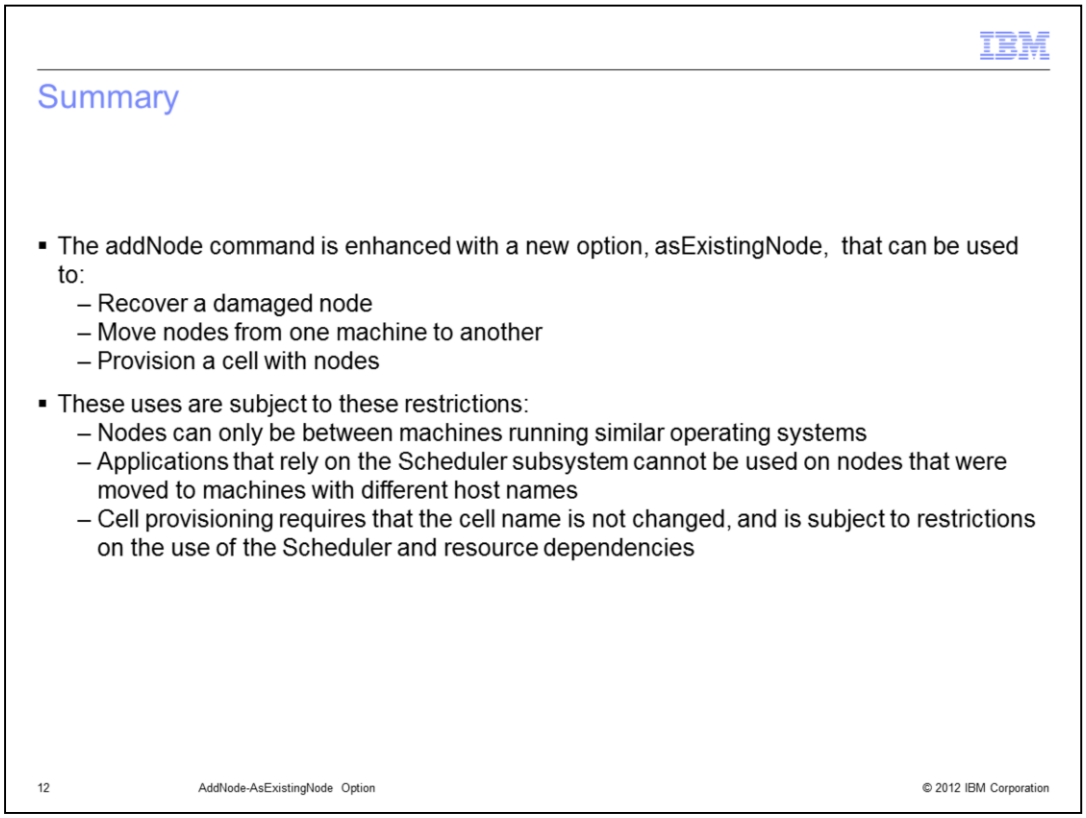
Restore the deployment manager profile on the deployment manager machine

Customize the deployment manager configuration as needed. For example change host name and ports, install paths, profile paths, security settings and so forth.

Finally, run addNode – asExistingNode on each node to be federated to the deployment manager. Note that it can be run concurrently from each node.



This section provides a summary of this presentation.



In summary, the new –asExistingNode option for the addNode command simplifies the recovery of damaged nodes and the provisioning of cells. It also enables nodes to be moved from one machine to another. Some restrictions apply. Movement between some operating systems, use of the scheduler system by applications, and cell naming is limited in some scenarios.

For additional information on this feature see the addNode command description in the Information Center.

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