IBM Tivoli Provisioning Manager V 7.1

Preparing for patch management in a small environment

Tivoli software

© 2011 IBM Corporation

Welcome to the training module for Tivoli® Provisioning Manager version 7.1, preparing for patch management in a small environment. In this presentation, you learn how to integrate Windows® Server Update Services into your Tivoli Provisioning Manager workflow.

Preparing Windows Server Update Services
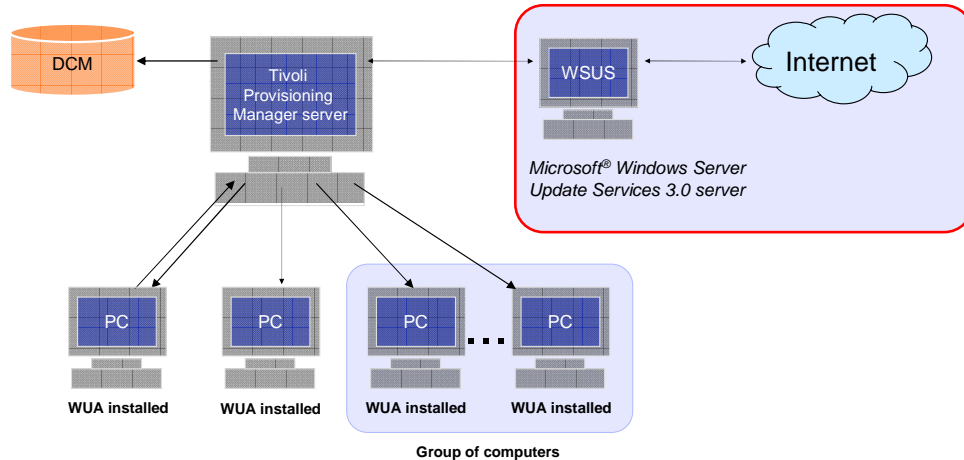
Preparing for patch management in a small environment © 2011 IBM Corporation

Patch management is integral to protecting customer services and corporate and customer data. Ensuring that the computers in your organization have the most up-to-date patch is an important part of a comprehensive computer security strategy.

You can use Tivoli Provisioning Manager to automatically apply the latest patches for your computer operating systems. In this example, you see the components in a Windows patch management network with a Tivoli Provisioning Manager version 7 core. Windows Update Agent, WUA, is installed on all the computers that are connected to the network. Windows Server Update Services 3.0 is installed on a server that is configured to connect to Microsoft update for available patches.

Windows Server Update Services installation

Verify that you are meeting these requirements:

- Ensure that the WSUS server has Windows Server Update Services 3.0 and Microsoft .NET Framework 3.5 installed

- Review the software and hardware requirements

- Download and install Microsoft Windows Server Update Services and its prerequisites. Use the documentation from the Microsoft Web site at:

  http://technet.microsoft.com/en-us/library/cc720499.aspx

Preparing for patch management in a small environment

Tivoli Provisioning Manager 7.1 supports version 3.0 of Windows Software Update Services. You must install Microsoft .NET Framework version 3.5 on your server.

Review the software and hardware requirements for Windows Server Update Services. Download the program and its prerequisites using the documentation from the web site that is shown on the slide. Included in the prerequisites is a TC driver that must be installed on Tivoli Provisioning Manager to run patch management.

Windows Server Update Services configuration

- Windows Server Update Services (WSUS) is a free Microsoft patch management tool
- WSUS is a service that runs inside your organization on one or more servers. These servers are configured to provide software updates to one or more Windows Update Agent (WUA) clients
- The WSUS server can be configured to download updates either from Microsoft or from another WSUS server within the organization
- At least one WSUS server in the network must connect to Microsoft Update for available updates
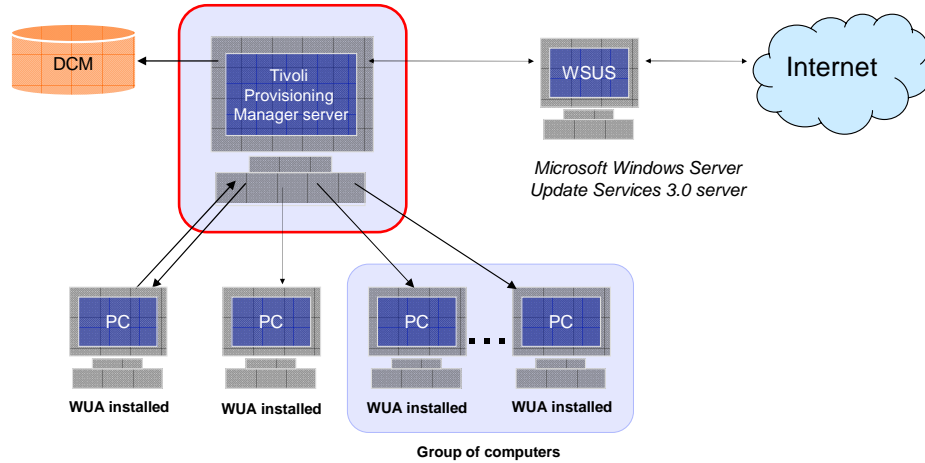
Simple WSUS deployment   **WSUS servers chained together**

Windows Server Update Services, WSUS, is a free patch management tool from Microsoft. This service runs inside your organization on one or more servers that are configured to update one or more clients.

The WSUS server can be configured to download updates either from Microsoft or from another WSUS server within the organization. At least one Windows Server Update Services server in your network must be connected to Microsoft Update for you to obtain the available updates.

IBM

Preparing Tivoli Provisioning Manager

DCM ← Tivoli Provisioning Manager server ← WSUS ← Internet

Microsoft Windows Server Update Services 3.0 server

PC — WUA installed
PC — WUA installed
PC — WUA installed ... PC — WUA installed

Group of computers

Preparing for patch management in a small environment © 2011 IBM Corporation

In this example, you see a network setup using Windows Server Update Services.

Tivoli Provisioning Manager server settings, 1 of 2

1. Write the WSUS server into the data model as a computer

2. Associate the WSUS server with the target computers by creating a variable named WSUServer. Use one of these values:

   – http://*<WSUS_server_name>*:*<port_number>*
   – https://*<WSUS_server_name>*:*<port_number>*

   where *WSUS_server_name* is the name of the WSUS server

   If you use secure http, ensure that the target computers are set to trust the certificate from the WSUS server

The Tivoli Provisioning Manager server must communicate with the Windows Server Update Services server. To ensure communication, you must write the Windows Server Update Services server into the data model as an additional computer during the initial discovery. You can use the Windows Server Update Services server in the Tivoli Provisioning Manager workflow to complete this task.

Next, you associate the Windows Server Update Services server with the target computers. Create a global variable WSUServer with the value that is shown on the slide. If you use secure http, ensure that the target computers are set to trust the certificate from the Windows Server Update Services server.

Tivoli Provisioning Manager server settings, 2 of 2

3. Define a global variable
   a. Select **Go To > Administration > Provisioning > Provisioning Global Settings**
   b. Click the **Variables** tab
   c. Click **New Row**
   d. Complete the Variable and Value fields
   e. Click **Save**

Preparing for patch management in a small environment
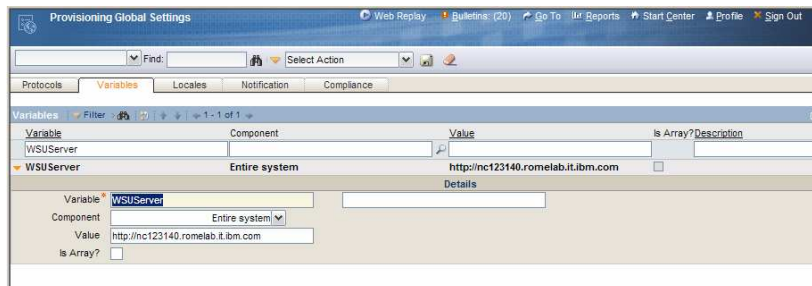
To define the global variable, click Go To > Administration > Provisioning > Provisioning Global Settings. Go to the Variables tab and click New Row. Fill in the Variable and Value fields. Click Save. The variable name that you added is displayed in the chart.

Troubleshooting Tivoli Provisioning Manager server settings

- If the Global variable WSUSserver is not set, WUA connects to Microsoft on the Internet to search, download, and install the latest updates

```
cscript //Nologo wua.vbs 2 Microsoft wua_missing_updates_35867
```

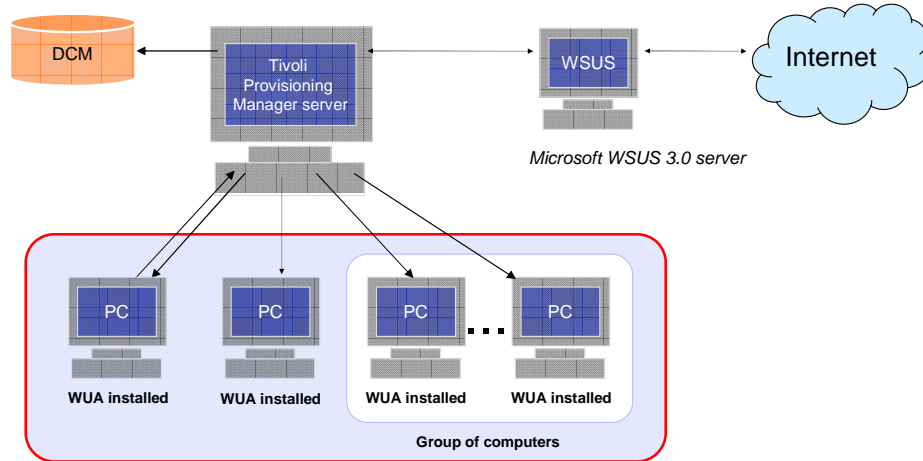- If the Global variable WSUSserver is set incorrectly, an error message is shown

```
ERROR MESSAGE:
 - COPCOM123E A shell command error occurred: Exit code=1,
 - Error stream="", Output stream="different WUStatusServer in
   registry Restarting Automatic Update Scanning...
 - Scan failed. Cannot connect to WSUS server.
```

Preparing for patch management in a small environment   © 2011 IBM Corporation

If the global variable for the Windows Server Update Services server is not set, Windows Update Agent connects to Microsoft using the Internet instead of using the Windows Server Update Services server to search for updates.

If you set the global variable for the WSUServer incorrectly, the scan failure error message is displayed.

Preparing the agents

DCM ← Tivoli Provisioning Manager server ← → WSUS ← → Internet

Microsoft WSUS 3.0 server

PC — WUA installed
PC — WUA installed
PC — WUA installed
PC — WUA installed

Group of computers

Preparing for patch management in a small environment

Next, you prepare your environment for the common agent.

Preparing the environment for the common agent

- Windows Update Agent must be installed on the endpoints
- This client enables the endpoints to check for, receive, and install updates
- WUA contacts the WSUS server to check for, download, and install missing patches

Preparing for patch management in a small environment   © 2011 IBM Corporation

Windows Update Agent must be installed on the network endpoints for the Windows patch management solution to work properly. Windows Update Agent is a Microsoft client that enables the endpoints to check for updates and to receive and install those updates when needed.

Windows Update Agent contacts the WSUS server to check if patches are missing. Missing patches are downloaded and installed.

If the endpoint is not associated with the WSUS server, Tivoli Provisioning Manager configures the Windows Update Agent to connect directly to Microsoft to search for available updates.

Preparing for Windows Update Agent

- Install WUA manually
- Use Tivoli Provisioning Manager to download the agent
- Download and copy WUA to the local file repository in the following location to install the MS_SOA_GetWindowsUpdateAgent workflow:

  $TIO_HOME/repository/wua/windowsupdateagent
- Use Tivoli Provisioning Manager to install the WUA software on your endpoints

Preparing for patch management in a small environment   © 2011 IBM Corporation

You can manually install Windows Update Agent. Configure the agent to use the Internet Explorer setting. In this example, Tivoli Provisioning Manager does not configure the proxy.

To install the MS_SOA_GetWindowsUpdateAgent workflow, download and copy Windows Update Agent to the local file repository in the location shown.

Now, you can use Tivoli Provisioning Manager to install the Windows Update Agent software on your endpoints.

Windows Update Agent: Software definition

Preparing for patch management in a small environment
© 2011 IBM Corporation

In this screen capture, you can see the software definition for Windows Update Agent with no spb. This package is created from the workflow described previously. You can use this workflow even when your target does not have Tivoli Management Agent installed.

Windows Update Agent: Software package
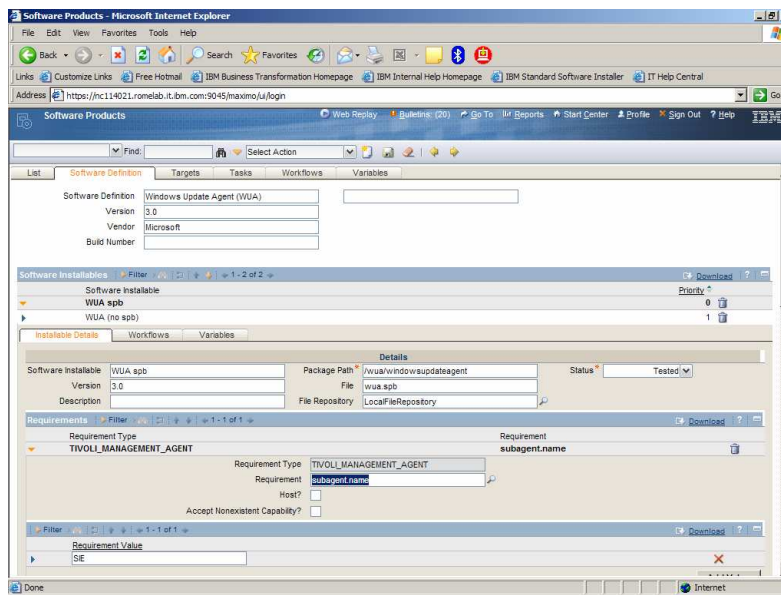
On this slide, you see the software package that you must use if Tivoli Management Agent is installed on your target.

Summary

In this training module, you learned how to integrate Windows Server Update Services into your Tivoli Provisioning Manager workflow.

Preparing for patch management in a small environment

In this training module you learned how to integrate Windows Server Update Services into your Tivoli Provisioning Manager workflow.

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 email feedback:

mailto:iea@us.ibm.com?subject=Feedback_about_prepare_environ_patch_management_small.ppt

This module is also available in PDF format at: ../prepare_environ_patch_management_small.pdf

15   Preparing for patch management in a small environment   © 2011 IBM Corporation

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

Trademarks, disclaimer, and copyright information