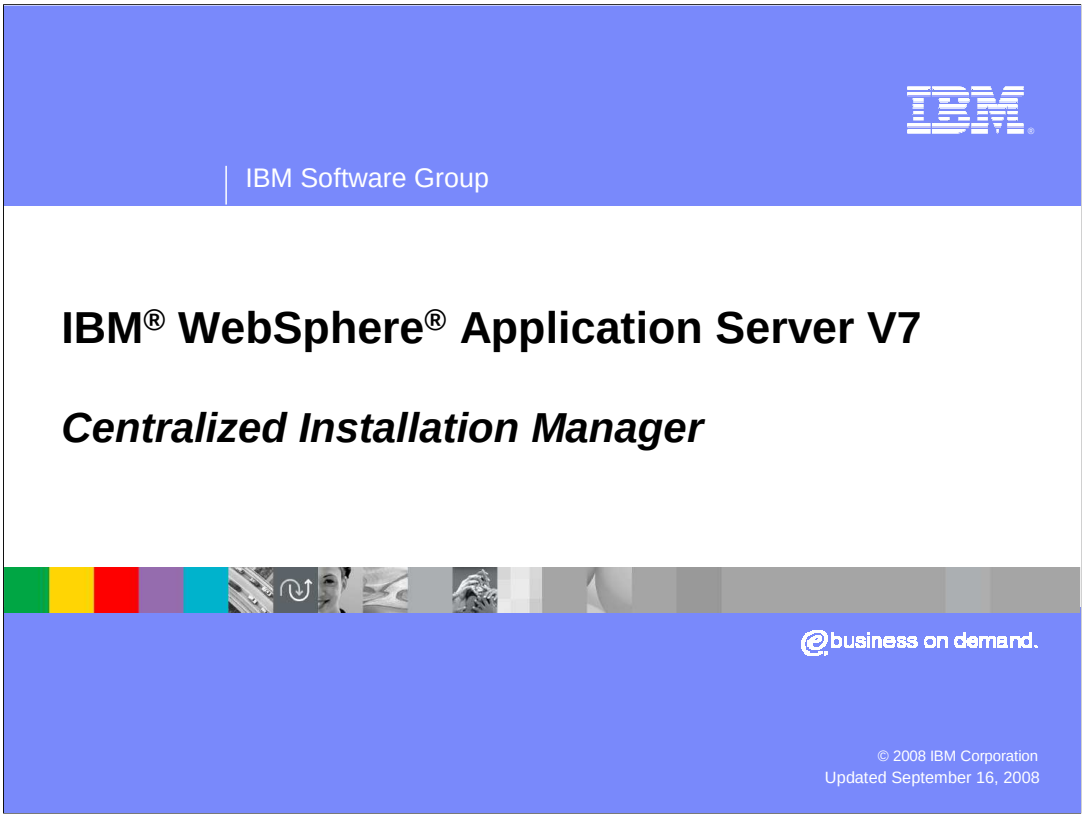


This presentation covers the Centralized Installation Manager in WebSphere Application Server V7.

Agenda

- Centralized Installation Manager (CIM) overview
- Installing WebSphere Application Server
- Installing interim fixes
- Installing fix packs

This presentation introduces the Centralized Installation Manager, abbreviated CIM, and show how it can be used for remote installation of WebSphere Application Server and for product maintenance.

Section

CIM overview

This section introduces the key functions and benefits of the Centralized Installation Manager.

CIM functions

- Remote product installation
  - Use deployment manager to install on remote hosts
  - No IBM agent required on remote host
- Remote product update
  - Download refresh packs, fix packs, and interim fixes from IBM support Web site
    - Directly from the administrative console
  - Apply maintenance to cell members

The Centralized Installation Manager introduces support for remote installation functionality in WebSphere Application Server V7. The deployment manager can be used as a central interface for installing WebSphere Application Server to remote hosts and integrating them into a cell. These remote hosts do not require any IBM software to be present before installation, as the installation is performed using operating system tools. In addition to installing WebSphere Application Server, the V7 deployment manager also has the ability to remotely install fix packs, refresh packs, and interim fixes on remote nodes that have been added to the cell. Fixes can be downloaded from IBM directly within the deployment manager's administrative console and remotely installed to member nodes.

Key benefits

- Centralized management of installation and maintenance process
- Improved productivity
  - Parallel installation on multiple hosts
  - Reduced repetition
  - Reduced chance of human error
    - Can use response file for remote installations

There are several benefits to a centrally-managed installation process. You can easily install WebSphere Application Server to your entire cell from a single interface in parallel, which not only saves time by avoiding a repetitive process, but also makes it easier to ensure that you are specifying the same installation options on each of your hosts. The deployment manager interface accepts standard response files, just like the traditional installer uses, enabling you to specify all of the same parameters when installing with the Centralized Installation Manager.

Section

Installing WebSphere Application Server

This section describes the process of installing WebSphere Application Server with the Centralized Installation Manager.

CIM repository

- Holds packages that are available for remote installation
- Can contain packages for multiple platforms
- Created using installation tools
  - Create during initial product installation
    - Prompt appears if you choose to create a cell, deployment manager, or no profile at installation time
  - Create anytime using Installation Factory
    - Or associate an existing repository with an existing installation

The CIM repository is a directory on your file system that contains files that are available for remote installation. This directory can be created and associated with your WebSphere Application Server installation at installation time, or later, using the Installation Factory tool. This repository can contain installation packages for each platform to which you will be installing remotely, regardless of the local platform.

Populating the repository

- Add a package for each target platform
  - Use Installation Factory on the deployment manager host
  - Does not have to match deployment manager platform
  - Installation package is the installation CD or decompressed download package
  - If a repository is created during product installation, it can be populated with the installation package for the host platform
  - Custom installation packages (CIP) can also be added

Once you have created the repository, you can add additional packages to the repository using the Installation Factory tool. If you created the repository during installation, it will already include a package for the locally installed platform. To add a package to the repository, you need to have the product installation binaries for your platform of choice, and sufficient space to store a copy of them on the drive where the repository is hosted. To view a demonstration of how a repository is created and populated, pause this presentation and click the “show me” icon. You will need to restart the deployment manager before newly added packages will be available for remote installation.

Remote installation interface

- Use the CIM interface in the administrative console
  - System administration > Centralized Installation Manager
  - Also available in wsadmin
- “Installation packages” panel shows packages in the repository

Select	Platform	Download Status
	AIX 64 bit	Completed
	Windows	Completed
	Linux for i/p Series 64 bit	Absent
	Linux for i/p Series	Absent
	Solaris x86 64 bit	Absent

Once they have been added to the repository, installation packages are displayed in the “installation packages” panel in the Centralized Installation Manager interface of the administrative console. Click on the name of the package to display the list of available platforms for that package, as is shown here.

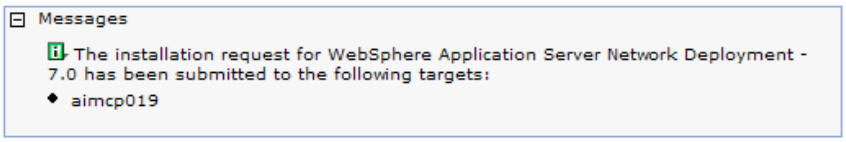
Installation targets

- Define hosts for installation on the “Installation targets” panel
  - Specify host name, and login information (password or SSH key)
- “Available installations” panel
  - Select product to install
  - Select from defined installation targets
  - Use administrative console wizard to choose installation options (such as installation location)
    - Response file can be provided instead

To install WebSphere Application Server on a remote host, you must define the host as an “installation target”. In addition to specifying the host name or IP address, you can also provide authentication information for the remote host, as either a user ID and password or an SSH key. After you have defined installation targets, you can start a remote installation to one or more of those hosts using the “available installations” panel. You can use a wizard in the administrative console to specify installation options, or you can provide a response file. The Centralized Installation Manager accepts the same response file format as the traditional installer.

Product installation

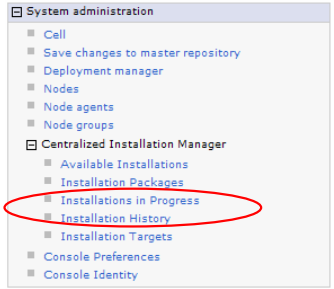
- Installation takes place in the background
- Post-installation actions
  - Custom profile (node agent) is created
  - Node is federated into the cell



Installation will proceed in the background, and after product installation completes, a profile will be created on the remote host, and that profile's node agent will be federated into the cell. However, if the installation was performed using a response file, whether a profile is created and federated to the cell is controlled entirely by options specified in the response file.

Viewing installation results

- "Installations in progress" shows current installations
- "Installation history" shows completed installations
  - Indicates success or failure
  - Allows remote viewing of installation logs



To view the status of an installation that you have started, use the "installations in progress" link in the administrative console. The "installation history" link shows past installations, whether they succeeded or failed, and lets you remotely view the logs from those installations. To view a demonstration of the remote installation process, pause this presentation and click the "show me" icon.

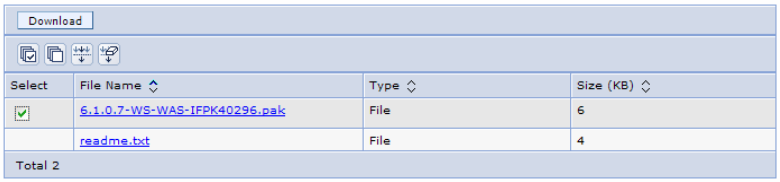
Section

Installing maintenance

This section will discuss installing product maintenance with the Centralized Installation Manager.

Downloading interim fixes

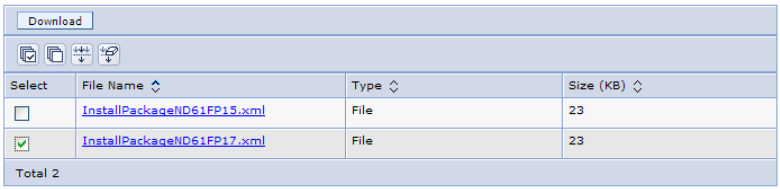
- Download interim fixes from IBM support FTP site using administrative console
  - From the **Installation Packages** panel, click "Maintenance for WebSphere Application Server Network Deployment"
  - Click “add files” to browse or search interim fixes



Installation packages for interim fixes can be downloaded from IBM support and added to the CIM repository directly from the administrative console. You can browse the available fixes by type, and download them to the repository, as shown here. The V7 deployment manager supports installing maintenance to V7 nodes and to V6.1 nodes, in a mixed cell.

Downloading fix pack descriptors for V6.1

- Download descriptors from IBM support FTP site using administrative console
  - Click “add packages” to browse fix pack descriptors

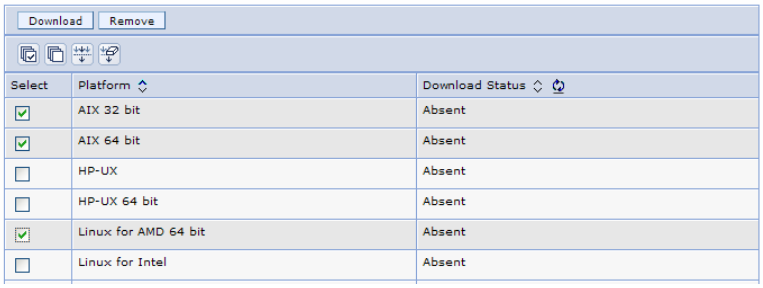


- Fix pack is then available on the “Installation packages” panel

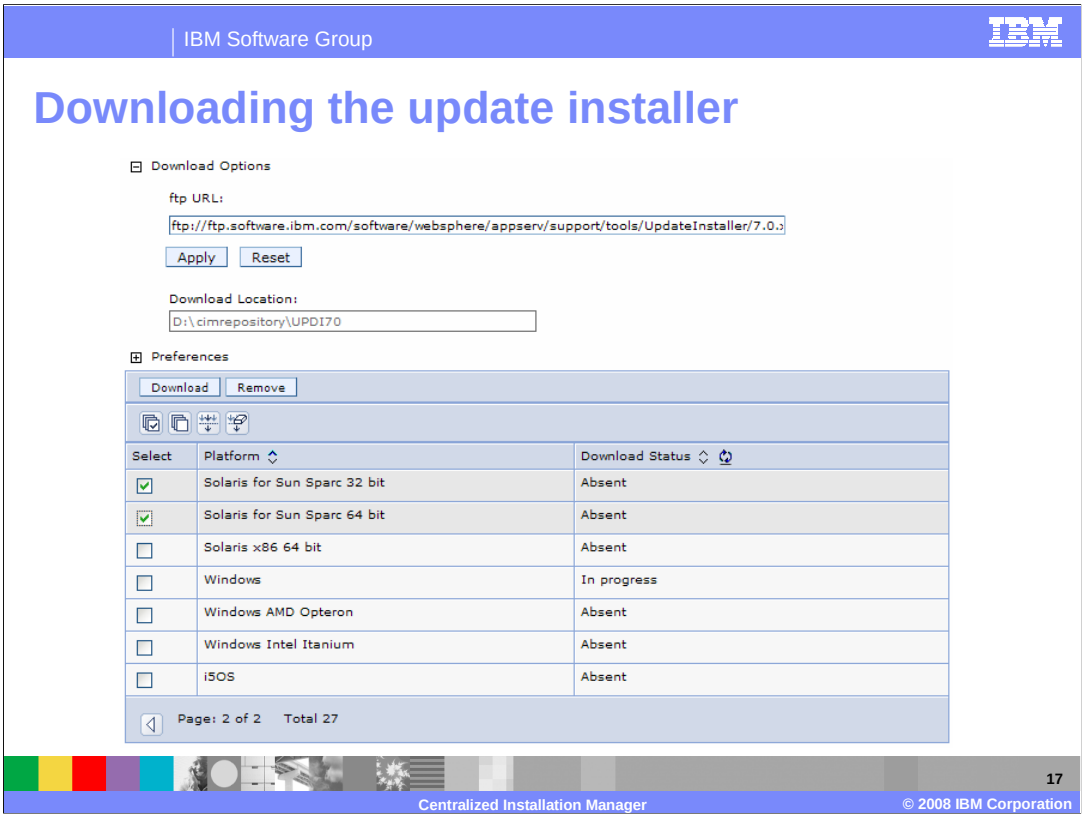
When installing fix packs for V6.1 nodes, you must first download a fix pack descriptor for the required fix pack. A descriptor is an XML file that describes the binaries to be installed. You do not need to download descriptors for V7 fix packs, because those descriptors are installed to the deployment manager when you install the fix pack locally on the deployment manager, which is a required step before installing the fix pack to cell members.

Downloading fix packs

- Download fix pack binaries from IBM support FTP site using administrative console
  - From the **Installation Packages** panel, click the name of the fix pack
  - Select your platforms and click “Download”



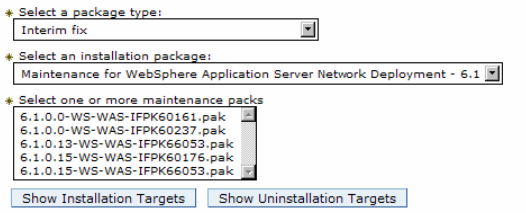
Installation packages for fix packs can be downloaded from IBM support and added to the CIM repository directly from the administrative console. You can browse the available fixes by type, and download them to the repository, as shown here. CIM will download all associated fix packs for a given fix pack level, including fix packs for the Java SDK and feature packs. The V7 deployment manager supports installing maintenance to V7 nodes and to V6.1 nodes, in a mixed cell.



To install interim fixes or fix packs, you will also need the update installer on your remote nodes. You can install the update installer locally on the nodes, or download it into your repository using the administrative console. Once the update installer is in your repository, you do not need to explicitly install it. It will be installed automatically when you choose to install fix packs or interim fixes.

Installing maintenance

- Select the fix type from the “available installations” panel
  - Downloaded interim fixes can be selected from the resulting list
  - “Show installation targets” will show targets that match the correct version



You can view the fixes in your repository by version and package type, and then select installation targets for them, just as you would when installing WebSphere Application Server remotely.

Maintenance installation

- Installation takes place in the background
  - Servers and node agent will be stopped (only if node agent is running)
  - Update Installer is installed and invoked remotely
- Post-installation actions
  - Node agents are restarted

Similar to product installation, maintenance installation takes place in the background, and you can continue with other administrative tasks. Processes on the remote server will be stopped, and the Update Installer will be invoked remotely to install the maintenance on the selected hosts. After installation completes successfully, the node agent will be restarted.

Section

Summary

This section summarizes the presentation.

Summary

- Centralized Installation Manager enables remote installation of WebSphere Application Server and maintenance
  - Run from the deployment manager
  - Requires no special agent on target hosts
  - Supports cross-platform installations

The Centralized Installation Manager provides a facility for remote installation of WebSphere Application Server and product maintenance. A V7 deployment manager has the ability to install the product on a remote host, without the use of a remote agent, beyond facilities provided by the operating system. This new capability can help reduce installation time for large environments, and increase consistency, reducing the chance for mistakes.

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