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IBM WebSphere® Extended Deployment V6.1

Operations Optimization: Centralized installation



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This presentation will cover the centralized installation manager in WebSphere Extended Deployment Operations Optimization version 6.1.

Agenda

- Centralized install overview
- Using the centralized installation manager
 - ▶ Install process overview
 - ▶ Configuring the repository
 - ▶ Adding packages to the repository
 - ▶ Installation process
- Summary

This presentation will first give an overview of the centralized installation manager, and then describe how to use the main components of this feature.

Centralized install overview

- WebSphere Extended Deployment V6.1 supports centralized installation from deployment manager to nodes in the cell
- Single install to the deployment manager
 - ▶ Includes all code for all of the scenarios described for all platforms
- “Push” of installation package from deployment manager to endpoints
 - ▶ Select a set of hosts and push extended deployment to those endpoints
 - ▶ Installs appropriate endpoint code based on type of endpoint
- Centralization of patch management
- Not supported on z/OS®

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Operations Optimization: Centralized installation

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The centralized installation manager is a new feature in WebSphere Extended Deployment version 6.1 which allows you to install Extended Deployment components and WebSphere maintenance from a central location. With the centralized installation manager you can install code once on the deployment manager and then push the installation to nodes in your environment. When installing Extended Deployment packages, the centralized installation manager will determine whether it should install an extension to an existing WebSphere Network Deployment node or the Extended Deployment middleware agent, depending on what is already installed on the target node.

The centralized installation manager can simplify the tasks of deploying product packages to your WebSphere Application Server Network Deployment version 6.1 cell.

The centralized installation manager is not supported on the z/OS platform.

Major components of centralized install

- Repository
 - ▶ Stores components to install
- User-Interface
 - ▶ Collects installation parameters
- Runtime
 - ▶ Interacts with target to perform install
 - ▶ Does not require node agent on target node

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The centralized installation manager has three major components. The repository stores the installation images used by the centralized installation manager. The repository must be located on a files system accessible by the deployment manager. The user Interface, an extension to the administrative console, collects the installation parameters from the administrator and submits them to the run time component, which communicates with the target node to accomplish the installation. The runtime component does not replace the installation wizard or the IBM Update Installer. Instead, the centralized installation manager starts the installation wizard for Extended Deployment components or the Update Installer to install or uninstall the components or maintenance.

The centralized installation manager is also capable of installing the Extended Deployment middleware agent on a node that does not have WebSphere previously installed using an agentless installation.

Note that the centralized installation manager is an extension of the administrative console; therefore it runs within the deployment manager process. As a result you cannot use the centralized installation manager to add maintenance or Extended Deployment packages to the deployment manager or any node that shares binaries with the deployment manager.

Section

Using the centralized installation manager

This section will describe capabilities of the centralized installation manager and how to use them.

Installation process

- Administrator selects available installation package
- Administrator selects installation targets
 - ▶ From list of nodes where the selected package can be installed
- Start installation
 - ▶ Monitor installation progress from the console
- Same steps apply for un-installation
- Installation history available on the console

After you first install WebSphere Extended Deployment Operations Optimization version 6.1, you can also use the centralized installation manager to install the compute grid or data grid components to other nodes in you environment. You can also install WebSphere Application Server V6.1 and Extended Deployment V6.1 refresh packs, fix packs, and interim fixes, and the IBM Update Installer for WebSphere V6.1. To perform a remote install, the administrator must first select a package to install from a list of packages in the repository. The administrator then identifies which nodes to install and supplies any parameters required by the installation process, and then starts the installation. The runtime component then connects to the target node, transfers the installation media to that node and starts the installation process.

Use the same general process to uninstall any package that was installed by the centralized installation manager. An installation history panel in the administrative console shows all packages that have been installed or uninstalled through the centralized installation manager.

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Centralized install functions

- Environment
 - System administration
 - Cell
 - Extended Repository Service
 - Save Changes to Master Repo
 - Deployment manager
 - Nodes
 - Middleware nodes
 - Node agents
 - Node groups
 - Task Management
 - Console Preferences
 - Grid scheduler
 - Visualization Data Service
 - Centralized Install Manager**
 - Available Installations
 - Installations in Progress
 - Installation History
 - Install Targets
 - Users and Groups

Welcome

Welcome

Integrated Solutions Console provides a common administration console for multiple products. The table lists the product suites that can be administered through this installation. Select a product suite to view more information.

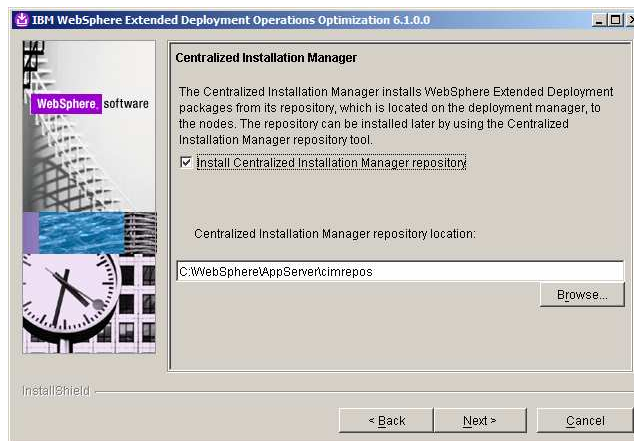
Suite Name	Version
WebSphere Application Server	6.1.0.3

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The centralized installation manager adds several new pages to the WebSphere Extended Deployment administrative console under “System administration.” These pages will be described in more detail on the following pages.

Setup with product install

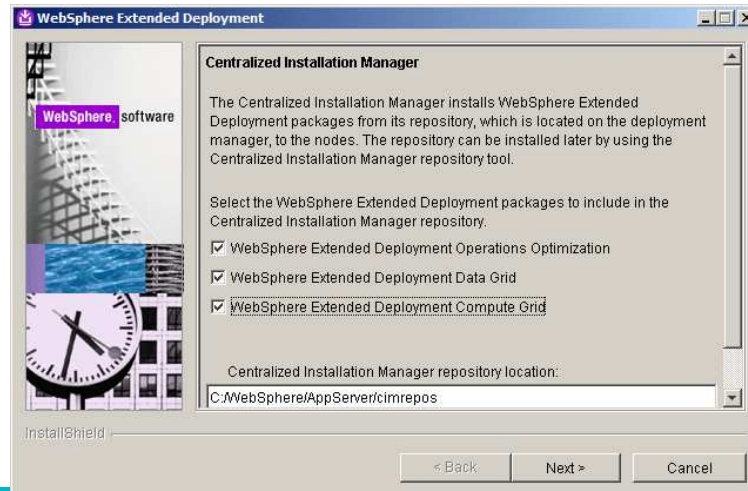
- Can include Extended Deployment package install information during Extended Deployment install
 - ▶ Will copy install media to repository



The centralized installation manager installs selected software packages from its repository, which is located on the deployment manager. Before you can use the centralized installation manager you must initialize this repository. When you install WebSphere Extended Deployment Operations Optimization on the deployment manager node you are given the option to create the centralized manager's repository and populate it with the Operations Optimization install image. When you install compute grid or data grid components you are also given the option of adding their install images to the repository.

Setup after product install

- Can create repository manually after install using `<install_root>/bin/xd_cimgrrepository.[bat|sh]`



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If you choose not to create the centralized installation manager repository during the initial install, you can use the centralized installation manager repository tool to add one or more product packages to the repository. This tool is automatically installed when you install WebSphere Extended Deployment Operations Optimization Version 6.1.

To populate the repository for the first time, ensure that the destination directory is empty. You can add other product components to the repository later only if it does not already contain components you are adding.

Download installable packages

- Can download maintenance files from the IBM support site
 - ▶ WebSphere Network Deployment or Extended Deployment
 - APAR
 - ftp URL
- Latest Update Installer
- Capability for installing arbitrary maintenance



In addition to the Extended Deployment packages you can also install WebSphere Application Server or Extended Deployment maintenance and the WebSphere Update Installer.

However these packages are not created with the repository; they must be added by a WebSphere administrator. The centralized installation manager can connect to the IBM support site and download maintenance package into the repository as specified by the administrator. It is also capable of downloading the latest WebSphere Update Installer. Once the package has been downloaded you can then use the centralized installation manager to install the added components from the repository to the nodes.

Add or remove packages

- System Administration → Centralized Installation Manager
→ Add or remove packages

Add Packages Remove Packages			
Select	Package name	Version	Package type
	Maintenance for WebSphere Application Server Network Deployment InstallPackageND61Maintenance.xml	6.1	Interim fix
	Maintenance for WebSphere Extended Deployment InstallPackageXD61Maintenance.xml	6.1	Interim fix
<input type="checkbox"/>	Update Installer for WebSphere Application Server InstallPackageUpdi61.xml	6.1	Maintenance tool
<input type="checkbox"/>	WebSphere Application Server Network Deployment Fix Pack InstallPackageND61FP9.xml	6.1.0.9	Fix pack
	WebSphere Extended Deployment Compute Grid InstallPackageXD61CG.xml	6.1	Product install
	WebSphere Extended Deployment Data Grid InstallPackageXD61DG.xml	6.1	Product install
	WebSphere Extended Deployment Data Grid for mixed server environment InstallPackageXD61DGMSE.xml	6.1	Product install
	WebSphere Extended Deployment Operations Optimization InstallPackageXD61.xml	6.1	Product install
	WebSphere Extended Deployment middleware agent for non WebSphere servers InstallPackageXD61Agent.xml	6.1	Product install
Total 9			

To add a package, select the “Add or remove packages” link under “Centralized Installation Manager.” This panel shows the types of packages that are available. If you select “Maintenance for WebSphere Application Server Network Deployment” or “Maintenance for WebSphere Extended Deployment” you will be given the opportunity to search the available fixes on the IBM support site and download selected updates directly into the centralized installation manager repository. The check box in the *select* column indicates components of that package have already been downloaded.

The WebSphere Extended Deployment packages are not available for download. They must be added to the repository either during install or by using the centralized installation manager repository tool.

Download installable packages

Available Installations

Available Installations > Installation Packages > Update Installer for WebSphere Application Server

Use this page to view the current status of the binary files by platforms. They are available for use if the download status is complete. If downloading is supported for this package, you can select one or more platforms and click **Download** to download the binary files.

Package name: **Update Installer for WebSphere Application Server**

Version: 6.1

Description: The Update Installer installs updates, such as interim fixes, fix packs, and refresh packs, for IBM WebSphere software. This Update Installer is for WebSphere Application Server V6.1 releases.

Reference URL: <http://www.ibm.com/support/docview.wss?uid=swg24012718>

Preferences

Maximum rows
20

Retain filter criteria.

Select	Platform	Download status
<input type="checkbox"/>	AIX	Absent
<input type="checkbox"/>	AIX 64 bit	Absent
<input type="checkbox"/>	HP-UX	Absent
<input type="checkbox"/>	HP-UX 64 bit	Absent
<input type="checkbox"/>	Linux for AMD 64 bit	Absent
<input type="checkbox"/>	Linux for Intel	Absent
<input type="checkbox"/>	Linux for Itanium	Absent
<input type="checkbox"/>	Linux for iP Series	Absent
<input type="checkbox"/>	Linux for iP Series 64 bit	Absent
<input type="checkbox"/>	Linux for zSeries	Absent
<input type="checkbox"/>	Linux for zSeries 64 bit	Absent
<input type="checkbox"/>	Solaris for Sun Sparc 32 bit	Absent
<input type="checkbox"/>	Solaris for Sun Sparc 64 bit	Absent
<input type="checkbox"/>	Solaris x86 64 bit	Absent
<input checked="" type="checkbox"/>	Windows	In progress 19% of 75283 KB
<input type="checkbox"/>	Windows AMD Opteron	Absent

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If you select “Update Installer for WebSphere Application Server” on the previous panel you will be presented with a list of platform specific images that are available to download. Select the check box next to platforms in your cell and press the Download button. The download will begin automatically. You can press the **refresh** icon next to **Download status** to track the progress of the download, as shown in the inset.

Install Targets

Install Targets

Use this page to manage install targets. Install targets contain machine access information which Centralized Install Manager requires to install or uninstall WebSphere packages. The hostname of the nodes in this cell appear as install targets automatically.

Preferences

Select	Host Name	SSH Public Key Installed	User name
<input type="checkbox"/>	10.10.3.47	No	wsbeta
<input type="checkbox"/>	hostC	No	
<input type="checkbox"/>	hostB	No	
<input type="checkbox"/>	hostA	No	

Total 4

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To successfully install a package, you must first identify the remote workstation on which selected software packages might be installed. Hosts containing nodes in the cell are automatically defined as installation targets. You only need to add new targets to install the middleware agent to hosts that do not already have WebSphere Extended Deployment version 6.1 installed.

When you define an installation target you can optionally specify an authentication method: user name and password or Secure Shell (also known as SSH) public/private key. If you choose to use the SSH public/private key method, you must first create a pair of keys and install the public key on all the installation targets to successfully complete this task.

If you do not specify authentication information in the installation target definition you will be prompted for this information by the installation wizard.

Available installations

Available Installations ?

Available Installations

Use this page to view the available WebSphere installation packages in this cell. Select a package type first, and select an installation package next. Select one or more features or maintenance packs if applicable.





To start the installation, click **Show installation targets** to display the applicable installation targets. Select one or more targets and click **Install** to launch the Installation Wizard. To start the uninstallation, click **Show uninstallation targets** to display the applicable uninstallation targets. Select one or more targets and click **Uninstall** to launch the Uninstallation Wizard.

* Select a package type


* Refresh pack, fix pack, or maintenance tool

[Add or Remove Packages](#)

Preferences

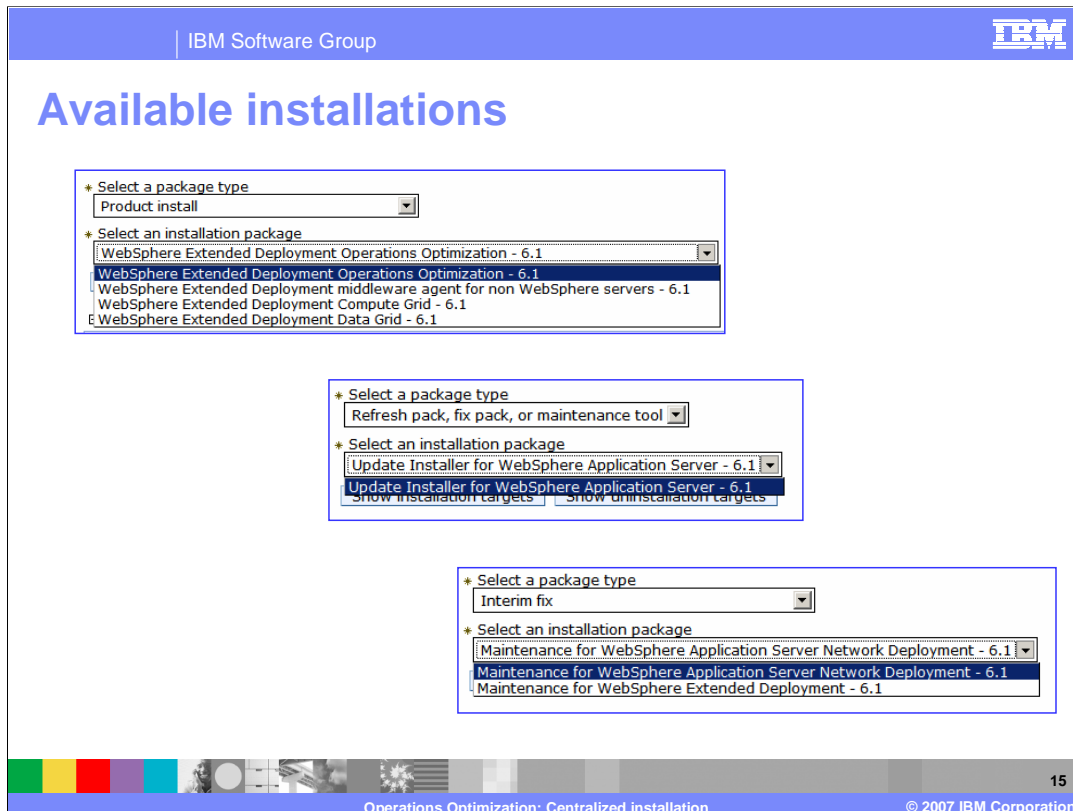





Select	Host Name	Node	Version	WebSphere installation location	Platform Type
None					
Total 0					


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You initiate an installation from the Available installations panel on the administrative console. You must select a package type first, and then you will be presented with a list of available packages of that type.



The “Product installation” package type includes any of the three WebSphere Extended Deployment Version 6.1 components: Operations Optimization, Compute Grid, or Data Grid, and the Extended Deployment middleware agent. These packages are not available to download, because the files are included during the product installation.

The “Refresh packs or fix packs” will present a list of WebSphere Network Deployment or Extended Deployment cumulative maintenance that has been downloaded into the repository.

The “maintenance tool” package type includes the IBM Update Installer for WebSphere Software, which is the tool that you use to apply maintenance to your WebSphere Extended Deployment and WebSphere Application Server Network Deployment environments. Before you can use the centralized installation manager to apply maintenance to your remote workstations, you must download the latest level of the Update Installer from the “Add or remove packages” panel.

The “Interim fix” package type will present you with a list of Authorized Program Analysis Reports (APAR) that you have added to the repository.

Installation targets

* Select a package type
Interim fix

* Select an installation package
Maintenance for WebSphere Extended Deployment - 6.1 [Add or Remove Packages](#)

* Select one or more maintenance packs
6.1.0.0-WS-WXD-IFPK47074.pak
6.1.0.0-WS-WXDDG-IFPK50998.pak
6.1.0.0-WS-WXDOP-IFPK50828.pak

Show installation targets Show uninstallation targets

Installation targets:

Preferences

Install Uninstall

Select	Host Name	Node	Version	WebSphere installation location	Platform Type
<input type="checkbox"/>	hostB	hostBNode01	ND 6.1.0.9 WXDCG 6.1.0.0 WXDDG 6.1.0.0 WXDOP 6.1.0.0 XD 6.1.0.0	c:/WebSphere/AppServer	Windows
<input type="checkbox"/>	hostC	hostCNode01	ND 6.1.0.9 WXDCG 6.1.0.0 WXDDG 6.1.0.0 WXDOP 6.1.0.0 XD 6.1.0.0	c:/WebSphere/AppServer	Windows
<input checked="" type="checkbox"/>	hostA	hostANode01	ND 6.1.0.9 WXDCG 6.1.0.0 WXDDG 6.1.0.0 WXDOP 6.1.0.0 XD 6.1.0.0	C:/WebSphere/AppServer	Windows

Total 3

After you have selected the code to install, press the button “Show installation targets” to see the hosts where the selected package can be installed. Note that in this example hostA is not available as a target for the select interim fix. This is because in this cell hostANode01 shares binaries with the deployment manager node.

Installations in progress

Installations in Progress

Use this page to see the install in progress and pending submissions.

Preferences

Cancel Pending Install

Select	Host Name	Operation	Package and Features	Creation Time	Status
<input type="checkbox"/>	10.10.3.47	Install	WebSphere Advanced Technology Monitoring Agent-6.1	2006-10-16 15:55:43	In Progress

Total 1

You can check the status of pending install or uninstall requests from the Installations in Progress page of the administrative console. When an installation completes, it is removed from this panel and moved to the installation history panel.

Installation history

Installation History

Use this page to see the results of previous submitted installation or uninstallation. Click View Log to see the logs and error messages.

☰ Preferences

Remove

Select	Host Name	Operation	Package and Features	Creation Time	Completion Time	Completion Status
<input type="checkbox"/>	10.10.3.47	Install	WebSphere Advanced Technology Monitoring Agent-6.1	2006-10-16 15:55:43	2006-10-16 15:58:30	Succeeded View details...

Total 1

The Installation history page allows you to review the status and log files of completed installation requests.

Uninstall

- Uninstall works the same as install
 - ▶ Administrator selects package to remove
 - ▶ Administrator selects target hosts
 - ▶ Starts the process
 - ▶ Monitors the progress
 - ▶ Verifies by looking at the history

The centralized installation manager can uninstall any package that it installed. The uninstall process is similar to the installation process. Press the “Show uninstallation targets” after selecting the package to remove on the “Installation targets” panel.

Summary

- Centralized installation manager makes Extended Deployment installation and update installations easier
- Flexible remote install capability
 - ▶ Extended deployment components
 - ▶ Fix packs
 - ▶ Interim fixes

The centralized installation manager allows you to install Extended Deployment components and WebSphere maintenance from a central location. The centralized installation manager can simplify the tasks of deploying product packages to your WebSphere Application Server Network Deployment version 6.1 cell, and can act as a centralized location for managing installation of maintenance packages to nodes in your cell.

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