IBM Software Group

IBM WebSphere Application Server V6.1

Installing IBM HTTP Server

@business on demand.

© 2006 IBM Corporation
Converted to video May 15, 2015

This presentation will focus on the installation and new features provided by IBM HTTP Server V6.1.

This presentation will begin by explaining the procedure for installing IBM HTTP Server. It will then show basic administration of Web servers using WebSphere Application Server, including certain features that are specific to IBM HTTP Server. In order for WebSphere Application Server to manage a Web server, an administrative object called a Web server definition must be created. This presentation will also explain the process for creating a Web server definition within the WebSphere configuration.

Section

IBM HTTP Server installation

Installing IBM HTTP Server

© 2006 IBM Corporation

The next section will cover the installation of IBM HTTP Server.

The installation process for the IBM HTTP Server is based on the same Install Shield platform as the other installs in WebSphere Application Server V6.1. This provides the same user experience as the WebSphere Application Server installation and has the same option for a silent installation. The installer for the IBM HTTP Server is available on the WebSphere Installation Tools CD. IBM HTTP Server V6.1 is based on the Apache 2.0.47 web server.

What's new in V6.1 IBM HTTP Server installer

- Complete configuration of IBM HTTP Server Administration Server during installation

- Installs WebSphere Application Server plug-in for IBM HTTP Server by silently invoking the Plug-in installer

- Support for non-root installation
  - ▶ Excludes GSKit

- Common logging and tracing strategy across installation packages

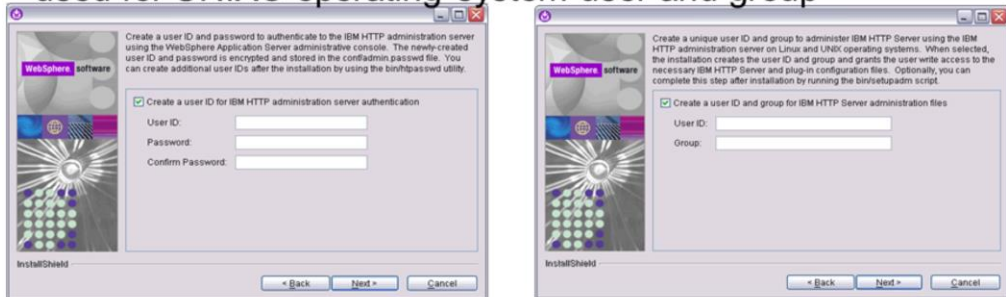Installing IBM HTTP Server

© 2006 IBM Corporation

5

The IBM HTTP Server can also optionally install the WebSphere Application Server plug-in for IBM HTTP Server by invoking the plug-in installer silently. The IBM HTTP Server V6 silent installer did not invoke the plug-in installer, requiring a separate installation for both components. In version 6.1 you can install the plug-in silently while installing IBM HTTP Server. The plug-in will be installed in the IBM HTTP Server root directory under a directory named Plugins.

The IBM HTTP Server installation also now supports a non-root installation. However, when IBM HTTP Server is installed with a non-root password the GSKit will not be installed. This makes it only appropriate to use the non-root install option in a scenario where there is no need to secure the Web server.

Configure the IBM HTTP Server administration server V6.1

- Installer will prompt for input parameters and will run the scripts during the configuration phase of the installation

- Note: User ID & Password used for IBM HTTP Server administrative server authentication is not the same User ID used for UNIX® operating system user and group

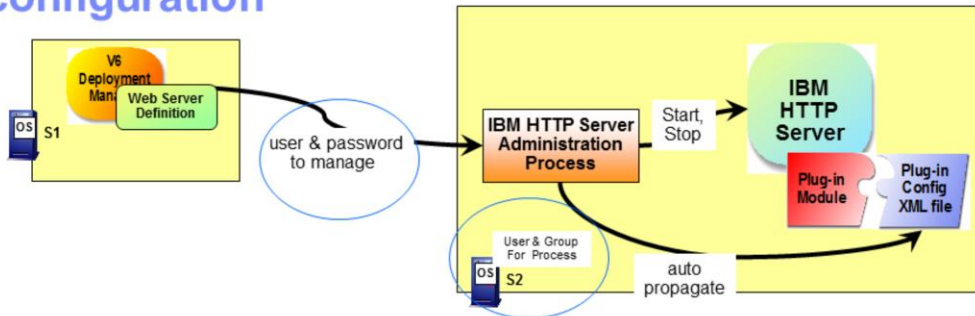IBM HTTP Server Administrative Server user name and password

Unix Operating System user and group

The IBM HTTP Server V6.1 installer now displays panels to gather additional information to configure the IBM HTTP Server Administration Server. The IBM HTTP Server administration server runs as the newly created user and group. The IBM HTTP Server administration server is required on remote machine to manage the Web servers from the administrative console.

For IBM HTTP Server V6, there were two post-install scripts that needed to be run to configure the IBM HTTP Server Administration Server. These scripts are no longer needed, as the configuration is performed during installation.

**IBM HTTP Server administration server configuration**

- ▶ In V6 two post install scripts, *htpasswd* and *setupadm*, had to be run to configure the IBM HTTP Server Administration Server
- ▶ In V6.1 the installation wizard prompts for information to configure the Administration Server

The IBM HTTP Server administration server is required on a remote machine to manage Web servers from the WebSphere Application Server administrative console. For IBM HTTP Server V6, there were two post-install scripts that needed to be run to configure the IBM HTTP Server Administration Server. In version 6.1 these are no longer needed, instead this information is gathered during installation.

The administration server requires read and write access to configuration files and authentication files to perform Web server configuration data administration. Installation creates a user and group on UNIX machines and changes the files UID and GID under the configuration directory. The IBM HTTP Server Administration server will run under the newly created user and group in order to have write access to the necessary IBM HTTP Server configuration files.

Plug-in installation option

- Installer can silently install the Web server Plug-in
- Prompts for Web server definition name and application server host name
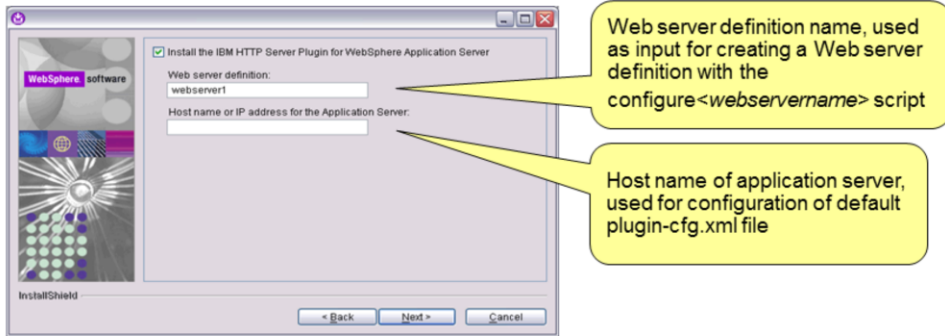
In version 6, the plug-in installation wizard was launched separately after the IBM HTTP Server installation had finished. For version 6.1, the plug-in installer can optionally be run silently during the server installation. Correspondingly, when IBM HTTP Server is uninstalled, the plug-in will be uninstalled silently. The installer prompts you for a Web server definition name and the hostname for WebSphere Application Server.

The Web server definition name will be used for creating the Web server configuration script that is stored in the Plugins/bin directory. This file can be run under an Application Server profile to create a Web server definition to be managed through the administrative console. The Application Server hostname will be used for creating a dummy plugin-cfg.xml. This dummy file will help to avoid IBM HTTP Server startup failure and can also be used to test the plug-in installation.

IBM

Plug-in installation option (cont.)

- Plug-in will be installed under the IHS install directory by default
  - <IHS_Install_location>/Plugins

- Configure<*webservername*>.bat/sh script will be created in <IHS_Install_location>/Plugins/bin

- Plug-in install logs will be saved in
  - < IHS_Install_location>/Plugins/logs

9

If you choose to install the plug-in during the IBM HTTP Server installation, the plug-in will be installed to the IHS home directory under Plugins. The Web server configuration script will be placed in the Plugins/bin directory, and can be used to generate a Web server definition. The plug-in logs are kept separate from the IBM HTTP Server logs, and are in the 'logs' directory under the Plugins directory.

As part of the IBM HTTP Server installation the GSKit will also be installed. The GSKit is a security component used by IBM HTTP Server. If you choose to install IBM HTTP Server as a non-root user, the GSKit will not be installed, because the GSKit requires root privileges.

IBM Software Group

IBM HTTP Server V6.1 silent installation

- Silent installation
  - Uses a response file input
    - Customize the sample response file, provided in the IHS directory
  - install -options "responsefile.txt" -silent
  - Option names have been changed to more meaningful names
    - Example: -OPT installLocation="\usr\IBM\WebSphere\IHS"
  - Requires administrator to accept license by changing the following option to "true" in the response file:
    - -OPT silentInstallLicenseAcceptance="true"

Installing IBM HTTP Server

11

© 2006 IBM Corporation

The IBM HTTP Server V6.1 installation also supports a silent install option. Like a silent install of WebSphere Application Server this involves using a response file to specify the installation parameters. After creating an appropriate response file, the install command is run with the –silent option. The response file is documented to make the various options and parameters clear.

Uninstalling

- Uninstallation uses the InstallShield Multi Platform (ISMP) uninstaller
  - Entries in vpd.properties and other registries will be removed
- Located under the <IHS_root>/uninstall directory
  - Command :**uninstall [.exe]**
- Silent uninstall is supported
  - **Uninstall [.exe] –silent**
- IBM HTTP Server uninstall will invoke the plug-in uninstaller silently to remove a WebSphere Application Server plug-in installed with IBM HTTP Server
  - Plug-in uninstaller will use same JVM used by IBM HTTP Server uninstaller

Installing IBM HTTP Server   © 2006 IBM Corporation

12

During the IBM HTTP Server installation, an InstallShield uninstaller will be created for the IBM HTTP Server. This is no different than the uninstaller created for WebSphere Application Server during its installation. This uninstaller is what should be used to remove the IBM HTTP Server V6.1. Any other process used is not guaranteed to remove all of the components created during the installation process.

The next section will cover the basics of Web Server definitions.
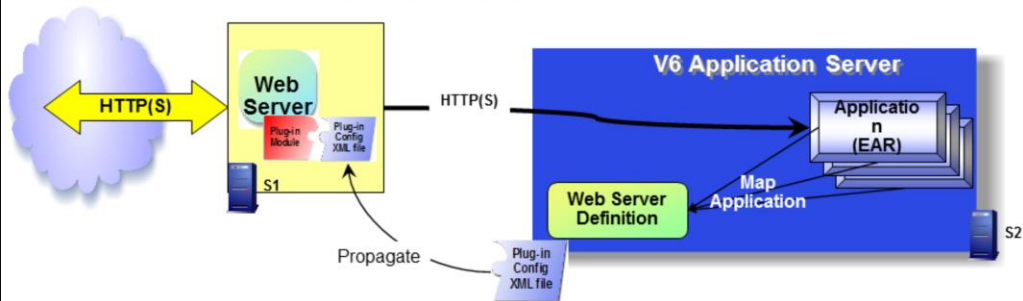
A Web server definition is a administrative object that can be created within a WebSphere Application Server topology. The creation of a Web server definition is separate from the installation of the Web server. Using a Web server definition allows applications to be associated with multiple Web servers in a topology. Custom plug-in configuration files can then be generated for each Web server. They also allow for easier management of IBM HTTP Server Web servers.

Web server administrative enhancements

- Option to create Web server definitions during profile creation
- Enhancements to the Web server definition wizard in the administrative console
- Ability to map applications while creating Web server definitions
- An IBM HTTP Server SSL configuration wizard

Installing IBM HTTP Server

© 2006 IBM Corporation

15

There are some new features available for administering Web servers in WebSphere Application Server V6.1. The first is an option to create a Web server definition during the creation of an Application Server profile. There are also improvements to the Web server definition wizard in the Administrative Console, including the ability to map applications to a Web server definition while it is being created. There is also a new configuration wizard for creating virtual hosts for a Web server that is available in the administrative console.

Stand-alone application server enhancements
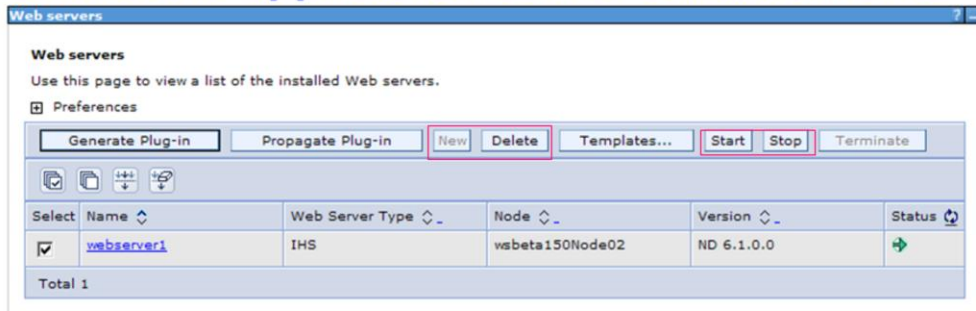
In WebSphere Application Server V6.1 there is now support in for creating Web server definitions for use with stand-alone application servers using the wizard in the administrative console. There are limitations based on the version of WebSphere Application Server installed. Express only allows for a single Web server definition due to licensing restrictions. Base users can create multiple Web server definitions. When a Web server is installed on the same system as the application server, and thus has the same hostname, the Web server definition will be created under the stand-alone node directory. If a stand-alone application server is federated to a deployment manager the Web server definitions and application mappings will be retained.
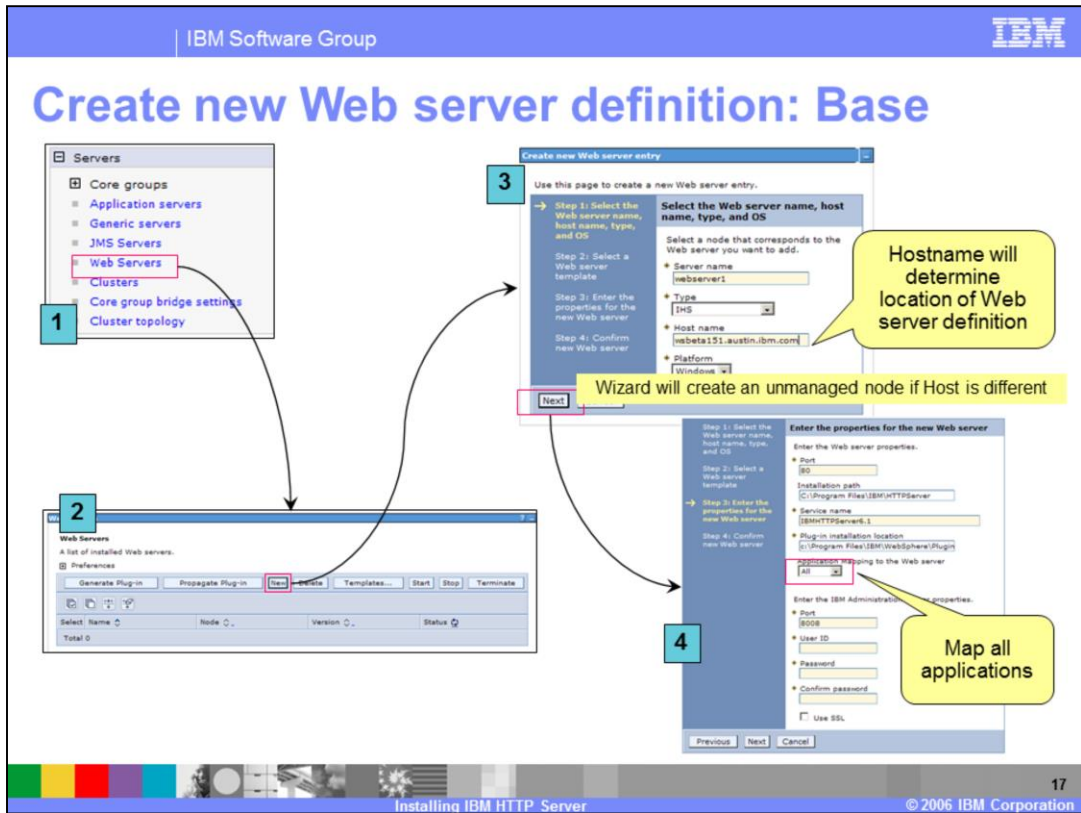
The steps of creating a Web server definition using the administrative console on a Base installation, are shown on this page.

Panels (1) and (2) show how to start creating the Web server definition.

When a new Web server definition is created, it must be associated with an existing node.

In Panel (3), the managed or unmanaged node is selected on which the Web server will be defined. In the example show here, there are two possible nodes, both a managed and an unmanaged node have already been created in this topology.

After a node is selected, the properties for the new Web server are entered. In panel (4), details for the Web server are provided.

The steps for creating a Web server definition using the administrative console on a network deployment installation are shown on this page:

Panels (1) and (2) show how to start creating the Web server definition.

When a new Web server definition is created, it must be associated with an existing node.

In Panel (3), the managed or unmanaged node is selected on which the Web server will be defined. In the example show here, there are two possible nodes, both a managed and an unmanaged node have already been created in this topology.

After a node is selected, the properties for the new Web server are entered. In panel (4), details for the Web server are provided.

Next will be the summary and reference section.

Summary

- The IBM HTTP Server installation process has been enhanced in V6.1
  - ▶ Optional plug-in installation
  - ▶ Simplified configuration of IBM HTTP Server administrative server
- V6.1 includes expanded IBM HTTP Server administration functionality in the administrative console
  - ▶ New virtual host configuration wizard
  - ▶ Generation and propagation of SSL keys

Installing IBM HTTP Server

20

© 2006 IBM Corporation

The installation process for IBM HTTP Server has been enhanced in version 6.1. The installer can now optionally install the Web server plug-in, and also contains panels that simplify the setup of the IBM HTTP Server administrative server. V6.1 also includes expanded administrative capabilities for managing IBM HTTP Server from the administrative console, including a new virtual host creation wizard and the ability to generate and propagate SSL keys.

IBM

Reference

- IBM HTTP Server
  - ▶ HTTP://www-306.ibm.com/software/webservers/HTTPservers/library/

- Understanding the WebSphere Application Server Web server plug-in
  - ▶ HTTP://www-106.ibm.com/developerworks/websphere/library/techarticles/0310_cocasse/cocasse.html

21

Command for generating plug-in

- **GenPluginCfg** command generates Web server plug-in configuration file, plugin-cfg.xml
- **Application centric** plug-in file generation
  - Used to generate plugin-cfg.xml file for only applications mapped to specific Web Server
  - Use –webserver.name option
    - E.g., GenPluginCfg.bat –node.name webServerNode -webserver.name webServer1
      - Plug-in file for webServer1 and saved under webServer1 defined server directory in the master repository
- **Topology centric** plug-in file generation
  - Same as V5.X
  - Used to generate plug-in file for the entire cell, node or Application Server
  - Example: GenPluginCfg -cell.name CellName -node.name appServerNode - server.name server1
    - Above command will generate plug-in file for all the applications installed on the server1

Installing IBM HTTP Server

22

© 2006 IBM Corporation

GenPluginCfg command is used to regenerate the WebSphere Web server plug-in configuration file, plugin-cfg.xml.

When the GenPluginCfg command is issued with the option -webserver.name webservrName,   plug-in configuration file is created for the Web server. This settings in this generated configuration file are based on the list of applications that are deployed on the Web server.

When this command is issued without the option -webserver.name webserverName, the plug-in configuration file is generated based on topology.

Installing IHS Web Servers