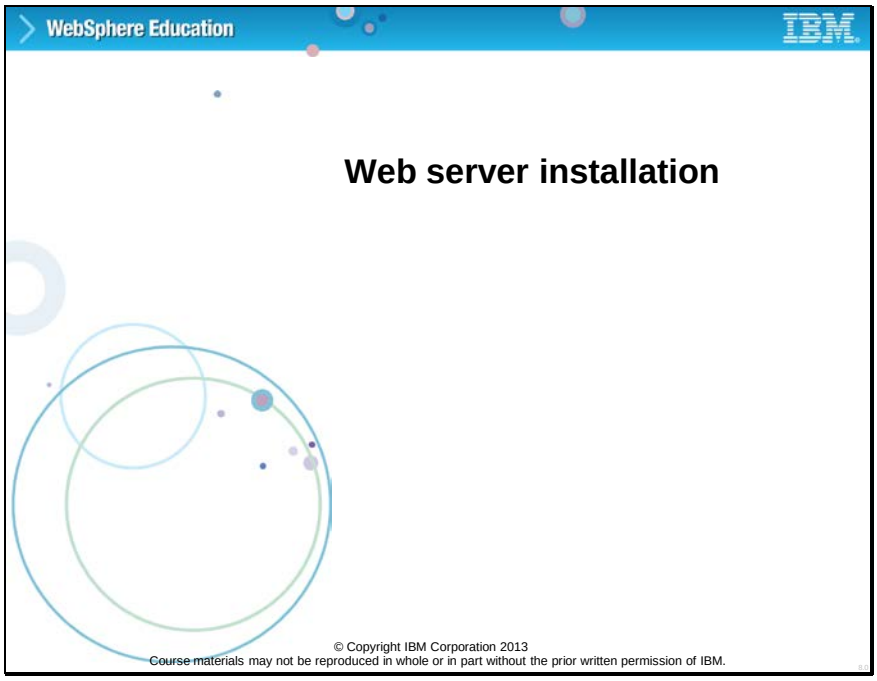
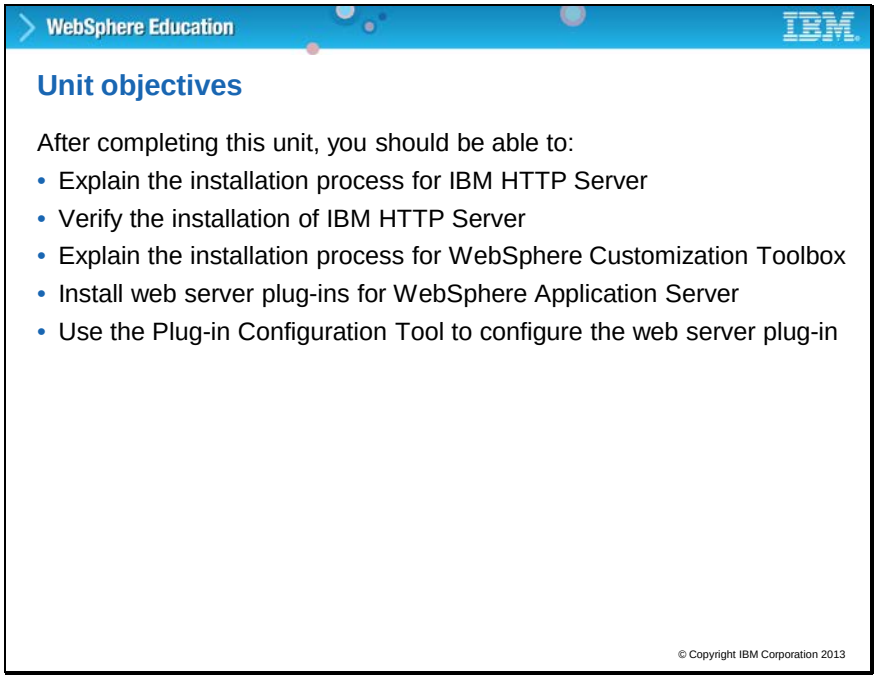
Slide 1



Web server installation
This unit covers the installation and configuration of a web server.

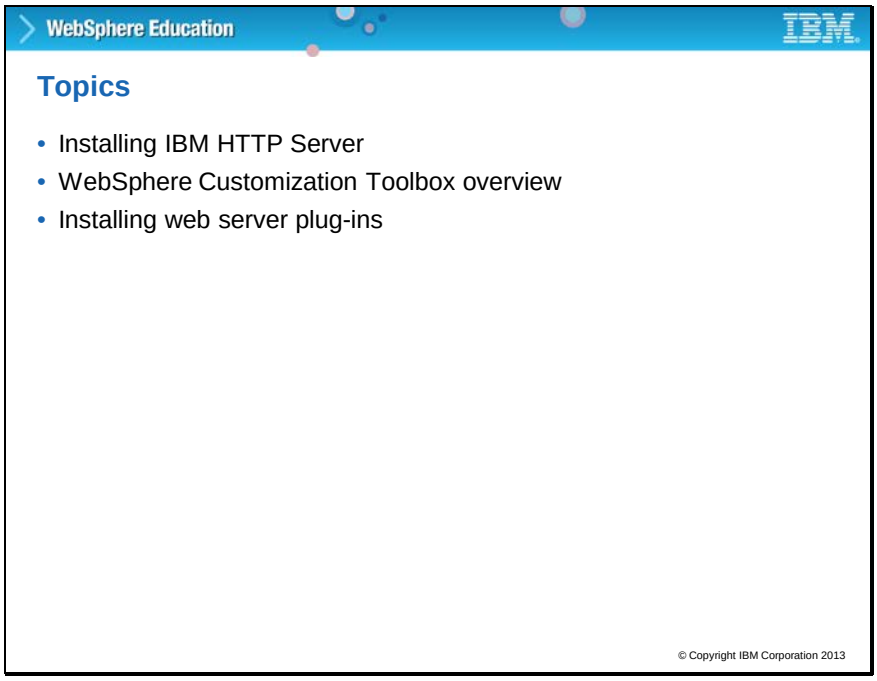
Slide 2



After completing this unit, you should be able to:

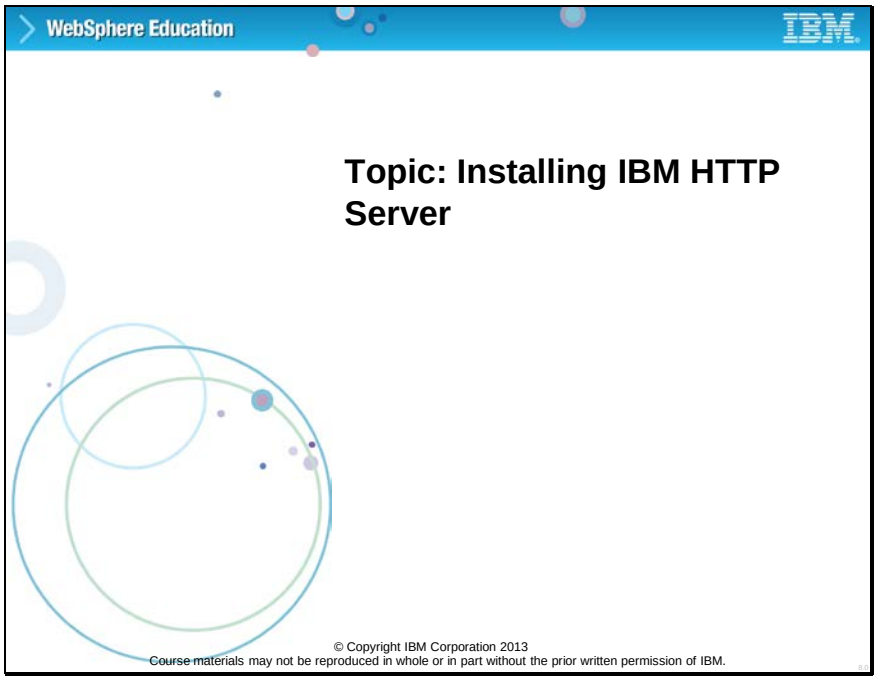
- Explain the installation process for IBM HTTP Server
- Verify the installation of IBM HTTP Server
- Explain the installation process for WebSphere Customization Toolbox
- Install web server plug-ins for WebSphere Application Server
- Use the Plug-ins Configuration Tool to configure the web server plug-in

Slide 3



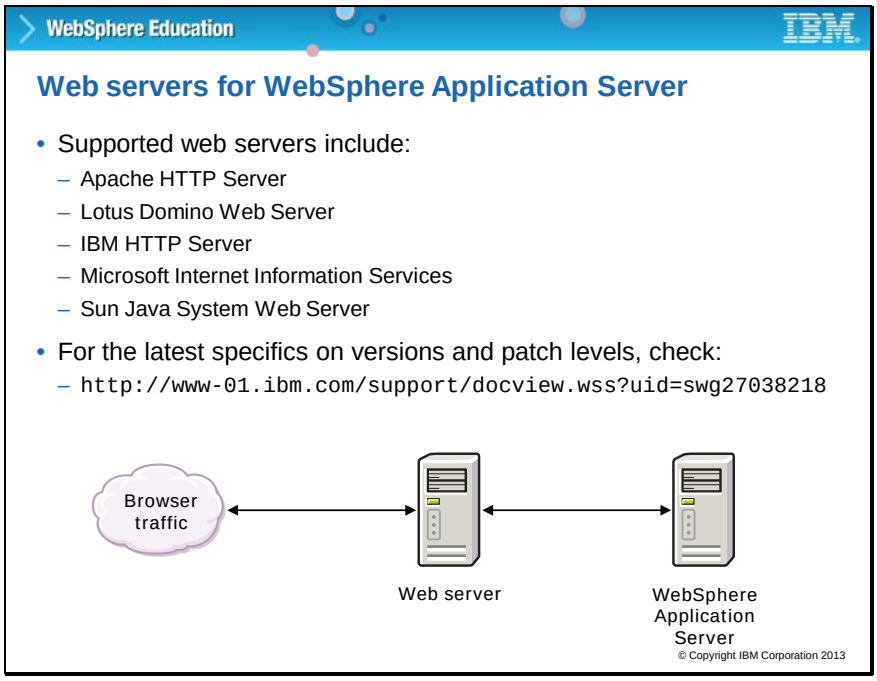
This unit includes three topics.

Slide 4



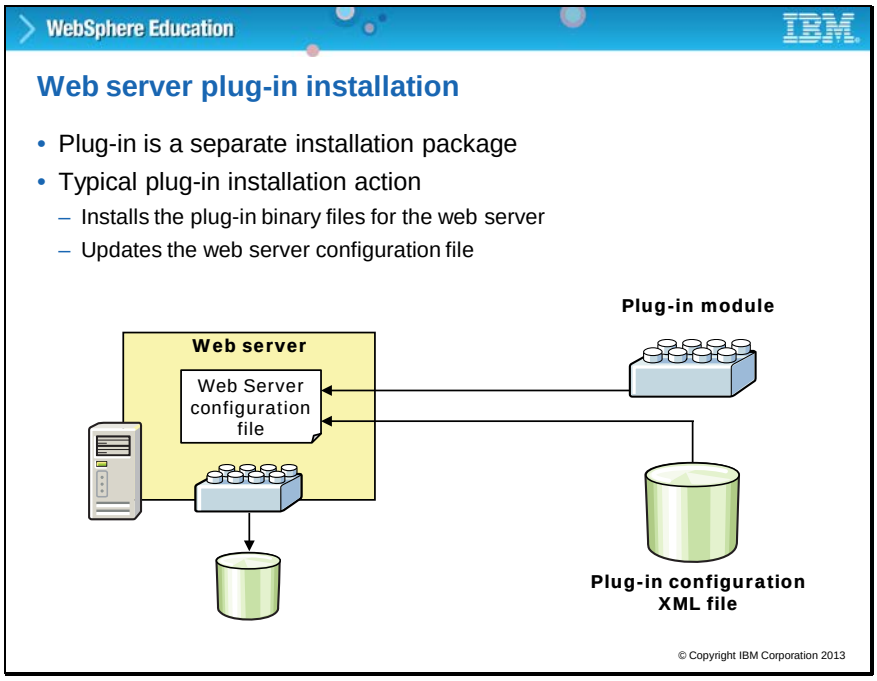
Topic: Installing IBM HTTP Server. In this topic, the installation process for the IBM HTTP Server is described.

Slide 5



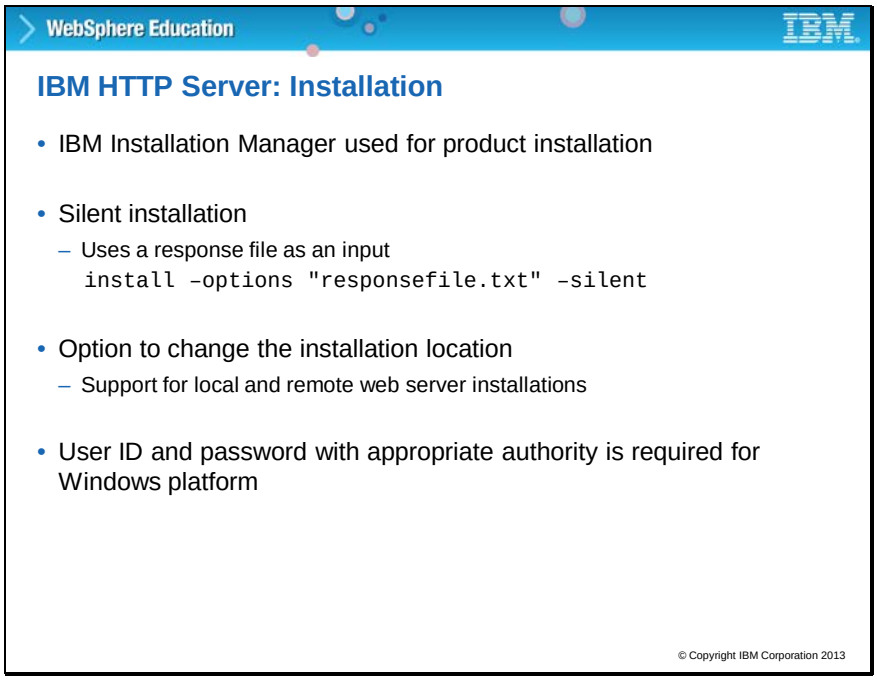
This slide lists the supported web servers. Visit the support site for the latest specification on version and patch levels for your web server.

Slide 6



WebSphere Application Server provides a binary plug-in for the web server that you must install. The purpose of the binary plug-in is to provide the communication protocol between the web server and the application server. When you create a profile that you want to use with a web server, you must install the web server plug-in. Use the web server plug-in configuration tool to configure both the web server and the application server. If the web server is not already installed, you can still install the web server plug-in for future use.

Slide 7

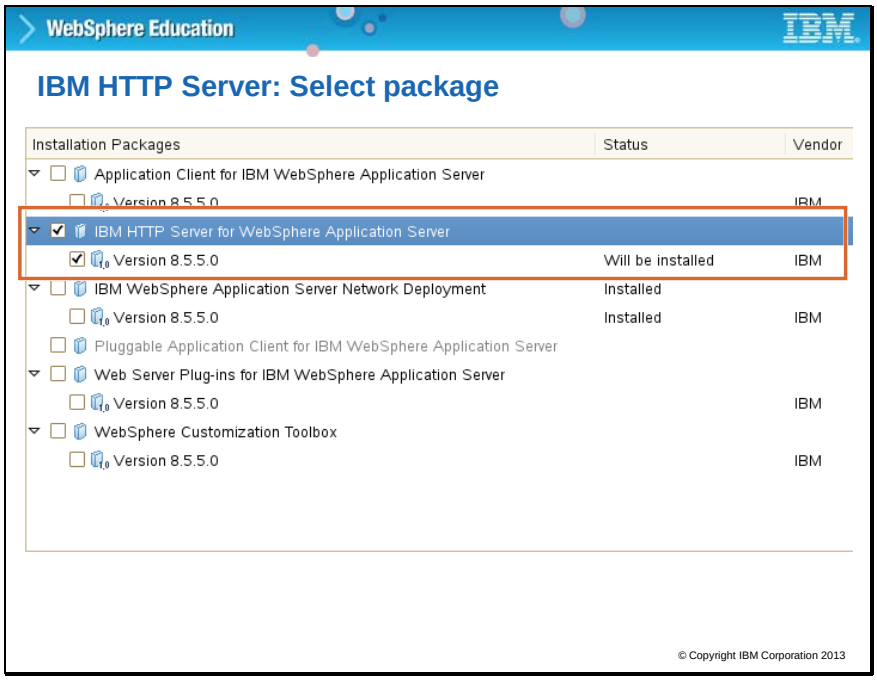


The IBM Installation Manager is used to install the IBM HTTP Server. To install IBM HTTP Server, the Installation Manager must be configured to connect to the repository that contains the HTTP Server installation package.
IBM HTTP Server can be installed by using a GUI, silently by using response files, or by using the command line. If you are going to install the IBM HTTP Server silently, you create a response file and use the command syntax that is on the slide, specifying the name of the response file.

During installation, you have the option of changing the installation location. Choose a file system that is accessible by the Installation Manager. The web server can be installed locally or on a remote system.

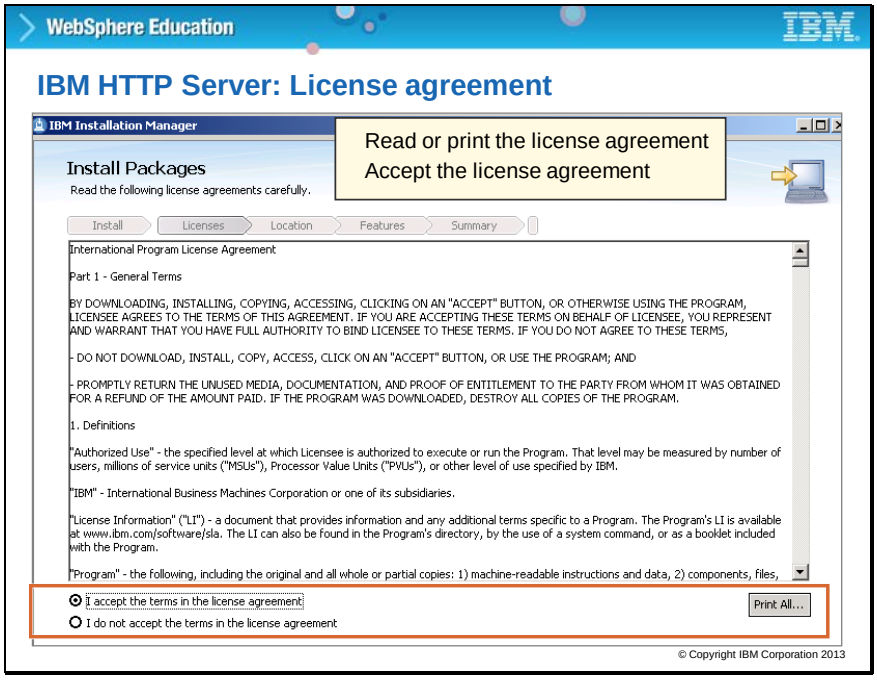
On a Windows platform, verify that the user ID has the appropriate access to the file system that contains the IBM HTTP Server installation files and has permissions to start and stop services. In this course, you use the GUI to install IBM HTTP Server.

Slide 8



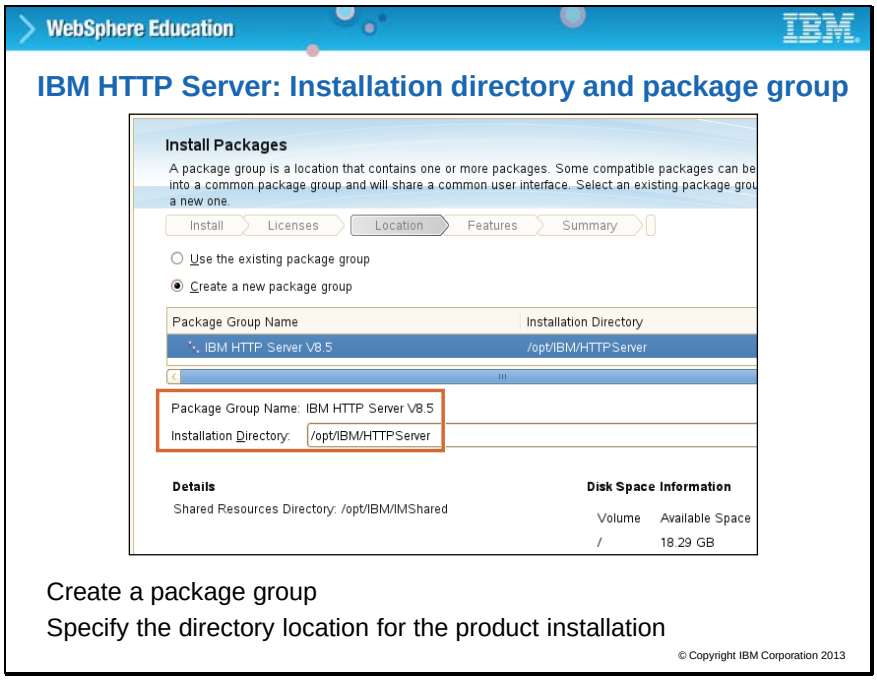
To install IBM HTTP Server by using the GUI, start the Installation Manager. From the main page, select the **Install** option. The Installation Manager searches its defined repositories for available packages. If the IBM HTTP Server package is found in one of the repositories, then it is listed on the Install Packages page that is on the slide.
Select the IBM HTTP Server and the appropriate version. If you already have the IBM HTTP Server installed on your system, a message displays indicating that IBM HTTP Server is already installed. To create another installation of IBM HTTP Server in another location, click **Continue** and click **Next**.

Slide 9



Read and accept the license agreement to continue with the installation.

Slide 10

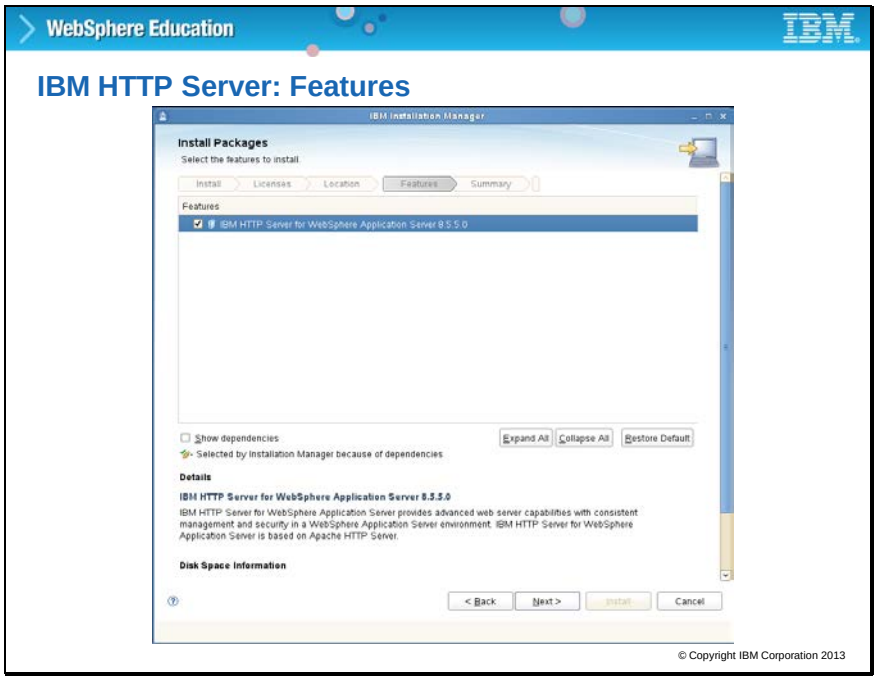


As explained in a previous unit, package groups can contain one or more packages. Here, the option to **Create a new package group** is selected. The package group contains the IBM HTTP Server package.

Next, specify the installation root directory for the product binary files. The following restrictions apply when specifying an installation directory:

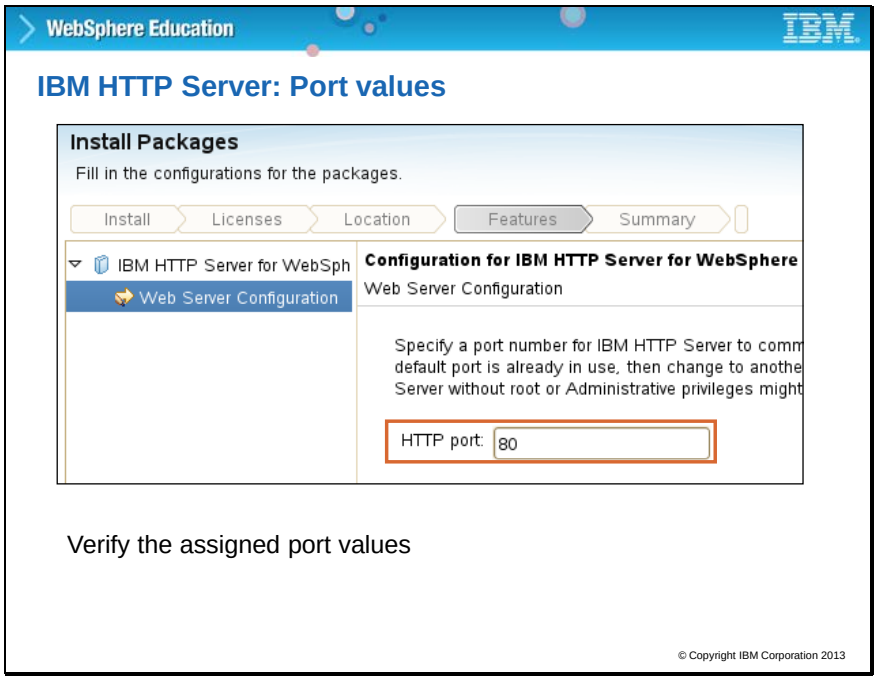
- Do not use symbolic links as the destination directory; they are not supported.
- Do not use spaces in the name of the installation directory; they are not supported.
- Do not use a semicolon in the directory name. IBM HTTP Server cannot install properly if the target directory includes a semicolon.

Slide 11



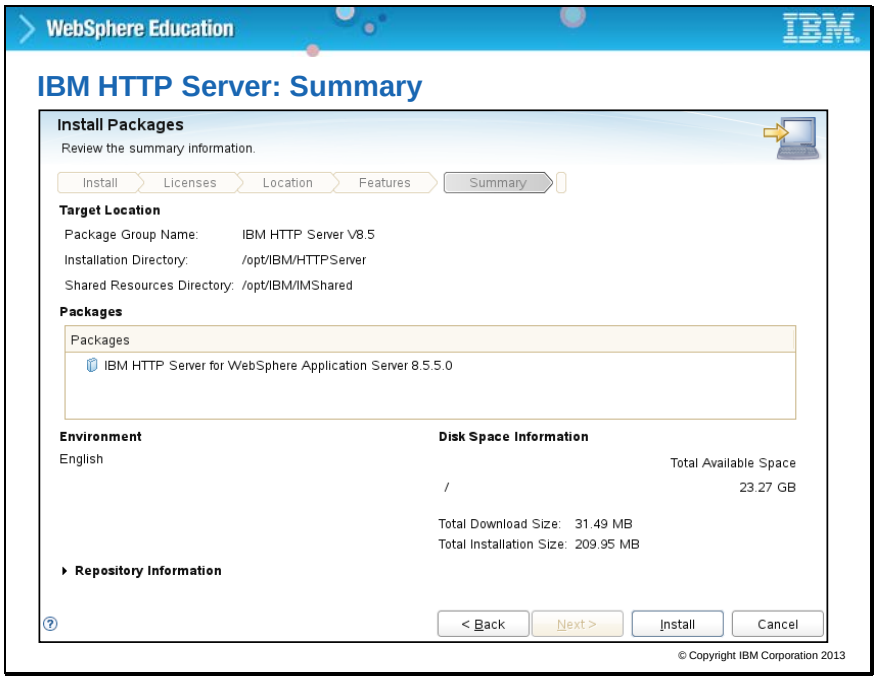
Select any available features to install and click **Next** to continue with the installation.

Slide 12



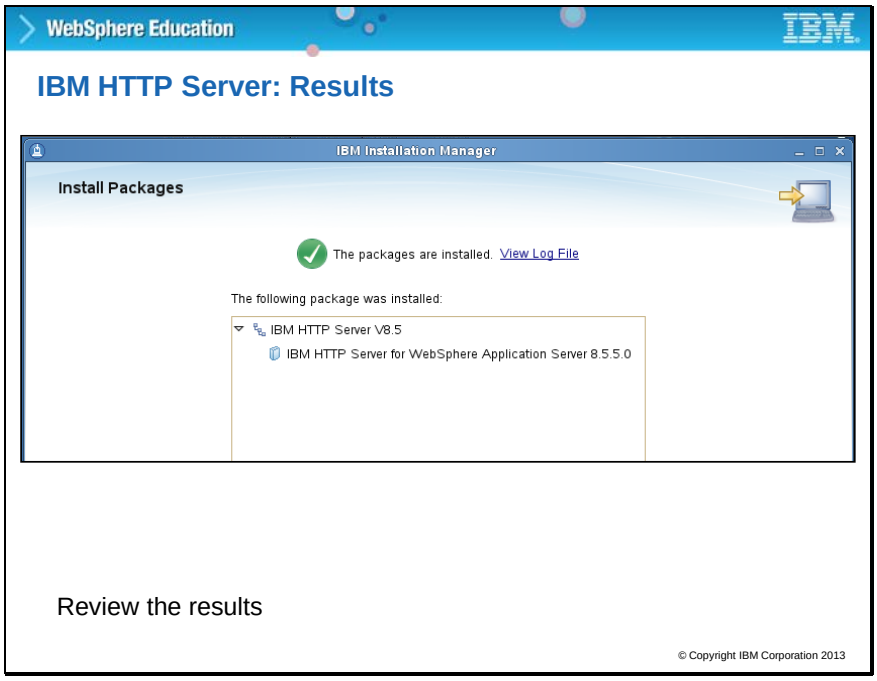
On the Features page, you configure the TCP port that the IBM HTTP Server uses to communicate. Port 80 is typically the default port used. If port 80 is already in use, then change to another port that is available.

Slide 13



Review the summary information and click **Install**.

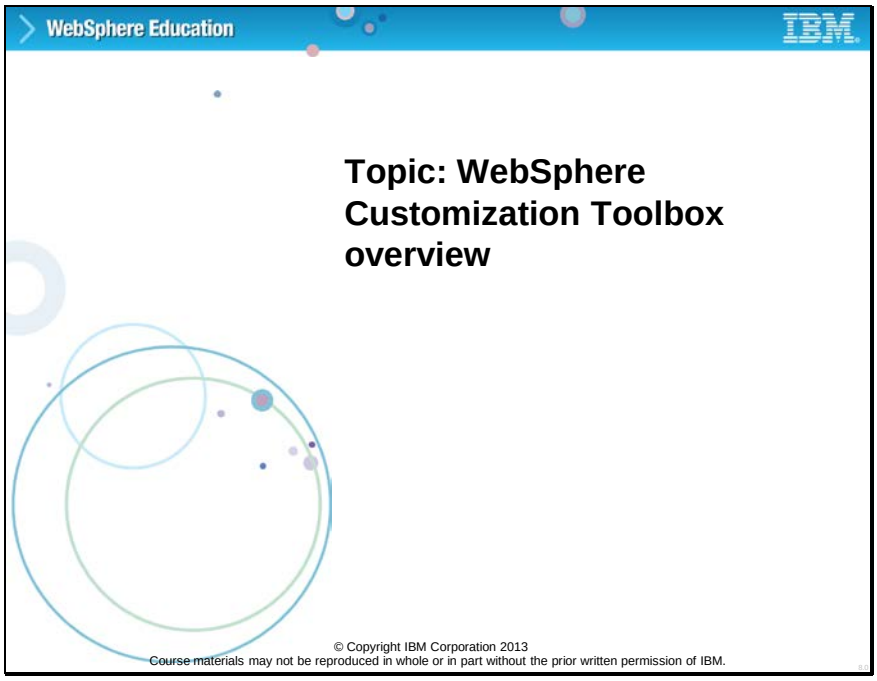
Slide 14



If the installation is successful, the Installation Manager displays a message that indicates the installation is successful. If the installation is not successful, click **View Log File** to troubleshoot the problem. The Installation Manager might also display important post-installation instructions. In this case, it is always a good idea to view the log file.

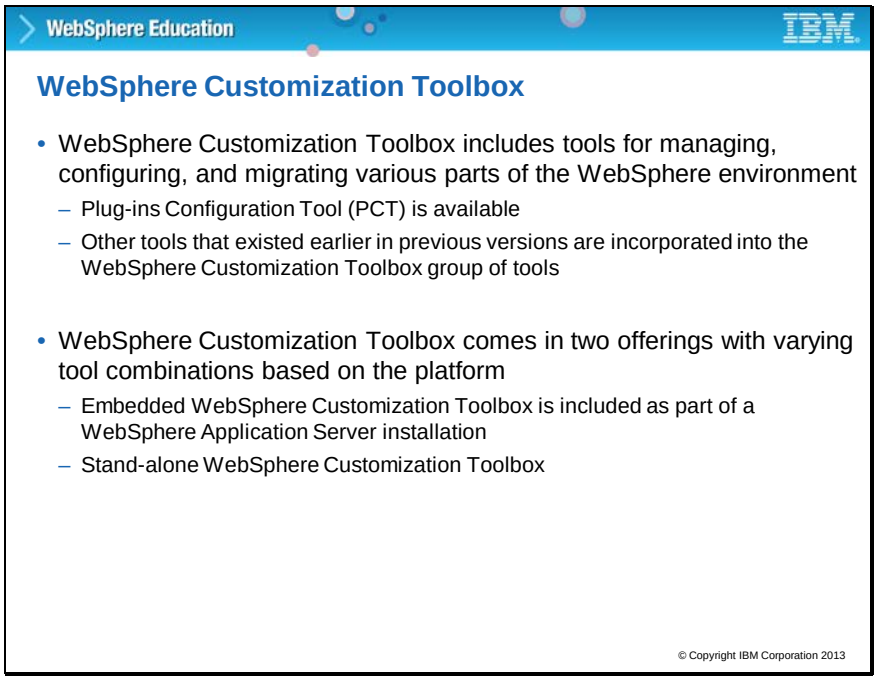
Click **Finish** and then click **File > Exit** to close the Installation Manager.

Slide 15



Topic: WebSphere Customization Toolbox overview. This topic explains the differences between the WebSphere Customization Toolkit that is embedded with the WebSphere Application Server installation and the stand-alone version.

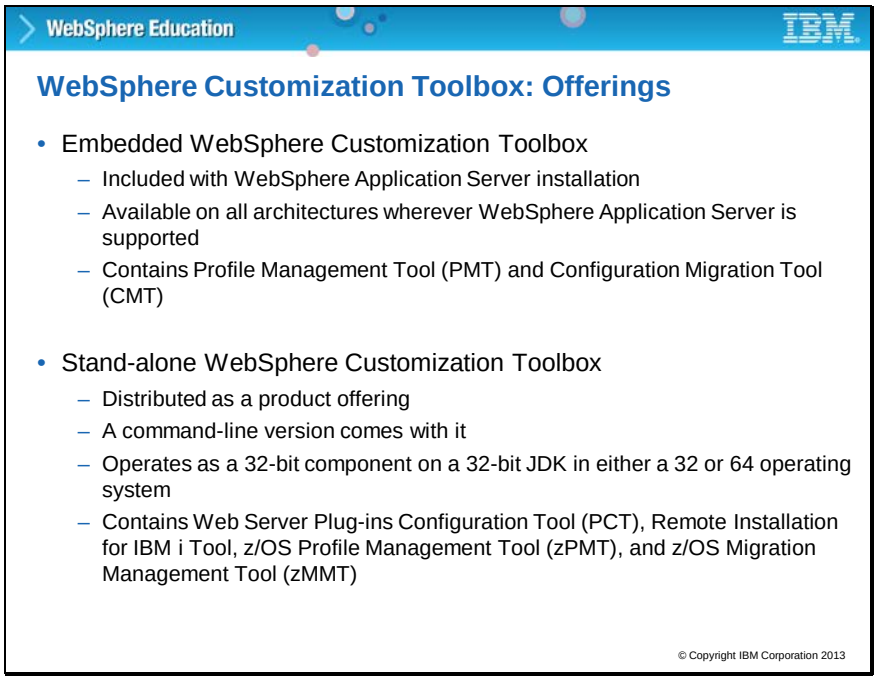
Slide 16



The WebSphere Customization Toolbox (WCT) includes tools for managing, configuring, and migrating parts of your WebSphere Application Server environment. WebSphere Customization Toolbox is more frequently called WCT.
WebSphere Customization Toolbox existed in version 7 but with limited capabilities, namely for configuring z/OS application servers. All tools that are contained in WebSphere Customization Toolbox of version 7 are carried forward; also, a tool, the Plug-ins Configuration Tool (PCT), is offered.

WebSphere Customization Toolbox is delivered as an independent stand-alone offering in addition to the embedded version. The tools that are wrapped into the WebSphere Customization Toolbox framework are different between the stand-alone and embedded versions.

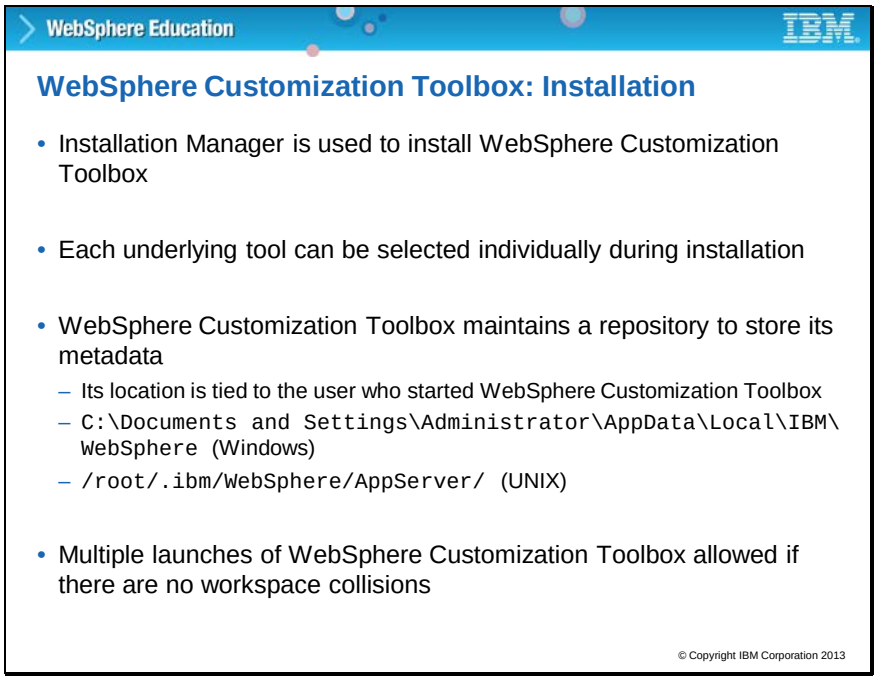
Slide 17



The embedded WebSphere Customization Toolbox is included with the installation of WebSphere Application Server and includes the Profile Management Tool (PMT) and Configuration Migration Tool (CMT). The embedded version is started from the command line by using the WCT command or it can be started from the first steps program.

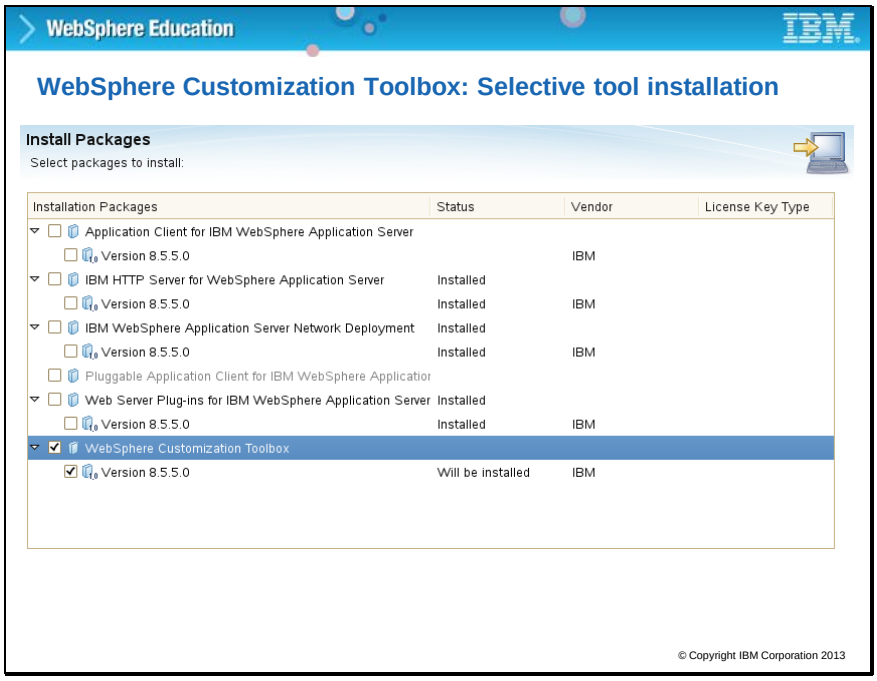
The stand-alone version is a separate product installation. It provides you with tools to customize the web server plug-in, remote installation for IBM i Tool, z/OS Profile Management Tool, and the z/OS Migration Management Tool (zMMT). The stand-alone version can be started by using the WCT command.

Slide 18



The stand-alone WebSphere Customization Toolbox is installed by using the Installation Manager. During the installation process, you are prompted to select the tools that you want included. WebSphere Customization Toolbox maintains a repository to store its metadata. The location of this repository depends on the user ID that started the installation of WebSphere Customization Toolbox. You can have multiple copies of WebSphere Customization Toolbox opened if you select a different workspace. A workspace is a directory on the file system that is used to store metadata about each instance of WebSphere Customization Toolbox.

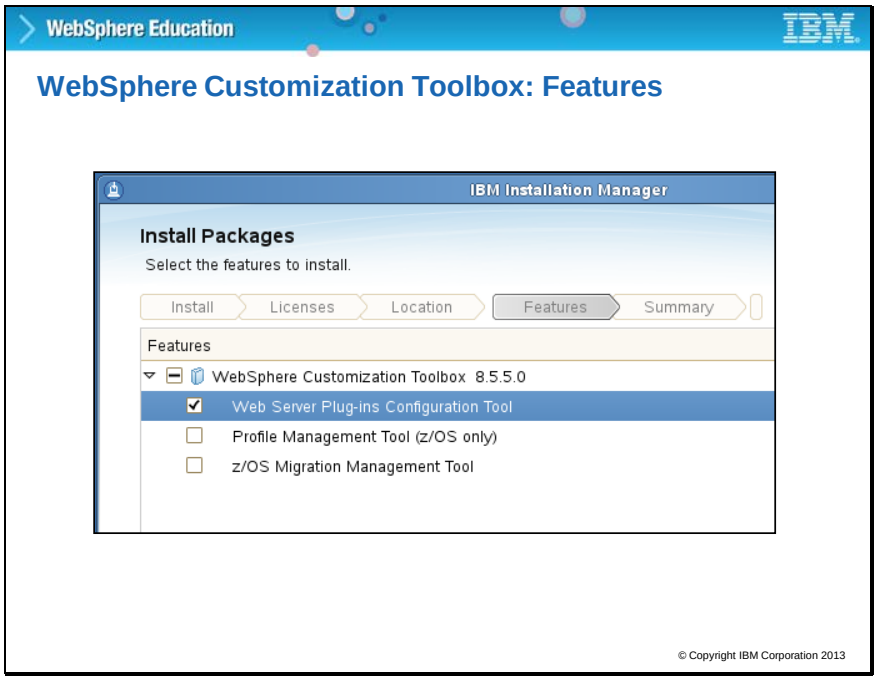
Slide 19



This screen capture illustrates the choices for possible WebSphere Customization Toolbox tool selections during installation.

To install the stand-alone WebSphere Customization Toolbox, start the Installation Manager and select the **Install** option from the main page. The Installation Manager searches the configured repositories and displays the available installation packages.
Select the **WebSphere Customization Toolbox** and its appropriate version. Click **Next** to continue.

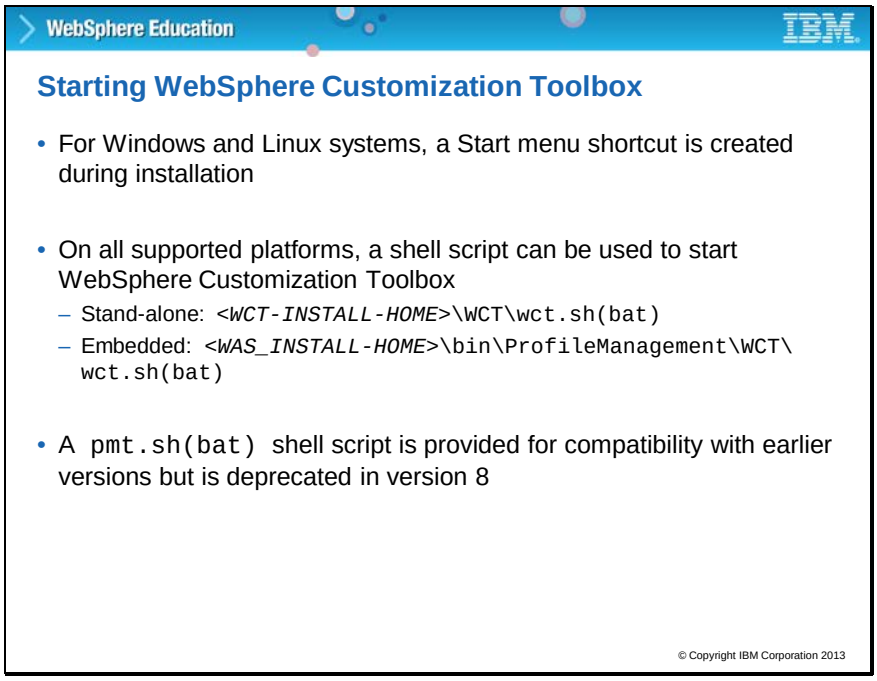
Slide 20



This screen capture illustrates the choices for possible WebSphere Customization Toolbox tool feature selections during modification. You are prompted to select which features you want to include in WebSphere Customization Toolbox. You have the following options:

- The **Web Server plug-in Configuration Tool** allows you to configure your web server plug-ins on distributed and Windows operating systems.
- The **Profile Management Tool (z/OS only)** allows you to build and process definitions for creating WebSphere Application Server profiles. Processing these definitions results in customization jobs that you can run on the z/OS system. You can upload directly to the z/OS system as you process a definition, or you can save it locally and upload it to the z/OS system later.
- The **z/OS Migration Management Tool** allows you to build and process definitions for porting WebSphere Application Server profiles.

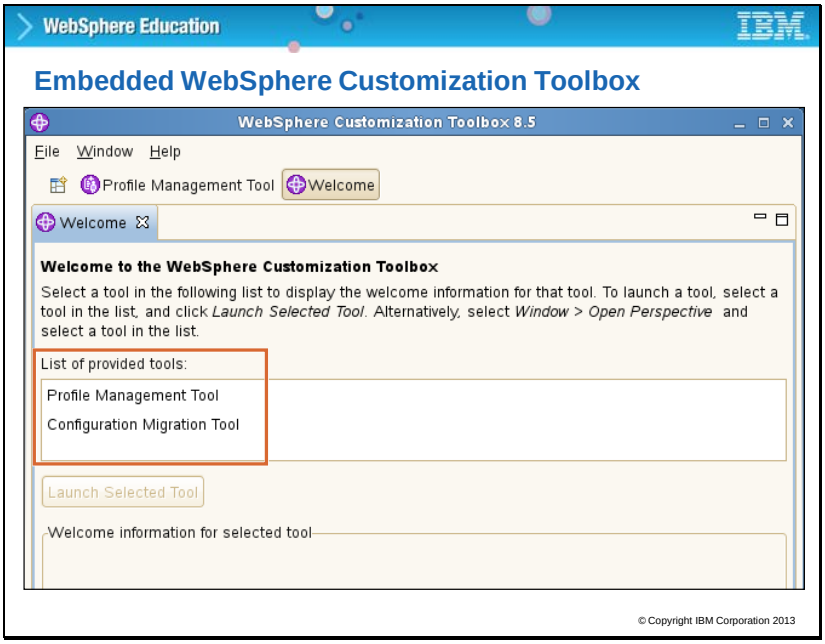
Slide 21



Starting the embedded WebSphere Customization Toolbox gives you the option of using the Profile Management Tool or the Configuration Migration Tool.

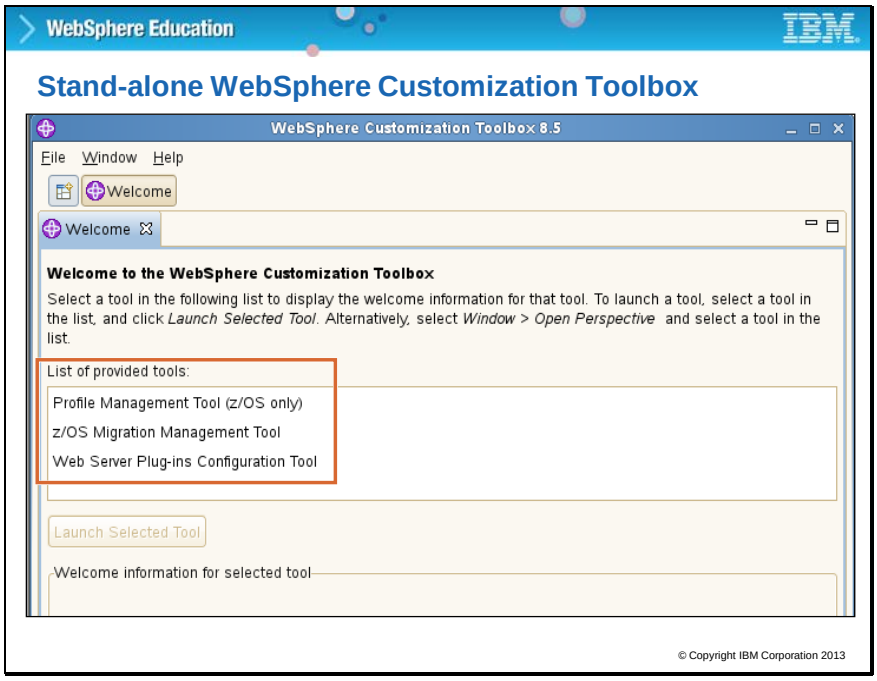
Starting the stand-alone WebSphere Customization Toolbox gives you options of using the Profile Management Tool (z/OS) only, z/OS Migration Management Tool, or the Web Server plug-ins Configuration Tool.

Slide 22



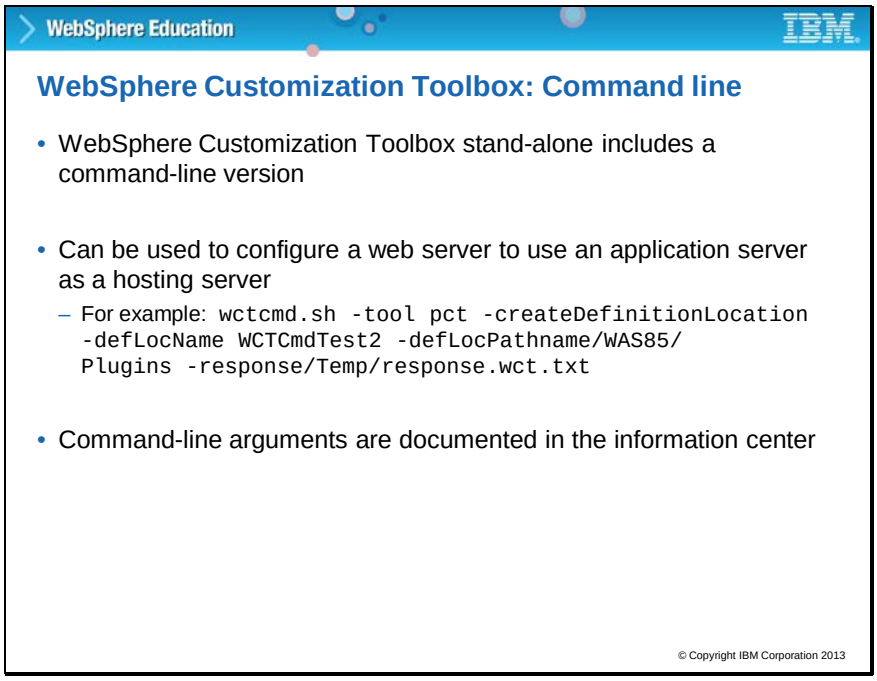
This screen capture shows the embedded WebSphere Customization Toolbox. The two included tools are listed. Select the appropriate tool and click **Launch Selected Tool** to begin working with that tool.

Slide 23



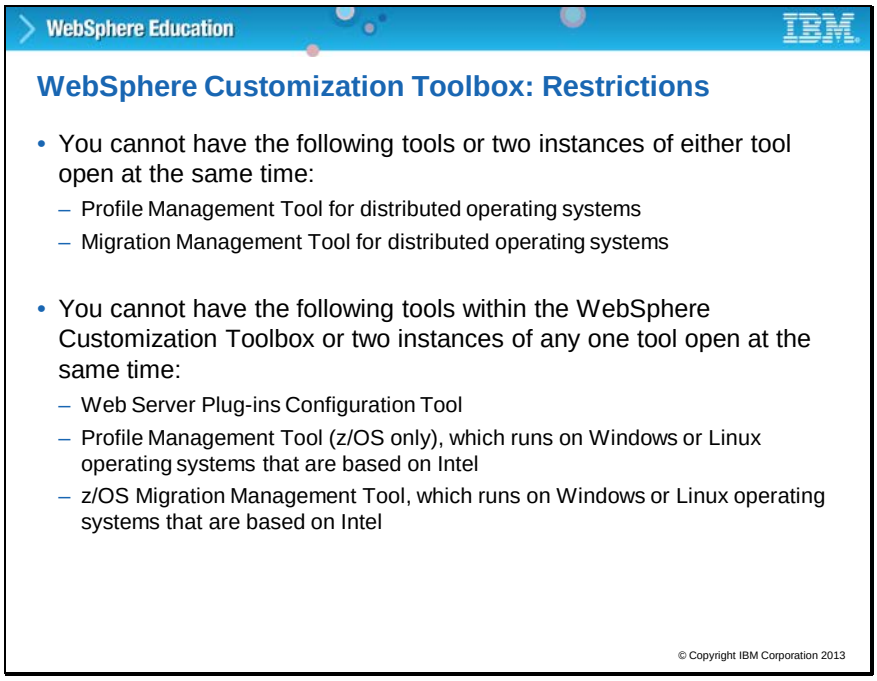
This screen capture shows the stand-alone WebSphere Customization Toolbox. All three tools are installed in the WebSphere Customization Toolbox and are listed in the screen capture. Select the appropriate tool and click **Launch Selected Tool** to begin working with that tool.

Slide 24



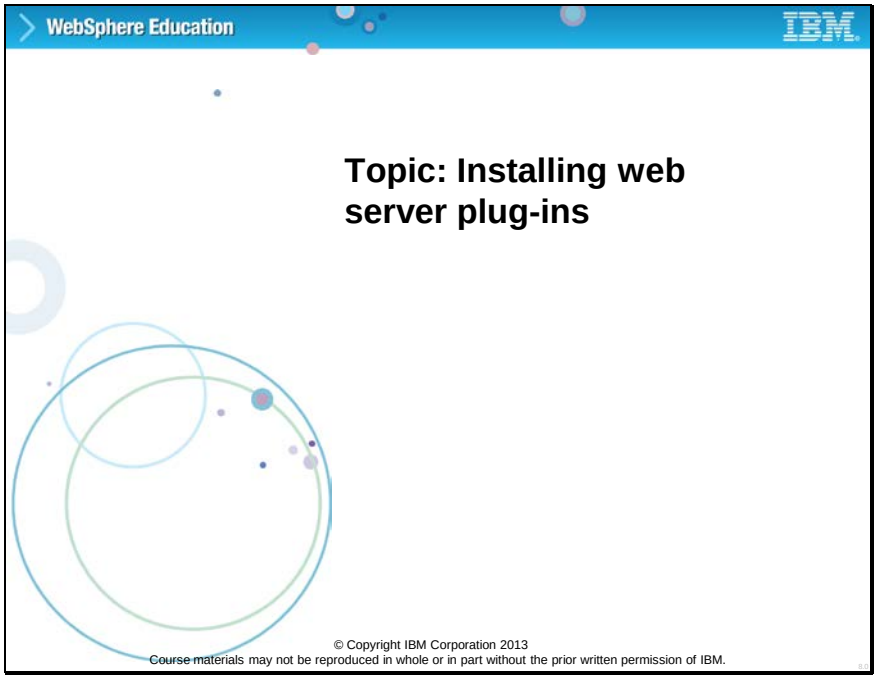
The stand-alone WebSphere Customization Toolbox includes a command-line version. To start the stand-alone WebSphere Customization Toolbox, you can use the syntax that is displayed on the slide. You can find more information about the command-line version in the information center.

Slide 25



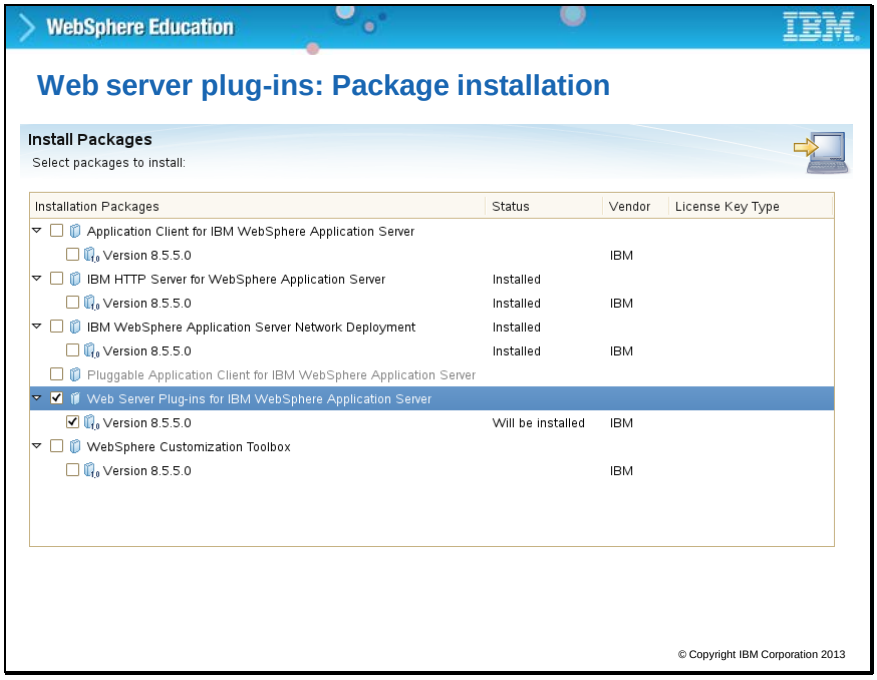
There are a few restrictions to keep in mind with the WebSphere Customization Toolbox. Within the embedded version, you cannot have the Profile Management Tool and the Migration Management Tool open at the same time.
Within the stand-alone version, you cannot have more than one instance of any of the tools open at the same time. However, you can have multiple instances of WebSphere Customization Toolbox open at the same time; if they are using different workspaces.

Slide 26



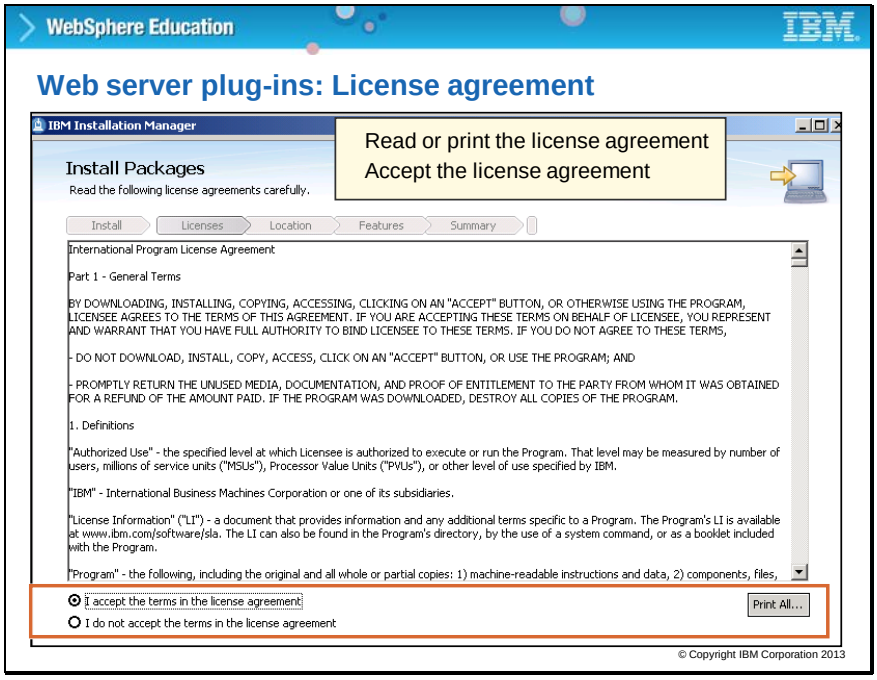
Topic: Installing web server plug-ins. In this topic, you examine the steps for installing the web server plug-in.

Slide 27



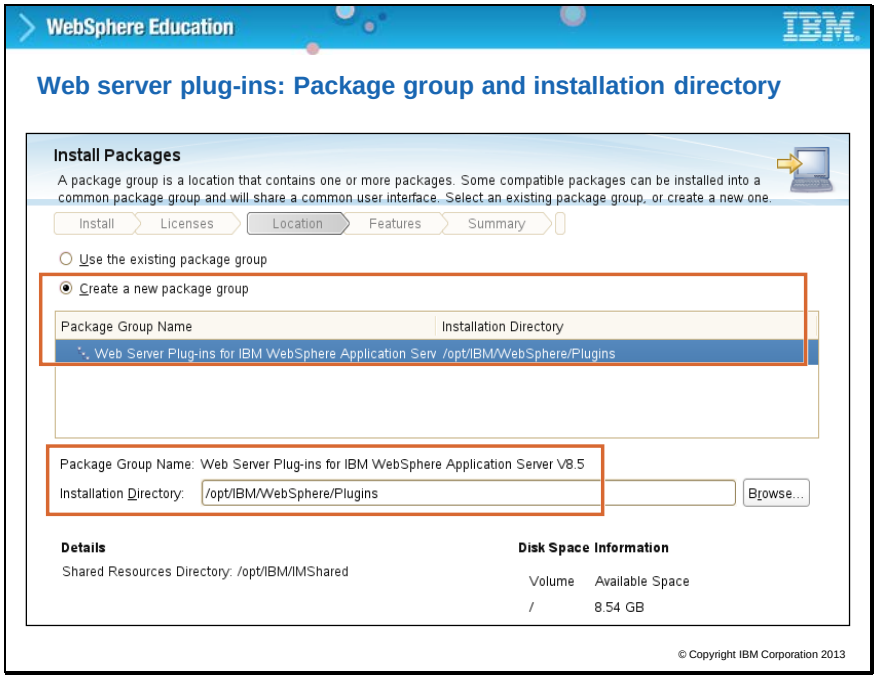
To install the web server plug-in, start the Installation Manager and select the **Install** option. The Installation Manager searches its repositories for packages that are available for installation. Select the Web Server Plug-in for IBM WebSphere Application Server and the appropriate version. Click **Next**.

Slide 28



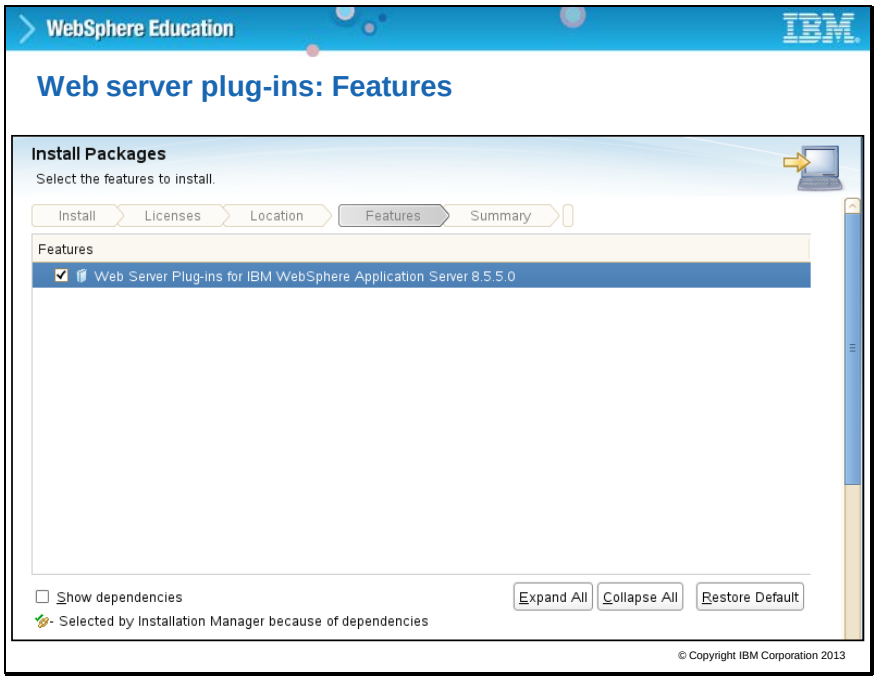
Read and accept the license agreement to continue with the installation.

Slide 29



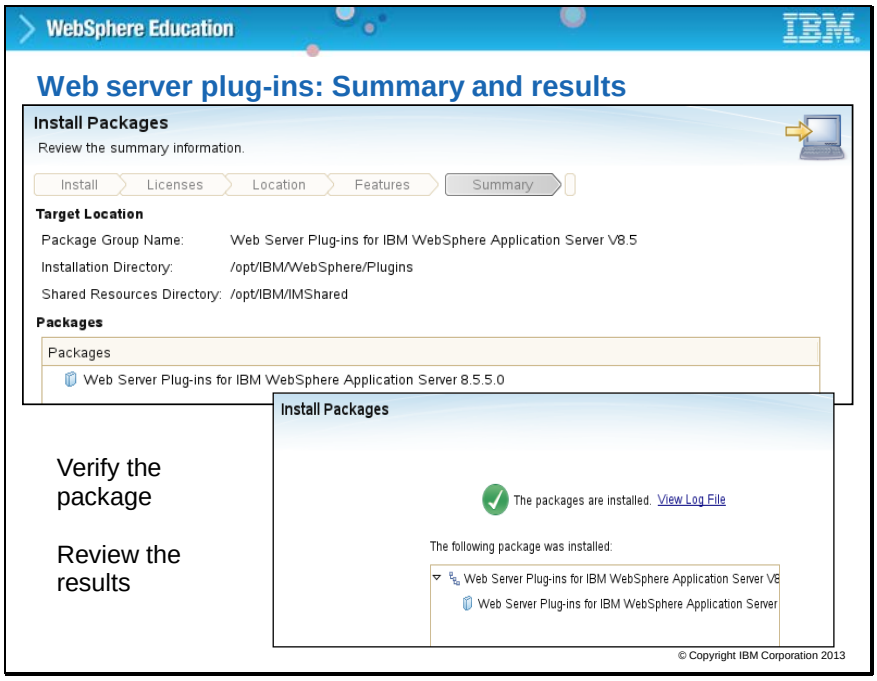
You are prompted to choose an existing package group that contains the plug-ins package or create a new package group. In this example, a new package group is created. Next, you specify the installation root directory for the product binary files and click **Next**.

Slide 30



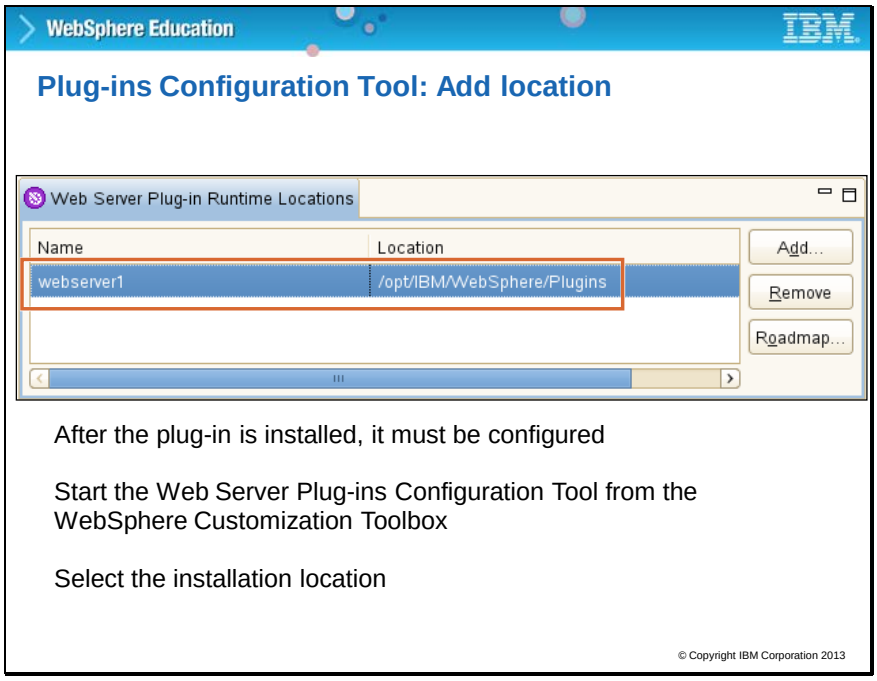
Select any additional feature to install if any are available.

Slide 31



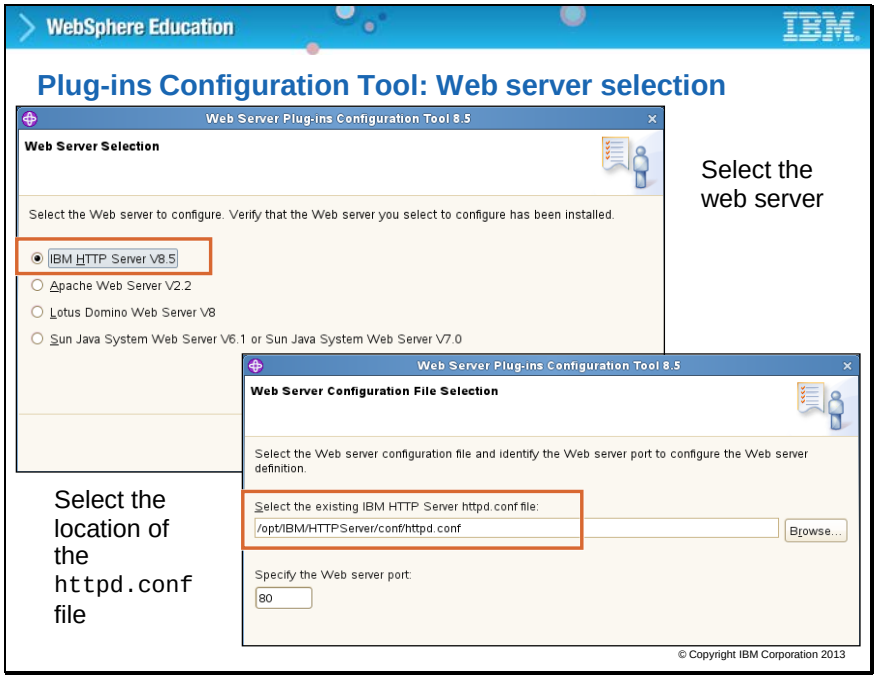
Review the summary information and click **Install**. If the installation is successful, the program displays a message that indicates that installation is successful. The program might also display important post-installation instructions. If the installation is not successful, click **View Log File** to troubleshoot the problem. Click **Finish**.

Slide 32



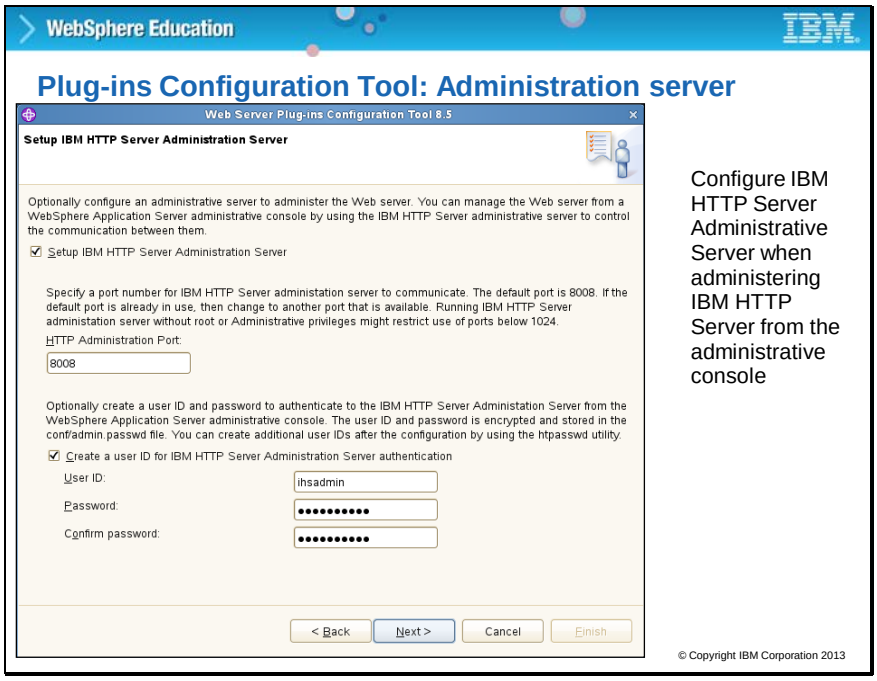
After you install the plug-in, it must be configured. Configuration is done through the Web Server Plug-in Configuration Tool. The first step is to provide the location of the plug-in, which was selected during installation of the plug-in.
From the Start menu, or the command line, start the WebSphere Customization Toolbox.
When WebSphere Customization Toolbox is started, select the Web Server Plug-in Configuration Tool. Select **Add** to configure a new web server plug-in. You are then prompted to provide the name and location of the plug-in that is selected during installation.

Slide 33



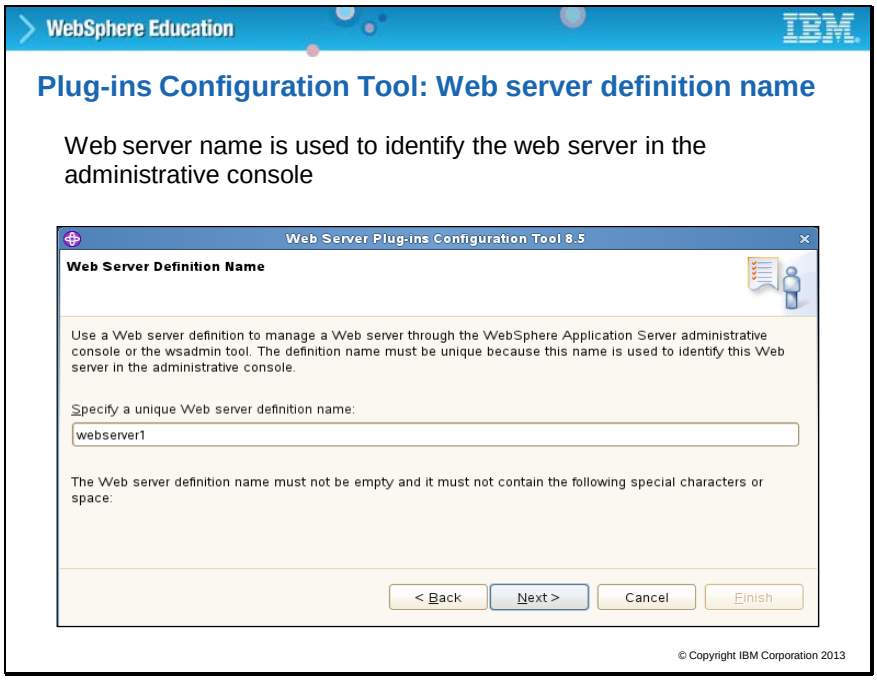
You are prompted to select the type of web server that you want to configure. Here, IBM HTTP Server V8.5 is selected. Be sure that it is installed. Click **Next**.
You are then prompted to provide the location of the web server configuration file and specify the web server port number. After configuration, the configuration file contains the location of the plug-ins and other information about the plug-ins.

Slide 34



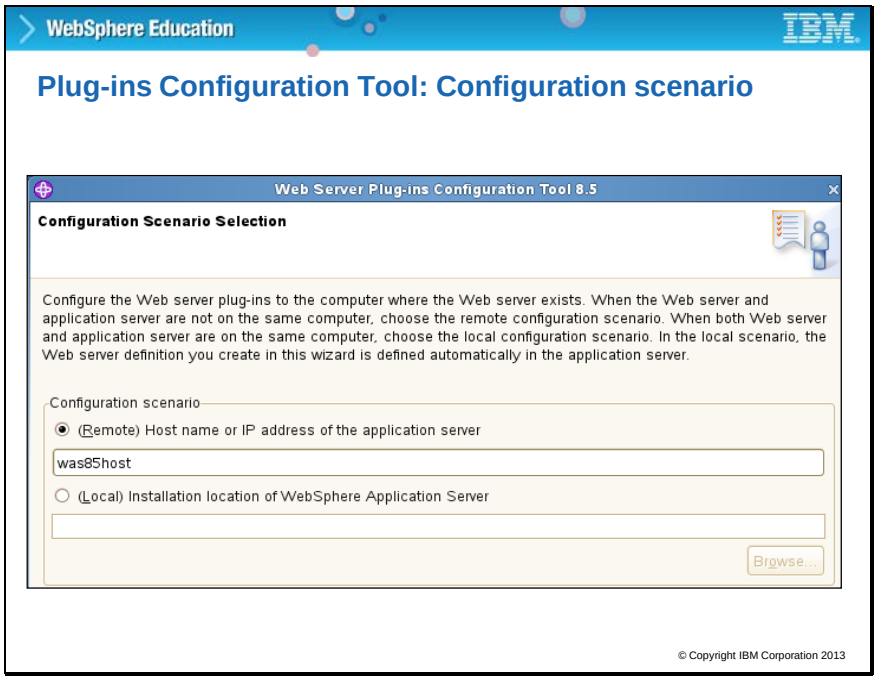
IBM HTTP Server Administration Server is used to control communication between the administrative console and IBM HTTP Server. Specify the port that the IHS Administration Server uses. Optionally, you can configure a user ID and password to authenticate to the IHS Administration Server. The administrative console uses these credentials to communicate with the IHS Administration Server.

Slide 35



The web server definition name is displayed in the administrative console and is used to identify the web server. The name is also used to create a directory under the web server installation root > plug-ins > config directory. You must specify this name if you are going to configure WebSphere Application Server to manage this web server.

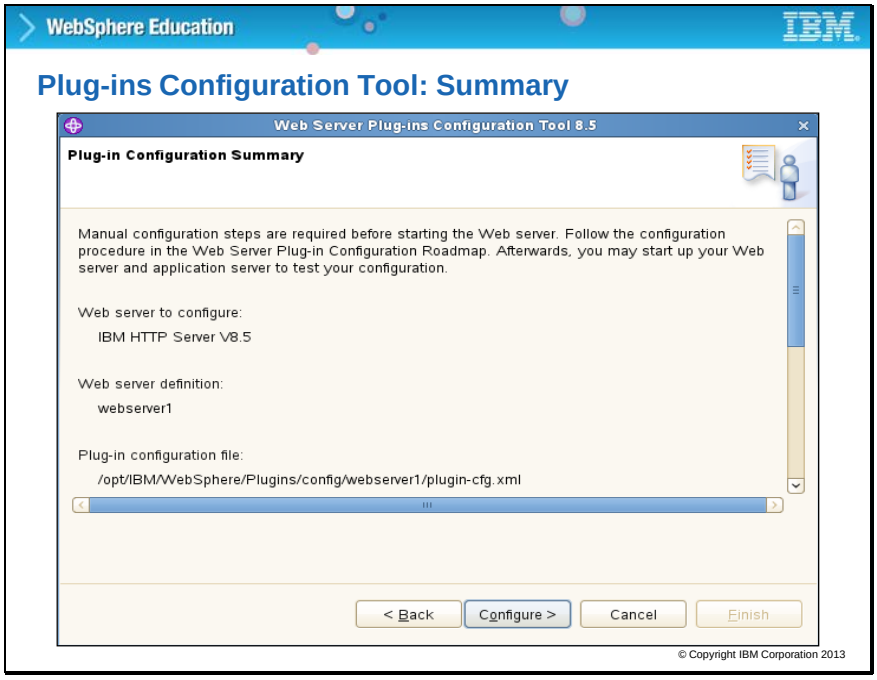
Slide 36



For a **remote** configuration, the Web Server Plug-in Configuration Tool configures the web server to use the plugin-cfg.xml file that is maintained on the web server in the *plugins_root*/config/*web_server_name* directory. This file must periodically be propagated from the application server to this directory on the web server.

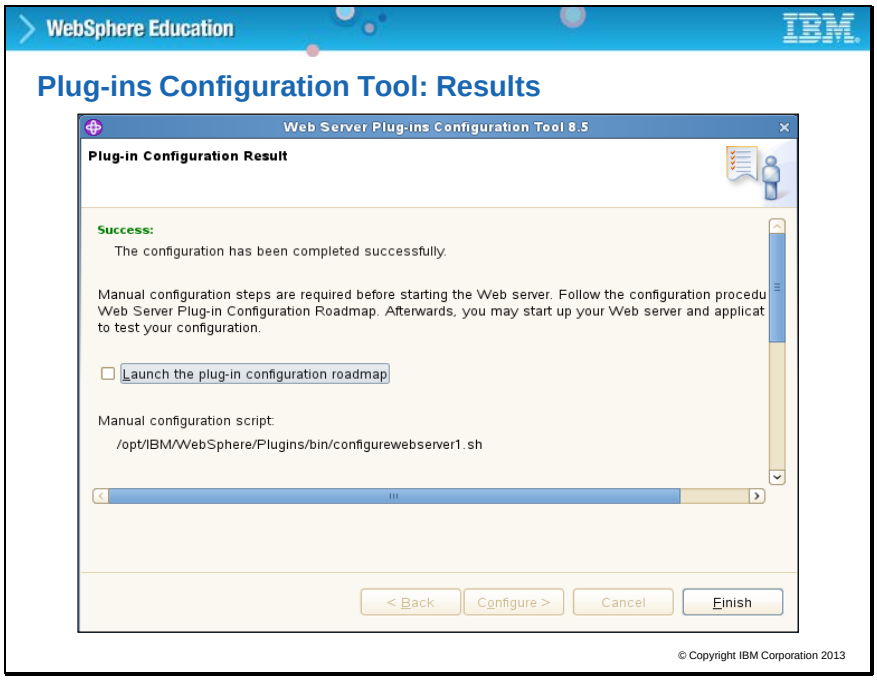
For a **local** configuration, the Web Server Plug-in Configuration Tool configures the web server to use the plugin-cfg.xml file within the application server profile. The stand-alone application server regenerates this file whenever a change occurs in the application server configuration that affects deployed applications.

Slide 37



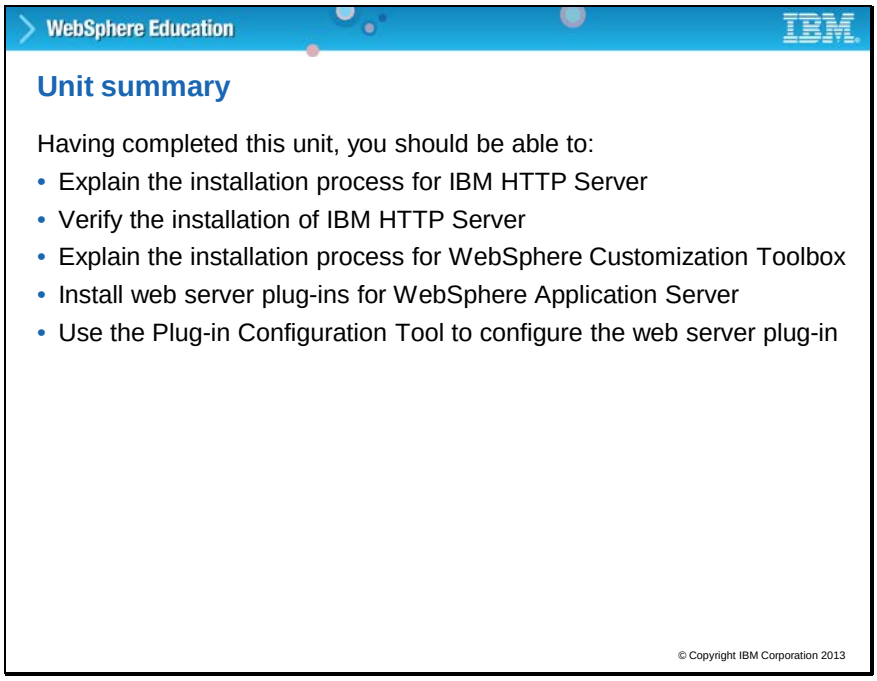
Review the summary and select **Configure**.

Slide 38



After the configuration is complete, results are displayed. Review the result before you continue.

Slide 39



You completed this unit.

Having completed this unit, you should be able to:

- Explain the installation process for IBM HTTP Server
- Verify the installation of IBM HTTP Server
- Explain the installation process for WebSphere Customization Toolbox
- Install web server plug-ins for WebSphere Application Server
- Use the Plug-ins Configuration Tool to configure the web server plug-in