



IBM Software Group

IBM WebSphere Application Server V6.1

Web Server Plug-in Installation



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This presentation will focus on the installation and support for the IBM HTTP Server plug-in.

Agenda

- Web server plug-in installation
- IBM HTTP Server plug-in installation
- Managing plug-in configuration files for Web servers



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 explain the process for creating a Web server definition for different installations. Lastly, this presentation will cover new features in WebSphere Application Server V6.1 that make managing a Web server easier. These features include enhanced ability to edit the 'httpd.conf' configuration file in addition to the Web server plug-in configuration; it also includes a new wizard for creating virtual hosts for a Web server.

Section

Web server plug-in installation

The next section will cover the Web server plug-in installation

Web server plug-in installation

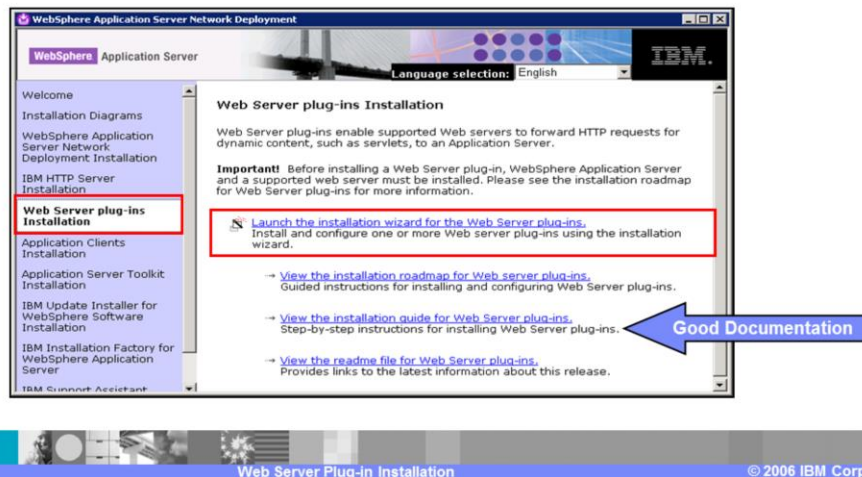
- Web server plug-ins are installed on the same machine where your Web servers are installed
 - ▶ Local: the Web server and the plug-in are on the same machine as the WebSphere Application Server
 - ▶ Remote: the Web server and the plug-in are on a different machine from the WebSphere Application Server
- Global Security Kit (GSKit) installed during the Web server plug-in install
- Scripts are generated for the creation of Web server definitions within the WebSphere Application Server configuration
- Entries in vpd.properties (Windows[®], AIX[®], Linux[®]) are added during installation



The Plug-in can be installed as a separate process, or as part of the installation of IBM HTTP Server in version 6.1. There are two main installation types for Web servers and plug-ins; local and remote. A local installation has the Web server and plug-in installed on the same machine as WebSphere Application Server, where as a remote installation has them on a separate machine. The Global Security Kit for Web Server Plug-ins will be installed as part of this installation process. Scripts will also be created that can be used to create a Web server definition within the administrative console.

Plug-in installation

- Web Server Plug-ins installer can be initiated from Launch pad
- Plug-in installer can be directly launched
- Plug-in can be installed during IBM HTTP Server installation



There are a number of options for installing the Plug-in. The Plug-in installation is a separate install process that can be initiated from the Launch pad tool. It can also be directly invoked from the /plugin directory on the tools CD. Also in version 6.1 it is possible to install the plug-in when IBM HTTP Server is installed. The Global Security Kit for Web Server Plug-ins will be installed as part of this process.

Install log files for problem determination

- Main log file:
 - ▶ <PLUGIN_HOME>/logs/install/log.txt
- Look at main log file to determine install status, and look for:
 - ▶ **INSTCONFSUCCESS** for success
 - All configuration actions must run successfully
 - All files must be written correctly
 - ▶ **INSTCONFPARTIALSUCCESS** for partial success
 - Implies some non-terminating configuration actions failed
 - See the cmtlog.txt in the same directory for further details
 - ▶ **INSTCONFFAILED** for total failure
 - See the cmtlog.txt in the same directory for further details



A log file is created during the Plug-in installation. After the installation is complete, this log file should be examined to ensure that the installation was a success. An install status of partial success is often enough to have the Plug-in work correctly. If the installation ends with the INSTCONFFAILED message, then problem resolution must be done, and the Plug-in will need to be successfully reinstalled.

Web server plug-in: uninstall

- Uninstall uses the InstallShield Multi Platform (ISMP) uninstaller
 - ▶ Entries in vpd.properties (Windows, AIX, Linux) are removed by ISMP
- Located in the Web Server Plug-in “uninstall” directory
 - ▶ Command : **Uninstall.exe(.bin)**
- Should always use the uninstaller to remove Web server plug-in
- Silent Uninstall is supported
 - ▶ Command: **Uninstall.exe(.bin) –silent**
- After uninstall, only the log directory and files remain



During the plug-in installation, an InstallShield uninstaller will be created for the Plug-in. 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 Plug-in, with one of the options shown on this page. Any other process used is not guaranteed to remove all of the components created during the installation process.

Section

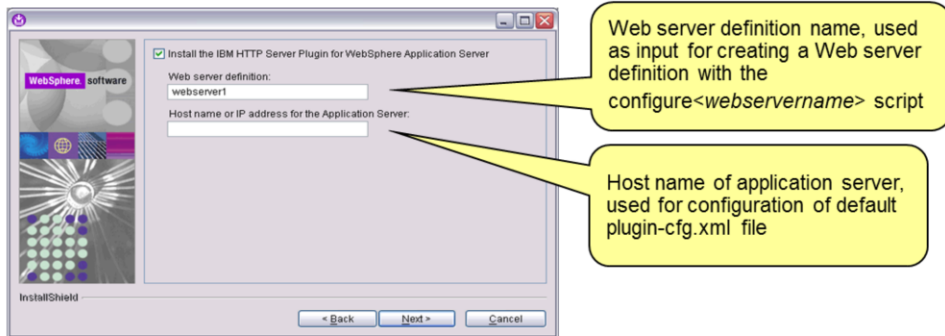
IBM HTTP Server Plug-in installation



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

Plug-in installation option

- IBM HTTP Server V6.1 Installer has the option to 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 IBM HTTP 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.

Plug-in installation option (cont.)

- Plug-in will be installed under the IBM HTTP Server installation 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



If you choose to install the plug-in during the IBM HTTP Server installation, the plug-in will be installed to the IBM HTTP Server 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.

Section

Web server plug-in configuration management



The next section will explain how to manage Web server plug-in configurations.

Generating plug-in: administrative console

Generate Plug-in

Select the Web server

Select	Name	Node	Version	Status
<input type="checkbox"/>	WebServer2	wsbeta026Node02	6.0.0.0	○
<input type="checkbox"/>	webservice1	wsbeta026Node01	6.0.0.0	✖

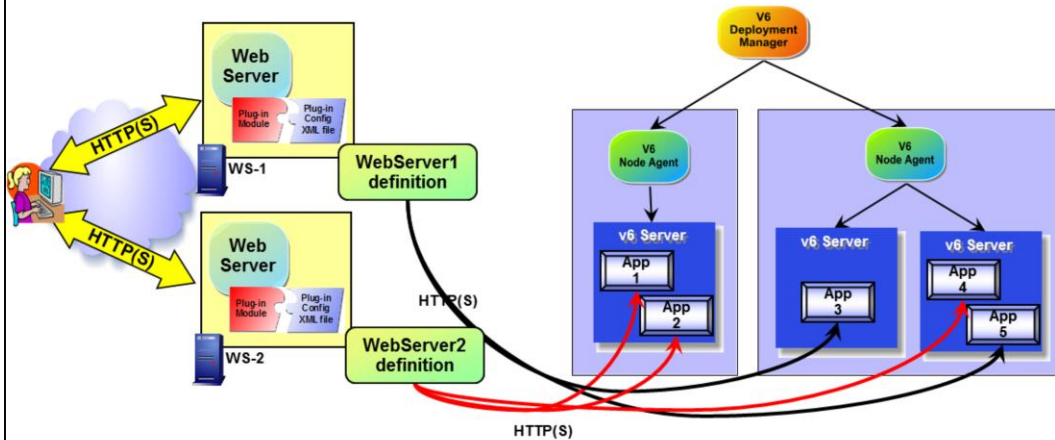
Total 2

- Plug-in configuration file can be generated using the administrative console after defining a Web server and mapping the applications
- Only applications mapped to the Web server will be added to the plug-in configuration
- Plug-in files are generated automatically for any application or virtual host changes
 - ▶ This default behavior can be changed by modifying the plug-in properties
- Generated plug-in files are saved in the repository under the Web server directory
 - ▶ config\cells\CellName\nodes\NodeName\servers\webServer1\plugin-cfg.xml



Once a Web server definition has been created, you can generate a plug-in for that Web server through the administrative console. Plug-in configurations generated this way are specific to a Web server, including only the applications that have been mapped to that Web server. Plug-in files will contain all the URIs for applications mapped to the Web server. By default the plugin-cfg.xml files are generated automatically when there is any change to application or virtual host settings. Generated plug-in files are always saved in the master repository under the defined directory for the Web server, as is shown in this example.

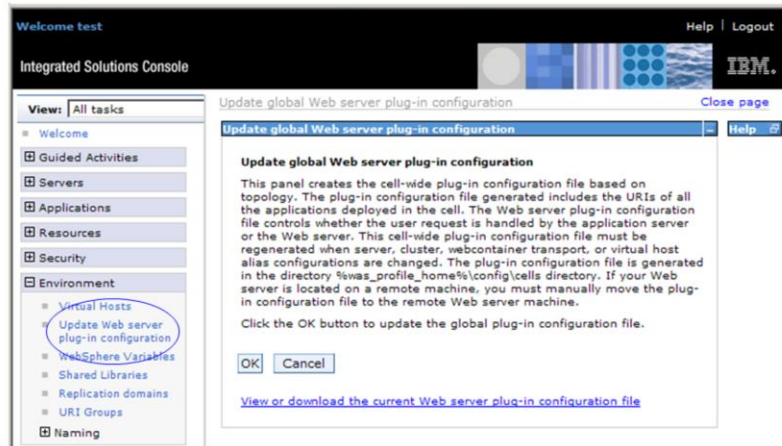
Web server topology: application focused



- Custom Plug-in files are generated for Web servers to send requests for only their mapped applications

This slide shows how applications can be mapped to specific Web servers. These specific Web servers will then be responsible for handling the requests for the application that are mapped to that Web server only. These mappings result in the deployment manager creating custom plug-in configuration files. The information contained in the plug-in can also contain other customizations, such as caching and balancing features.

Topology-centric plugin-cfg.xml



- V6.1 has the capability to generate cell-wide plug-in configuration file
- Include URIs for all deployed applications
- Location <profile>/config/cells/plugin-cfg.xml

There is also the ability to generate a Cell wide or topology centric, plug-in configuration file. In this case the plug-in configuration will contain the URIs for all of the applications that have been deployed to the cell. The topology-centric plug-in configuration can be found under the deployment manager profile's "config/cells" directory.

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Propagation of the plug-in configuration file

Select	Name	Node	Version	Status
<input type="checkbox"/>	WebServer2	wsbeta026Node02	6.0.0.0	⊙
<input type="checkbox"/>	webserv1	wsbeta026Node01	6.0.0.0	✖
Total 2				

- The plug-in configuration can be propagated to a remote IBM HTTP Server Web server
 - HTTP(S) protocol is used for transferring the plug-in file
- In V6.1, after propagation, file placed at `<plug-in>/config/<WebServerName>/plugin-cfg.xml`
- For Web servers on managed nodes the propagate action invokes the "nodeSync" operation
 - Node agent handles replicating the repository on the remote machine
- For Web servers on unmanaged nodes the propagation is possible only with IBM HTTP Server
 - Administrative console communicates with IBM HTTP Server administrative server configured on the remote machine

15

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Once a plug-in file has been created, it must be copied or propagated to the appropriate location on the system where the Web server is installed. Plug-in configuration files can be propagated to Web servers on managed nodes through the use of the nodesync operation. This will force the local node agent to update the repository on the machine, updating the plug-in. For machines that are not managed nodes, and thus have no node agents, the choice are more restricted. If the Web server on a remote machine is an IBM HTTP Server server, then the separate administrative server process has been installed. This allows WebSphere Application Server to communicate with and manage the Web server, similar to a node agent. This allows for the propagation of plug-ins to IBM HTTP Server Web servers on remote systems. If the remote Web server is not IBM HTTP Server, then the plug-in configuration will have to be manually copied.

Section

Summary and reference

Next will be the summary and reference section.

Summary

- The plug-in installation process has been enhanced in V6.1
 - ▶ Optional plug-in installation during IBM HTTP Server installation
- V6.1 includes expanded plug-in administration functionality in the administrative console
 - ▶ Generate topology-centric plug-in



The installation process for the Web server plug-in has been enhanced in version 6.1. The IBM HTTP Server installer can now optionally install the Web server plug-in. Optionally the Web server plug-in can be installed from the launch pad or tools CD Plugin directory. V6.1 also includes expanded administrative capabilities for managing and generating Web server plug-ins from the administrative console, including the ability to generate a topology-centric plug-in.

Reference

- IBM HTTP Server
 - ▶ [HTTP://www-306.ibm.com/software/webservers/HTTPservers/library/](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](http://www-106.ibm.com/developerworks/websphere/library/techarticles/0310_cocasse/cocasse.html)