WebSphere Portal 8.5

Installation and Configuration
of Microsoft IIS

Version1.1

```
***********************************************************************
*****                     Table of Content                      *****
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```

```
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```

1 Information

This document will help with the installation of Microsoft IIS and the configuration required for WebSphere Portal 8.5

The following topics will be covered:
- Media files
- Installation of IBM Installation Manager
- Basic installation of Microsoft IIS
- Installation of WebSphere Plugin/WebSphere Customization Toolbox
- Configuration to WebSphere Portal 8.5

Useful links:

- IBM WebSphere Portal and IBM Web Content V8.5 and V9 Documentation
  https://www.ibm.com/support/knowledgecenter/en/SSHRKX_8.5.0/welcome/wp_welcome.html

- WebSphere Portal V9.0, V8.5 and V80 detailed system requirements
  http://www-01.ibm.com/support/docview.wss?uid=swg27007791

- WebSphere Application Server Network Deployment, Version 8.5.5 documentation
  https://www.ibm.com/support/knowledgecenter/SSAW57_8.5.5/as_ditamaps/was855_welcome_ndmp.html

- Installation Manager Documentation
  http://www-01.ibm.com/support/knowledgecenter/#!/SSDV2W_1.7.0/com.ibm.cic.agent.ui.doc/helpindex_imic.html

This document is not written or supported by IBM Support

Name	Date	Version	Description
Loc Dang	April 3, 2016	V1	Initial Version

2 Media

2.1 IBM Installation Manager

The IBM Installation Manager can either be downloaded from the IBM Installation Manager download link or used from another software package such as WebSphere Portal 8.5. In this document we will be using the IBM Installation Manager from the download link

http://www-01.ibm.com/support/docview.wss?uid=swg27025142

1. Download the following media file from the IBM Installation Manager download link. Save the file to a temporary location *<TEMP>* on the Microsoft IIS Server.

    TEMP = _____

    Example: `F:\temp\`

OS	File Name	Description
Windows 64	agent.installer.win32.win32.x86_64_<VERSION>.zip	IBM Installation Manager Install Kit for all x86_64 Windows versions supported by version X.X.X.X

2. Create a directory for the IBM Installation Manager extraction *<IIM_MEDIA>*

    IIM_MEDIA: _____

    Example: `F:\MIIM`

3. Extract the media file to the IIM_MEDIA directory

    Example:
```
<IIM_MEDIA>\configuration\...
<IIM_MEDIA>\documentation\...
<IIM_MEDIA>\jre_7.0.9000.20150514_1022\...
<IIM_MEDIA>\license\...
<IIM_MEDIA>\native\...
<IIM_MEDIA>\Offerings\...
<IIM_MEDIA>\plugins\...
<IIM_MEDIA>\tools\...
<IIM_MEDIA>\consoleinst.bat
<IIM_MEDIA>\install.exe
<IIM_MEDIA>\install.ini
<IIM_MEDIA>\install.xml
<IIM_MEDIA>\installc.exe
<IIM_MEDIA>\installc.ini
<IIM_MEDIA>\readme.html
```

```
<IIM_MEDIA>\repository.config
<IIM_MEDIA>\repository.xml
<IIM_MEDIA>\silent-install.ini
<IIM_MEDIA>\userinst.exe
<IIM_MEDIA>\userinst.ini
<IIM_MEDIA>\userinstc.exe
<IIM_MEDIA>\userinstc.ini
<IIM_MEDIA>\user-silent-install.ini
```

2.2 IBM WebSphere Application Server Supplements

1. Download the following media files from Passport advantage. Save the files to a temporary location *<TEMP>* on the IBM HTTP Server.

   TEMP = _____

   Example: `F:\temp`

Media	File Name	Description
CIK1VML	WAS_ND_V8.5.5_1_OF_3.zip	IBM WebSphere Application Server V8.5.5 Supplements (1 of 3) for Multiplatform Multilingual
CIK1WML	WAS_ND_V8.5.5_2_OF_3.zip	IBM WebSphere Application Server V8.5.5 Supplements (2 of 3) for Multiplatform Multilingual
CIK1XML	WAS_ND_V8.5.5_3_OF_3.zip	IBM WebSphere Application Server V8.5.5 Supplements (3 of 3) for Multiplatform Multilingual

2. Create a directory for the WebSphere Application Server 8.5.5 Supplimentary media extraction *<M855SUPP>*

   M855SUPP: _____

   Example: `F:\M855SUPP`

3. Extract all files to the *<855SUPP>* directory

```
<M855SUPP>/disk1/…
<M855SUPP>/disk2/…
<M855SUPP>/disk3/…
<M855SUPP>/lafiles/…
<M855SUPP>/readme appclient/…
<M855SUPP>/readme_ihs/…
<M855SUPP>/readme_plugclient/…
<M855SUPP>/readme_pluins/…
<M855SUPP>/readme wct/…
<M855SUPP>/Remote_Installation_Tool_for_IBM_i/…
```
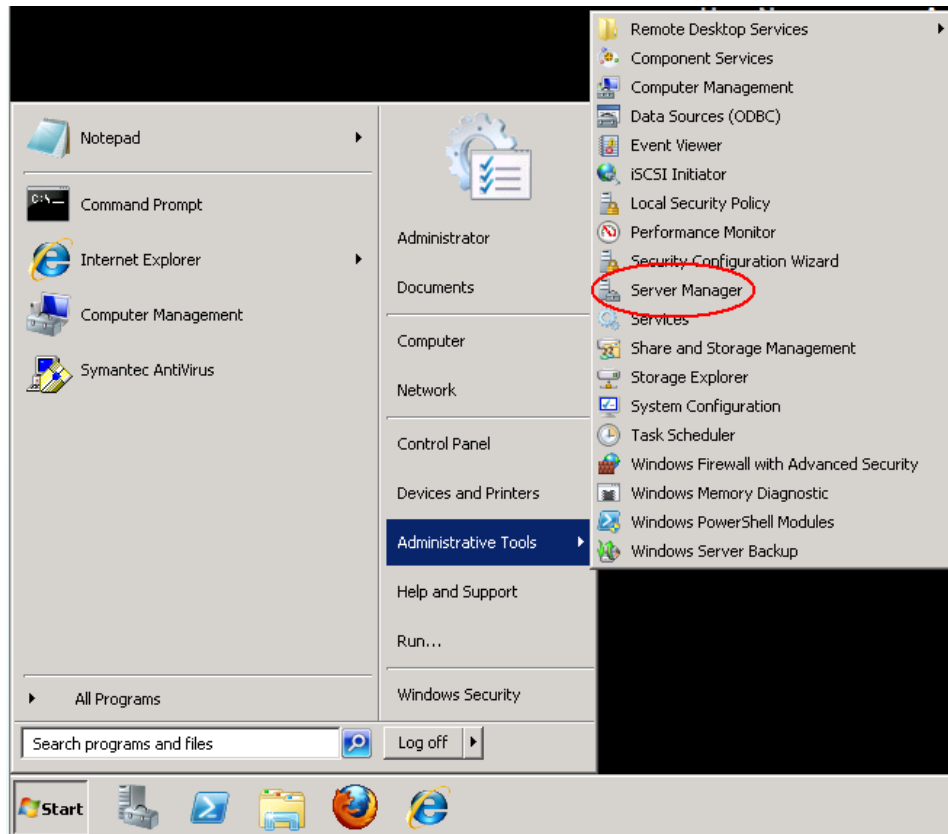
```
<M855SUPP>/responsfiles/…
<M855SUPP>/Copyright.txt
<M855SUPP>/repository.config
```
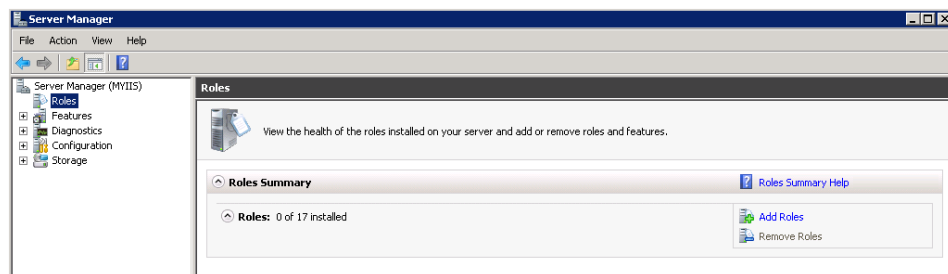
3 Microsoft IIS

3.1 Install

The images used for the installation and configuration are from a Windows 2008 R2 system. If Microsoft IIS has already been installed, this section can be skipped.
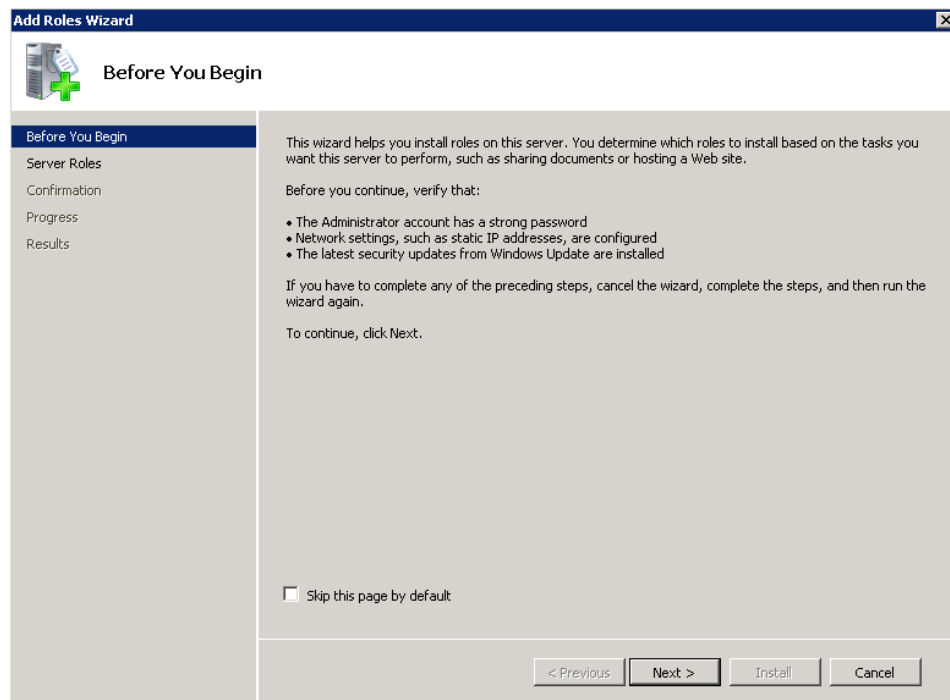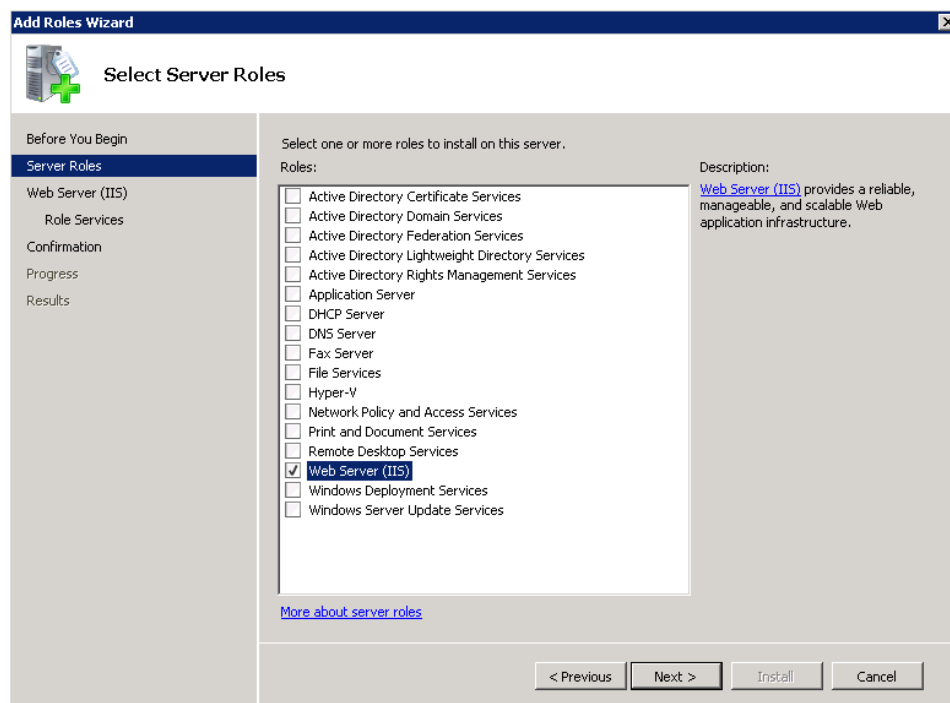
1. Login to the Micrsoft IIS file system

2. Click Start > Administrative Tools > Server Manager

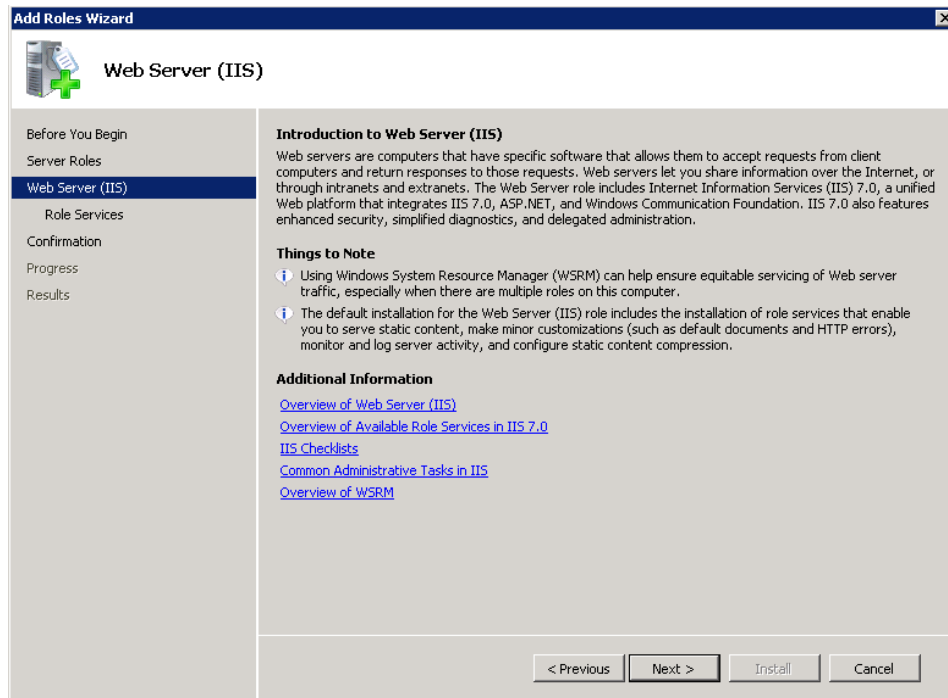3. Click **Roles** in the left menu
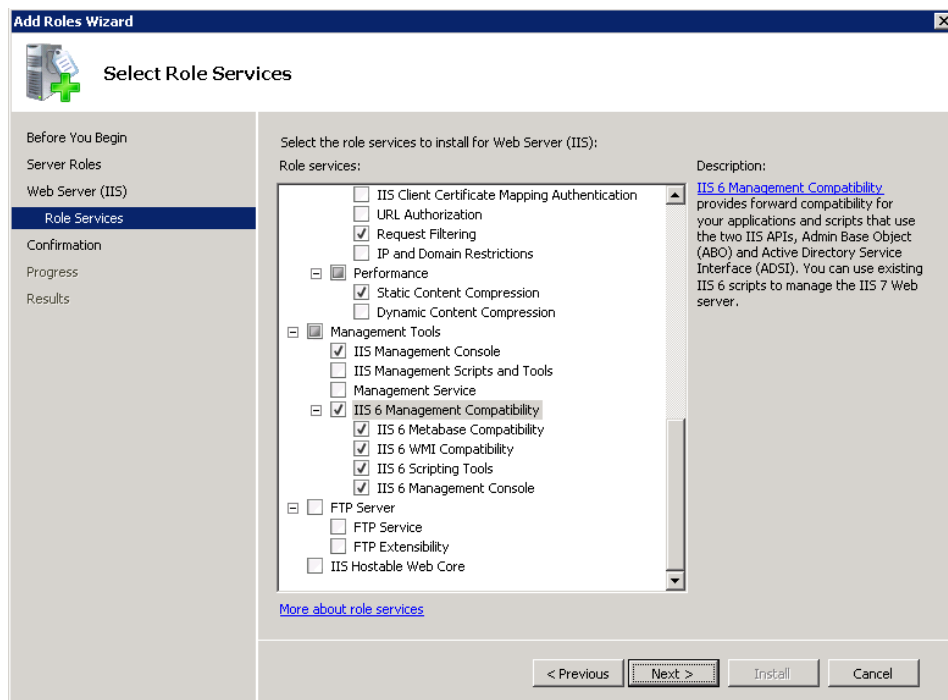4. Click **Add roles** on the far right

5. Click **Next**

6. Check **Web Server (IIS)**
7. Click **Next**

8. Click **Next**

9. Check the following Role Services

- Web Server
  - o Application Development

- ISAPI Extensions
- ISAPI Filters
- Management Tools
  - IIS Management Compatibility
    - IIS 6 Metabase Compatibility
    - IIS 6 WMI Compatibility
    - IIS 6 Scripting Tools
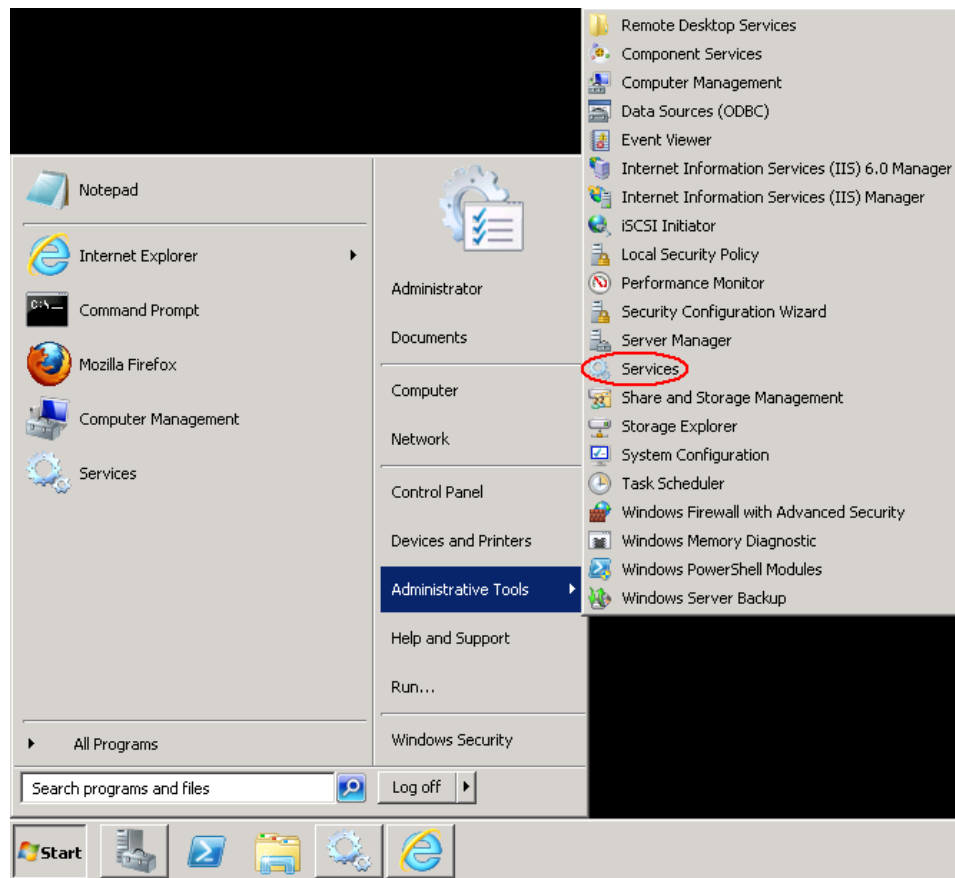   - IIS 6 Management Console

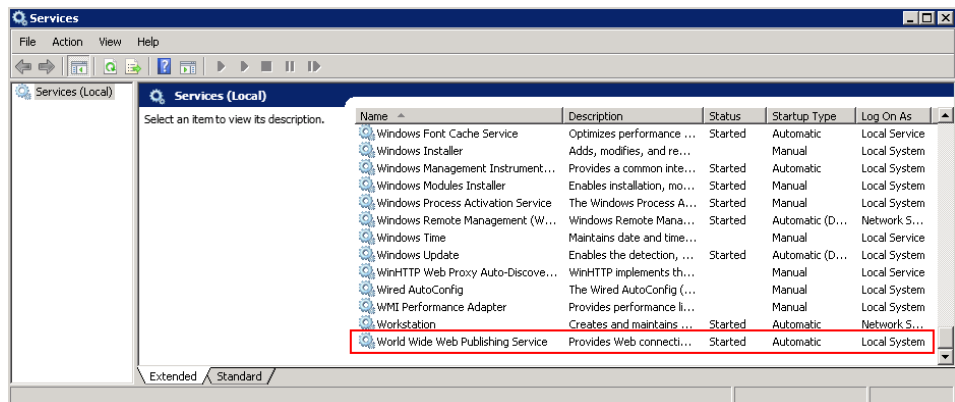10. Click **Next**
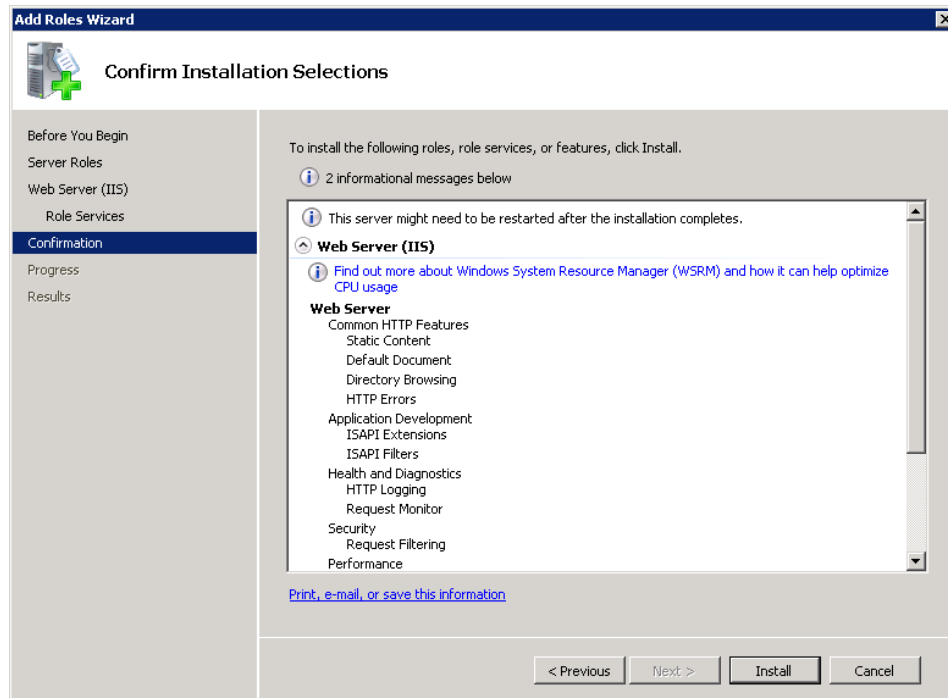
11. Click **Install**
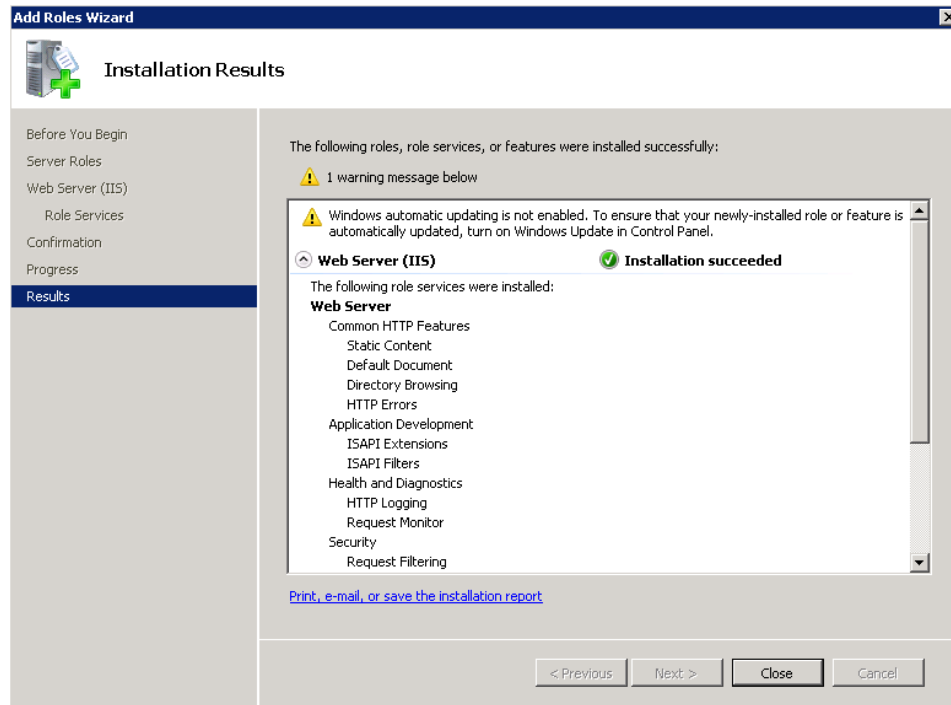
12. Click **Close**

3.2 Verify

1. Login to the Micrsoft IIS file system

2. Click Start > Administrative Tools > Services

3. Verify/Start the service World Wide Web Publishing Service

4. Open a browser and set the URL to the Microsoft IIS WebServer
5. Verify the IIS7 homepage appears.

4 IBM Installation Manager

If the Microsoft IIS Server shares the same system as the WebSphere Portal, this section can be skipped. The IBM Installation Manager of the WebSphere Portal Server can be used to install the WebSphere Plugin and Configuration Toolbox

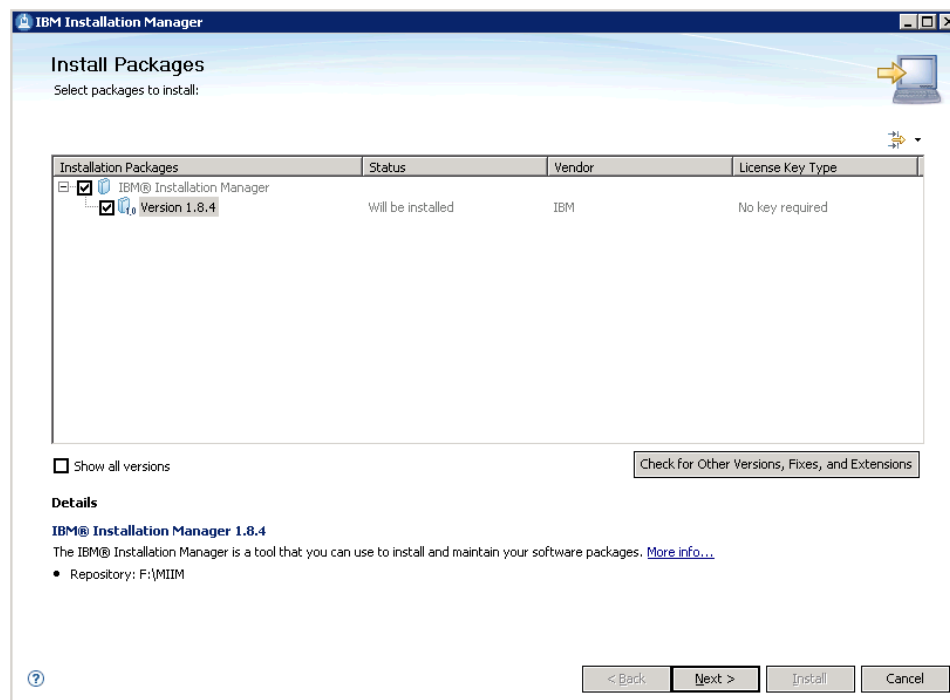IBM Installation Manager can not be installed twice on the same system using the same user.

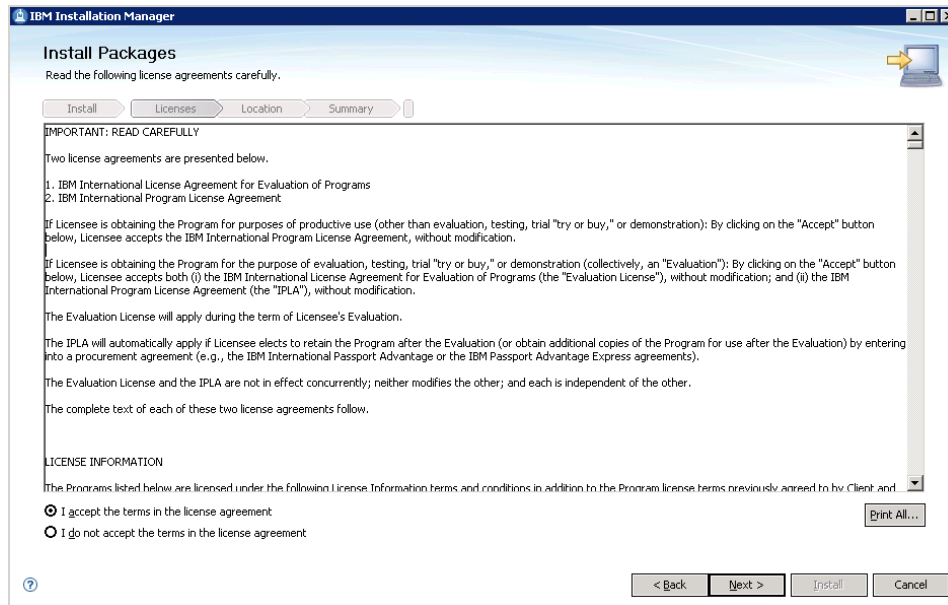Follow one of the following sections to install the IBM Installation Manager

4.1 GUI

1. Login to the Microsoft IIS Server file system

2. Change to the IBM Installation Manager extracted media directory
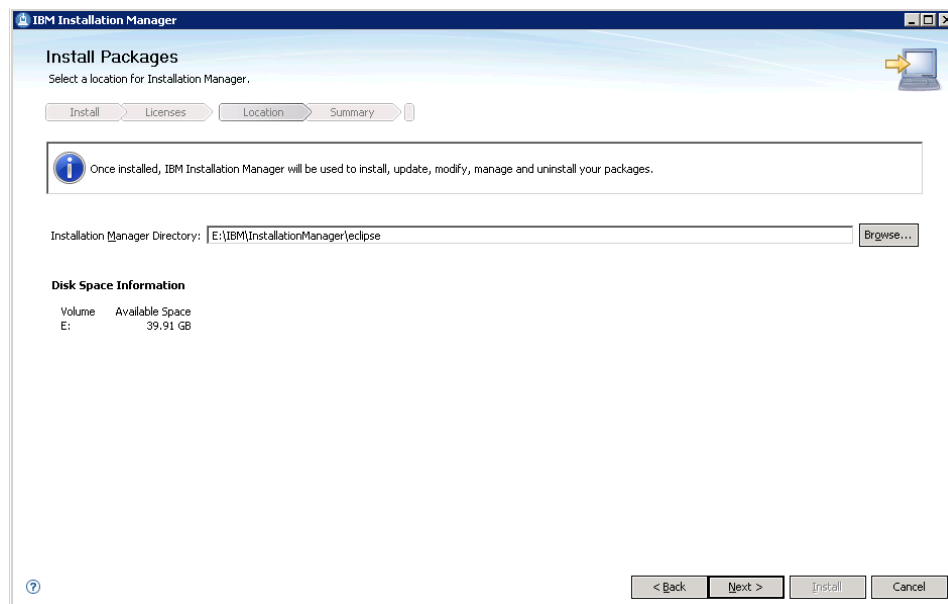
   Example: `F:\MIIM`

3. Run the installer **install.exe**

4. Verify the IBM Installation Manager package is checked

5. Click **Next**

6. Select **I accept the terms in the license agreement**
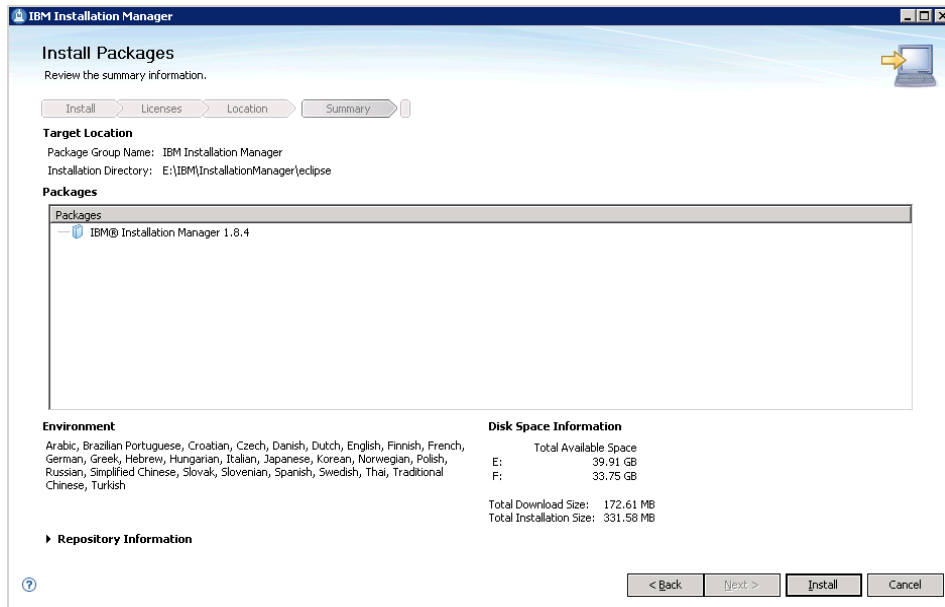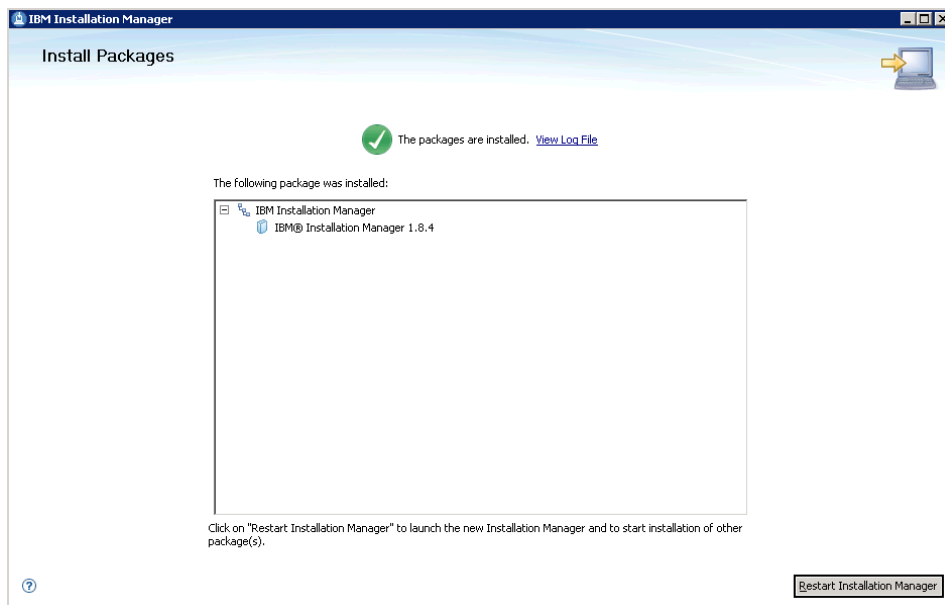7. Click **Next**

8. Fill in the following field

   Installation Manager Directory: _____

   Example: `E:\IBM\InstallationManager\eclipse`

9. Click **Next**

10. Click **Install**

11. Click **Restart Installation Manager**

4.2 Command Line

If IBM Installation Manager has been installed, this section can be skipped.

1. Change to the IIM directory of the extracted media directory *<MIIM>*

    Example: `F:\MIIM`

2. Run the following command to install IBM Installation Manager

```
installc.exe
 -installationDirectory "<IIM_ECLIPSE_DIR>"
 -log <LOGLOCATION and LOGFILE>
 -acceptLicense
```

Example:
```
installc.exe
 -installationDirectory "E:\IBM\InstallationManager\eclipse"
 -log "F:\IIM_Install.log"
 -acceptLicense
```

3. After the installation is complete, verify the Installed Message
```
Installed com.ibm.cic.agent 1.8.4000.20151125 0201 to the
<IIM_INSTALL_LOCATION> directory
```

Example:
```
Installed com.ibm.cic.agent 1.8.4000.20151125 0201 to the
E:\IBM\InstallationManager\eclipse directory.
```

5 WebSphere Plug-in/Customization Toolbox

1. If installing on Windows server 2008 R2, verify the **Microsoft visual C++ 2008 Redistributable Package (vcredist_x86.exe)** is installed.
2. Login to the Microsoft IIS file system
3. Run the following command to install the WebSphere Plug-in

```
<IIM_HOME>/eclipse/tools/imcl install com.ibm.websphere.PLG.v85 -silent
-acceptLicense -installationDirectory <PLUGIN_HOME> -repositories
<855SUPP_MEDIA>/repository.config -sharedResourcesDirectory <IMSHARED>
-log <LOG_FILE>
```

Example:
```
E:\IBM\InstallationManager\eclipse\tools\imcl install
com.ibm.websphere.PLG.v85 -silent -acceptLicense -installationDirectory
E:\IBM\WebSphere\Plugins -repositories F:\M855SUPP\repository.config -
sharedResourcesDirectory E:\IBM\IMShared -log E:\IBM\PLUGIN_Install.log
```

4. Verify the response
```
Installed com.ibm.websphere.PLG.v85_<VERSION> to the <PLUGINS_HOME>
directory.
```

Example:
```
Installed com.ibm.websphere.PLG.v85_8.5.5000.20130514_1044 to the
E:\IBM\WebSphere\Plugins directory.
```

5. Run the following command to install the WebSphere Customization Toolbox

```
<IIM_HOME>/eclipse/tools/imcl install com.ibm.websphere.WCT.v85 -silent
-acceptLicense -installationDirectory <WCT_HOME> -repositories
<WAS855SUPP_MEDIA>/repository.config -sharedResourcesDirectory
<IMSHARED> -log <LOG_FILE>
```

Example:
```
E:\IBM\InstallationManager\eclipse\tools\imcl install
com.ibm.websphere.WCT.v85 -silent -acceptLicense -installationDirectory
E:\IBM\WebSphere\Toolbox -repositories F:\855SUPP\repository.config -
sharedResourcesDirectory E:\IBM\IMShared -log E:\IBM\WCT_Install.log
```

6. Verify the response
```
Installed com.ibm.websphere.WCT.v85_<VERSION> to the <WCT_HOME>
directory.
```
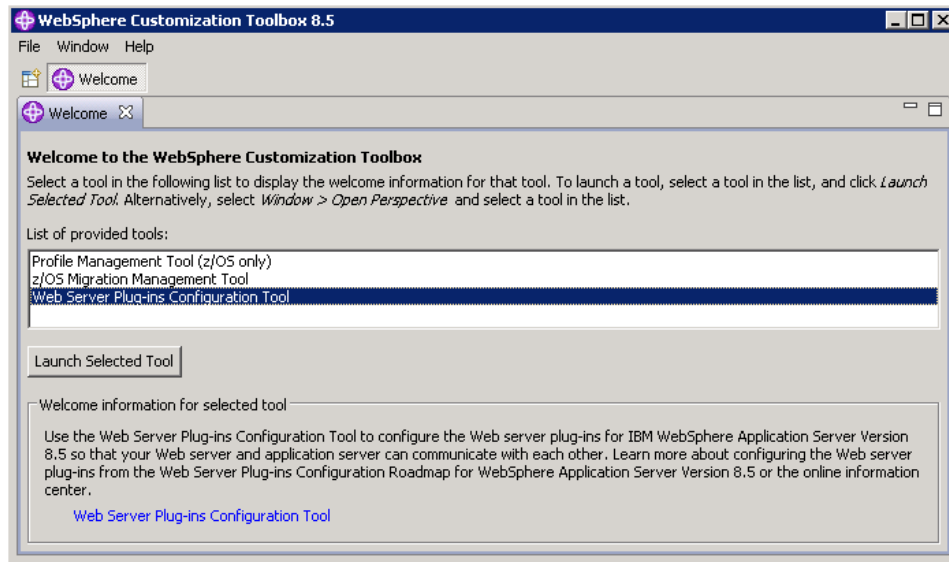
Example:
```
Installed com.ibm.websphere.WCT.v85 8.5.5000.20130514 1044 to the
E:\IBM\WebSphere\Toolbox directory.
```

NOTE: It is recommended to upgrade the WebSphere Plugin and WebSphere Customization tool to match the version of the WebSphere Application Server of the WebSphere Portal Server.
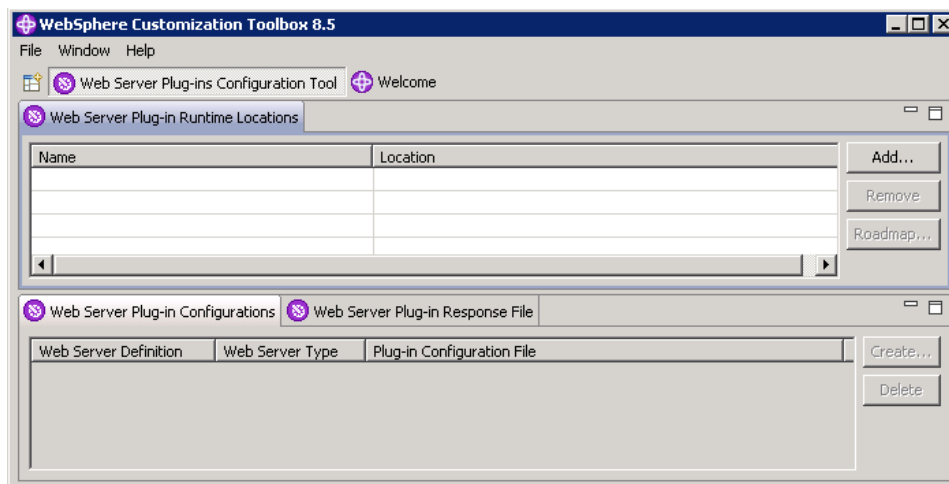
6 Plugin Configuration

1. Start the WebSphere Customization Toolbox by running the WCT command
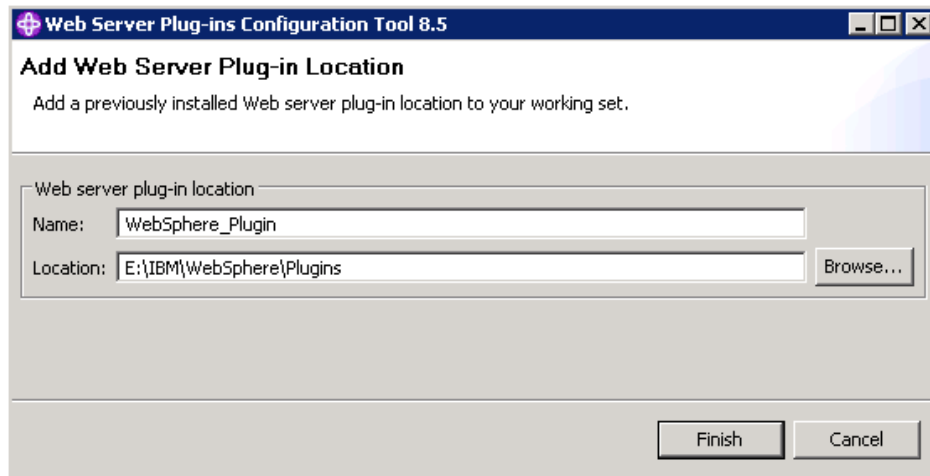   *<WCT_HOME>*\WCT\wct.bat

    Example: `E:\IBM\WebSphere\Toolbox\WCT\wct.bat`

2. In the **List of provided tools** section, select **Web Server Plug-ins Configuration
    Tool**
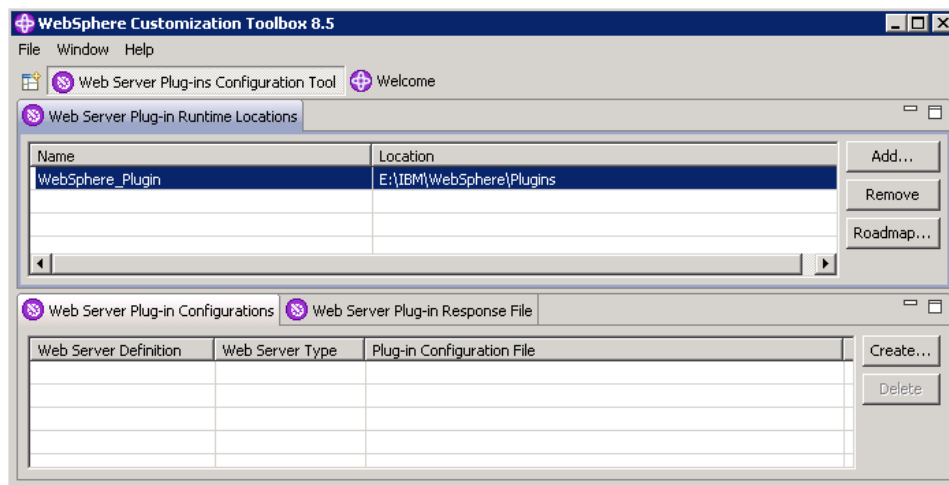
3. Click **Launch Selected Tool**

4. Click **Add…**

5. In the **Name** field, enter a name for the Plugin.
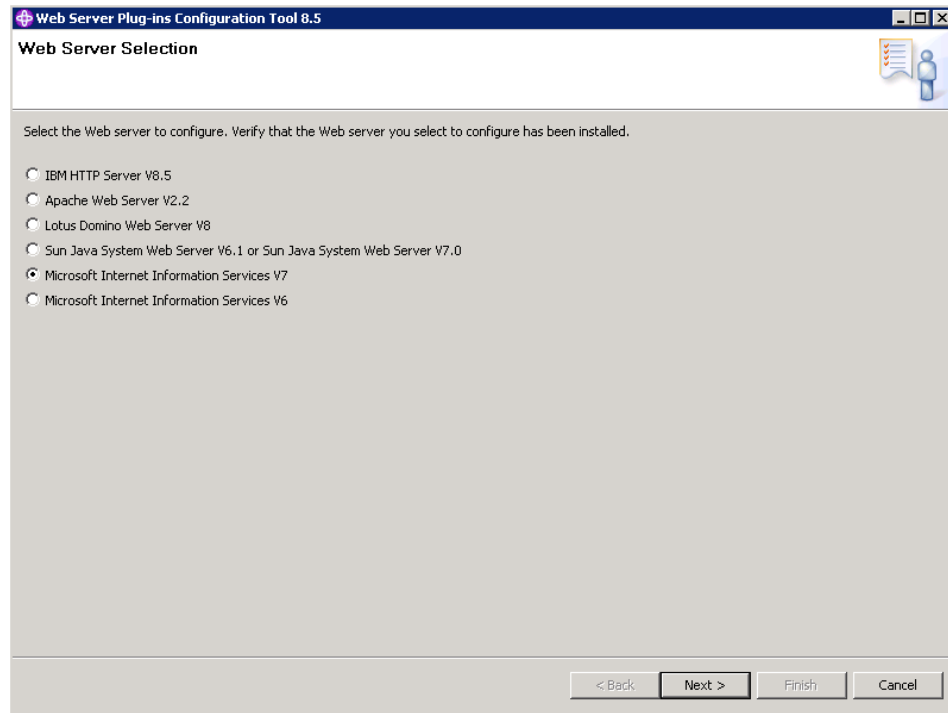
   Example: `WebSphere_Plugin`

6. In the **Location** field, enter the location of the plugin home directory. The location should match the directory chosen during the WebSphere Plugin installation

   Example: `E:\IBM\WebSphere\Plugins`
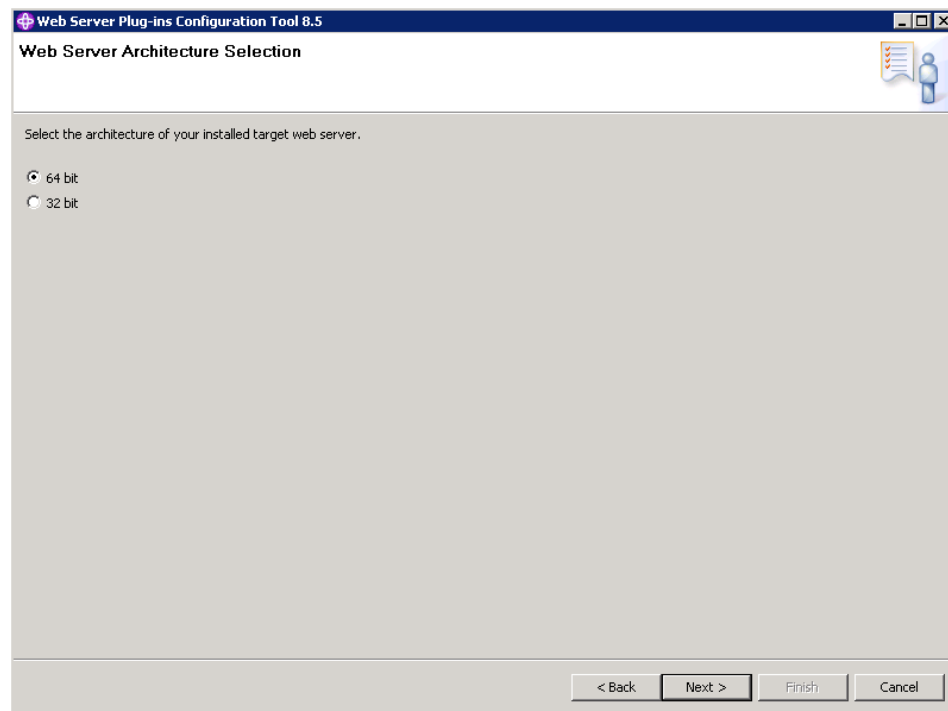
7. Click **Finish**

8. Click **Create…**

9. Select **Microsoft Intrernet Information Services V7**
10. Click **Next**

11. Validate/Select **64 bit**
12. Click **Next**

13. Validate/Enter the webserver port

    Example: 80

14. Click **Next**
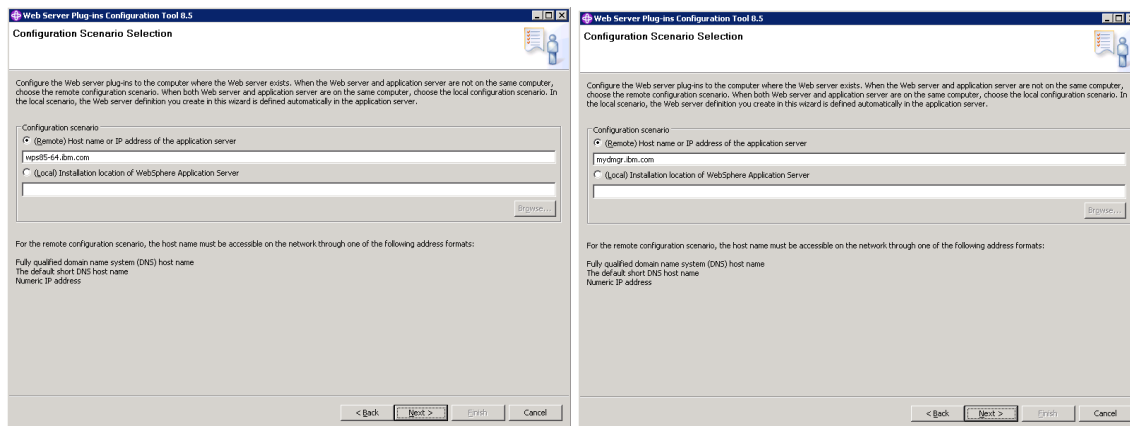
15. Enter a unique Web server definition name. The default is webserver1

    WEB_UNIQUENAME = _____

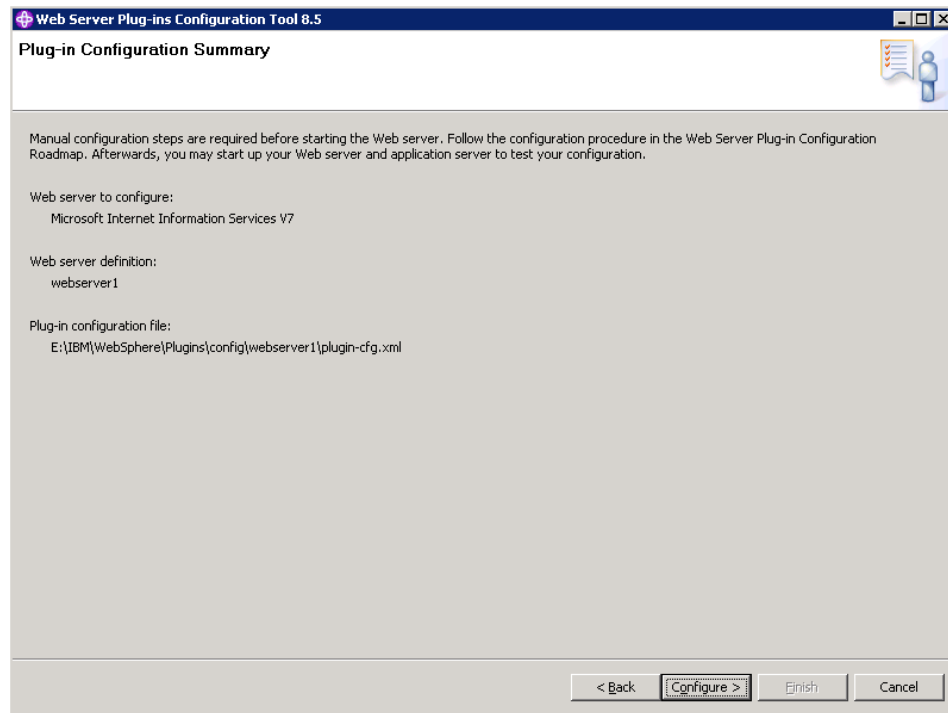   Example: `webserver1`

16. Click **Next**

17. Enter the relevant hostname in the **(Remote) Host name or IP address of the application server**

```
Cluster:        Enter the hostname of the Deployment Manager
Standalone:     Enter the hostname of the WebSphere Application Server
```
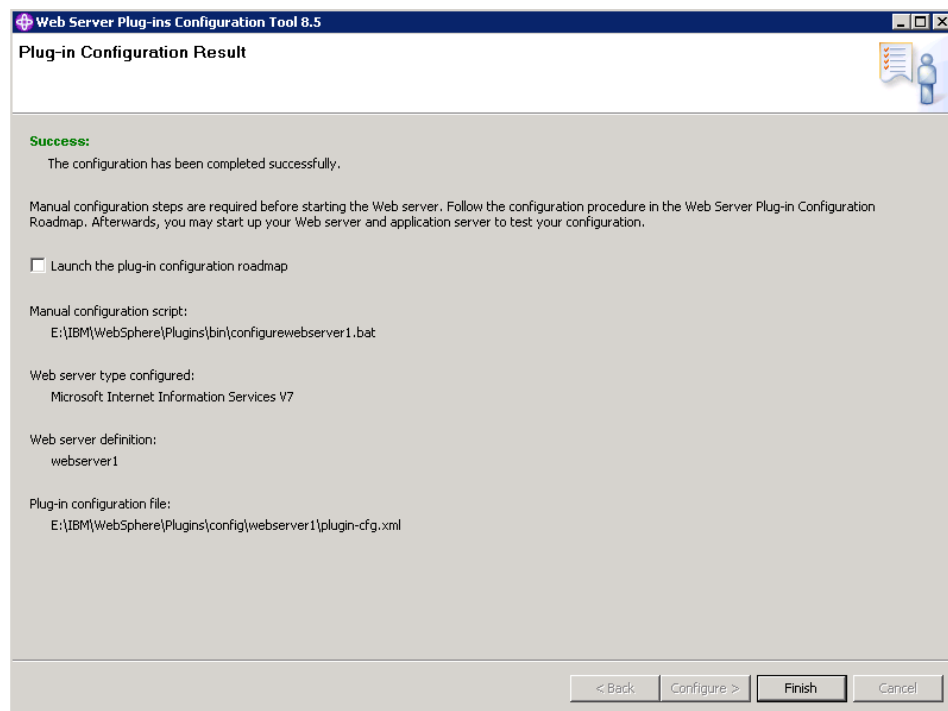
    Example:
```
Cluster:        mydmgr.ibm.com
Standalone:     wps85-64.ibm.com
```

18. Click **Next**

Web Server Plug-ins Configuration Tool 8.5

Plug-in Configuration Summary

Manual configuration steps are required before starting the Web server. Follow the configuration procedure in the Web Server Plug-in Configuration Roadmap. Afterwards, you may start up your Web server and application server to test your configuration.

Web server to configure:
    Microsoft Internet Information Services V7

Web server definition:
    webserver1

Plug-in configuration file:
    E:\IBM\WebSphere\Plugins\config\webserver1\plugin-cfg.xml

[< Back] [Configure >] [Finish] [Cancel]

19. Click **Configure**

Web Server Plug-ins Configuration Tool 8.5

Plug-in Configuration Result

Success:
    The configuration has been completed successfully.

Manual configuration steps are required before starting the Web server. Follow the configuration procedure in the Web Server Plug-in Configuration Roadmap. Afterwards, you may start up your Web server and application server to test your configuration.

☐ Launch the plug-in configuration roadmap

Manual configuration script:
    E:\IBM\WebSphere\Plugins\bin\configurewebserver1.bat

Web server type configured:
    Microsoft Internet Information Services V7

Web server definition:
    webserver1

Plug-in configuration file:
    E:\IBM\WebSphere\Plugins\config\webserver1\plugin-cfg.xml

[< Back] [Configure >] [Finish] [Cancel]
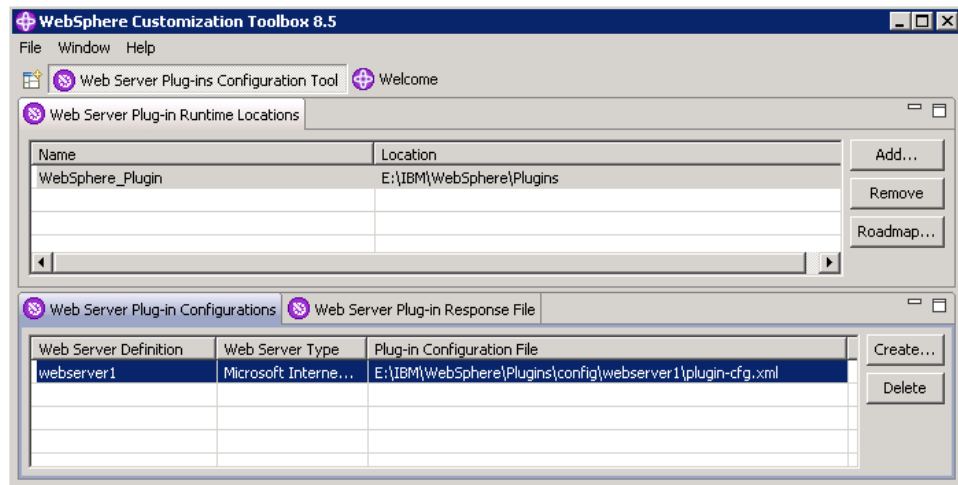
20. **Launch the plug-in configuration roadmap** is optional. By default it is checked but in the example it was unchecked.

21. Click **Finish**

WebSphere Customization Toolbox 8.5

File   Window   Help

Web Server Plug-ins Configuration Tool   Welcome

Web Server Plug-in Runtime Locations

Name	Location
WebSphere_Plugin	E:\IBM\WebSphere\Plugins

Add...
Remove
Roadmap...

Web Server Plug-in Configurations | Web Server Plug-in Response File

Web Server Definition	Web Server Type	Plug-in Configuration File
webserver1	Microsoft Interne...	E:\IBM\WebSphere\Plugins\config\webserver1\plugin-cfg.xml

Create...
Delete

7 WebSphere Configuration

7.1 Standalone

7.1.1 Plugin Script

1. Verify/Start the WebSphere Portal Server
   ```
   <WP_PROFILE>\bin\startServer WebSphere_Portal
   ```

2. Copy the Configure<*WEBSERVERDEFINITION*> file from the Microsoft IIS Server to the WebSphere Portal Server

FROM: Microsoft IIS Server
```
<PLUGIN_HOME>\bin\configure<WEBSERVERDEFINITION>.bat
```

Example: `E:\IBM\WebSphere\Plugins\bin\configurewebserver1.bat`

TO: WebSphere Portal Server
```
<WP_PROFILE>/bin/configure<WEBSERVERDEFINITION>.bat
```

Example: `E:\IBM\WebSphere\wp_profile\bin\configurewebserver1.bat`

3. Login to the WebSphere Portal Server file system

4. Change to the bin directory of the WebSphere Portal profile
   ```
   <WP_PROFILE>/bin
   ```

   Example: `E:\IBM\WebSphere\wp_profile\bin`

5. Run configure<*WEBSERVERDEFINITION*>.bat

   ```
   configurewebserver1.bat –user <WASADMIN> -password <WASPWD>
   ```

6. Verify the following message is returned after completion

   ```
   Start saving the configuration.

   Configuration save is complete.
   ```

7.1.2 Defaut Host Port

This section is only required if the port used for the webserver is not set in the WebSphere Application Server default host alias. By default, port 80 and 433 are set in
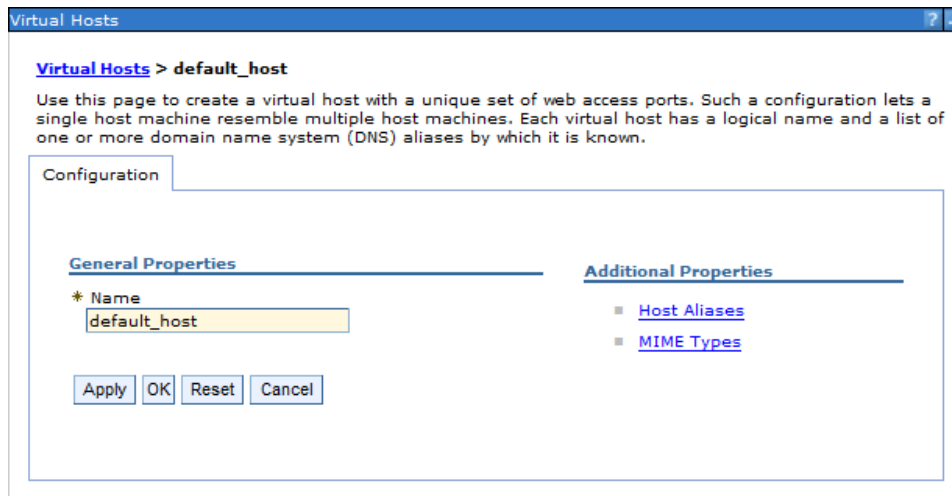
the default host alias. If you're not using those ports then follow the following section to verify and add the port.

1. Open a browser and set the URL to the WebSphere Application Console

    `https://<HOSTNAME>:10041/ibm/console`
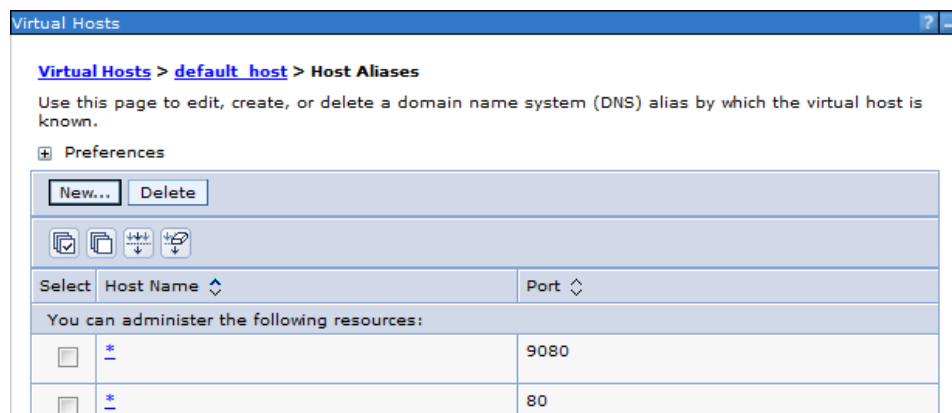
Example: `https://wps85-64.ibm.com:10041/ibm/console`

2. Navigate to Environment > Virtual Host > default_host

3. Under Additional Properties, click **Host Aliases**

4. Click **New…**

5. Enter a * if you will need the port to be used for any hostnames. A hostname can be set if you only want a specific hostname to use the port.

6. For the Port field, enter the port of the webserver.

   Example: `8080`

7. Click **OK**

7.1.3 Generate/Propagate Plugin

1. Open a browser and set the URL to the WebSphere Application Console

   `https://<HOSTNAME>:<PORT>/ibm/console`

   Example: `https://wps85-64.ibm.com:10041/ibm/console`

2. Navigate to Servers > Server types > Web servers

3. Check the checkbox by the Web Server definition (webserver1)

4. Click **Generate Plug-in**
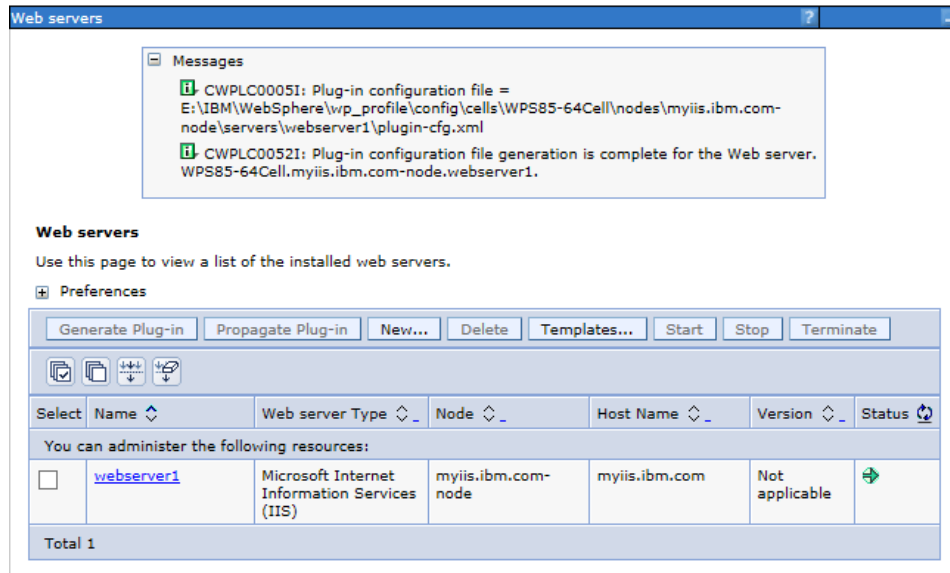
5. Copy the *<WEB_UNIQUENAME>* directory from the WebSphere Portal Server to the Micrsoft IIS Server

    FROM: WebSphere Portal Server

```
<WP_PROFILE>\config\cells\<CELL_NAME>\nodes\<NODENAME>\servers\<WEB_UNI
QENAME>
```

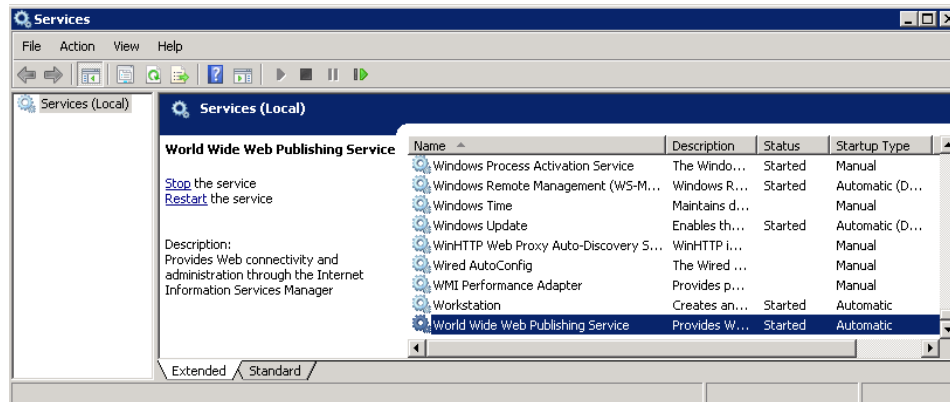   TO: Microsoft IIS Server

```
<PLUGIN_HOME>\config\<WEB_UNIQUENAME>
```

Example: FROM: WebSphere Portal Server

```
E:\IBM\WebSphere\wp_profile\config\cells\WPS85-
64Cell\nodes\myiis.ibm.com-node\servers\webserver1
```

Example: TO: Microsoft IIS Server

```
E:\IBM\WebSphere\Plugins\config\webserver1
```

6. Start/Restart the Micrsoft IIS Server.

7. Restart the WebSphere Portal Server

```
<WP_PROFILE>\bin\stopServer.bat WebSphere_Portal
                                -user <WASADMIN> -password <WASPWD>
<WP_PROFILE>\bin\startServer.bat WebSphere_Portal
```

Example:
```
E:\IBM\WebSphere\wp_profile\bin\stopServer.sh WebSphere_Portal
                                -user <WASADMIN> -password <WASPWD>
E:\IBM\WebSphere\wp_profile\bin\startServer.sh WebSphere_Portal
```

7.2 Cluster

7.2.1 Plugin Script

1. Verify/Start the following Java process

```
    Deployment Manager
    Nodeagents
```

2. Copy the Configure<WEB_UNIQUENAME>.bat file from the Microsoft IIS Server to the Deployment Manager.

FROM: Microsoft IIS Server
```
<PLUGIN_HOME>\bin\configure<WEB_UNIQUENAME>.bat
```

```
E:\IBM\WebSphere\Plugins\bin\configurewebserver1.bat
```

TO: Deployment Manager
```
<DMGR_PROFILE>\bin\configure<WEB_UNIQUENAME>.bat
```

```
E:\IBM\WebSphere\AppServer\profiles\dmgr01\bin\configurewebserver1.bat
```

3. Login to the Deployment Manager file system

4. Change to the bin directory of the Deployment Manager profile
```
<DMGR_PROFILE>\bin
```

   Example: `E:\IBM\WebSphere\AppServer\profiles\dmgr01\bin`

5. Run the configure<*WEBSERVERDEFINITION*>.bat

```
configurewebserver1.bat –user <WASADMIN> -password <WASPWD>
```

6. Verify the following message is returned after completion

```
Start saving the configuration.

Configuration save is complete.
```

7.2.2 Defaut Host Port

This section is only required if the port used for the webserver is not set in the WebSphere Application Server default host alias. By default, port 80 and 433 are set in the default host alias. If you're not using those ports then check the default host alias to verify if it is in the list. If it is not, then use the instructions in this section to add it.
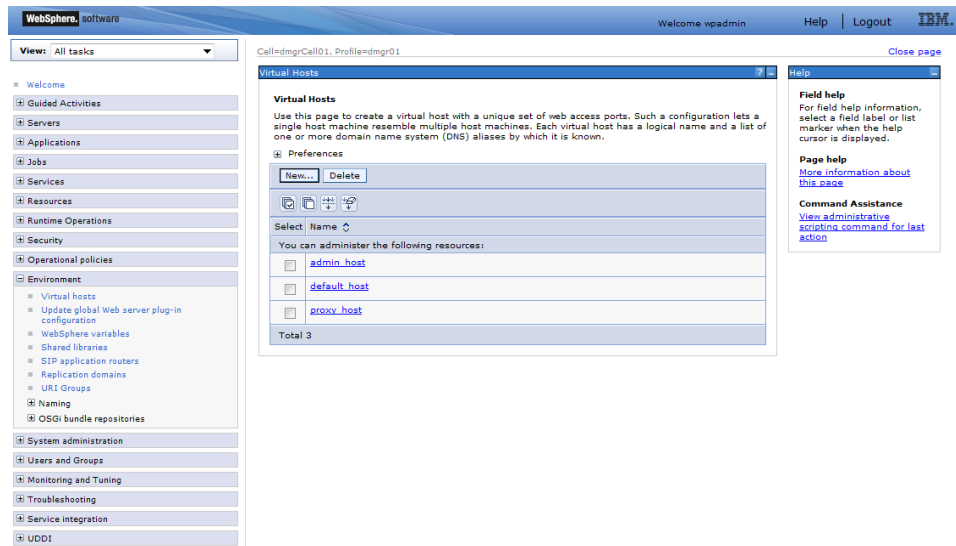
1. Open a browser and set the URL to the WebSphere Application Console

```
https://<DMGR_HOSTNAME>:<PORT>/ibm/console
```
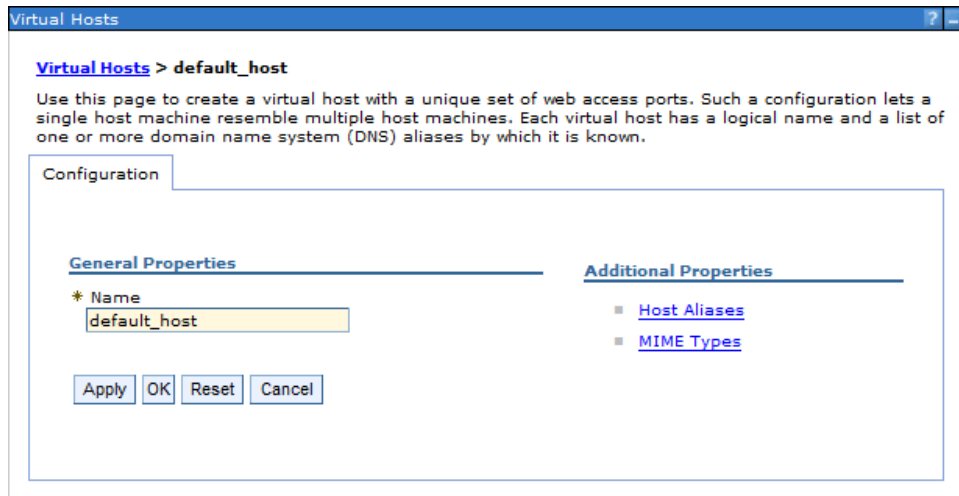
   Example:
```
https://mydmgr.ibm.com:9043/ibm/console
```

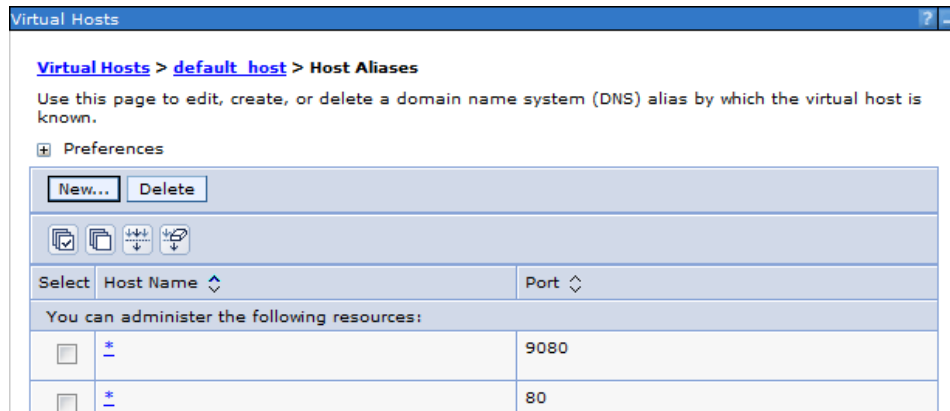2. Login as the WebSphere Administrator

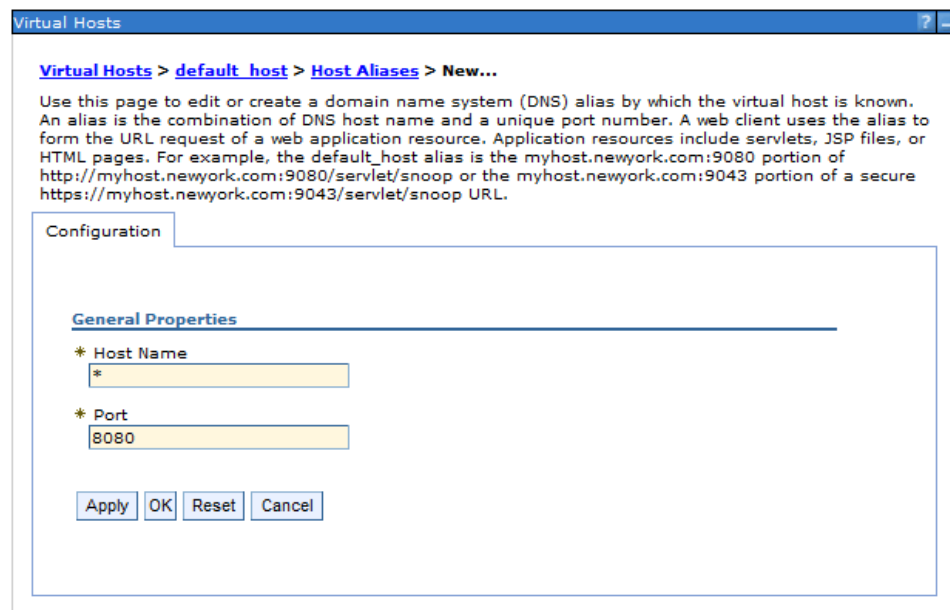3. Navigate to Environment > Virtual Host

4. Click on **default host**

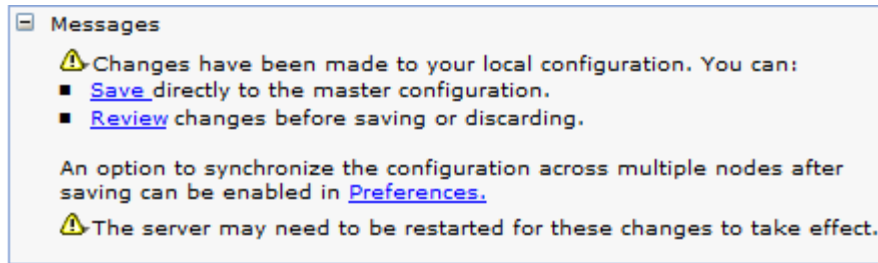5. Under Additional Properties, click **Host Aliases**

6. Click **New…**

7. Enter a * in the **Host Name** field if you will need the port to be used for any hostnames. A hostname can be set if you only want a specific hostname to use the port.
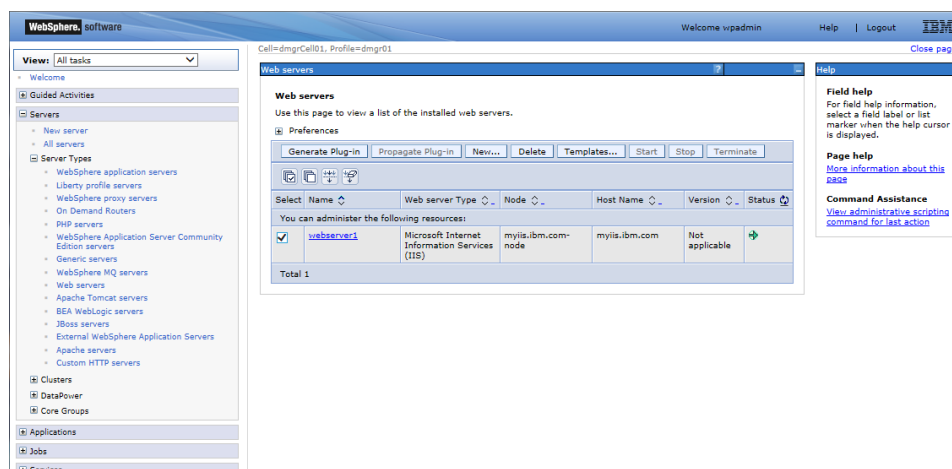
8. For the **Port** field, enter the port of the webserver.

   Example: `8080`

9. Click **OK**

10. Click **Save** to save to the master configuration

7.2.3 Generate/Propagate Plugin
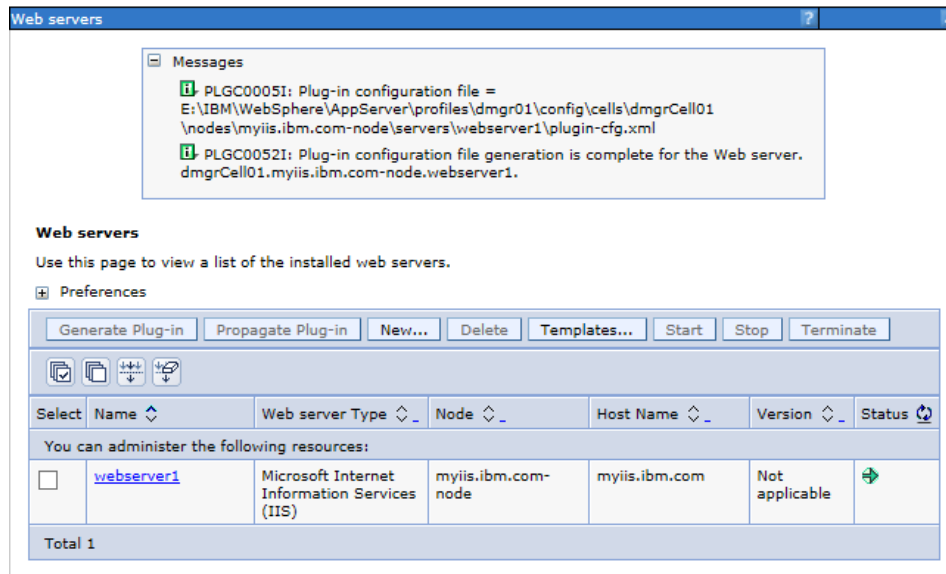

1. Open a browser and set the URL to the WebSphere Application Console (Deployment Manager)

   https://<*DMGR_HOSTNAME*>:9043/ibm/console

Example:
   https://mydmgr.ibm.com:9043/ibm/console

2. Login as the WebSphere Application Server

3. Navigate to Servers > Server Types > Web servers

4. Check the checkbox by the <WEB_UNIQUENAME> (webserver1)

5. Click **Generate Plug-in**

6. Copy the *<WEB_UNIQUENAME>* directory from the Deployment Manager to the Micrsoft IIS Server

   FROM: WebSphere Portal Server

```
<DMGR PROFILE>\config\cells\<CELL NAME>\nodes\<NODENAME>\servers\<WEB U
NIQENAME>
```
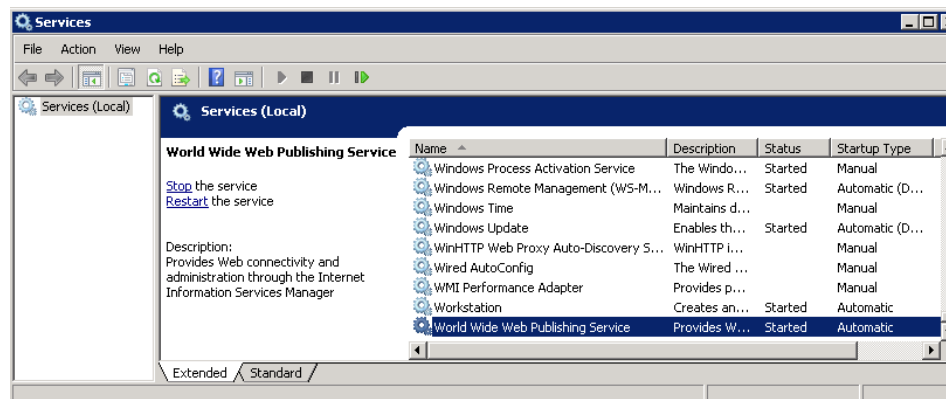
   TO: Microsoft IIS Server

```
<PLUGIN_HOME>\config\<WEB_UNIQUENAME>
```

Example: FROM: WebSphere Portal Server

```
E:\IBM\WebSphere\AppServer\profiles\dmgr01\config\cells\dmgrCell\nodes\
myiis.ibm.com-node\servers\webserver1
```

Example: TO: Microsoft IIS Server

```
E:\IBM\WebSphere\Plugins\config\webserver1
```


7. Start/Restart the Micrsoft IIS Server. You can do this through the windows services (World Wide Web Publishing Service)

8. Start/Restart the Node agent

9. Start/Restart the WebSphere Portal Server

```
<WP_PROFILE>/bin/stopServer.sh WebSphere_Portal
                            -user <WASADMIN> -password <WASPWD>
<WP_PROFILE>/bin/startServer.sh WebSphere_Portal
```

Example:
```
E:\IBM\WebSphere\wp_profile\bin\stopServer.sh WebSphere_Portal
                            -user <WASADMIN> -password <WASPWD>
E:\IBM\WebSphere\wp_profile\bin\startServer.sh WebSphere_Portal
```

NOTE: The WebSphere Portal Server can be stopped/started using the Deployment Manager.

8 Validate

1. Open a browser and set the URL to the Webserver

   ```
   http://<IIS_HOSTNAME>:<PORT>
   ```

   Example: http://myiis.ibm.com:80

2. Verify you can see the homepage of the WebServer

3. Open a browser and set the URL to the WebServer with the WebSphere Portal context root

   ```
   http://<WS_HOSTNAME>:<PORT>/wps/portal
   ```

   Example: http://myiis.ibm.com/wps/portal

4. Verify the browser displays the WebSphere Portal site.

9 Troubleshoot

- Review the following file to verify that it contains the Plugin location
  ```
  <PLUGIN_HOME>\bin\IIS_<WEB_UNIQUENAME>\plugin-cfg.loc
  ```

  Example: E:\IBM\WebSphere\Plugins\bin\IIS_webserver1\plugin-cfg.loc

- Review the Microsoft logs
  ```
  <%SystemDrive>\logs\LogFiles
  ```

  Example: C:\inetpub\logs\LogFiles