

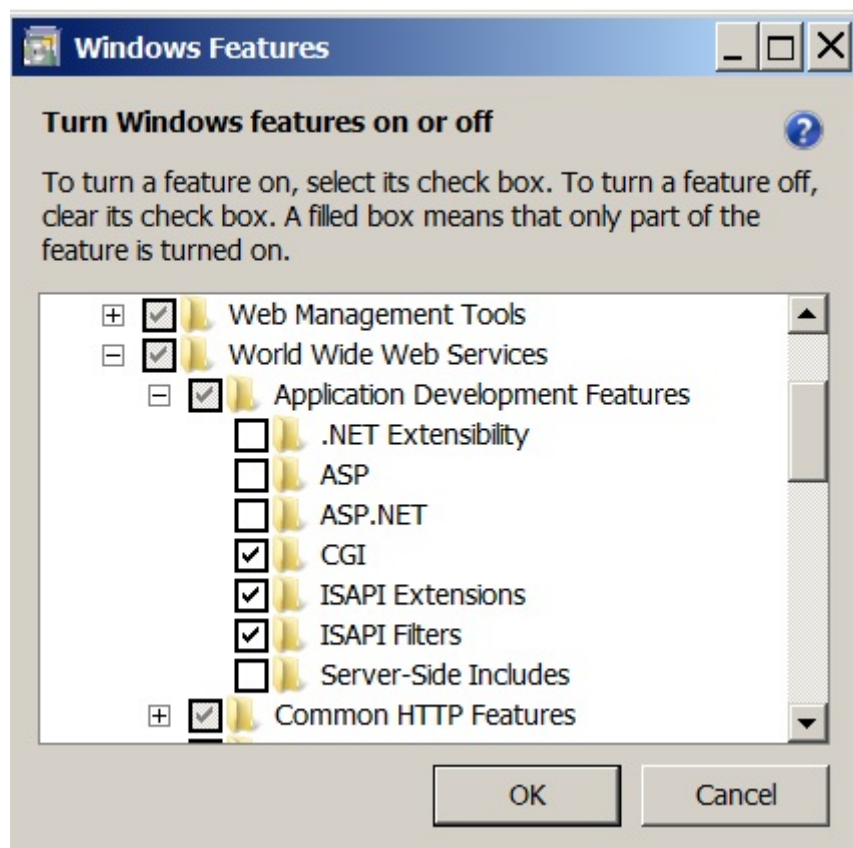
How to use IIS rather than Terminal Service Plus default Web servers

Pre-requisites

It can be a good idea to [Update Terminal Service Plus](#) to be sure that you get the latest TSplus programs.

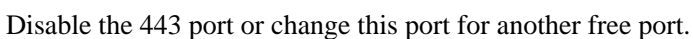
1) IIS configuration

- Install IIS with the following modules : CGI, ISAPI Extensions and ISAPI Filters.



- Configuring the IIS Port:

Access the IIS management console, expand the list below your server name, then Expand the "Sites" menu and right click on "Default Web Site" and click on "Edit Bindings":

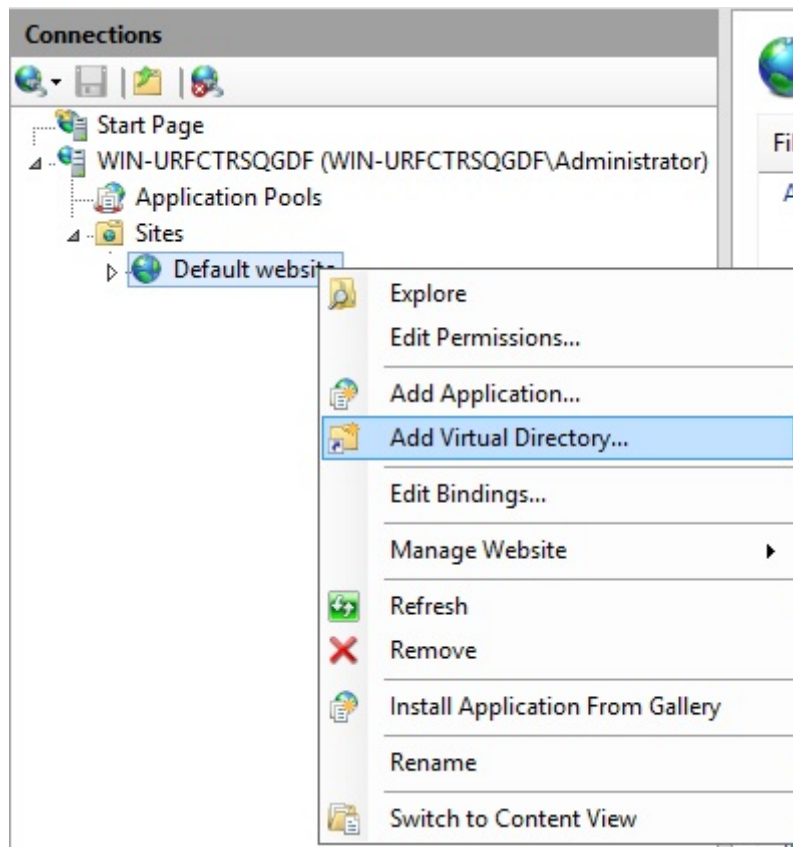


2) Create virtual directory for CGI

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You will need to check and copy them manually when migrating to the IIS web server.

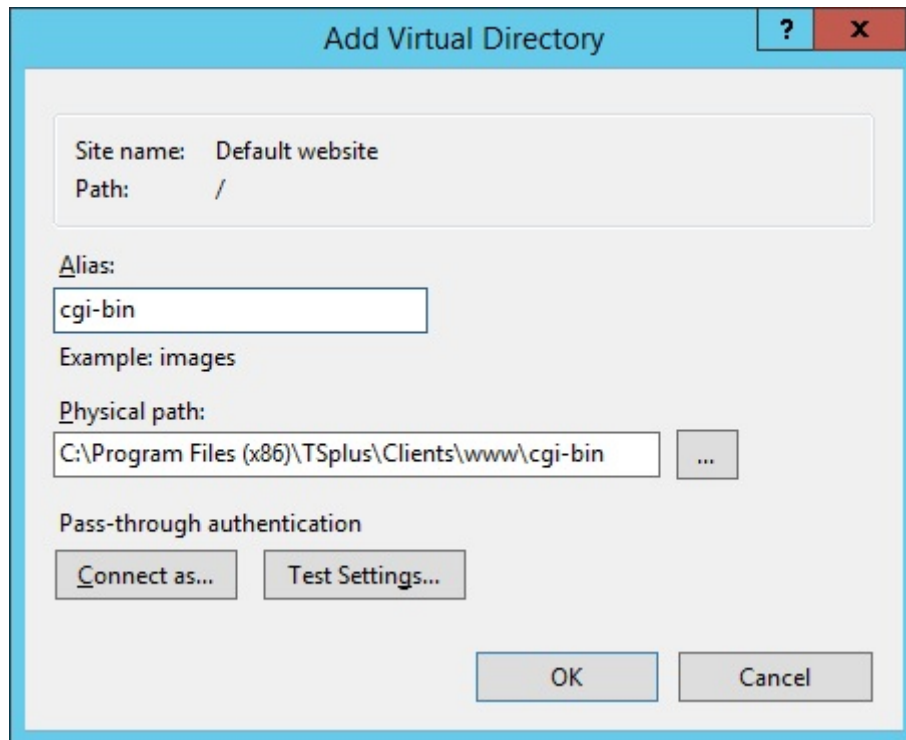
In the left panel menu, expand the menu under your server, then "Sites," and right-click on your site to add a new "virtual directory", as shown in the image below:



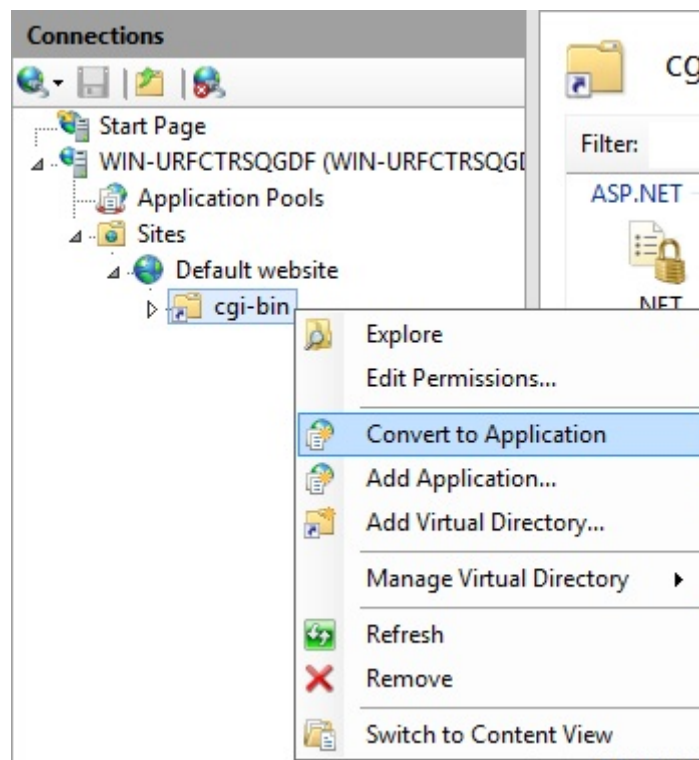
On the window that will open fill in as follows:

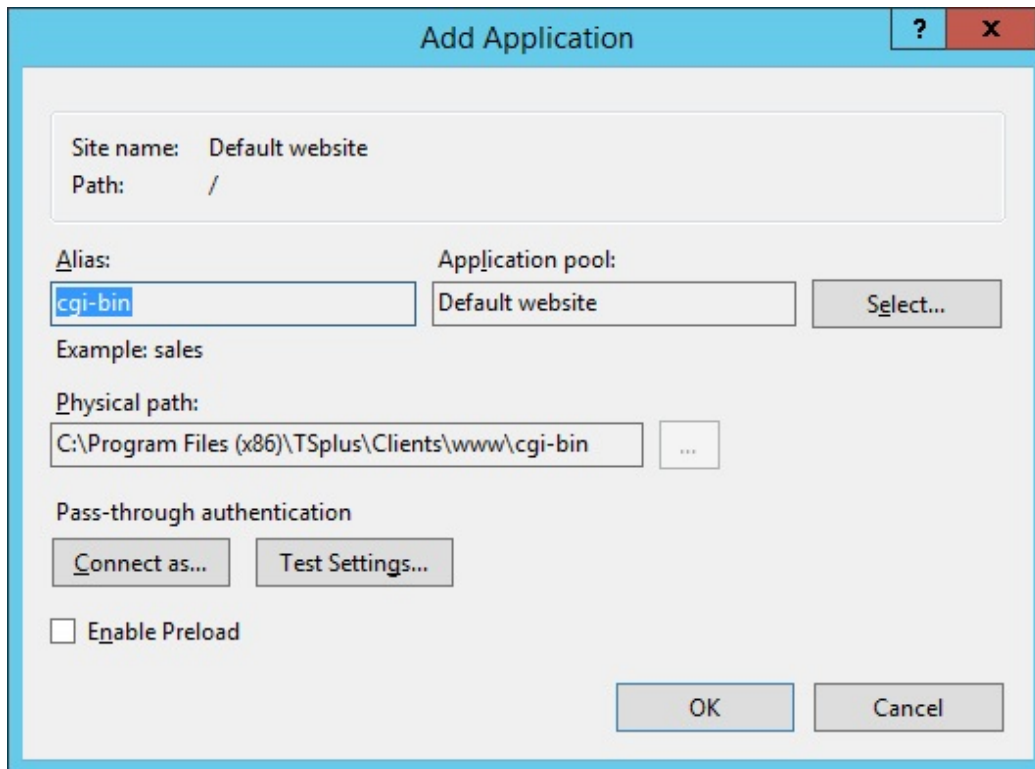
Alias: cgi-bin

Physical path: "C:\Program Files(x86)\TSplus\Clients\www\cgi-bin"

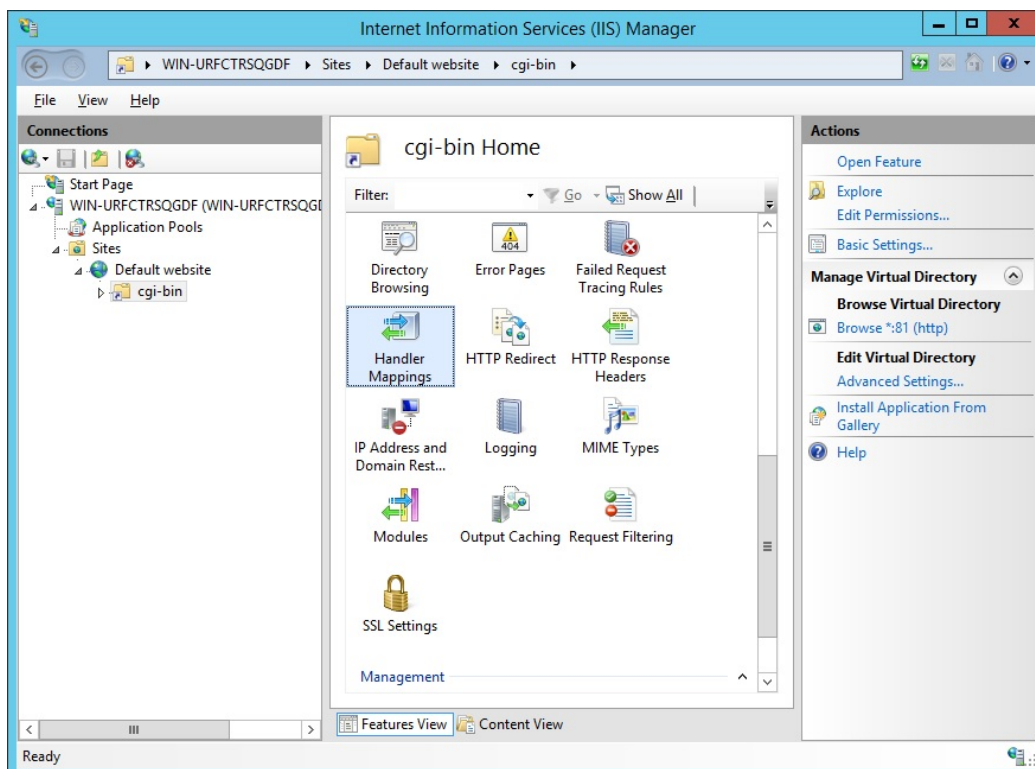


Then click "OK" and you will see that the "cgi-bin" virtual directory has been added to your IIS Web site. Now, right-click this "cgi-bin" virtual directory and click on "Convert to Application". Click "OK" and accept the default settings.

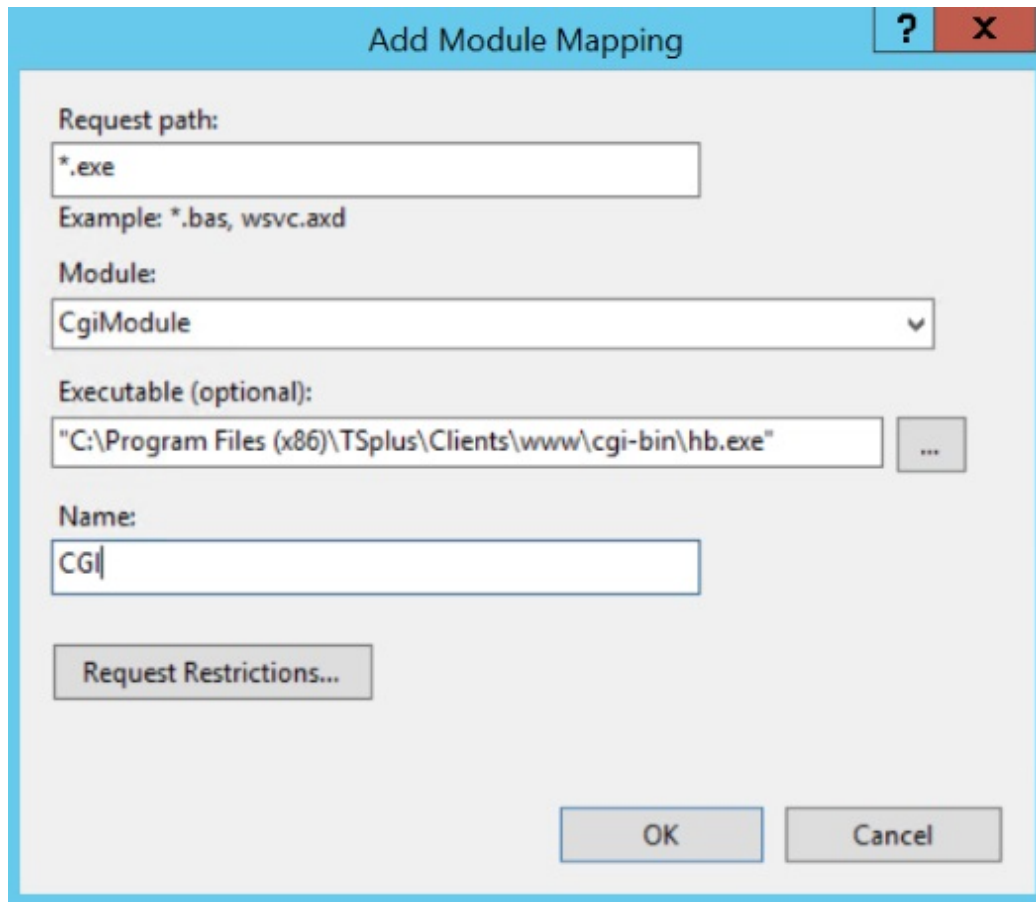




Then select the "Handler Mappings" icon for this folder on the right side of the Manager window:



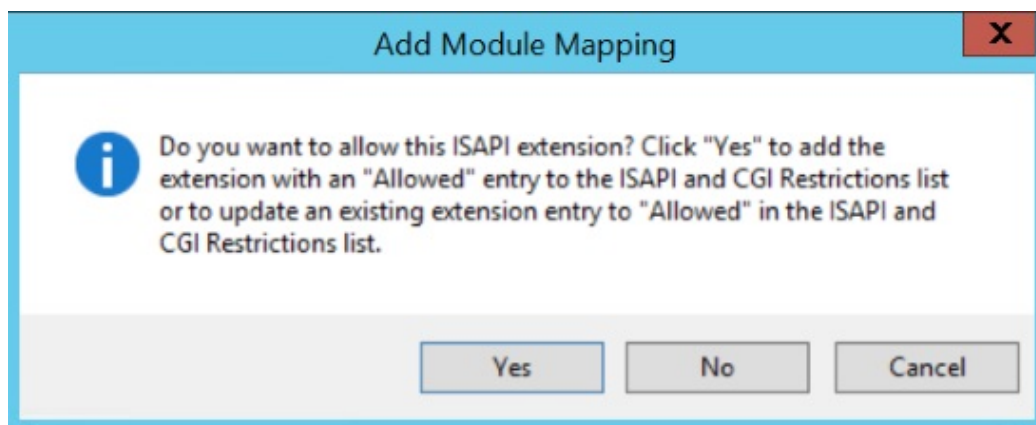
From the list of Handler Mappings, double click on "CGI-exe".
Then, search the hb.exe executable from the Executable property box and click OK.



The "Add Module Mapping" dialog box is shown. It has a title bar with a question mark and a close button. The fields are as follows:

- Request path:** *.exe (Example: *.bas, wsvc.axd)
- Module:** CgiModule (dropdown menu)
- Executable (optional):** "C:\Program Files (x86)\TSplus\Clients\www\cgi-bin\hb.exe" (with a browse button "...")
- Name:** CGI (text field)
- Request Restrictions...** (button)
- OK** and **Cancel** buttons at the bottom right.

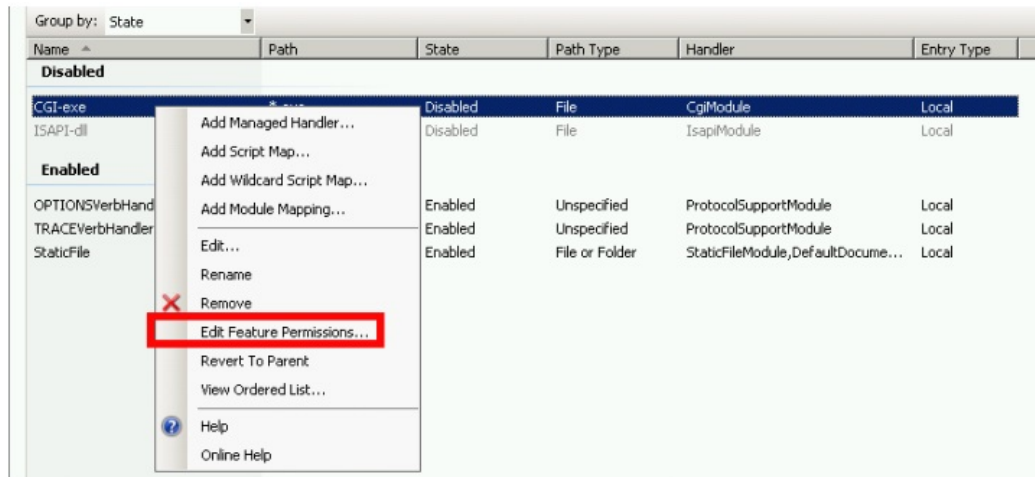
A prompt for confirmation appears. Click "OK" to allow this ISAPI extension.



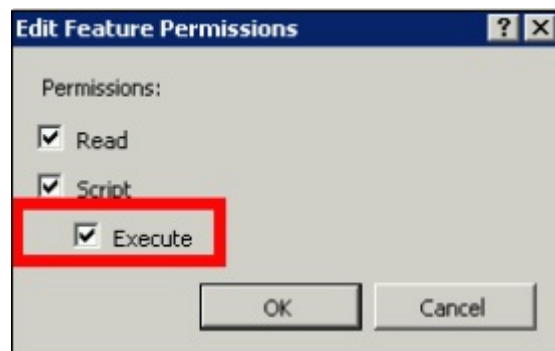
The confirmation dialog box is shown. It has a title bar with a close button. The content is as follows:

- Information icon** (blue circle with 'i')
- Text:** Do you want to allow this ISAPI extension? Click "Yes" to add the extension with an "Allowed" entry to the ISAPI and CGI Restrictions list or to update an existing extension entry to "Allowed" in the ISAPI and CGI Restrictions list.
- Yes**, **No**, and **Cancel** buttons at the bottom right.

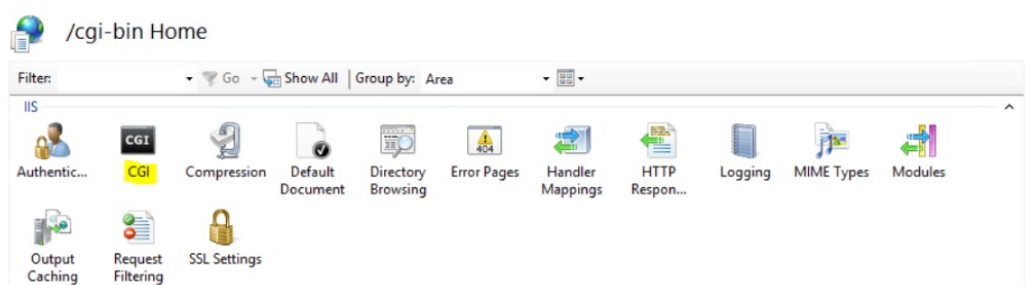
Now click on "Edit Feature Permissions":



Check the "Execute" checkbox and click OK:



Back to the "CGI-bin" Home, click on "CGI" to open the CGI properties:

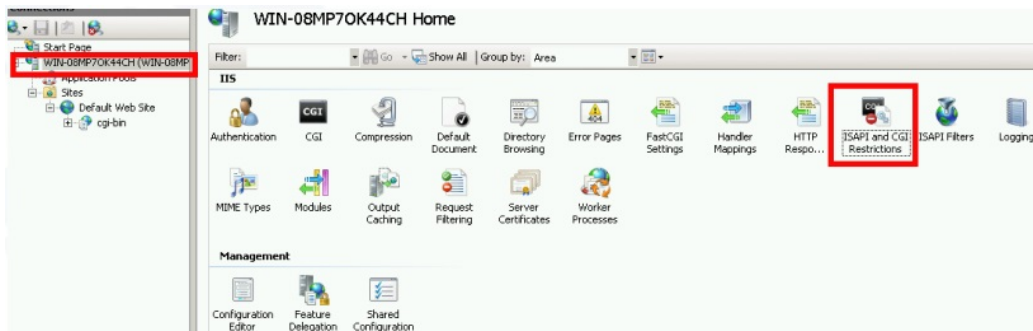


Change the value of "Use New Console For Each Invocation" to "True". Then, click "Apply" to save the changes.

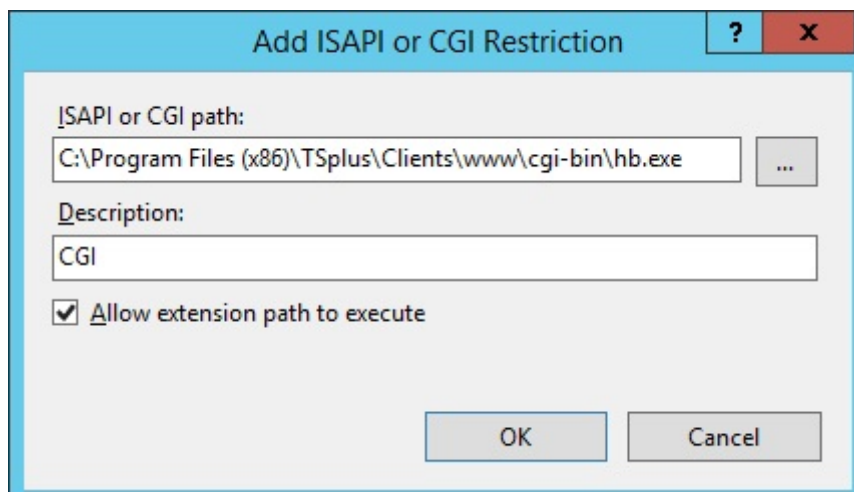
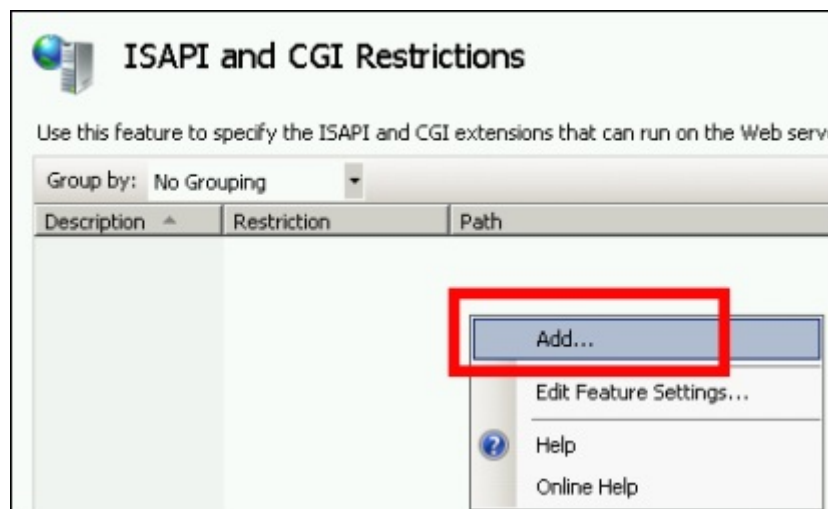


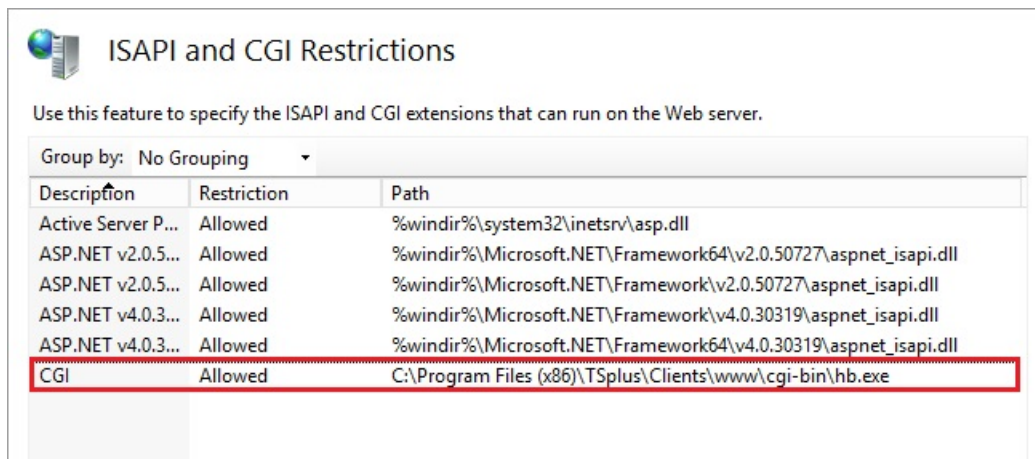
3) Configure CGI extension permission

Now, the last step is to allow the CGI extension to run on the server. Click on the "ISAPI and CGI Restrictions" icon. This can be found by clicking on the machine name in the menu on the left side of the window.

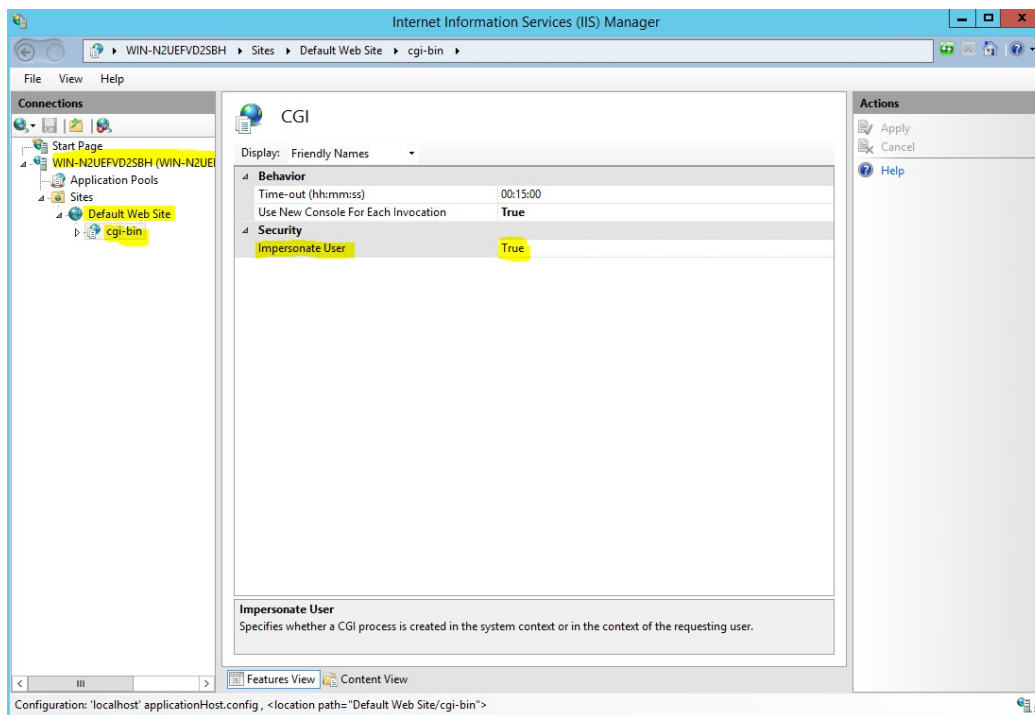


On the "ISAPI and CGI Restrictions" page, click "Add ..." on the right side of the window. Now specify the full path to the "hb.exe" file hosted in the TSplus folder. Be sure to check the "Allow extension path to execute" option, as illustrate the following images:





Make sure that in CGI section of your server, "Default Web Site" and "cgi-bin" the setting "Impersonate User" is set to "True".



Give full permission to user "IUSR" in the directory "C:\Program Files (x86)\TSplus\Clients\www\cgi-bin"

Give full permission to user "IUSR" in the directory "C:\Program Files (x86)\TSplus\Clients\webserver\twofa"

4) Add Mime types in IIS

Open a command prompt as an administrator and run the following commands:

```
%SystemRoot%\system32\inetsrv\appcmd set config /section:staticContent /+[fileExtension='.dat',mimeType='text/plain']
```

```
%SystemRoot%\system32\inetsrv\appcmd set config /section:staticContent /+[fileExtension='.',mimeType='text/plain']
```

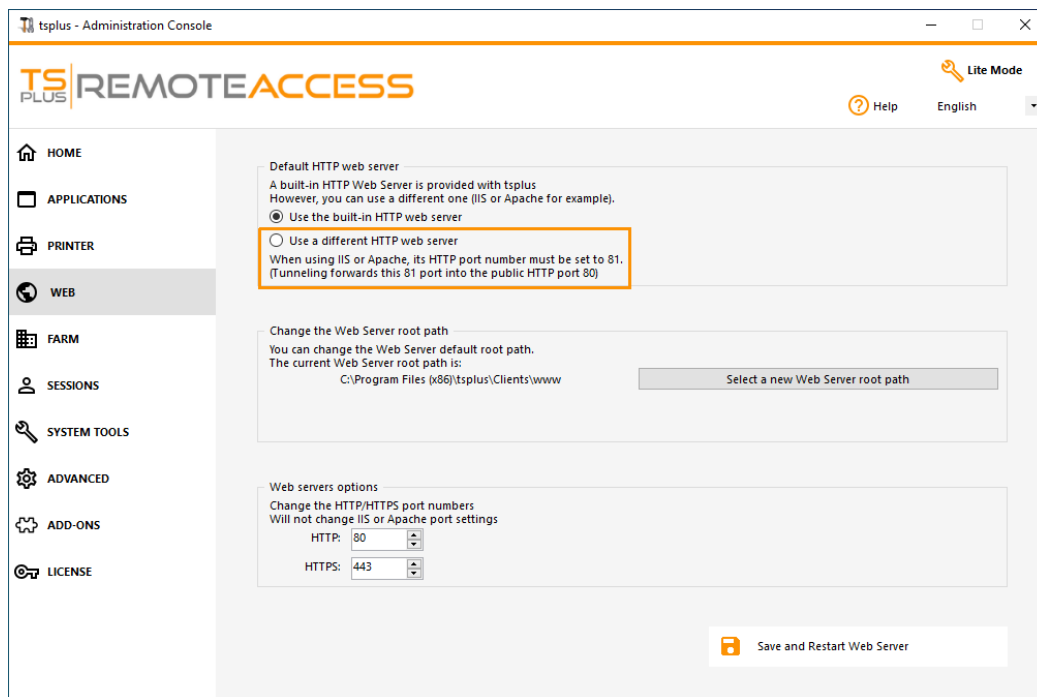
Restart IIS.

5) Configure IIS Directory Permissions

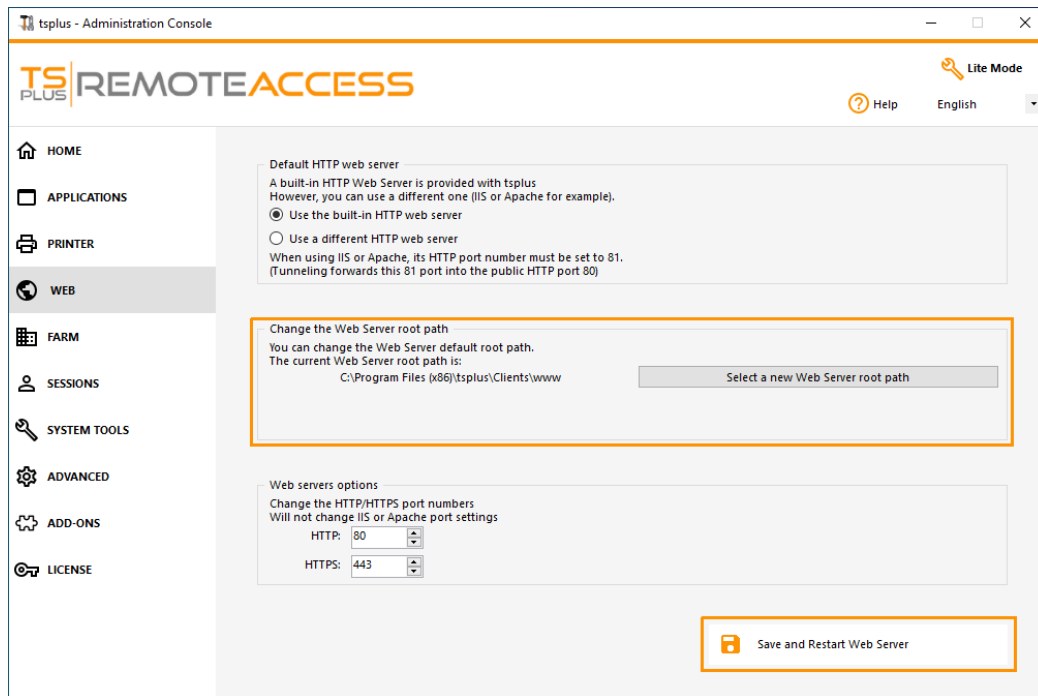
Give full permission to the group "Everyone" in the directory "C:\inetpub\wwwroot"

6) Configure TSplus

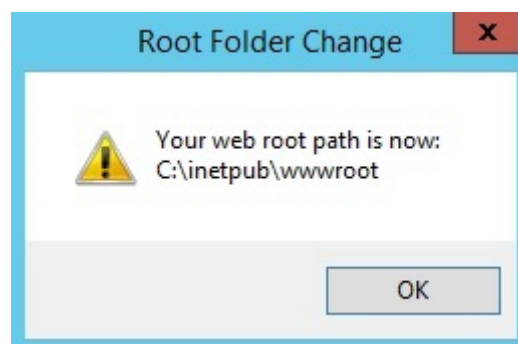
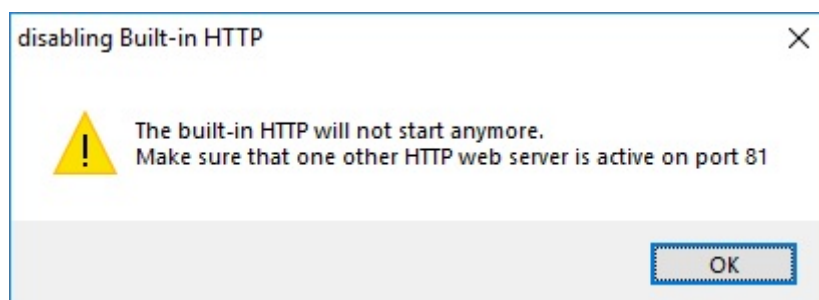
Go to the Web Server tab of the AdminTool, then choose the "Use a Different HTTP server" option:



Then, in the same window, click on "Select a new Web Server root path", and put the path of the IIS directory, which should be something like: "C: \ inetpub \ wwwroot". Now click on "Save and Restart the AdminTool".

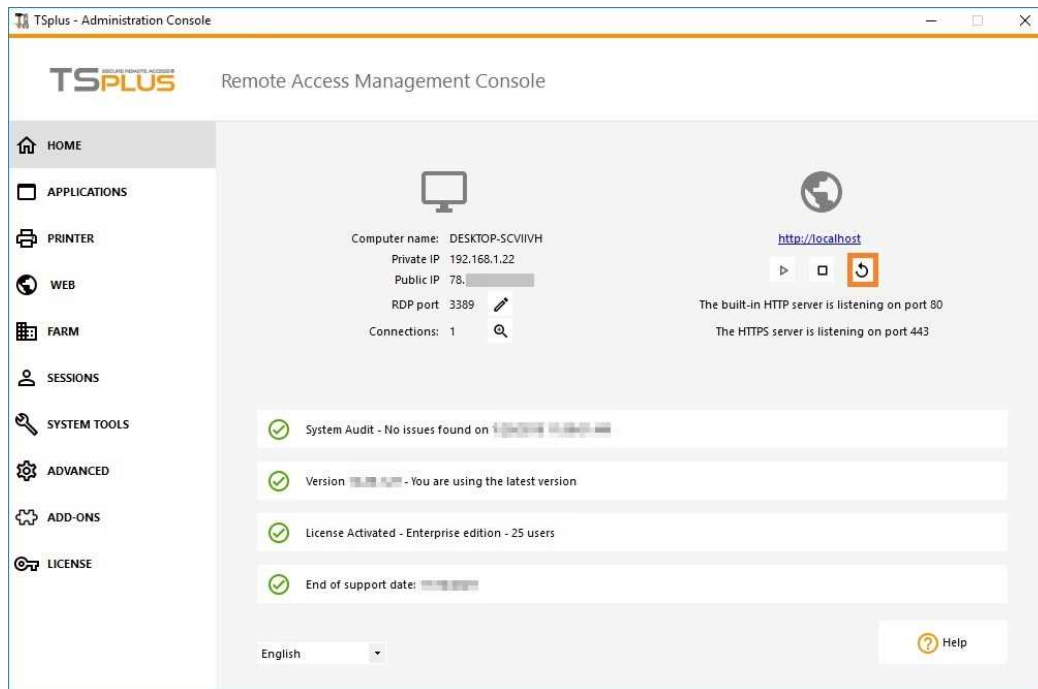


The following messages will appear:



Wait. The Admintool will be closed automatically. Then open the Admintool again and click on the Web tile.

Finally, restart the web servers:



7) Test with local host

Warning: Use a different user account.

If you try with your current user account from your own RDP session to the server, then you will be disconnected and not be able to reconnect.



Additional actions:

Configure RemoteApp

The "remoteapp" folder in the IIS web root (c:\inetpub\www\cgi-bin\remoteapp) must also have full permissions to the IUSR user, otherwise a 704 error will appear when attempting to use RemoteApp.

Configure 2FA

On a fresh install where 2FA has never been enabled, there is no folder named C:\Program Files (x86)\TSplus\Clients\webserver\twofa, or the twofactorauth.ini file.

It's necessary : - activate 2FA in AdminTool to create this folder and this .ini file - then deactivate 2FA - then apply IUSR user permissions to the newly created twofa folder.

Failure to complete this step (even if you don't intend to use 2FA) will prevent users from logging in with an error message stating that the credentials are invalid.