

## Manually Setting up NLS Web Service in IIS

Note: Some of the screen shots may vary depending on your version of windows and NLS configuration.

### GLOSSARY

IIS     Internet Information Services

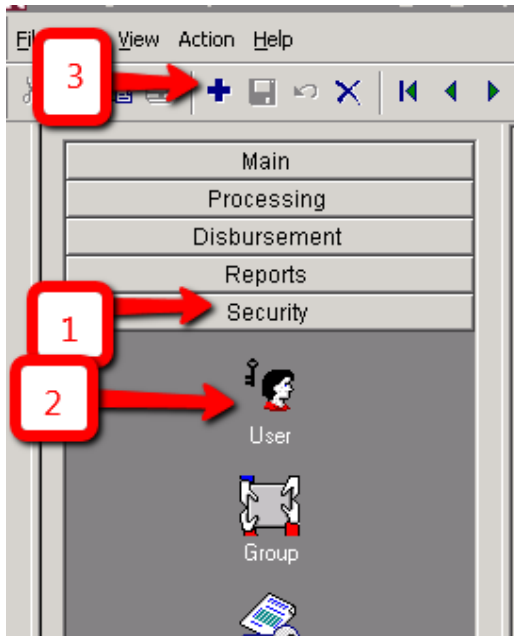
NLS    Nortridge Loan System

### PREREQUISITES

Set up a dedicated Windows account

This is the primary prerequisite for successfully setting up the NLS Web Service and ideally should be planned in advance of setting up the Service.

- Create the Windows account. For this document we will use “<DomainName>\NLSWebService” as the account name.
- Password policy: We recommend setting up a strong password that does not expire. When the password is changed it will need to be updated in the areas below where the account is used (specifically, the Application Pool Identity).
- Give the user full read/write/update permissions to the NLS database in SQL Server. This implies that SQL Server is configured to use Windows Authentication.
- Add the user to NLS as a Windows Authentication Only user.
  1. Start NLS and go to the Security area
  2. Select Users
  3. Click on the Add toolbar button (+)
  4. Fill in the Add User form and click OK; make sure the “User Signon Name” is in the form of <DomainName>\<UserName> as in the example below
  5. Check the “Windows Authentication Only” and “DBA Privileges” checkboxes in the User window
  6. Click on the Save button in the toolbar

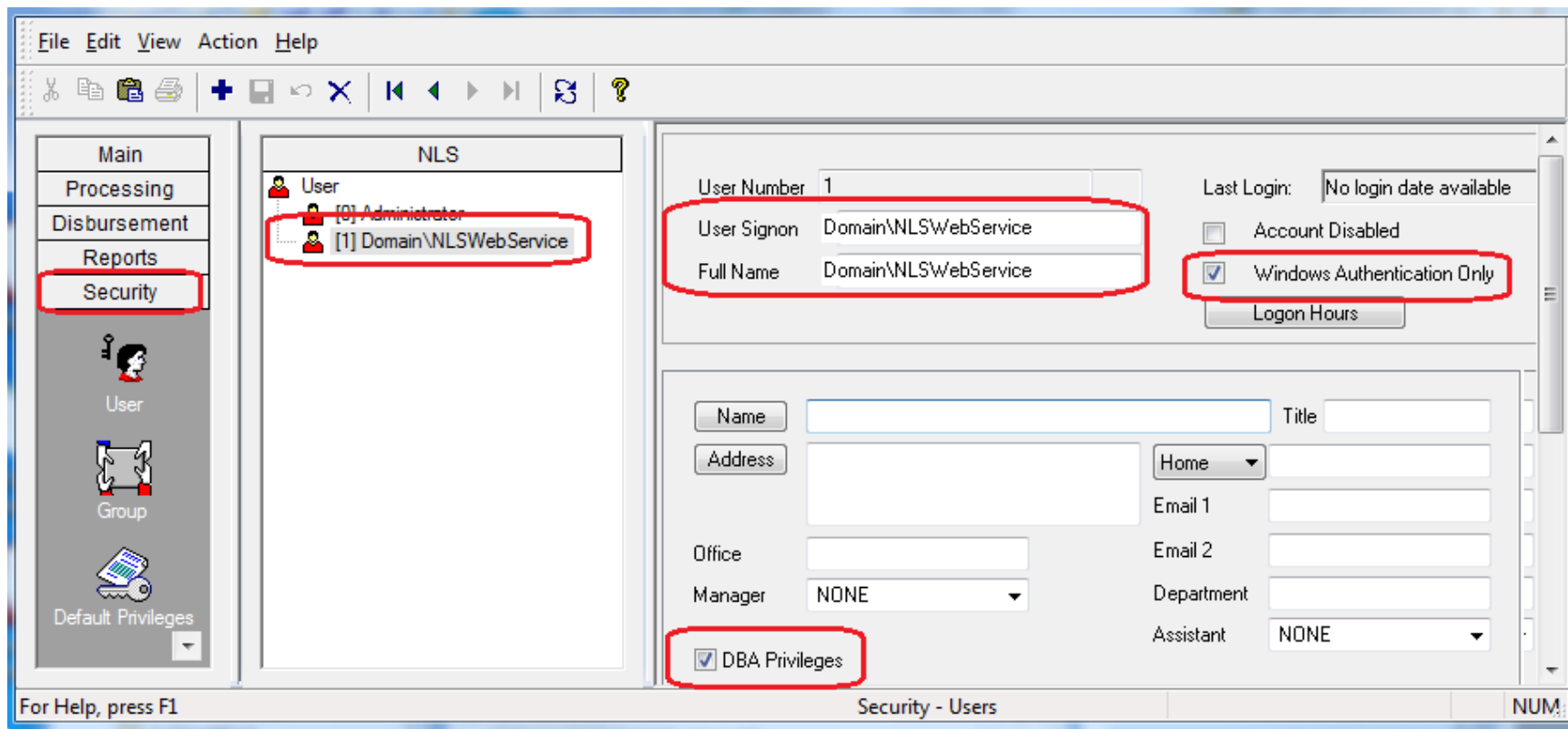


4:

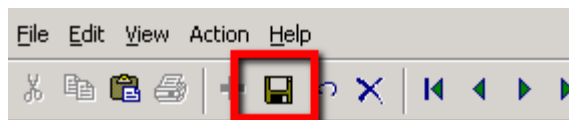
A screenshot of the 'Add User' dialog box. It contains the following fields and controls:

- User Number:** A text box containing the value '4'.
- User Signon Name:** A text box containing the value 'MyDomain\NLSWebService'. A red arrow points to this field.
- Full Name:** A text box containing the value 'NLS Web Service User'. A red arrow points to this field.
- Create Equivalent To:** A dropdown menu with a downward arrow.
- Password:** A text box filled with dots. A red arrow points to this field.
- Confirm Password:** A text box filled with dots. A red arrow points to this field.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom. The 'OK' button is highlighted with a red box.

5:



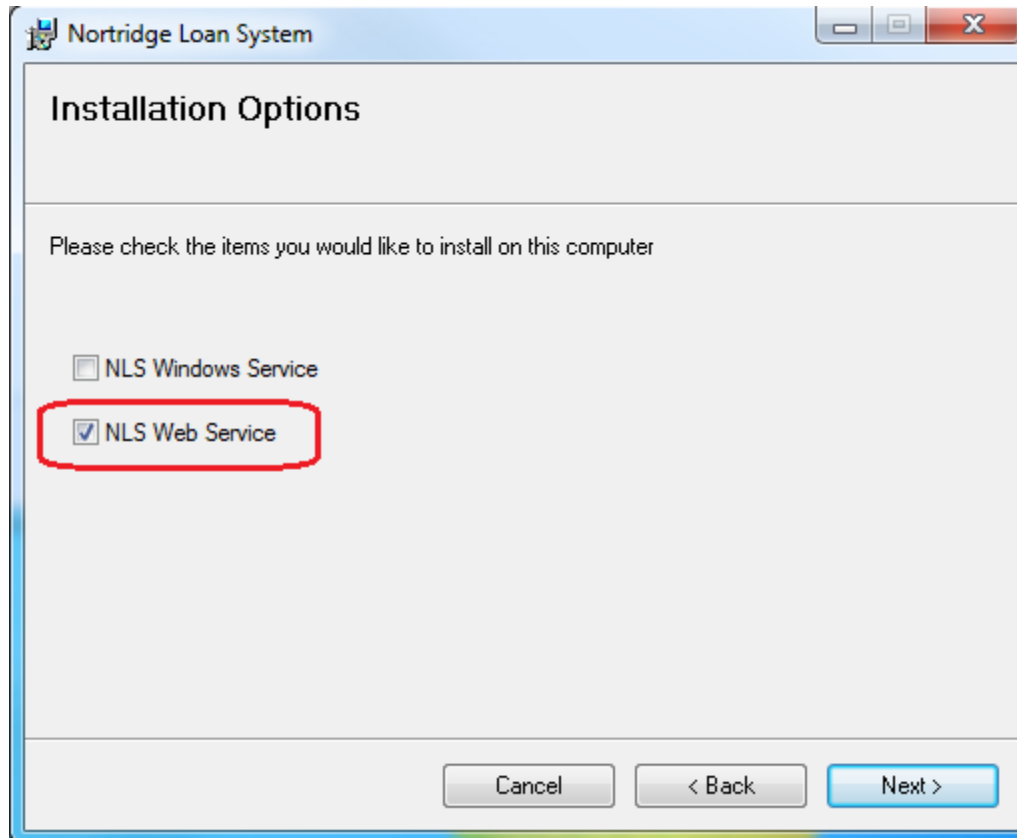
6:



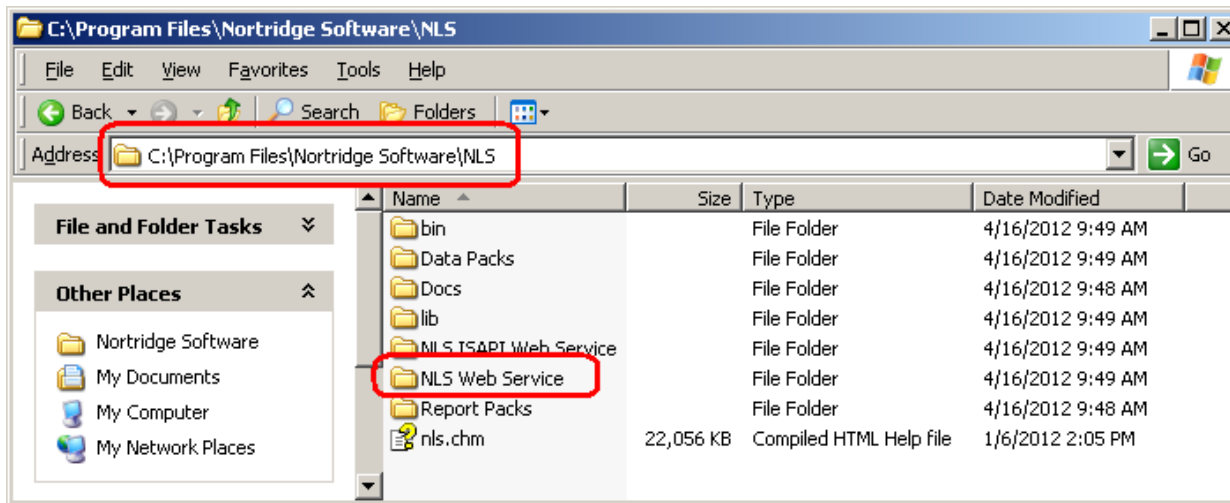
## STEP 1: Copy the NLSWebService folder to the file system

1. Locate the source folder that contains the NLS Web Service.

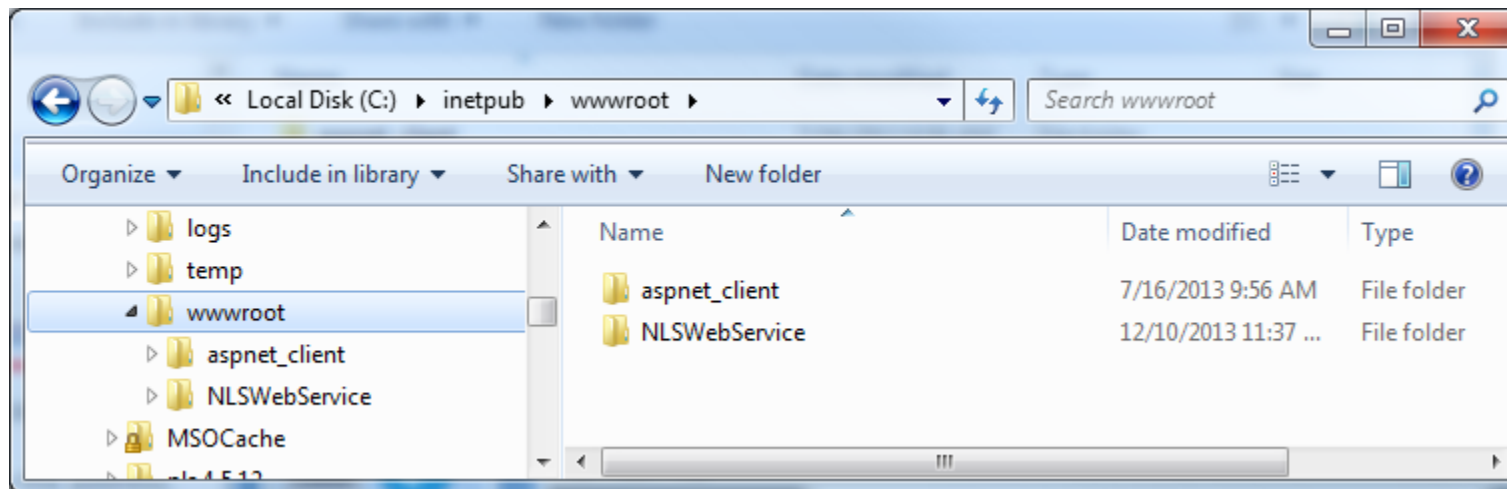
You may have a folder named "C:\Program Files (x86)\Nortridge Software\NLS\NLS Web Service" depending on your version of NLS. If you do not have this folder then contact Nortridge Support @ 1-800-435-7240 to get the correct NLS web service that corresponds to your NLS version.



- Copy the following folder from the NLS directory or the folder you received from support to the C:\inetpub\wwwroot directory. Rename the folder to "NLSWebService" (I.E. no spaces)

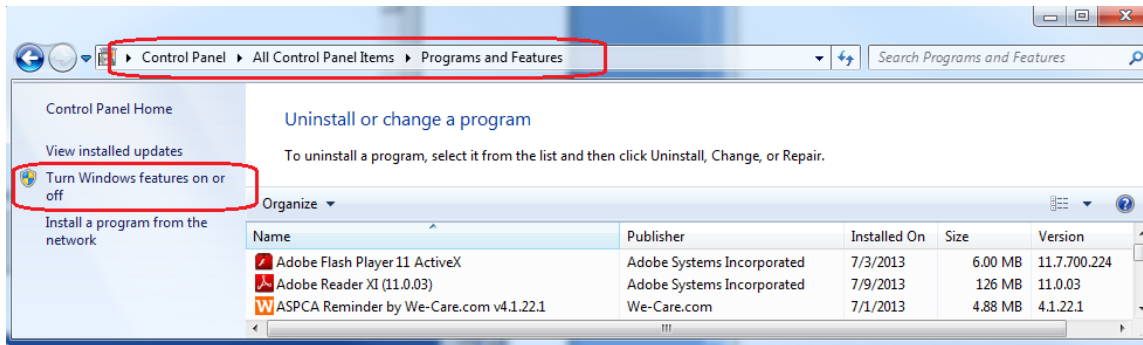


The C:\inetpub\wwwroot directory should look like this:

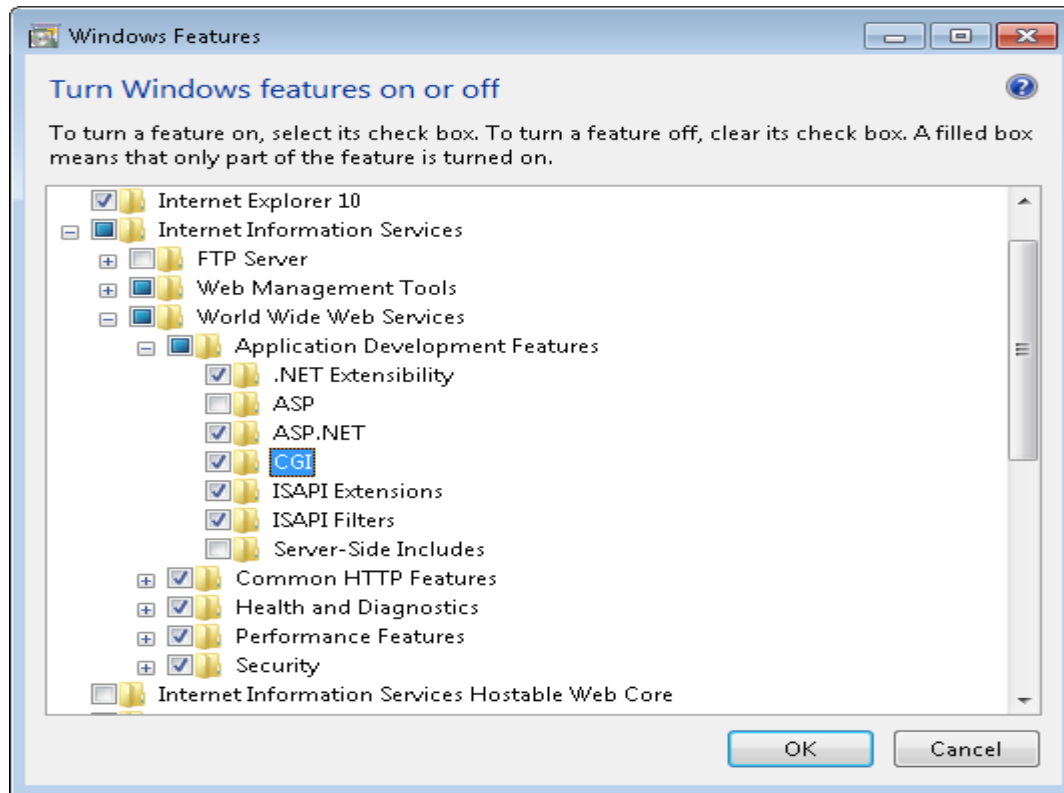


**Note:** If there is no C:\inetpub\wwwroot directory then you need to make sure IIS is installed as a Windows Feature:

3. (Optional) Go to Control Panel -> Turn Windows features on or off.

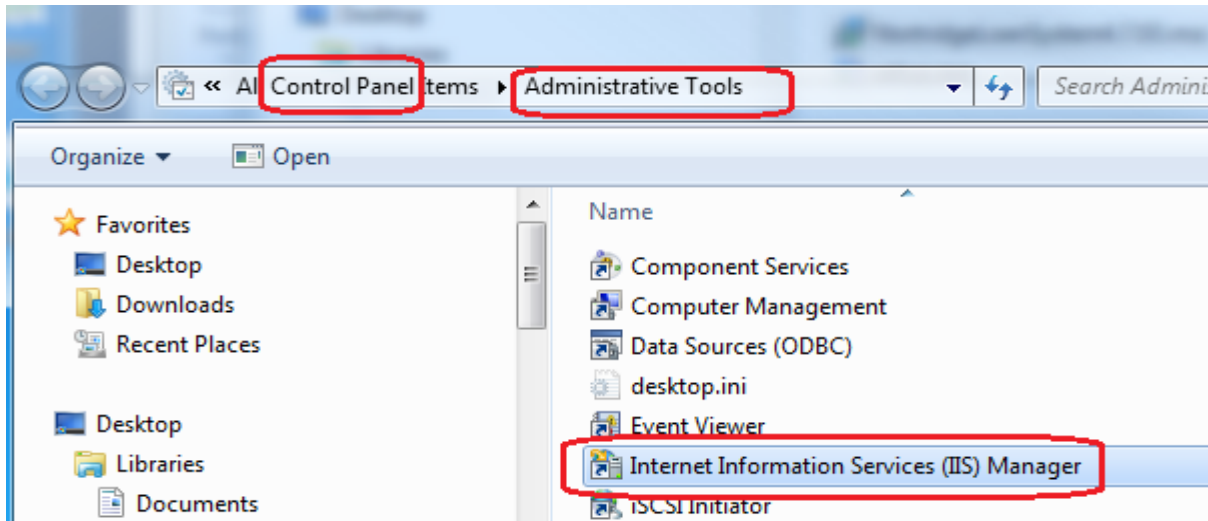


4. Check the following boxes for IIS (Internet Information Services) and click OK.

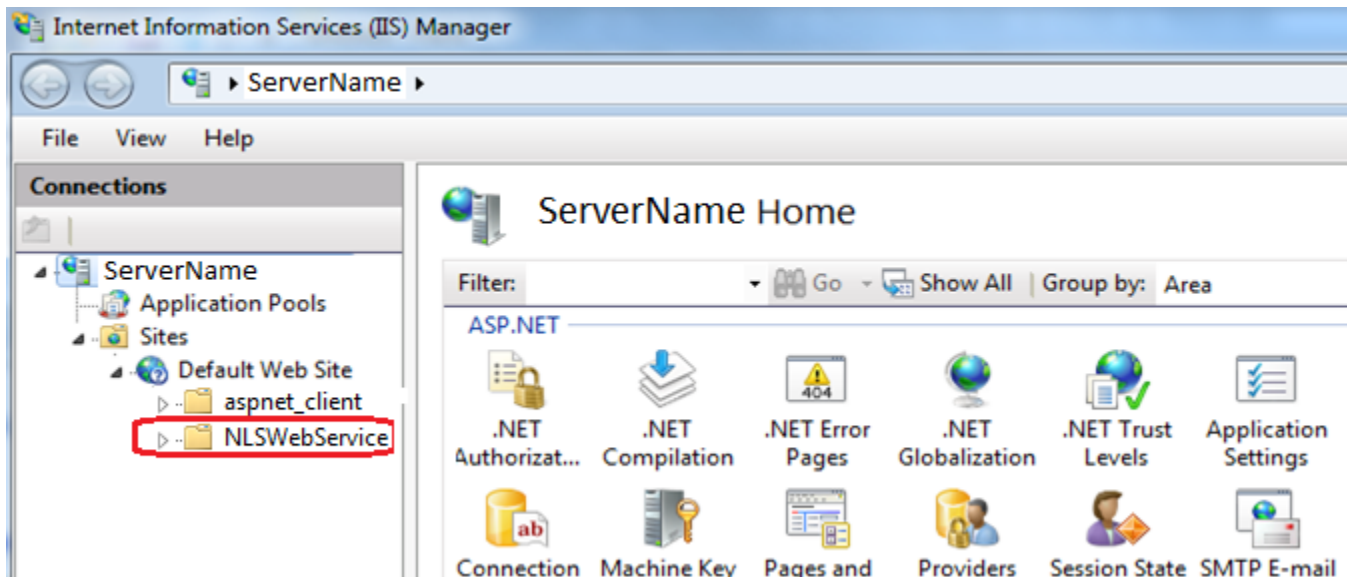


## STEP 2: Open IIS and confirm the NLSWebService folder setup

1. Go to Control Panel->Administrative tools and open Internet Information Services (IIS) Manager:



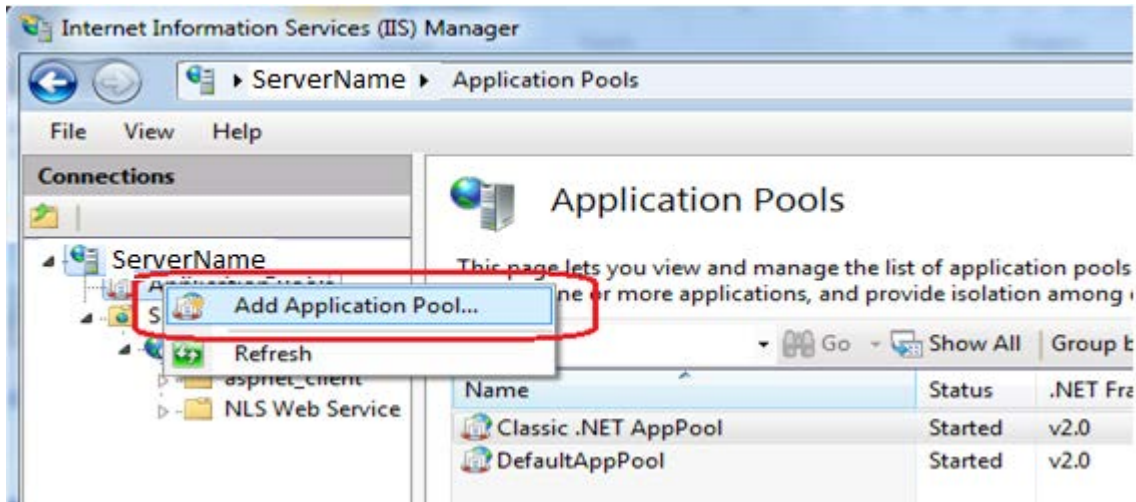
2. If the folder was successfully copied to the www.root directory then NLSWebService will now show up in the IIS manager:





### STEP 3: Set up NLS web service

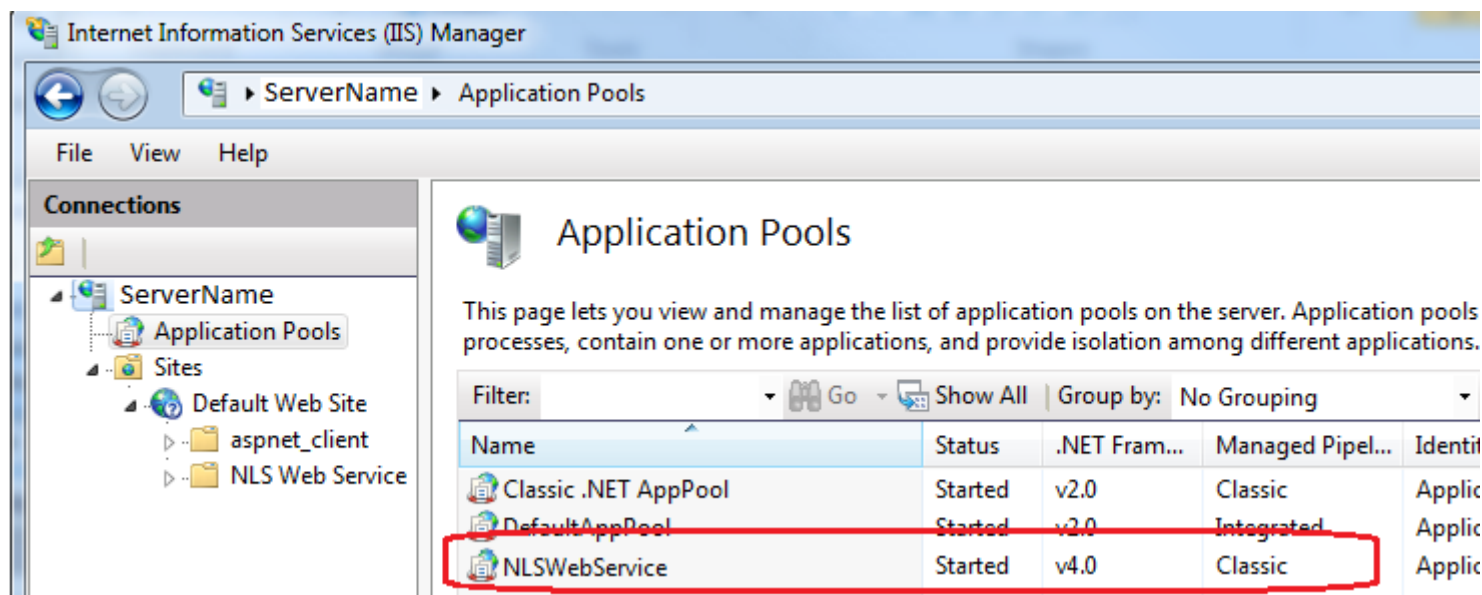
1. Right click Application Pools, choose “Add Application Pool” and call it NLSWebService (or whatever you want):



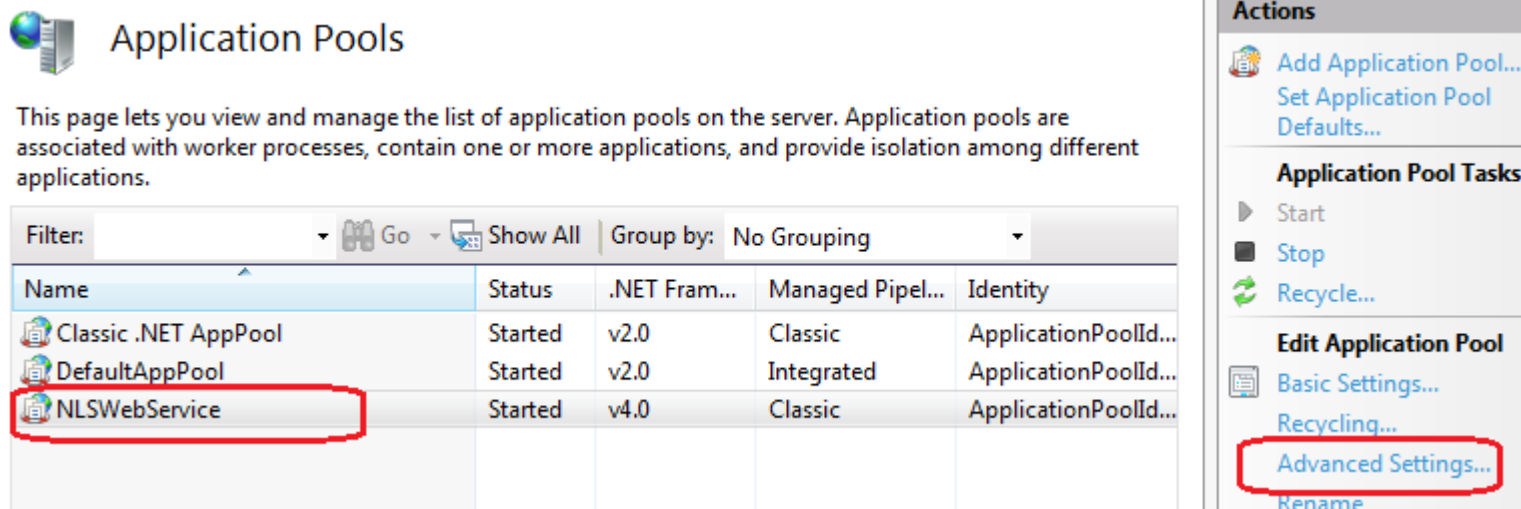
2. Fill in the parameters as shown below. Depending on your NLS version select the appropriate .NET Framework Version:
- NLS Version earlier than 4.6.01: select .NET Framework v2.0.
  - NLS Version 4.6.01 or greater: select .NET v4.0.

The screenshot shows the 'Add Application Pool' dialog box. The 'Name' field is set to 'NLSWebService'. The '.NET Framework version' dropdown is set to '.NET Framework v4.0.30319'. The 'Managed pipeline mode' dropdown is set to 'Classic'. A red rectangle highlights these three fields. The 'Start application pool immediately' checkbox is checked. The 'OK' and 'Cancel' buttons are at the bottom.

3. The NLSWebService application pool will now appear in the Application Pools list.

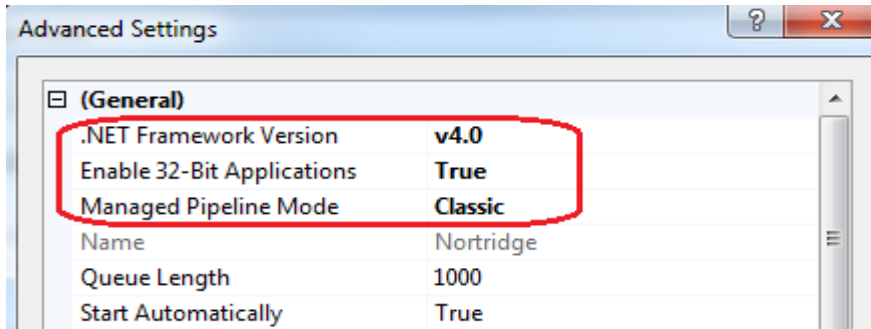


4. Click on the NLSWebService application pool and select Advanced Settings from the Actions menu.

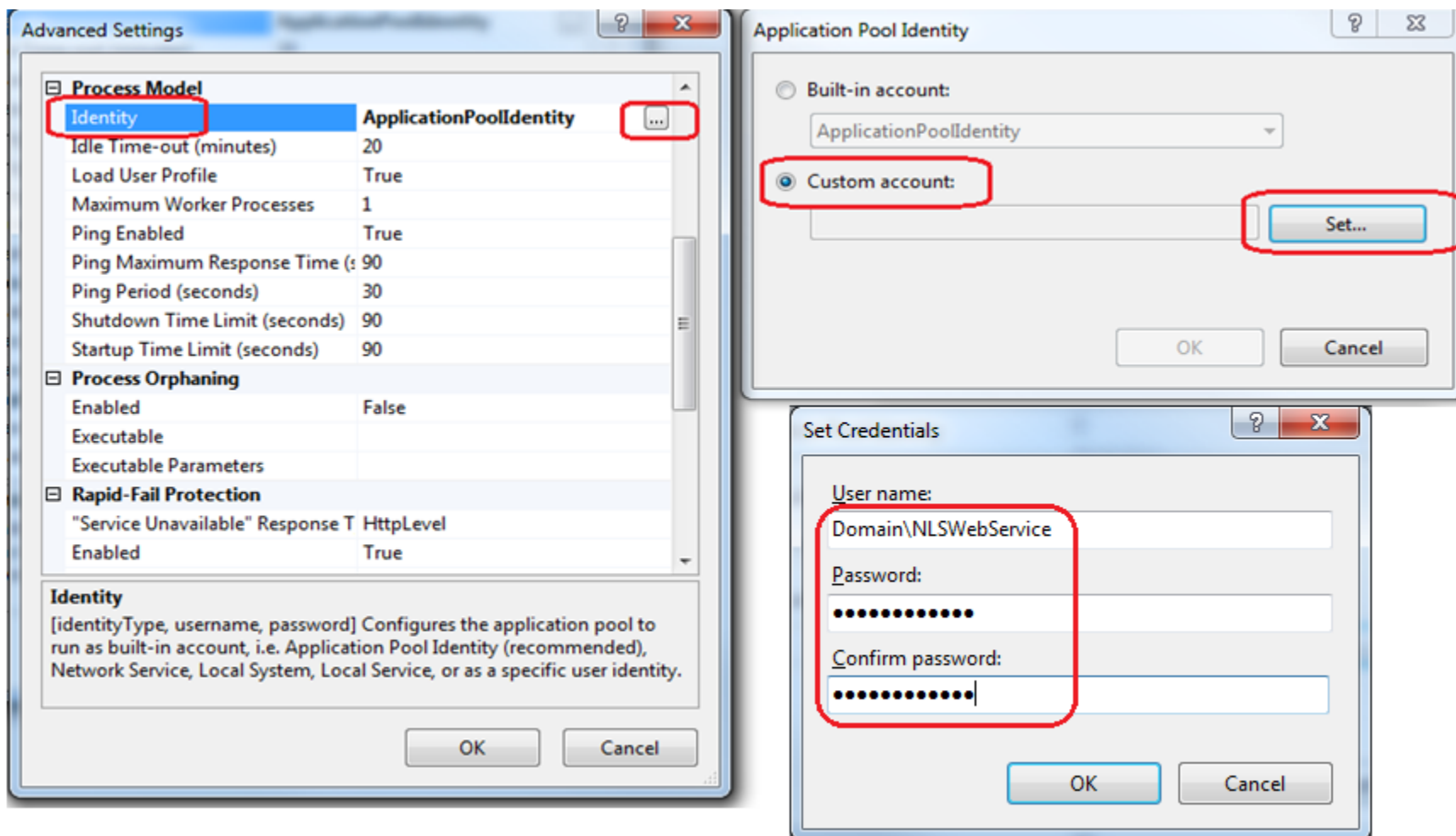


5. Verify and/or change the following default settings for the NLSWebService application pool:

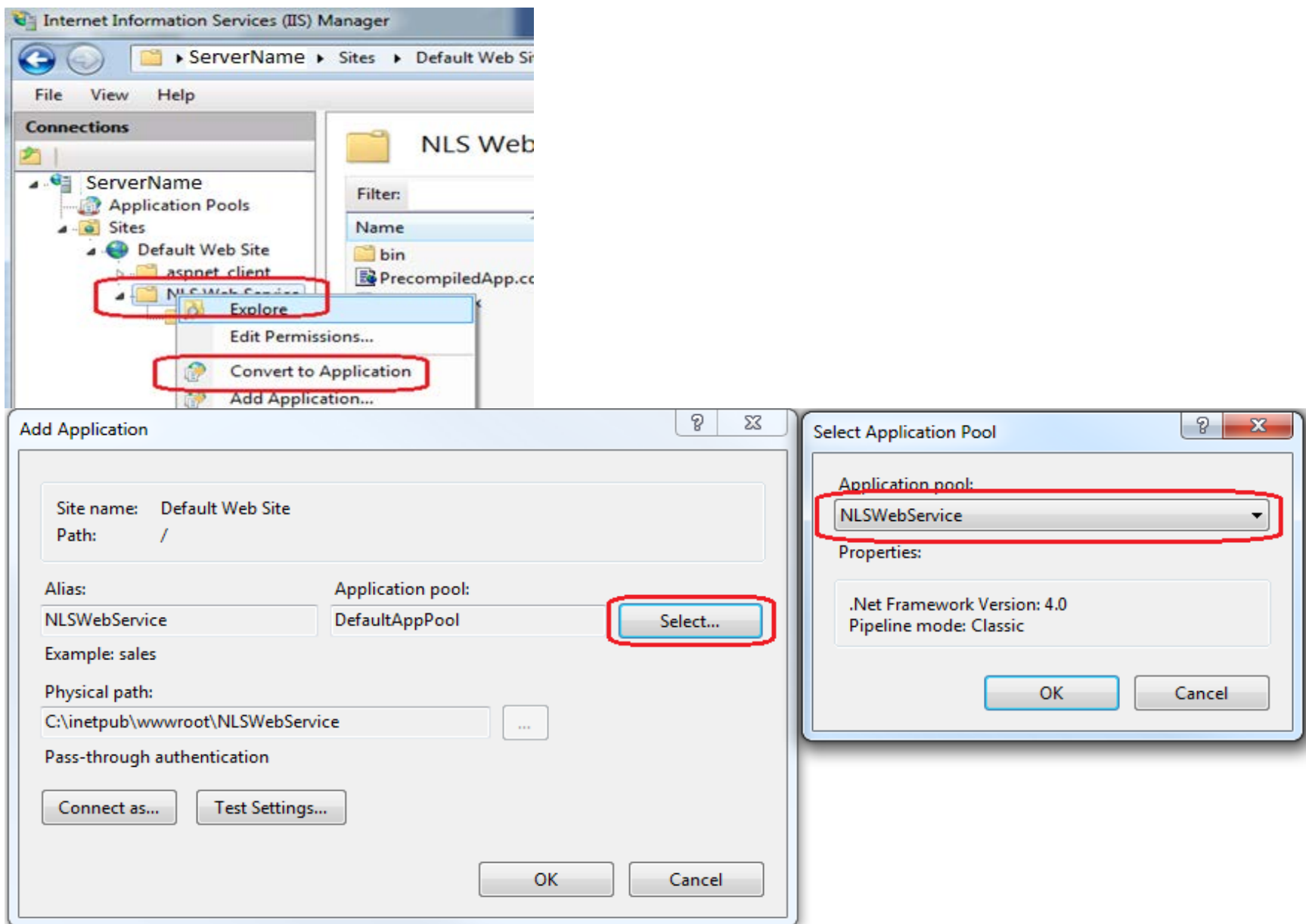
- .NET framework depends on your NLS version stated above
- Enable 32 bit set to true
- Managed pipeline mode set to classic



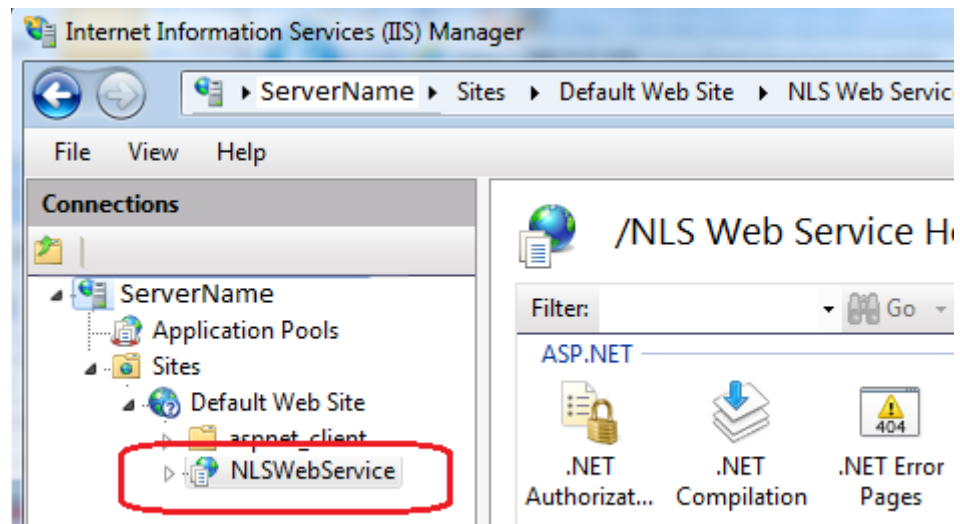
6. Modify the Identity to use the Windows Authentication Account set up during the Prerequisites stage:



7. Right Click on the NLSWebService folder, choose “Convert to Application” and select the NLSWebService application pool:



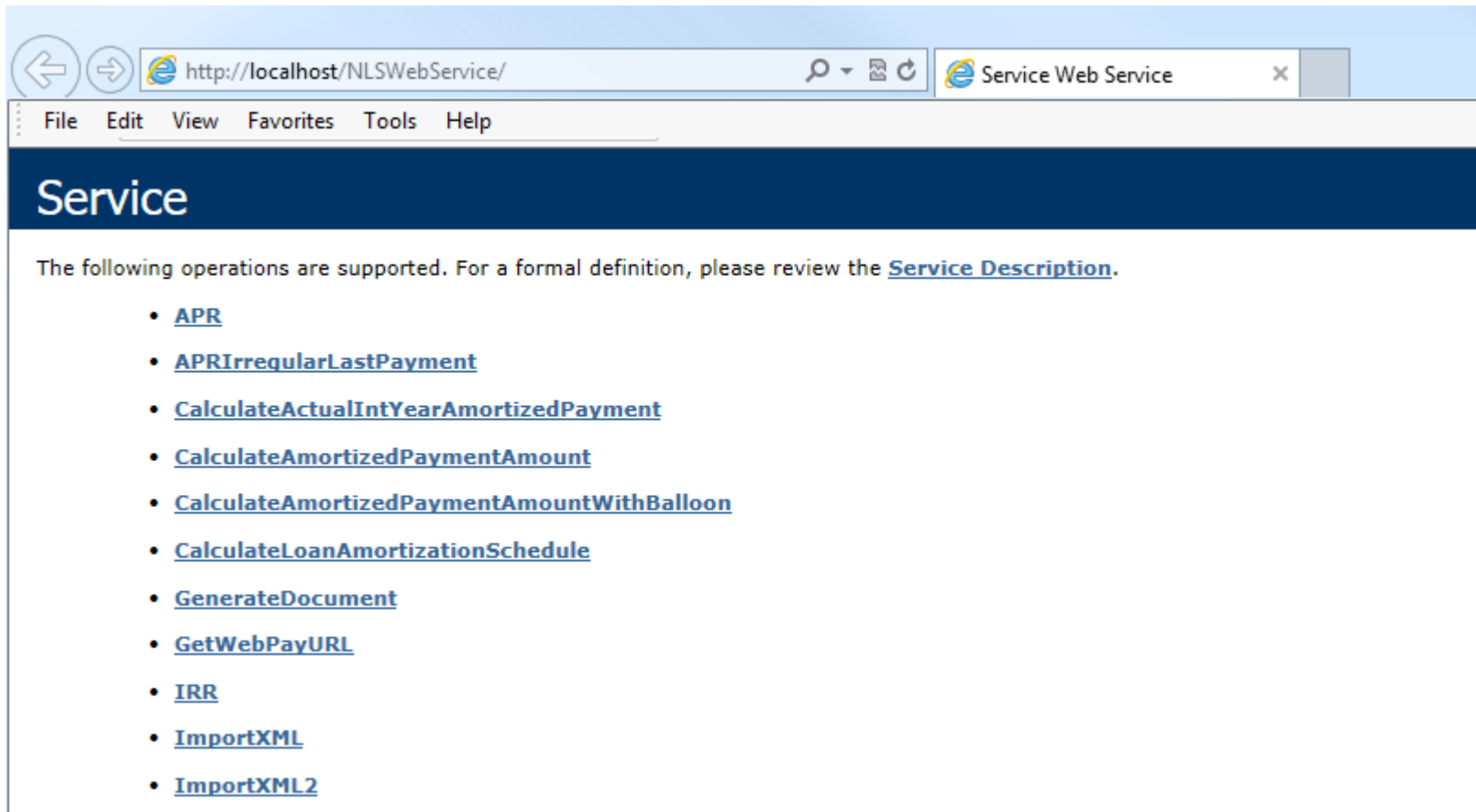
8. The NLSWebService will now look like this:



## STEP 4: Verify NLSWebService

1. Open web browser and go to the IP address of where the NLSWebService was installed:

This example assumes we're on the same machine, so "localhost" is fine. If NLSWebService was successfully configured you should see the following.





- 2 To test that the service is functioning correctly, click on the function NLSGlobalAuthentication. On the function definition page fill in the necessary parameters on the test form and click Invoke. This test assumes that you are on a browser on the same server as the NLSWebService.

## NLSGlobalAuthentication

### Test

To test the operation using the HTTP POST protocol, click the 'Invoke' button.

| Parameter                             | Value                                      |
|---------------------------------------|--|
| db_type:                              | <input type="text" value="MSSQL"/>         |
| server_name:                          | <input type="text" value="server"/>        |
| database_name:                        | <input type="text" value="database_name"/> |
| <input type="button" value="Invoke"/> |  |

If working correctly, another tab should open up in your web browser with a string element containing a token, similar to the image below.

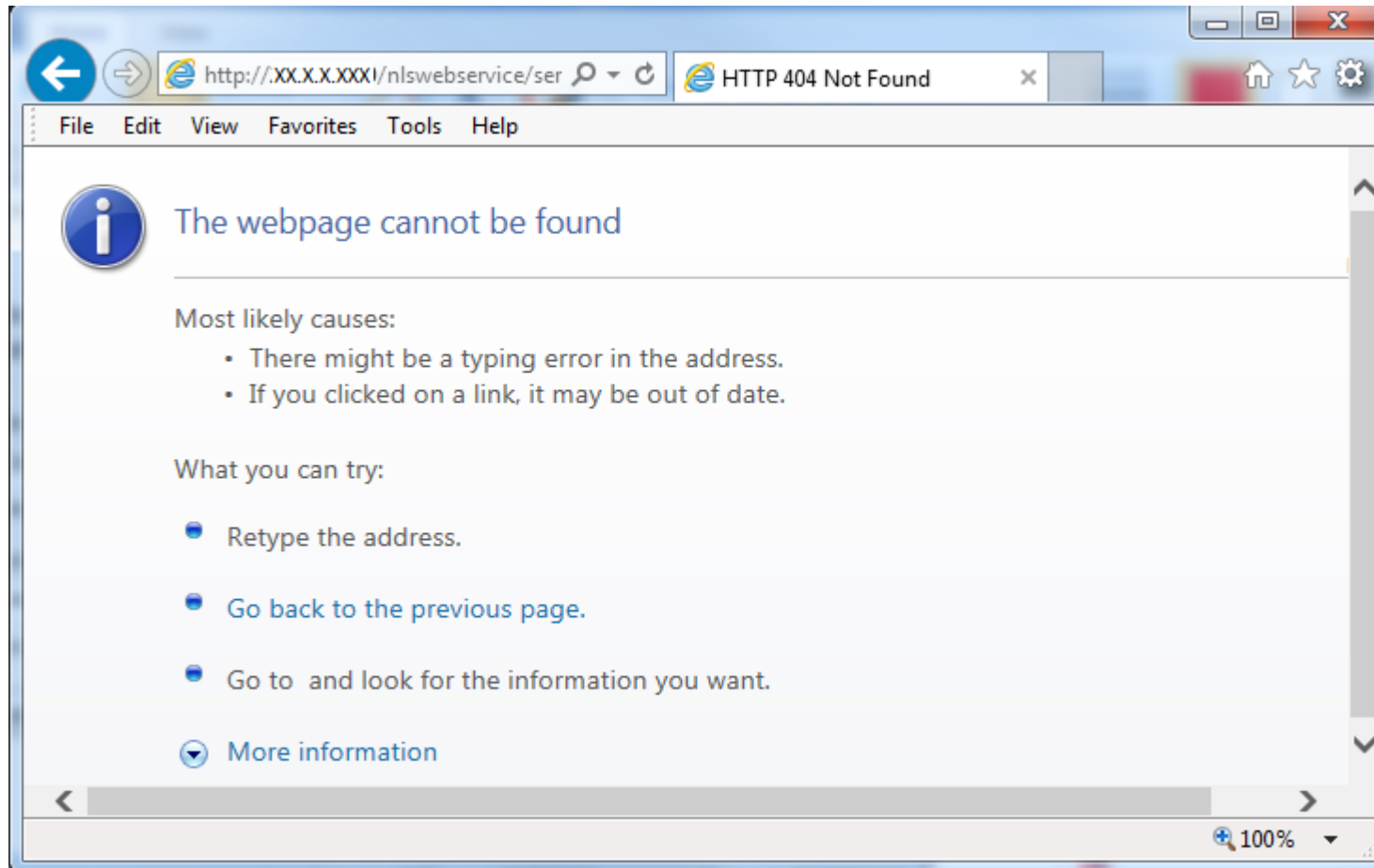
This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
- <string>  
  7BD6D349815238BF8F2E603B679949D372E28FDD1D030D81FF76F2404AF6A  
</string>
```

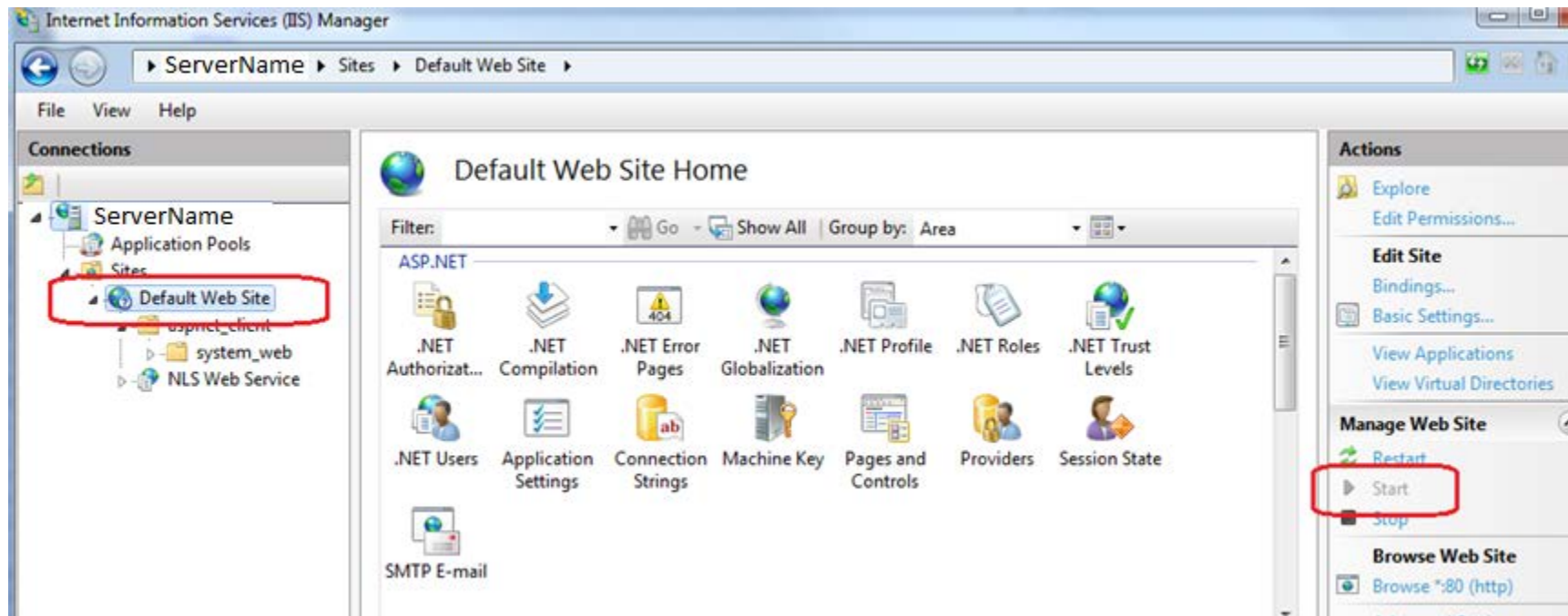
## TROUBLESHOOTING

- HTTP 404 Not Found

Be aware that a 404 is a generic error returned to the web browser:



One possible fix is to ensure that the Default Web Site is started:



- HTTP Error 500.19

The screenshot shows a web browser window with the address bar displaying `http://nlswebsevice/websevice/service.aspx`. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The page title is "Server Error" and the version is "Internet Information Services 7.5".

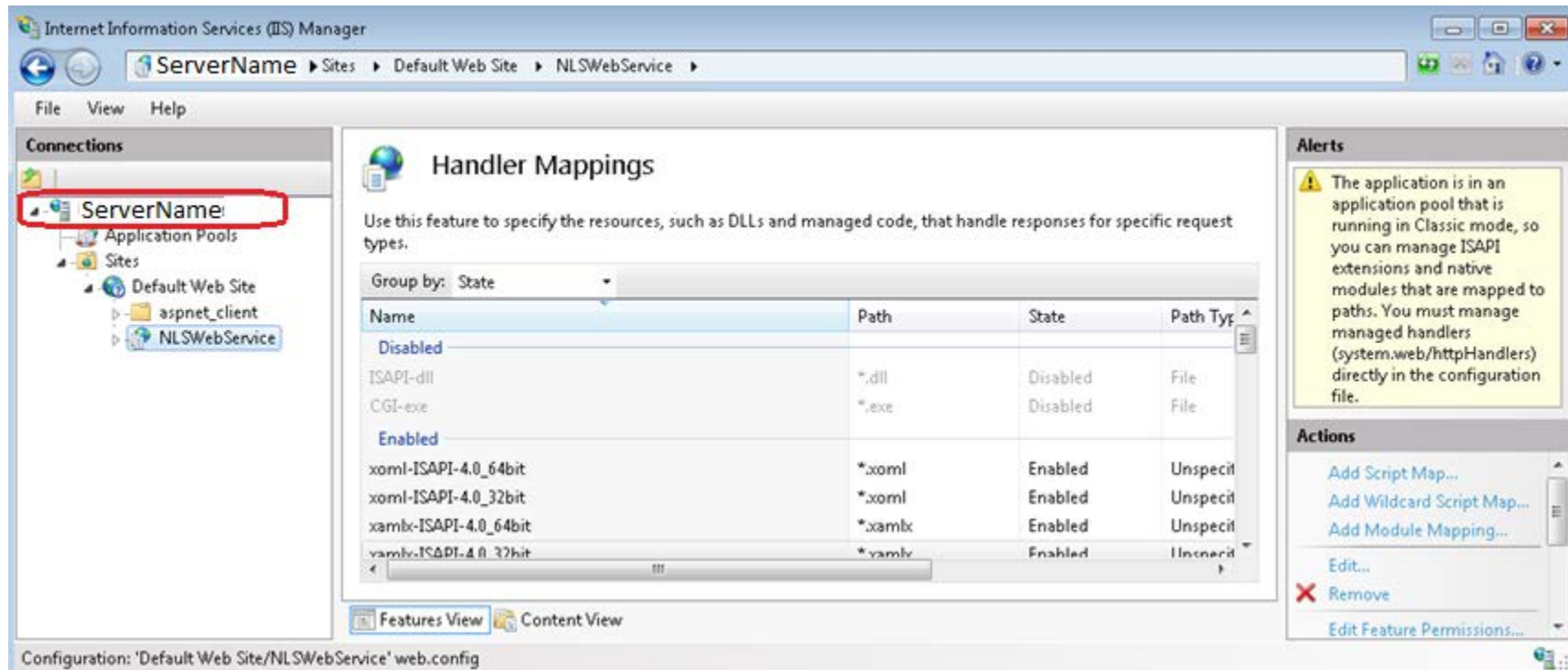
**Error Summary**

**HTTP Error 500.19 - Internal Server Error**  
The requested page cannot be accessed because the related configuration data for the page is invalid.

**Detailed Error Information**

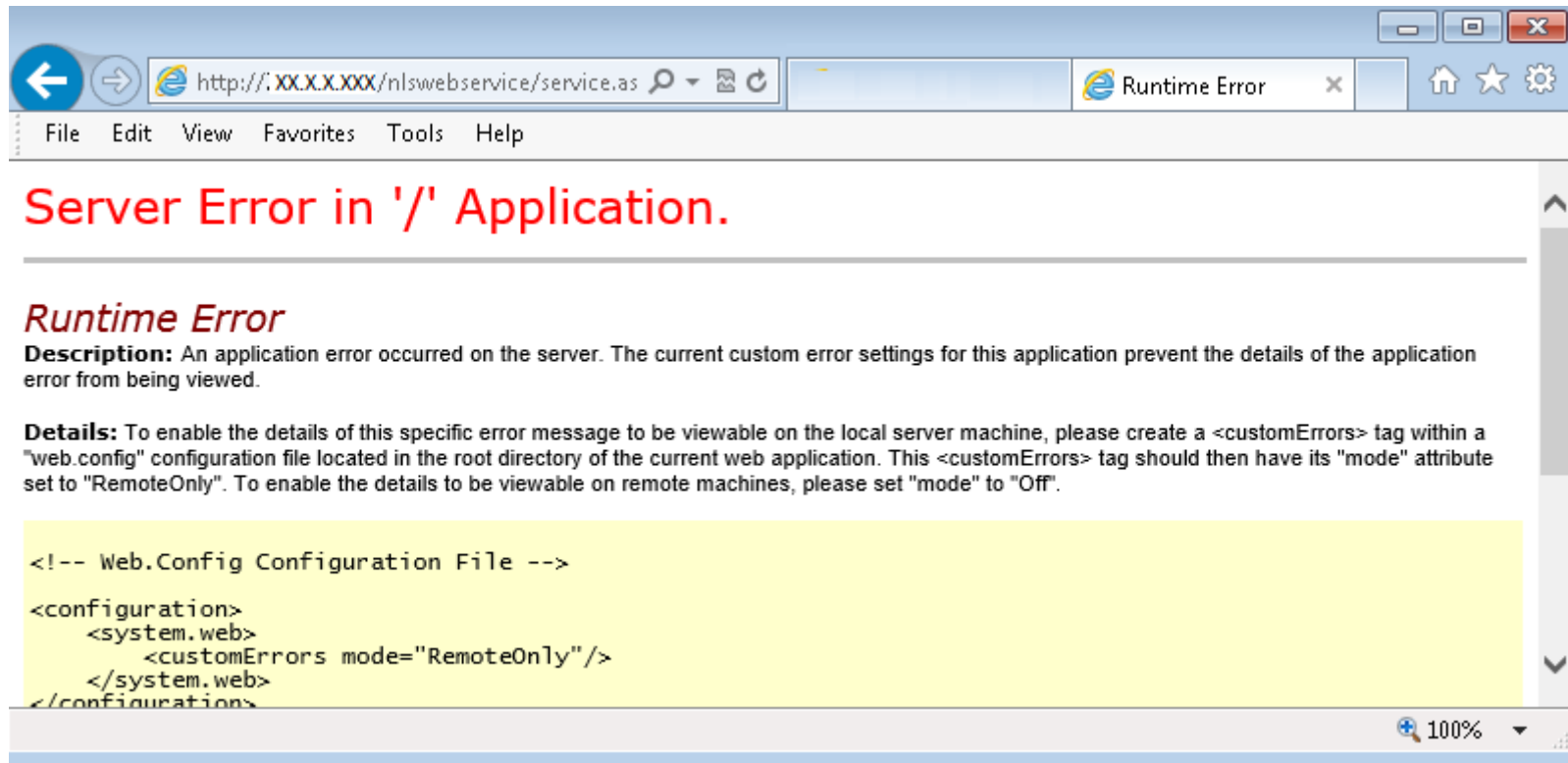
|              |  |               |  |
|--------------|--|---------------|--|
| Module       | IIS Web Core   | Requested URL | <code>http://nlswebsevice/websevice/service.aspx</code>    |
| Notification | BeginRequest   | Physical Path | <code>C:\inetpub\wwwroot\NLSWebService\service.aspx</code> |
| Handler      | Not yet determined   | Logon Method  | Not yet determined   |
| Error Code   | 0x800700b7   | Logon User    | Not yet determined   |
| Config Error | Cannot add duplicate collection entry of type 'add' with unique key attribute 'name' set to 'WebServiceHandlerFactory-ISAPI-4.0_32bit' |               |  |

There may be an issue with the handler mapping. If it is disabled but still causing an issue then remove it at the server level:



- Server Error in '/' Application

This error indicates that we skipped the “Convert To Application” step (Step 3 Substep 7 above):



- A potentially dangerous Request.Form value was detected

System.Web.HttpRequestValidationException: A potentially dangerous Request.Form value was detected from the client (ImportString=&quot;&lt;NLS&gt;&lt;CIF CIFPortfol...&quot;).

```

    at System.Web.HttpRequest.ValidateString(String value, String collectionKey, RequestValidationSource requestCollection)
    at System.Web.HttpRequest.ValidateNameValueCollection(NameValueCollection nvc, RequestValidationSource requestCollection)
    at System.Web.HttpRequest.get_Form()
    at System.Web.Services.Protocols.HtmlFormParameterReader.Read(HttpRequest request)
    at System.Web.Services.Protocols.HttpServerProtocol.ReadParameters()
    at System.Web.Services.Protocols.WebServiceHandler.CoreProcessRequest()

```

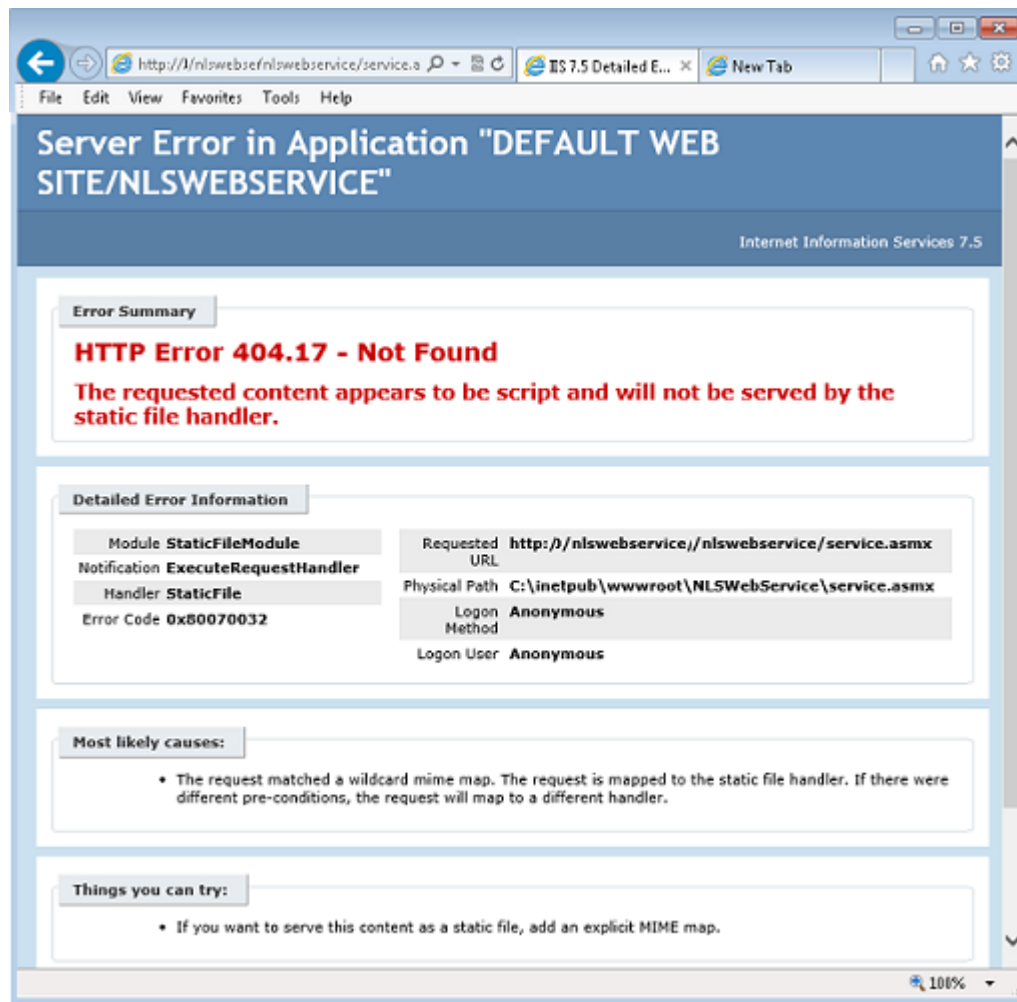
Ensure that the web.config file in " C:\inetpub\wwwroot\NLSWebService\" has the following line. Add it if necessary:

```

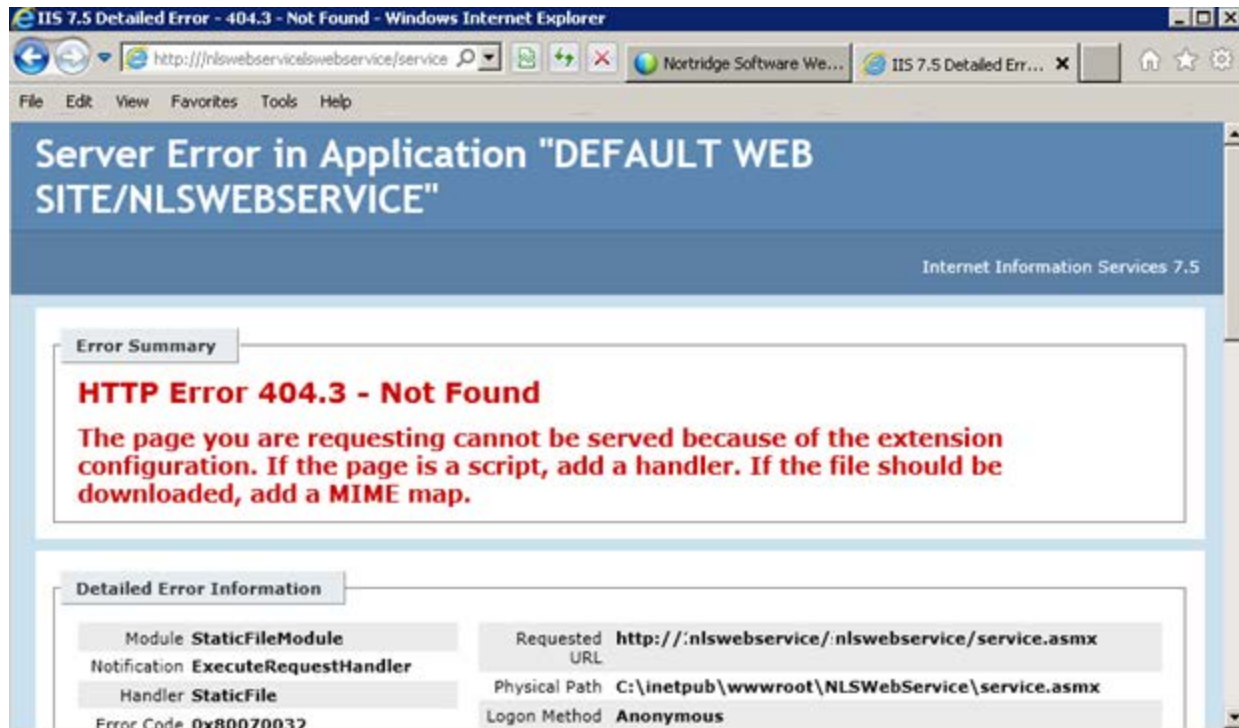
<httpRuntime requestValidationMode="2.0" />
<?xml version="1.0" encoding="UTF-8"?>
<configuration>
  <appSettings>
    <!-- The nortridge web service URL is configured in the disco and discomap files under the webreference -->
    <add key="windowsUserName" value="" />
    <add key="windowsUserPassword" value="" />
    <add key="windowsUserDomain" value="" />
    <add key="DatabaseServerName" value="" />
    <add key="DatabaseName" value="" />
  </appSettings>
  <connectionStrings />
  <system.web>
    <httpRuntime requestValidationMode="2.0" />
    <authentication mode="windows" />
    <identity impersonate="false" />
    <webServices>
      <!-- Add the following if you get the web service error: The test form is only available for requests -->
      <protocols>
        <add name="HttpGet" />
        <add name="HttpPost" />
      </protocols>
    </webServices>
    <!-- Turn on Custom Errors -->
    <customErrors mode="On" defaultRedirect="DefaultRedirectErrorPage.aspx">
      <error statusCode="404" redirect="Http404ErrorPage.aspx" />
    </customErrors>
    <compilation debug="true" targetFramework="4.0" />
    <pages validateRequest="false" controlRenderingCompatibilityVersion="3.5" clientIDMode="AutoID" />
  </system.web>
  <system.webServer>
    <defaultDocument>
      <files>
        <add value="Service.asmx" />
      </files>
    </defaultDocument>
  </system.webServer>

```

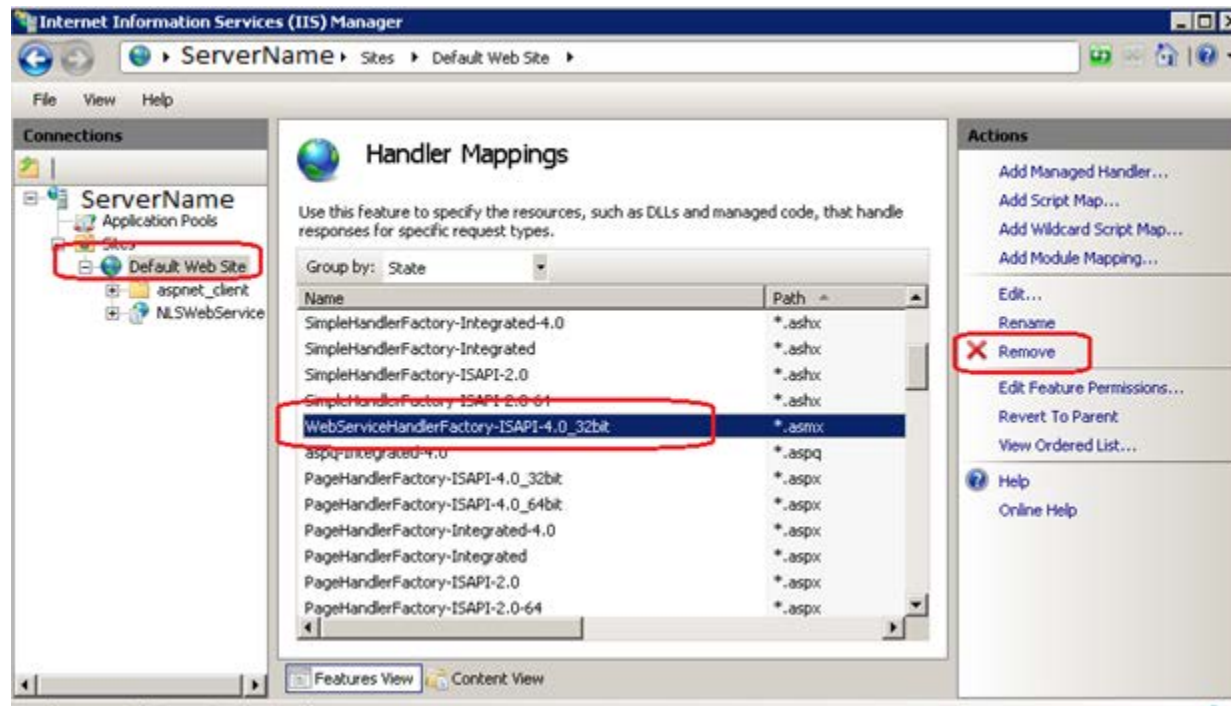
- HTTP 404.17 OR 404.3 errors



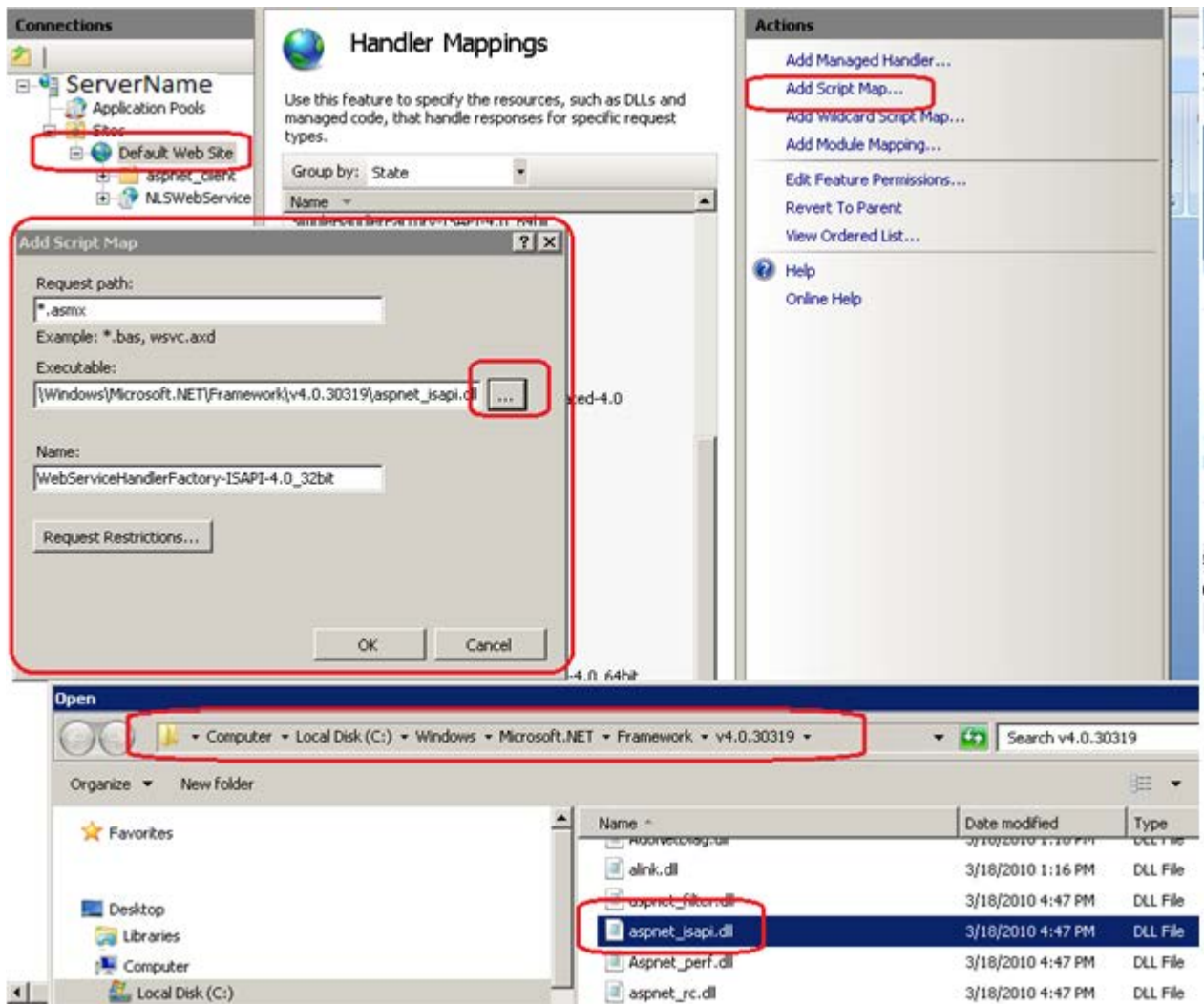


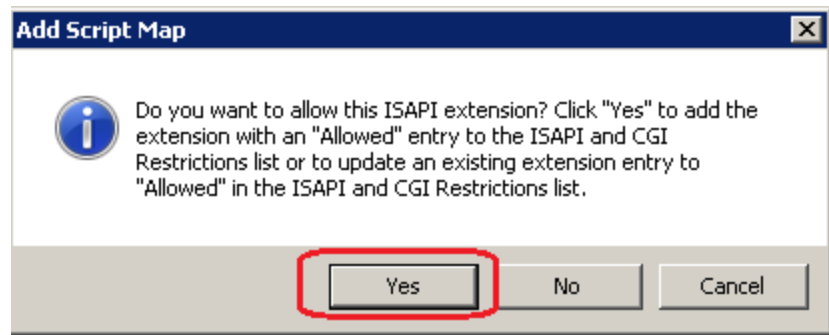


Remove the following handler mapping if it exists:



Add the handler as “WebServiceHandlerFactory-ISAPI-4.0\_32bit”; click “Yes” on the final screen :





- HTTP error 404.2: The page you are requesting cannot be served because of the ISAPI and CGI restriction list settings on the Web server

## Server Error in Application "DEFAULT WEB SITE/NLSWEBSERVICE"

Internet Information Services 7.0

**Error Summary**

**HTTP Error 404.2 - Not Found**

The page you are requesting cannot be served because of the ISAPI and CGI Restriction list settings on the Web server.

**Detailed Error Information**

|              |  |               |   |
|--------------|--|---------------|---|
| Module       | IsapiModule                              | Requested URL | http://NLSWebService/Service.asmx?WSDL        |
| Notification | ExecuteRequestHandler                    | Physical Path | C:\inetpub\wwwroot\NLSWEBSERVICE\Service.asmx |
| Handler      | WebServiceHandlerFactory-ISAPI-4.0_32bit | Logon Method  | Anonymous                                     |
| Error Code   | 0x800704ec                               | Logon User    | Anonymous                                     |

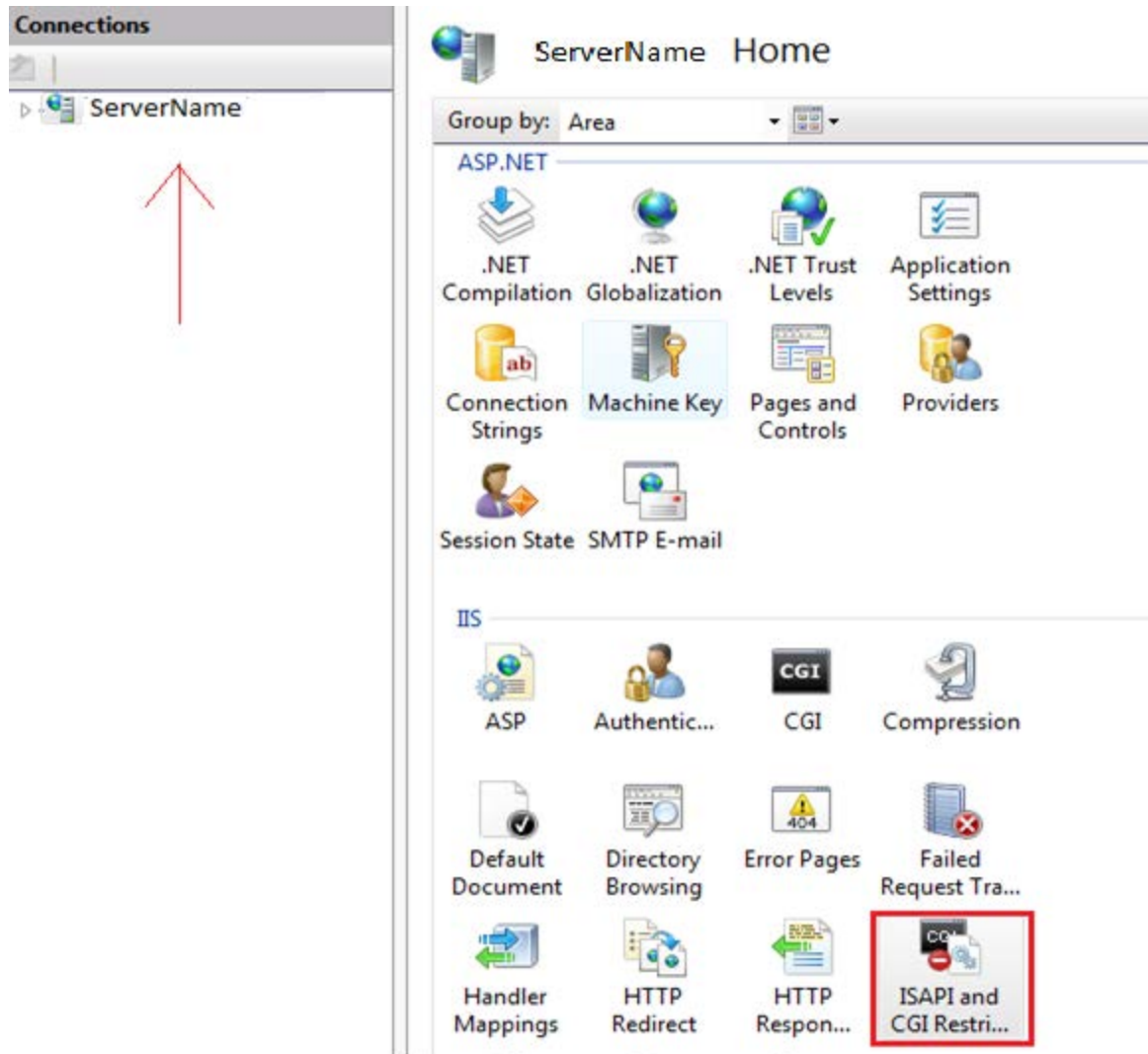
**Most likely causes:**

- No handler mapping for this request was found. A feature may have to be installed.
- The Web service extension for the requested resource is not enabled on the server.
- The mapping for the extension points to the incorrect location.
- The extension was misspelled in the browser or the Web server.

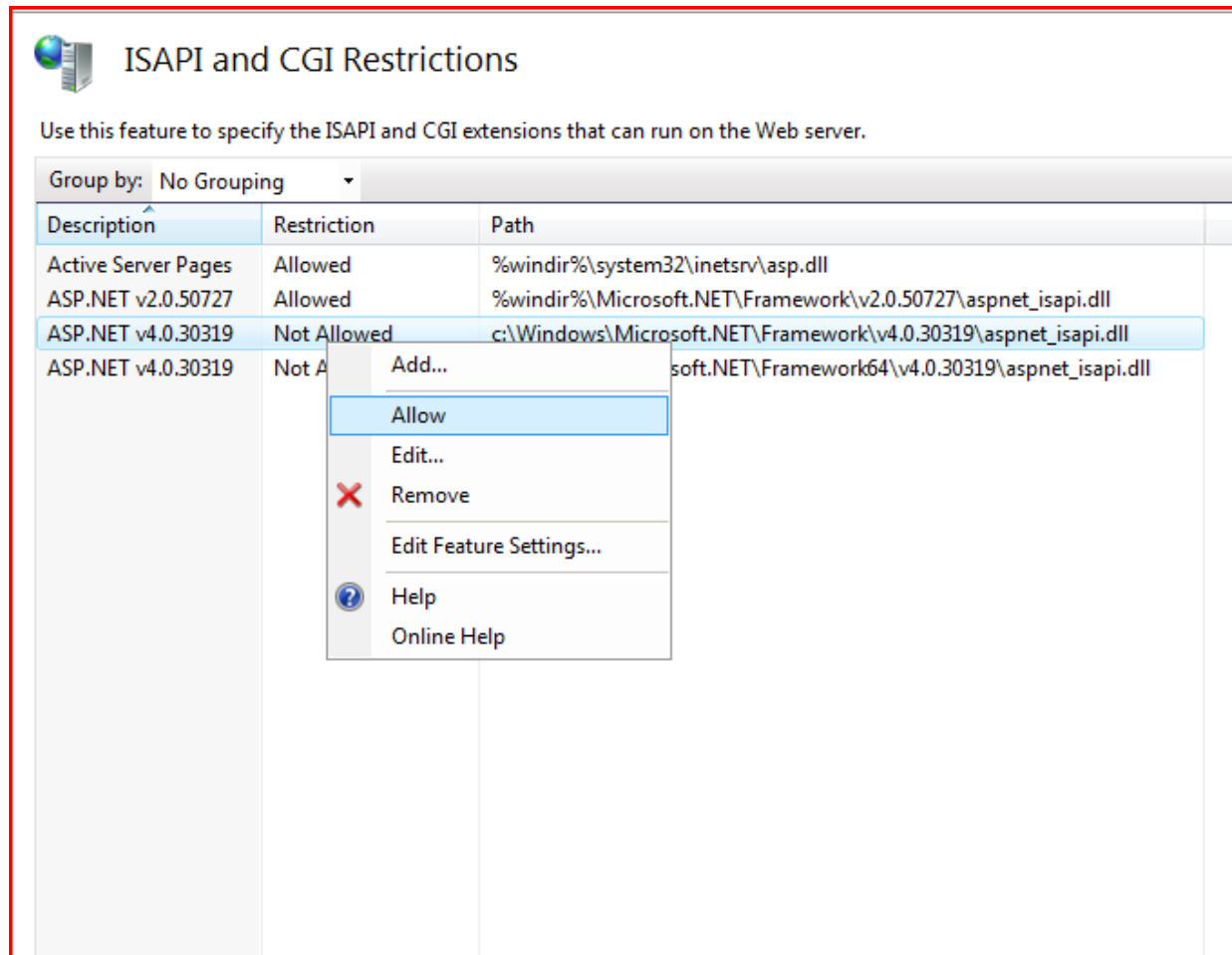
**Things you can try:**

- Install the feature that handles this request. For example, if you get this error for an .ASPX page, you may have to install ASP.NET via IIS setup.
- Verify that the Web service extension requested is enabled on the server.
  1. Open the IIS Manager and navigate to the server level.
  2. In the Features view, double-click ISAPI and CGI Restrictions to verify that the Web service extension is set to Allowed.
  3. If the extension is not in the list, click Add in the Actions pane.
  4. In the Add ISAPI and CGI Restrictions dialog box, type the path of the .dll or .exe file in the ISAPI or CGI Path box, or click Browse to navigate to the location of the file.

Modify the ISAPI and CGI Restrictions in IIS:



Right click "ASP.NET v4.0.30319" and select "Allow" on the ISAPI and CGI Restrictions page:

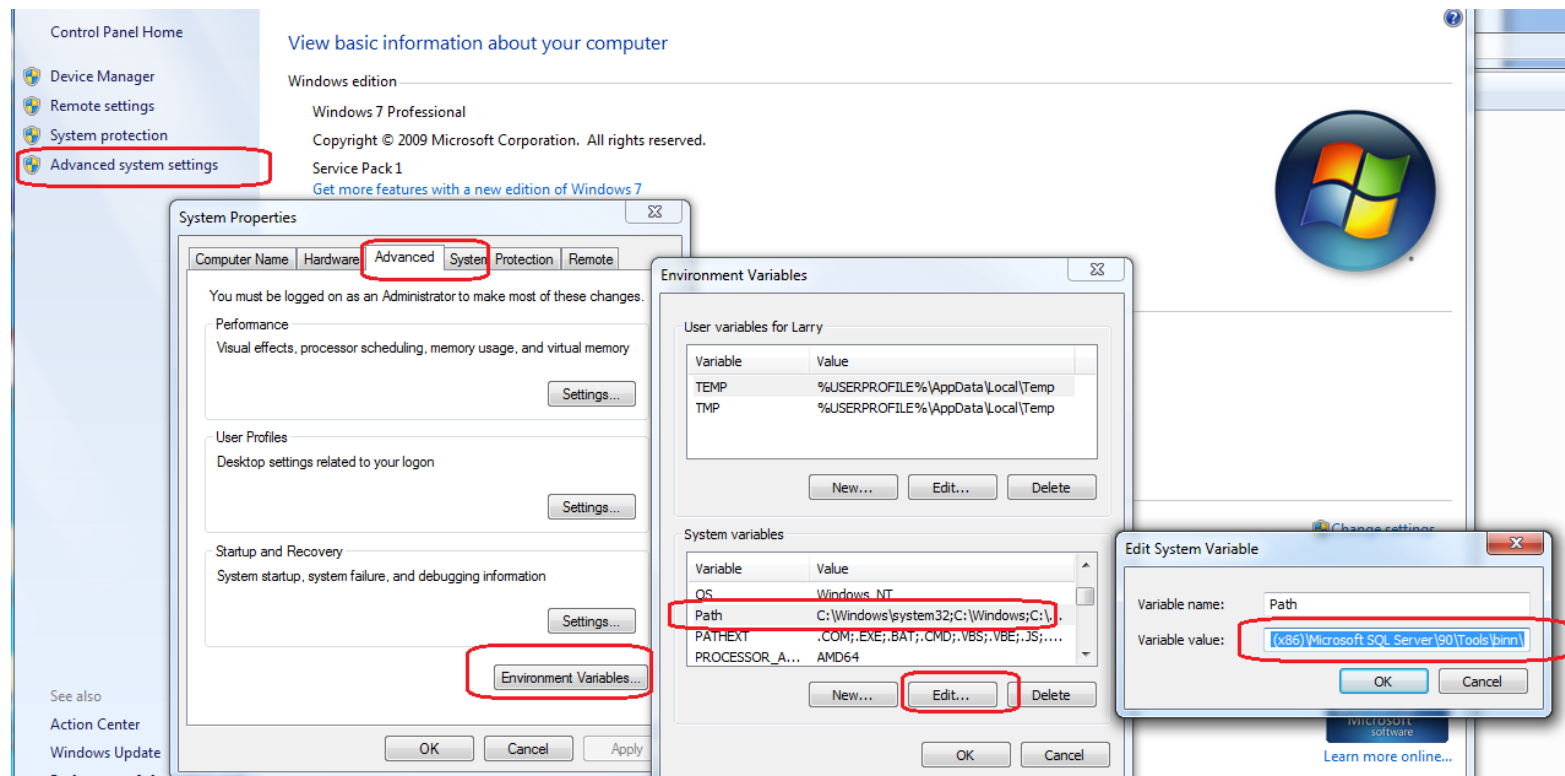


- Cannot find NLSProcreq
- HTTP 500 Internal Server error when calling NLSGlobalAuthentication

Add the NLS “bin” folder path to the System Environment Variable path. For a default installation the path is:

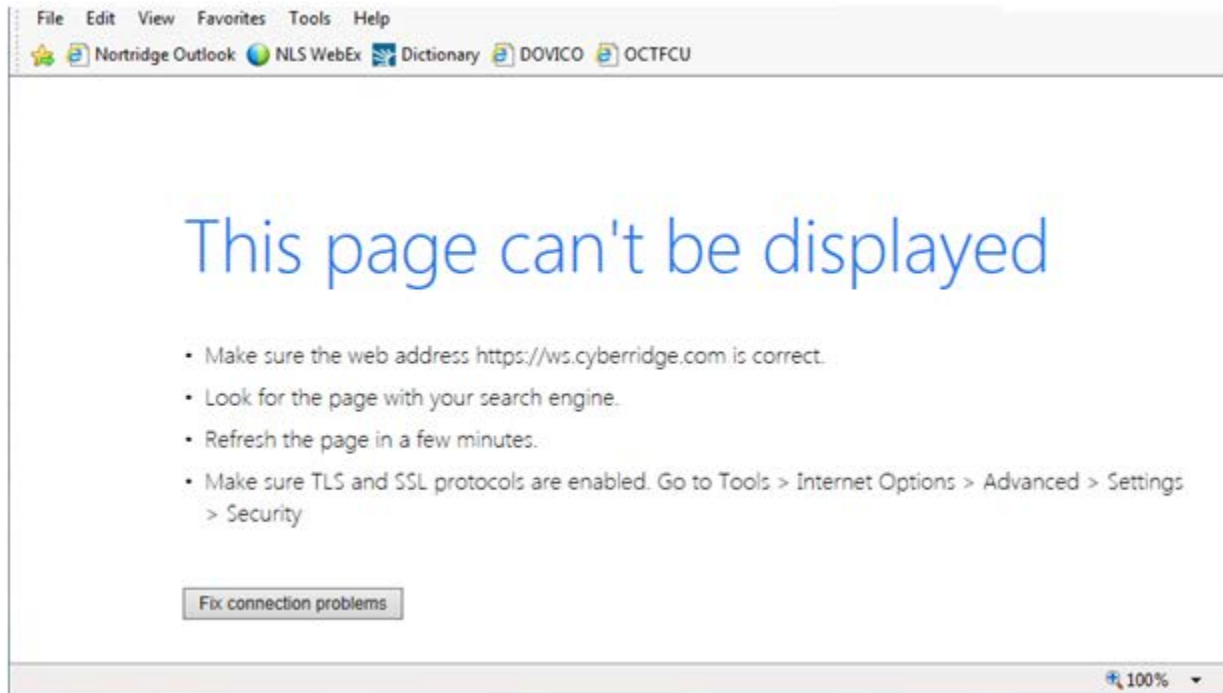
C:\Program Files (x86)\Nortridge Software\NLS\bin

**\*\*\* YOU MUST RESTART the computer so that it will recognize the new path entered.**





- This page can't be displayed



Please recheck the URL you entered for the NLSWebService; most likely the server name is incorrect.

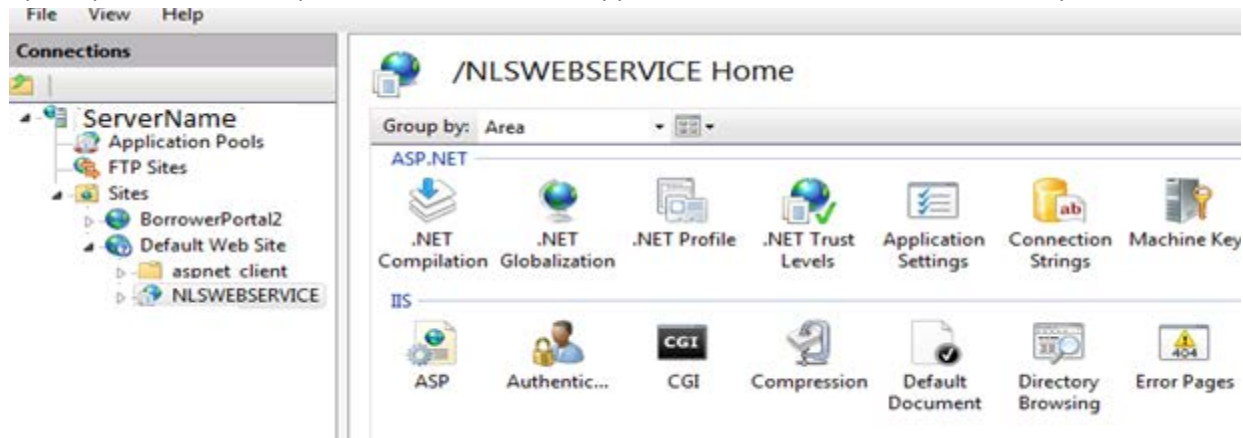
- Error code 5 returned when calling xml import or when trying to authenticate

```
<string><ERRORCODE>5</ERRORCODE></string>
```

This is a database connection error. Please make sure the Windows user account (NLSWebService in our example) is set up with the correct database permissions and exists in NLS as detailed above.

If the Windows user account has been set up properly then please do the following:

Open up IIS and click on your “NLSWEBSERVICE” app. Find the Authentication icon and open.



In the Authentication settings set “ASP.NET Impersonation” to disabled.



## Authentication

| Group by: No Grouping    |          |                         |  |
|--------------------------|----------|-------------------------|--|
| Name                     | Status   | Response Type           |  |
| Anonymous Authentication | Enabled  |                         |  |
| ASP.NET Impersonation    | Disabled |                         |  |
| Forms Authentication     | Disabled | HTTP 302 Login/Redirect |  |