

**Installing U2 WEBDE 4.4.0 and 4.4.1 Gateway on Windows  
Web Server 2008 including X64**

**Question**

The U2 WEB Development Environment (WEBDE) will not install on Windows Server 2008. This document describes the steps to accomplish this task

**Answer**

This pdf contains the steps necessary to install WEBDE 4.4.0 and 4.4.1 on Windows Web Server 2008 including 64bit versions.

**Note:**

U2 has certified U2 WEBDE 4.4.1 for use on Windows 2008. Certification was not performed for U2 WDE 4.4.0. Development plans are subject to change or withdrawal without further notice. Any reliance on these statements is at the relying party's sole risk and will not create any liability or obligation for Rocket Software.

## **Legal**

U2 has not certified U2 WEBDE for use on Windows 2008. U2 development plans are subject to change or withdrawal without further notice. Any reliance on these statements is at the relying party's sole risk and will not create any liability or obligation for U2.

### **Registry Modifications**

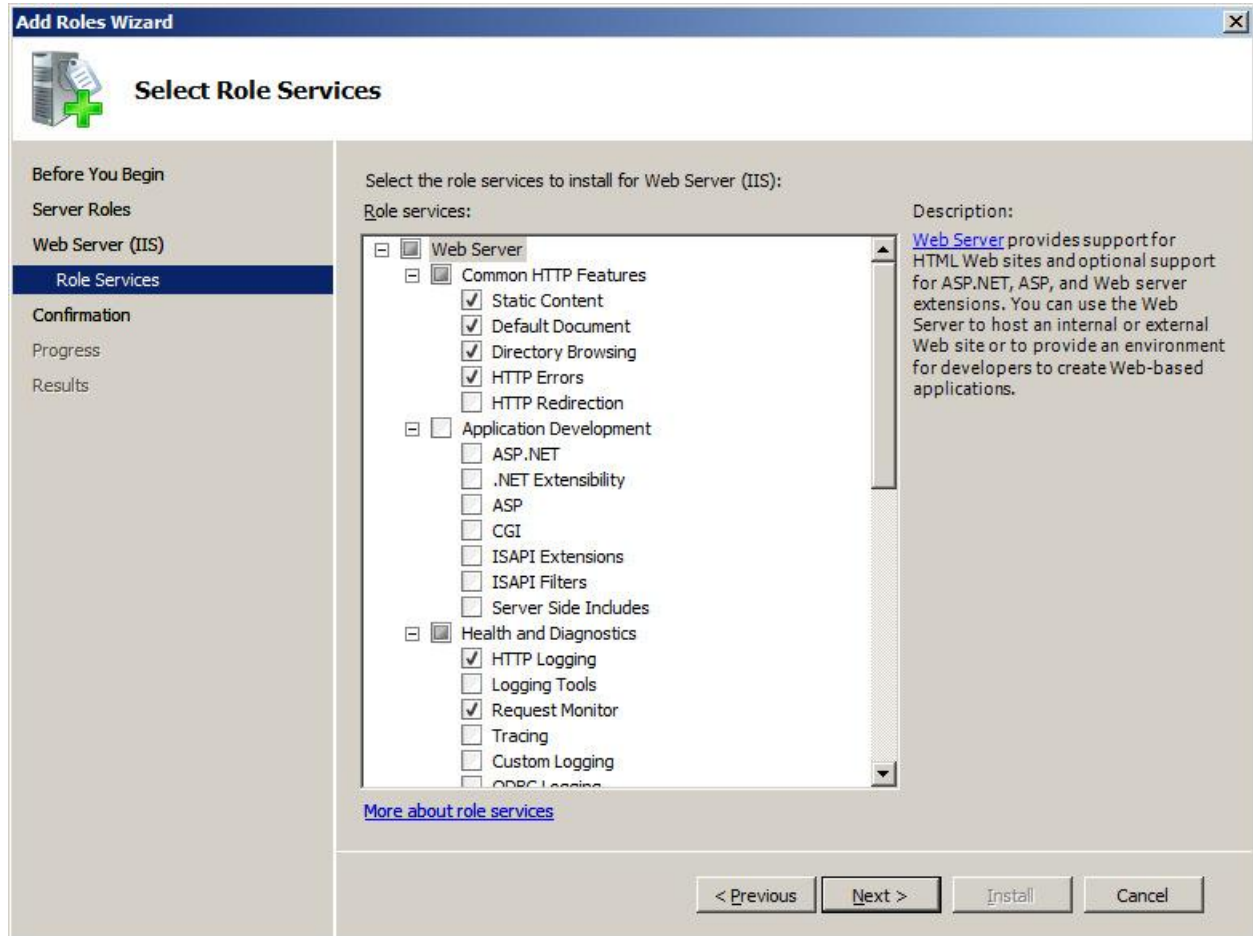
Modifying Windows registry is dangerous and incorrect entries can cause total failure of your Windows platform. Please make sure you fully understand the implications of any modifications, additions, removals, etc before attempting this task.

# Installing IIS 7 Role Services

Prior to installing U2WDE on win2k8, it is assumed that you have added the Web Server (IIS) role.

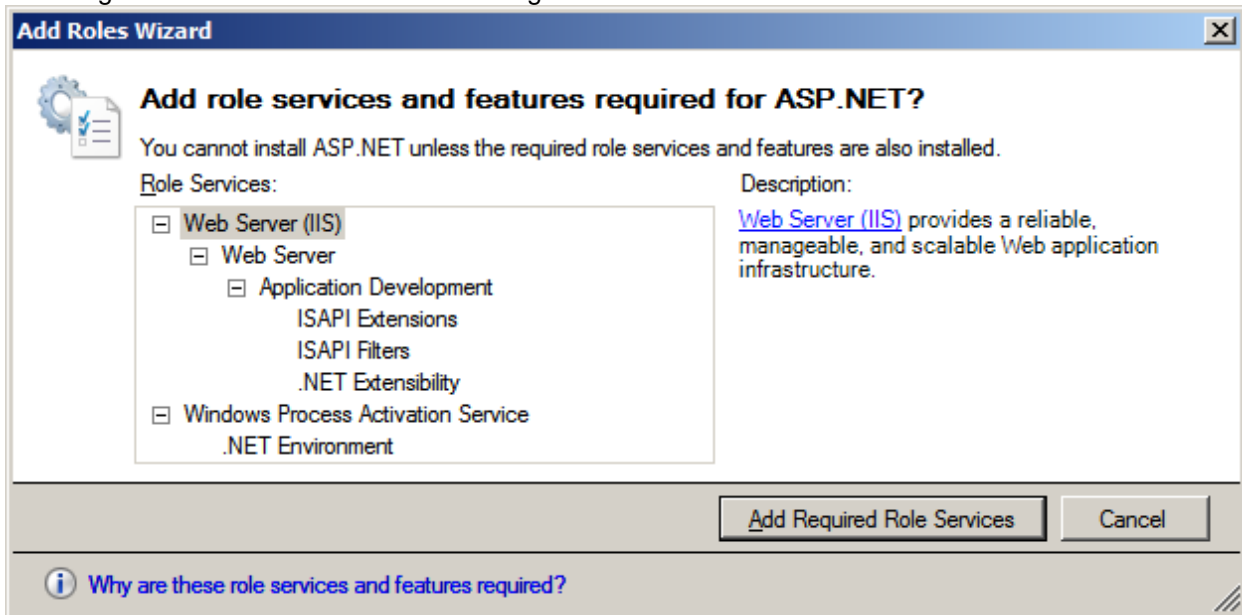
The following two images show both the default and added role services that were checked for this white paper:

## Default Installation



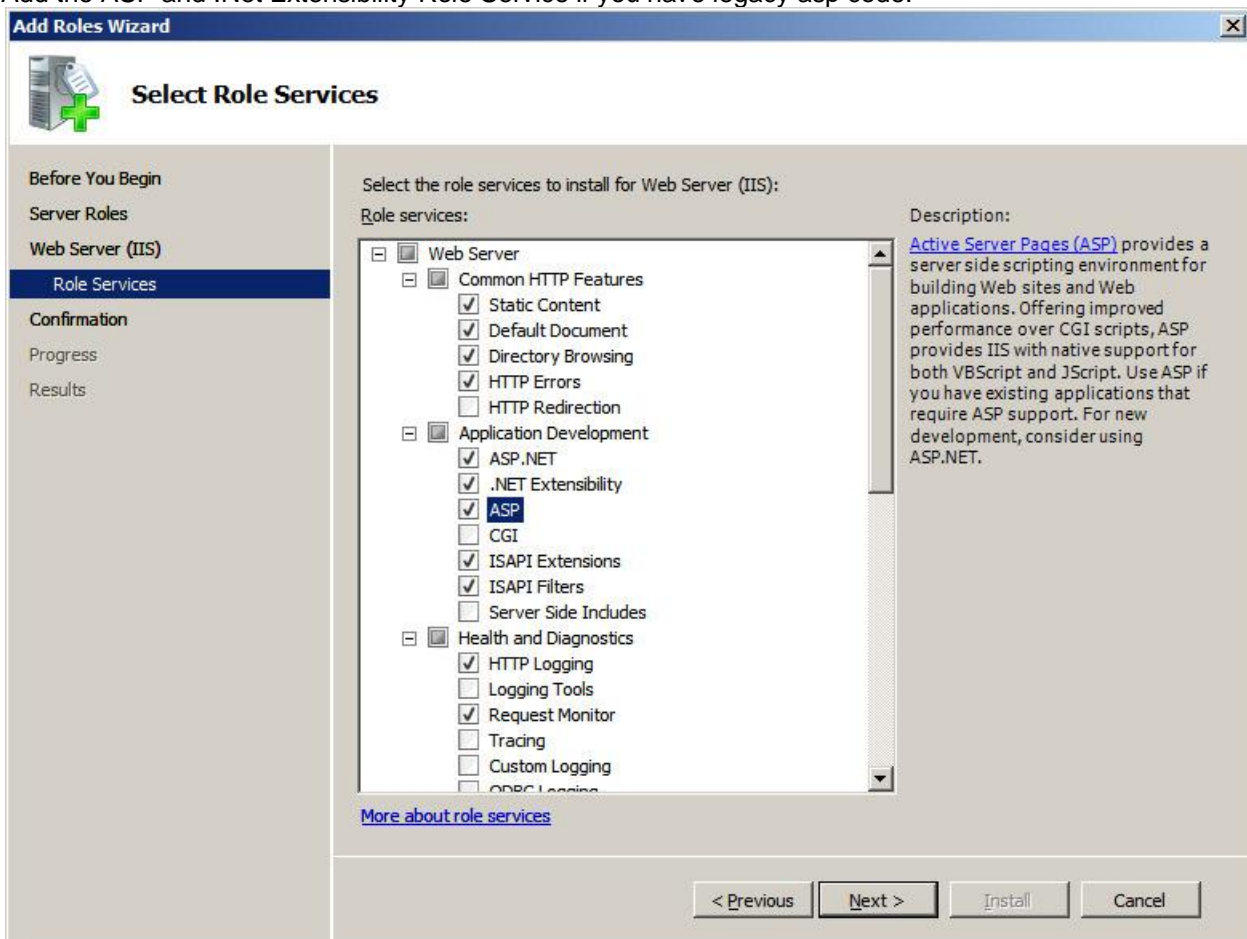
## Additional Role Services

Checking ASP.NET will also add the following role services:



## Additional Role Services continued.

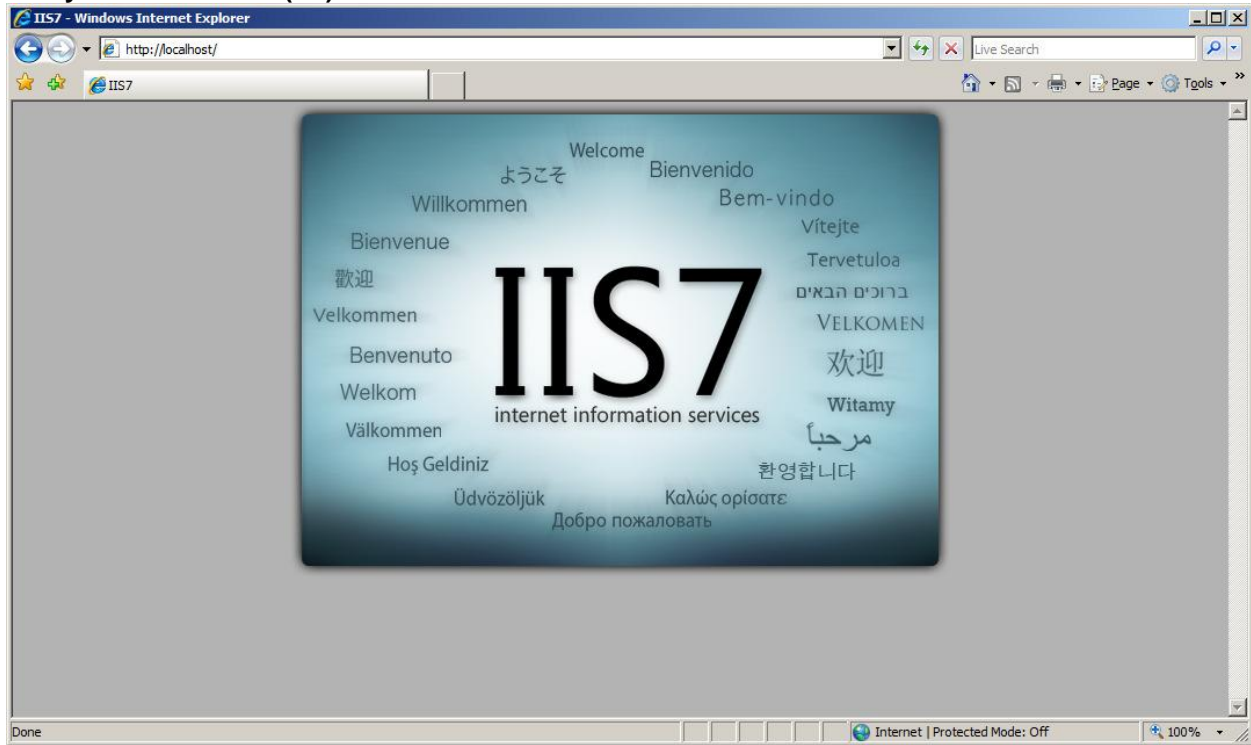
Add the ASP and .Net Extensibility Role Service if you have legacy asp code.



**Note:**

CGI role service was not added as WEBDE uses the ISAPI interface. If you use rgw.exe or other CGI software, you will need to check this box

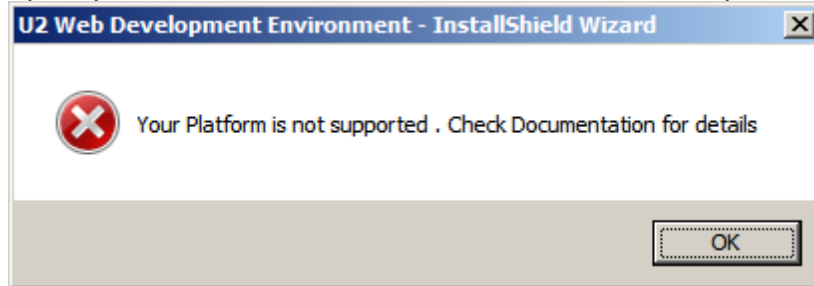
**Test your Web Server (IIS) via a browser**



# Installing the U2 WEBDE Product

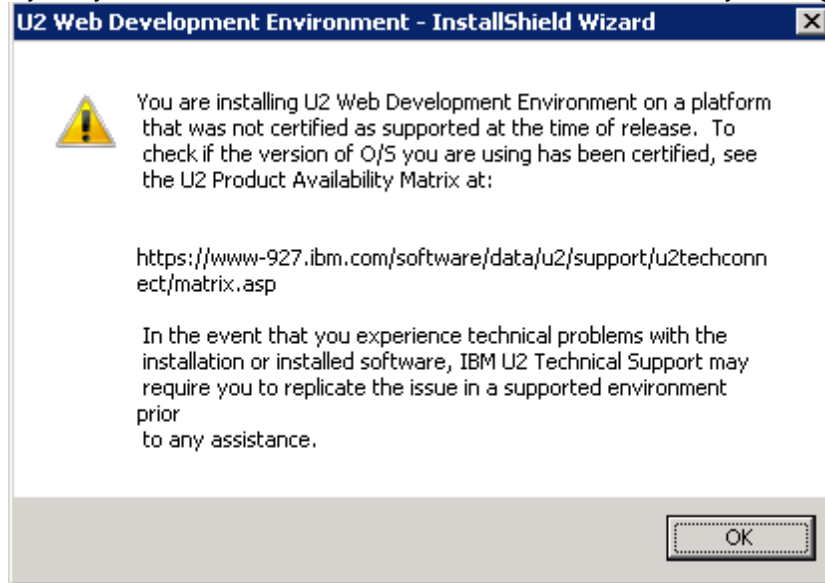
## Installing U2WDE Gateway on Microsoft Web Server 2008

If you try and install U2WDE 4.4.0 on Windows 2008 Server, you will get the following error:



Though it is possible to fool U2WDE by changing the win2k8 server's Product Name in the registry. This is not a recommended route to follow as many other messages will be displayed during the install that are difficult or impossible to overcome.

If you try and install U2WDE 4.4.1 on Windows 2008 Server, you will get the following error:



## Installing the minimum WDE Components

It is suggested that only the minimum components of U2 WEBDE Gateway be installed manually.  
See list below:

### WEBDE Files

rgw.ini – text file containing the location of RedBack accounts

RedPages.dll – RedBack Gateway ISAPI COM object

rgw.dll – RedBack Gateway ISAPI interface for diagnostics and old style RB Designer

Place rgw.ini in the %System Root% directory (normally located at c:\Windows).

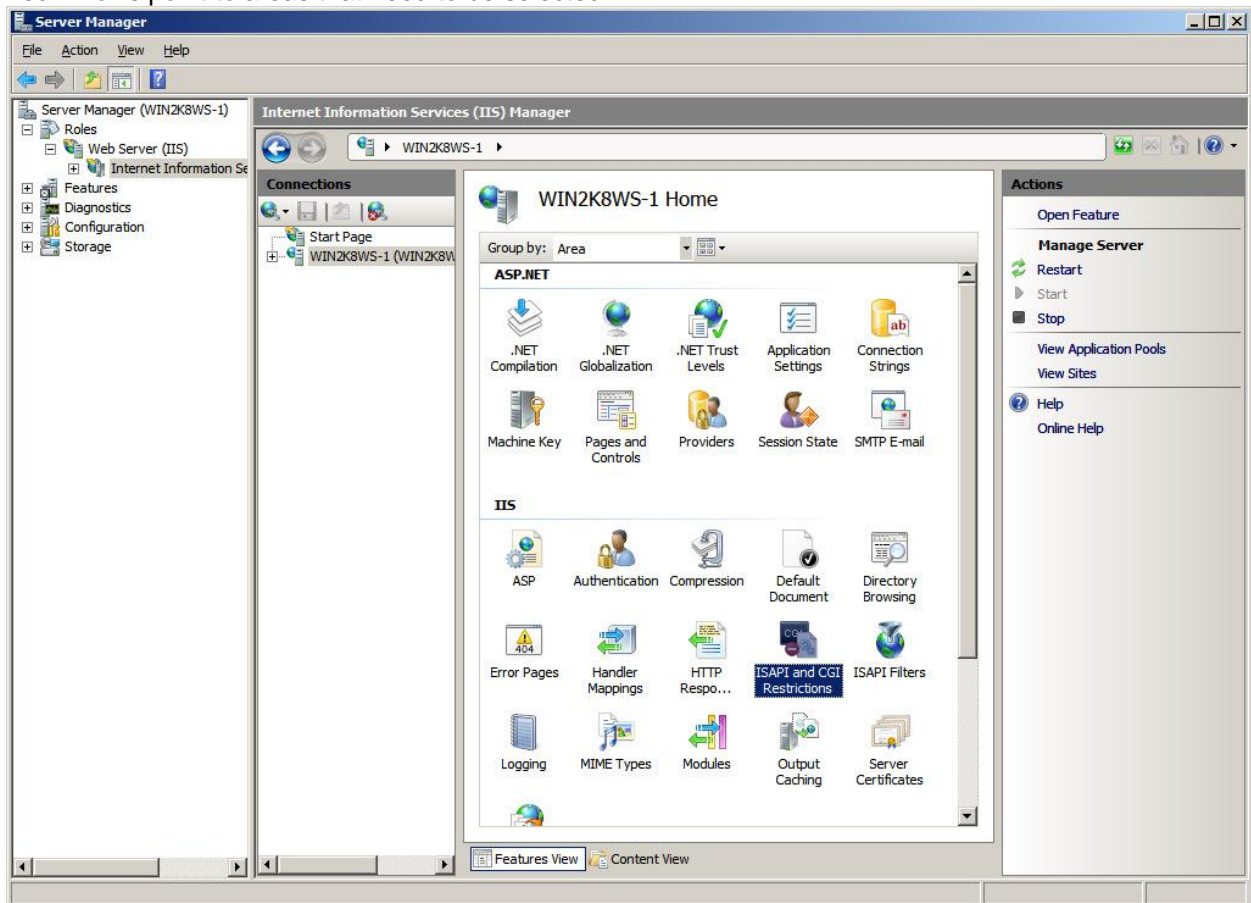
Create a directory called c:\IBM\WDE (or any other directory name) and place RedPages.dll and rgw.dll in this directory.

## Administration requirements for IIS7

### Register ISAPI and CGI Exempted Exceptions

Select IIS Manager->“machine-name Home”->ISAPI and CGI Restrictions

Red Arrows point to areas that need to be selected



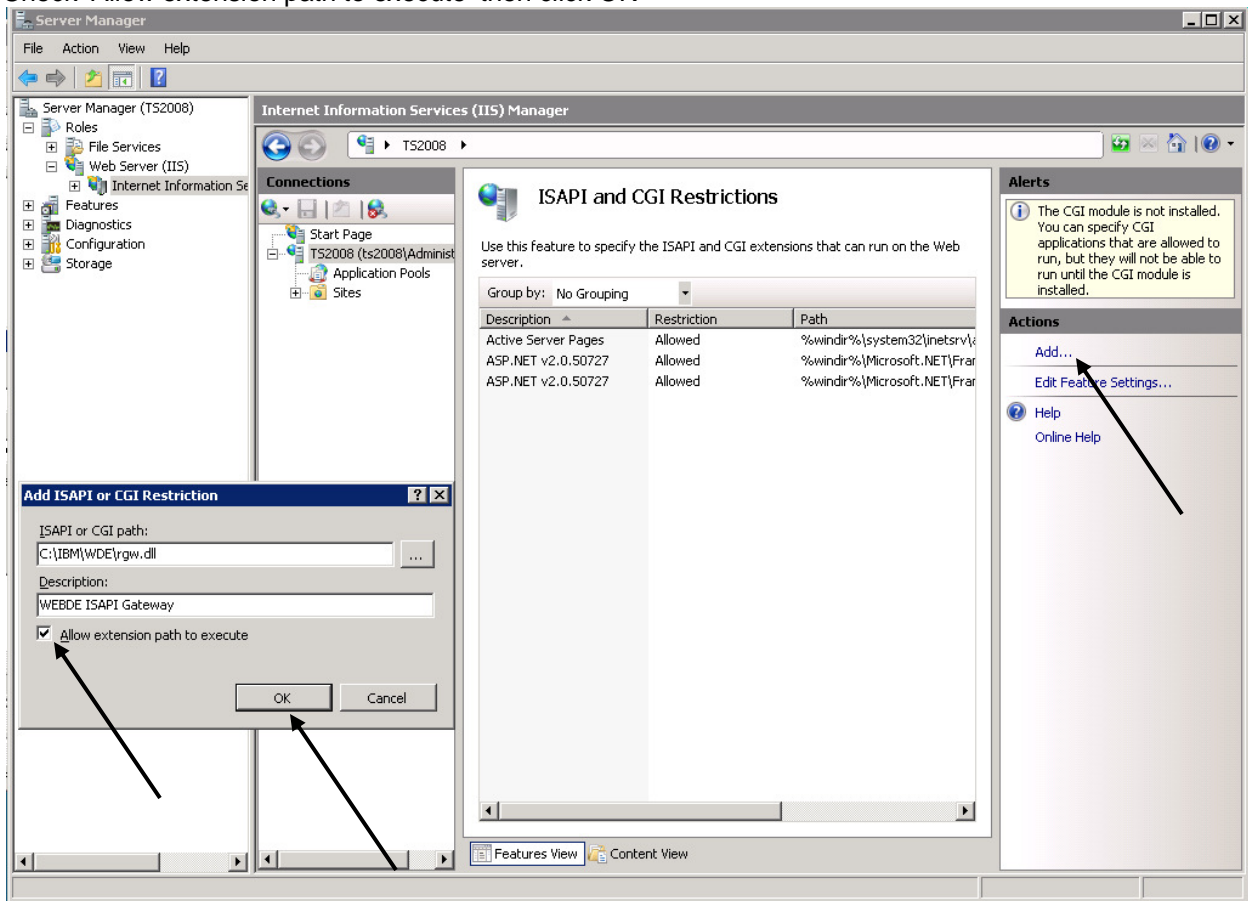
### NOTE

If Internet Information Server” does not display, either refresh the window or close and reopen “Server Manager”.

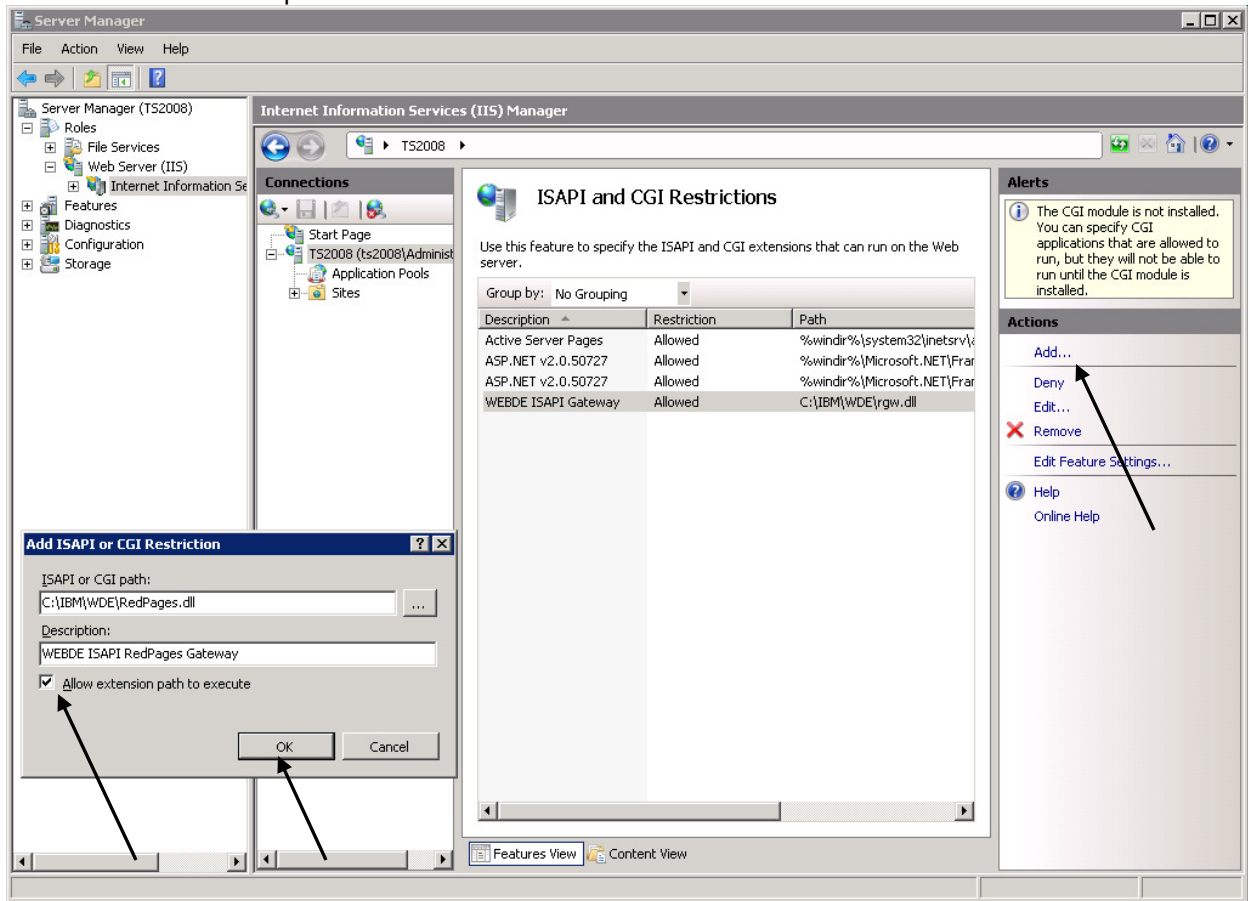
### Double Click



Select Add...->c:\IBM\WDE\rgw.dll & Description->WEBDE ISAPI Gateway->OK  
Check 'Allow extension path to execute' then click OK



Select Add...->c:\IBM\RedPages.dll & Description->WEBDE ISAPI RedPages Gateway->OK  
Check 'Allow extension path to execute' then click OK



## Allowed Exempted Restrictions

From the picture below, it can be seen that rgw.dll and RedPages.dll Restriction status is set to allowed

The screenshot displays the Server Manager console with the Internet Information Services (IIS) Manager open. The 'ISAPI and CGI Restrictions' feature is selected, showing a table of restrictions. An arrow points from the 'Connections' tree to the table. The table lists several restrictions, with 'WEBDE ISAPI Gateway' and 'WEBDE ISAPI RedPages' both set to 'Allowed'.

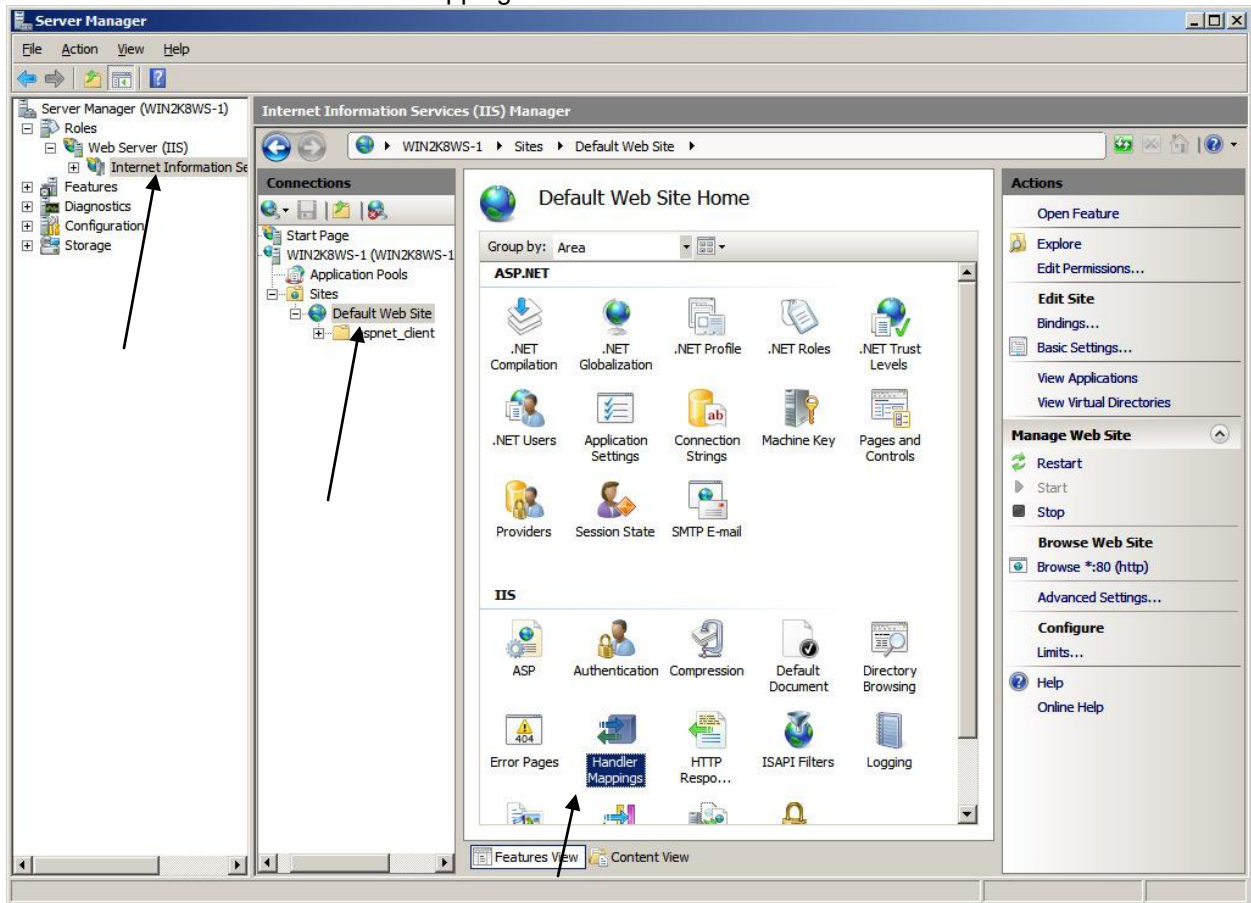
Description	Restriction	Path
Active Server Pages	Allowed	%windir%\system32\inetrv\
ASP.NET v2.0.50727	Allowed	%windir%\Microsoft.NET\Frat
ASP.NET v2.0.50727	Allowed	%windir%\Microsoft.NET\Frat
WEBDE ISAPI Gateway	Allowed	C:\IBM\WDE\rgw.dll
WEBDE ISAPI RedPages ...	Allowed	C:\IBM\WDE\RedPages.dll

**Alerts:** The CGI module is not installed. You can specify CGI applications that are allowed to run, but they will not be able to run until the CGI module is installed.

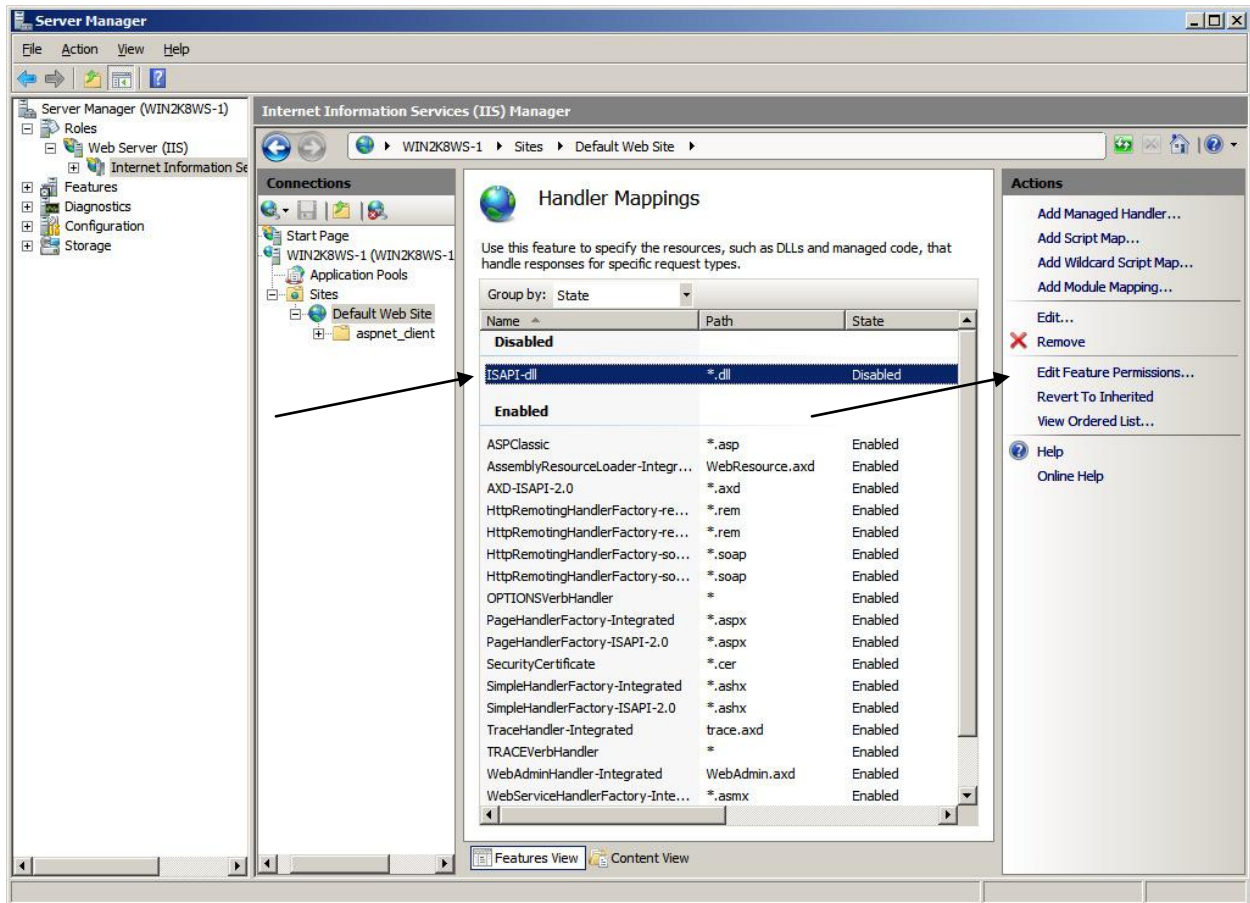
**Actions:** Add..., Deny, Edit..., Remove, Edit Feature Settings..., Help, Online Help

## Enable ISAPI Handler Mapping

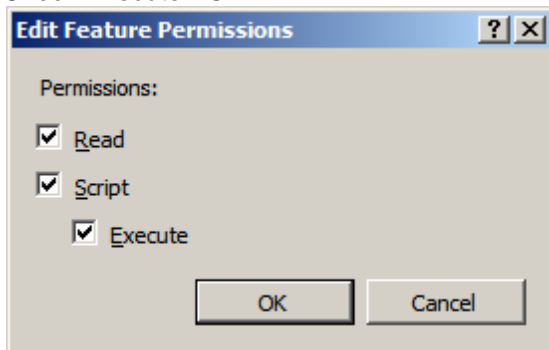
Select Default Web Site->Handler Mappings



Select ISAPI-dll->Edit Feature Permissions



Check Execute->OK



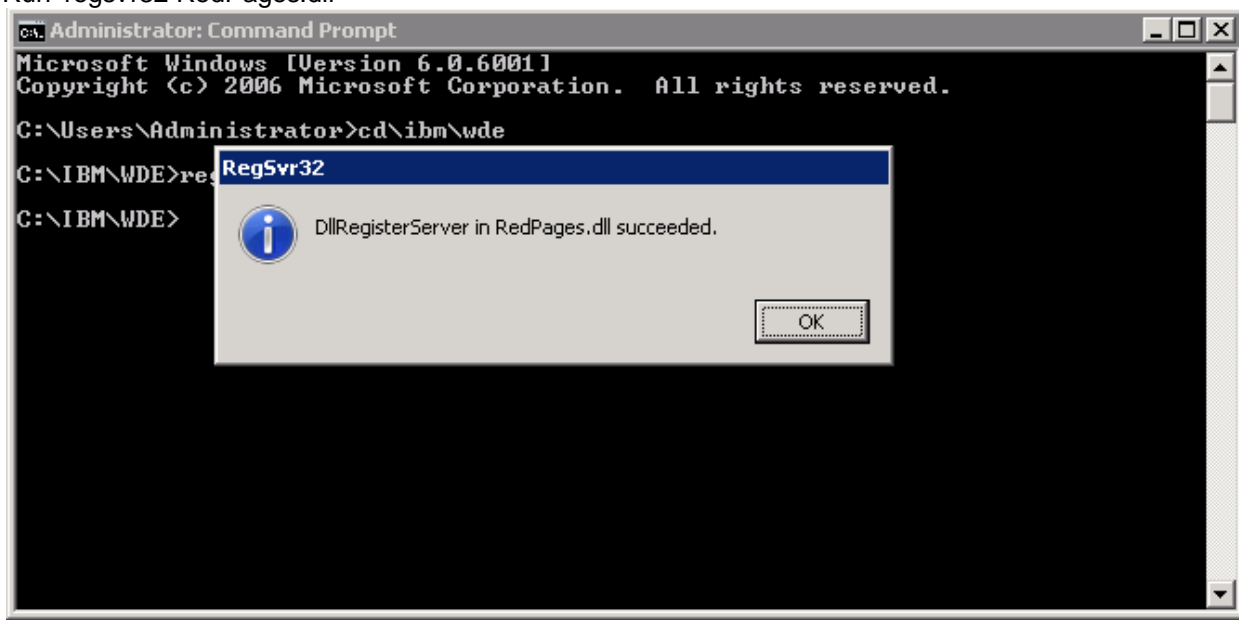
ISAPI-dll is now enabled

The screenshot shows the Server Manager console with the Internet Information Services (IIS) Manager open. The left-hand tree view shows the hierarchy: Server Manager (WIN2K8WS-1) > Roles > Web Server (IIS) > Internet Information Services (IIS) > Sites > Default Web Site > aspnet\_client. The main pane displays the 'Handler Mappings' configuration for the selected site. A table lists various handlers, with 'ISAPI-dll' highlighted. An arrow points from the 'aspnet\_client' folder in the tree to the 'ISAPI-dll' entry in the table.

Name	Path	State
<b>Enabled</b>		
ASPClassic	*.asp	Enabled
AssemblyResourceLoader-Integr...	WebResource.axd	Enabled
AXD-ISAPI-2.0	*.axd	Enabled
HttpRemotingHandlerFactory-re...	*.rem	Enabled
HttpRemotingHandlerFactory-re...	*.rem	Enabled
HttpRemotingHandlerFactory-so...	*.soap	Enabled
HttpRemotingHandlerFactory-so...	*.soap	Enabled
ISAPI-dll	*.dll	Enabled
OPTIONSVerbHandler	*	Enabled
PageHandlerFactory-Integrated	*.aspx	Enabled
PageHandlerFactory-ISAPI-2.0	*.aspx	Enabled
SecurityCertificate	*.cer	Enabled
SimpleHandlerFactory-Integrated	*.ashx	Enabled
SimpleHandlerFactory-ISAPI-2.0	*.ashx	Enabled
TraceHandler-Integrated	trace.axd	Enabled
TRACEVerbHandler	*	Enabled
WebAdminHandler-Integrated	WebAdmin.axd	Enabled
WebServiceHandlerFactory-Inte...	*.asmx	Enabled
WebServiceHandlerFactory-ISAP...	*.asmx	Enabled
StaticFile	*	Enabled

### Registering RedPages.dll

Using the command prompt, cd to the location of RedPages.dll  
Run 'regsvr32 RedPages.dll'



### Defining Virtual Roots using regedit.exe

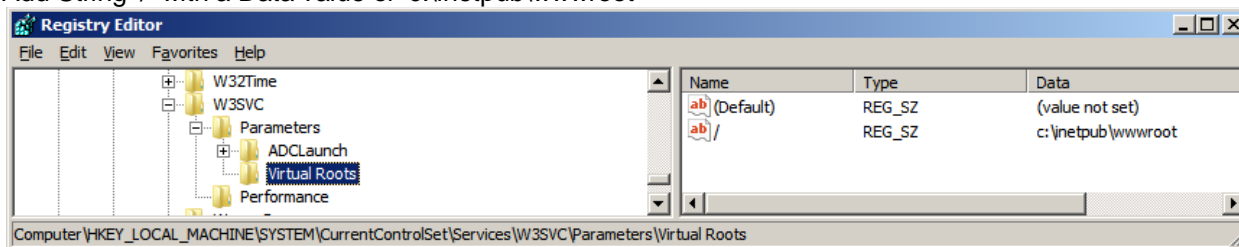
This is necessary so that the WEBDE ISAPI interface can fetch location information of the WEBDE Servers by reading the rgw.ini file.

In regedit, go to:

Computer\HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters

Add Key 'Virtual Roots'

Add String '/' with a Data value of 'c:\inetpub\wwwroot'



## Create the rgw.ini file

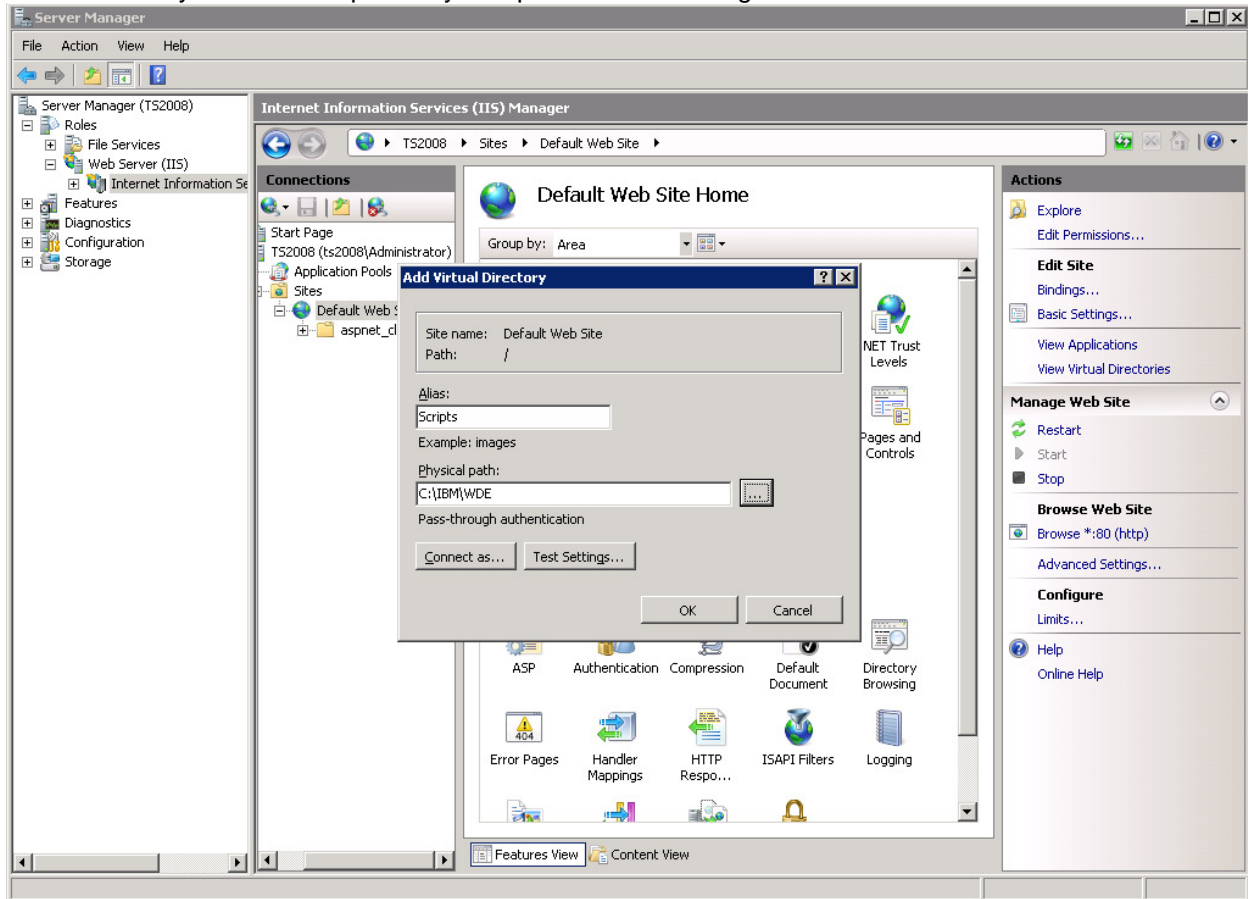
Your rgw.ini file should be located in the %System Root% directory (C:\windows) and should look similar (machine name should be reflective of the WEBDE servers name or IP address)

```
rbexamples localhost:8401
[LogLevel]
panic=1
err=1
wrn=0
inf=0
init=1
trace=0
verb=0
big=0
```

## Adding Scripts Virtual Directory

The rgw.dll is needed only for tests or for use with the older style RedBack Designer (prior to eclipse version)

Select IIS Manager->"*machine-name Home*" ->Sites->right-mouse-click Default Web Site->Add Virtual Directory->Alias = Scripts->Physical path = location of rgw.dll.





## Windows 2008 X64 Versions

If your Windows 2008 server is 64-bit, then it is important to enable 32 bit applications on the 64 bit Web Server (IIS).

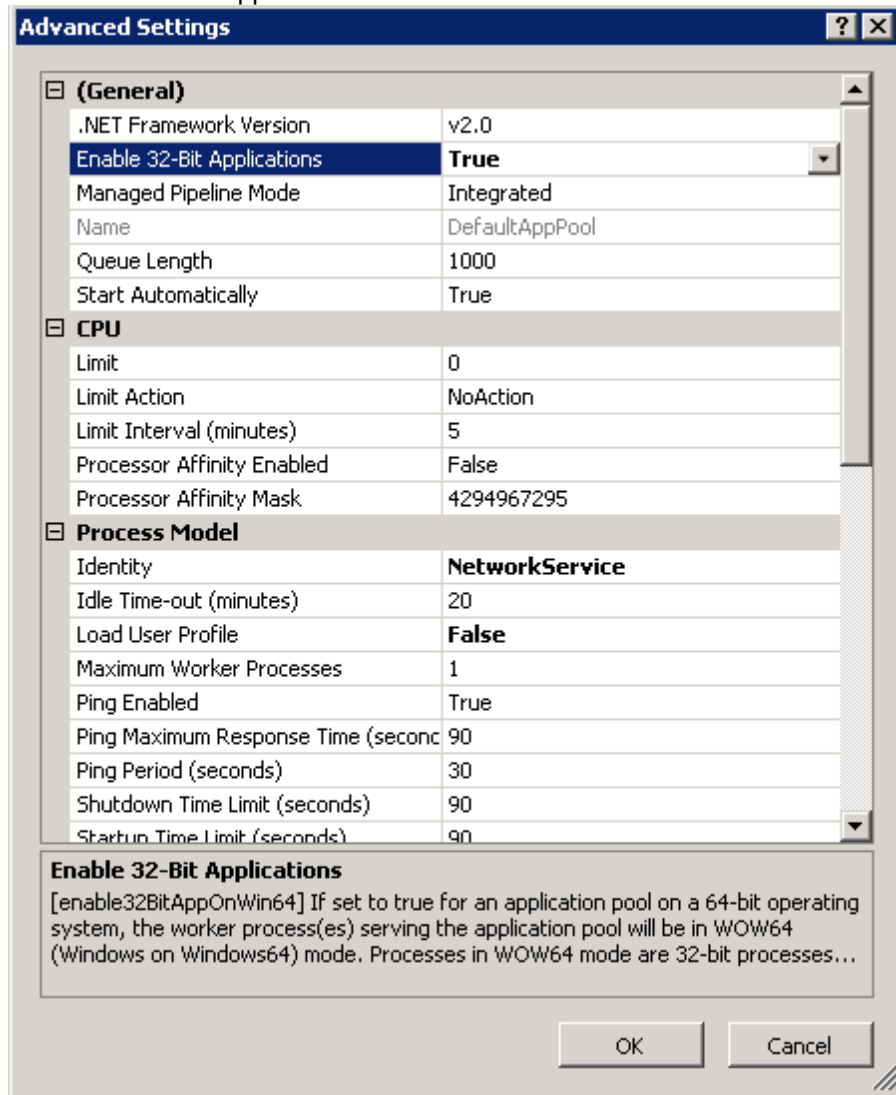
Select IIS Manager->“machine-name Home”->Application Pools->Select DefaultAppPool -> Advanced Settings...

The screenshot displays the IIS Manager interface for the 'Application Pools' section. The left-hand 'Connections' pane shows the tree structure: Start Page > TS2008 (ts2008\Administrator) > Application Pools > Sites > Default Web Site > aspnet\_client > Scripts. The main area shows a table of application pools with the following data:

Name	Status	.NET Frame...	Managed Pipeli...	Identity	Applications
Classic .NET App...	Started	v2.0	Classic	NetworkService	0
DefaultAppPool	Started	v2.0	Integrated	NetworkService	1

The 'DefaultAppPool' row is selected. The right-hand 'Actions' pane contains the following options: Add Application Pool..., Set Application Pool Default..., Application Pool Tasks (Start, Stop, Recycle...), Edit Application Pool (Basic Settings..., Recycling..., Advanced Settings..., Rename), Remove, View Applications, and Help (Online Help). Two black arrows originate from the 'DefaultAppPool' row in the table and point to the 'Advanced Settings...' option in the 'Edit Application Pool' section of the Actions pane.

## Set Enable 32-Bit Applications from False to True

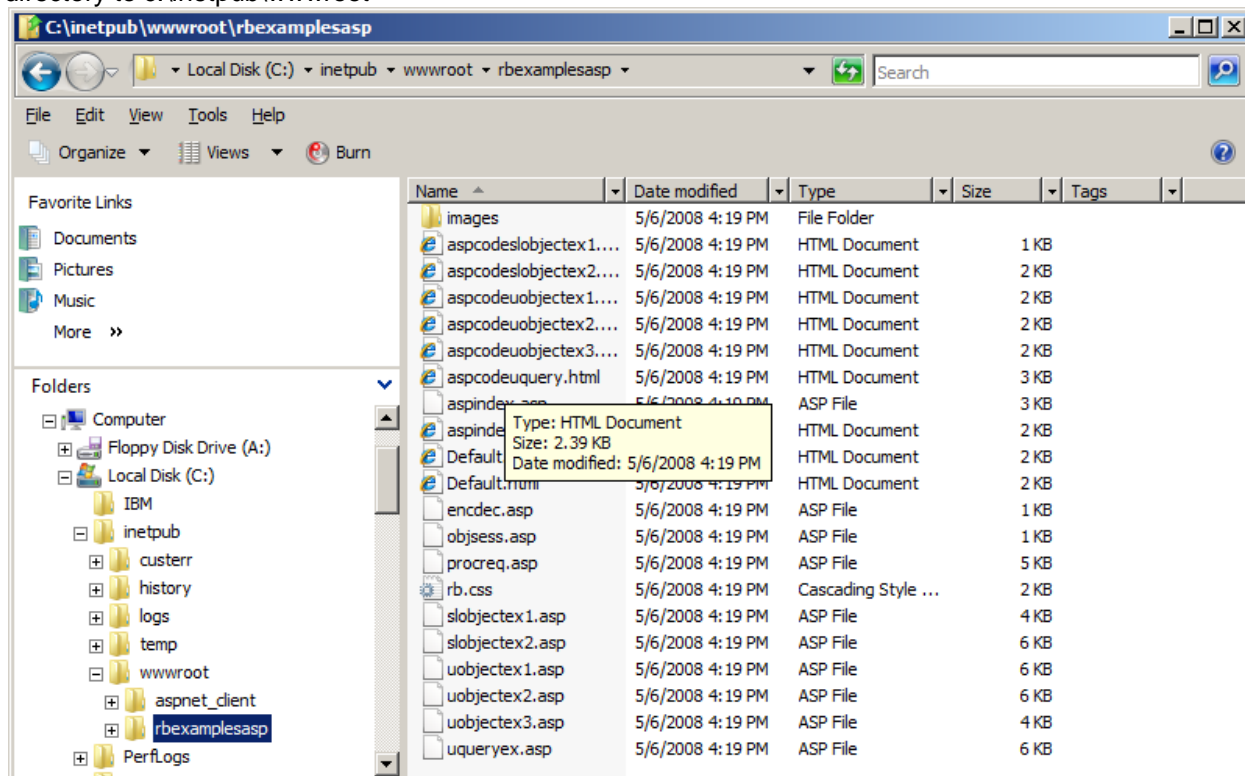


## WEBDE Log location

Redpages.log and rgwi.log will be located by default in %System Root%\temp (e.g. c:\windows\temp)

## rbexamplesasp demo

Prepare the rbexamplesasp demo account on Windows 2008 by copying the rbexamplesasp directory to c:\inetpub\wwwroot

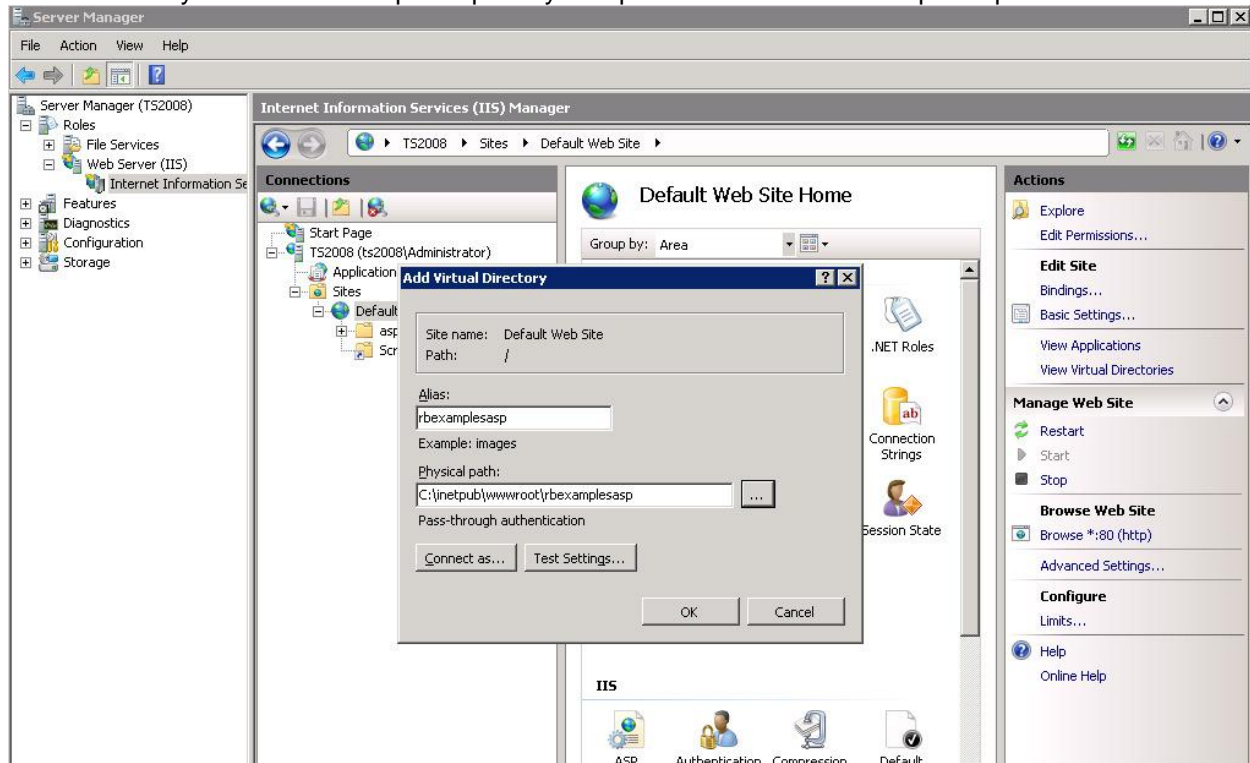


You will see the rbexamplesasp image in Default Web Site once completed

## Steps to take if rbexamplesasp virtual directory is not created automatically

It is possible depending on the Windows 2008 Server Family you are using that the rbexamplesasp virtual directory may not be created. If this is the case, then you will need to manually add the virtual directory.

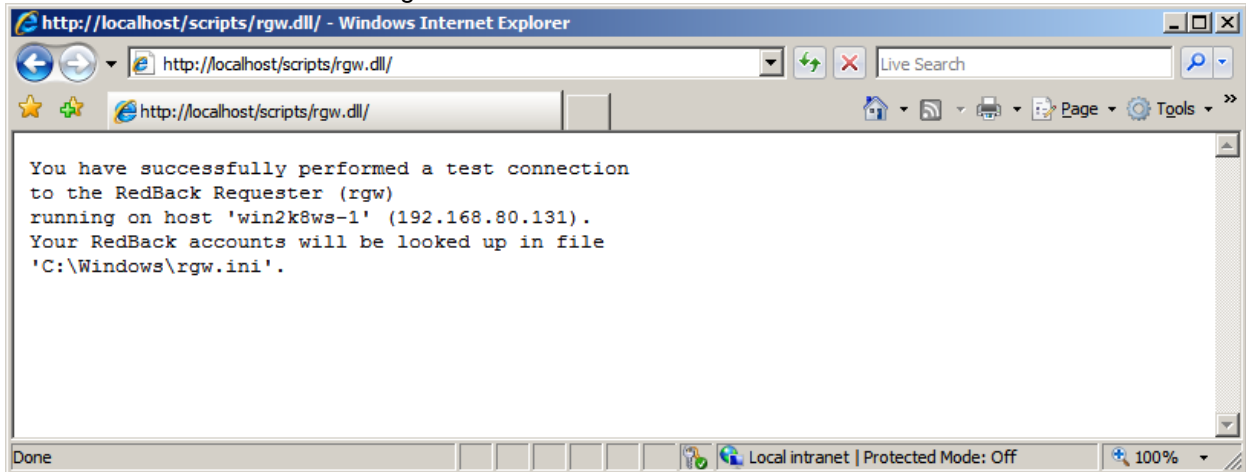
Select IIS Manager->“machine-name Home”->Sites->right-mouse-click Default Web Site->Add Virtual Directory->Alias = rbexamplesasp->Physical path = location of rbexamplesasp ->OK



# Testing WEBDE

## Test WEBDE ISAPI Gateway

This is a useful test to insure the rgw.ini file can be read



## Test Connection to rbexamplesasp

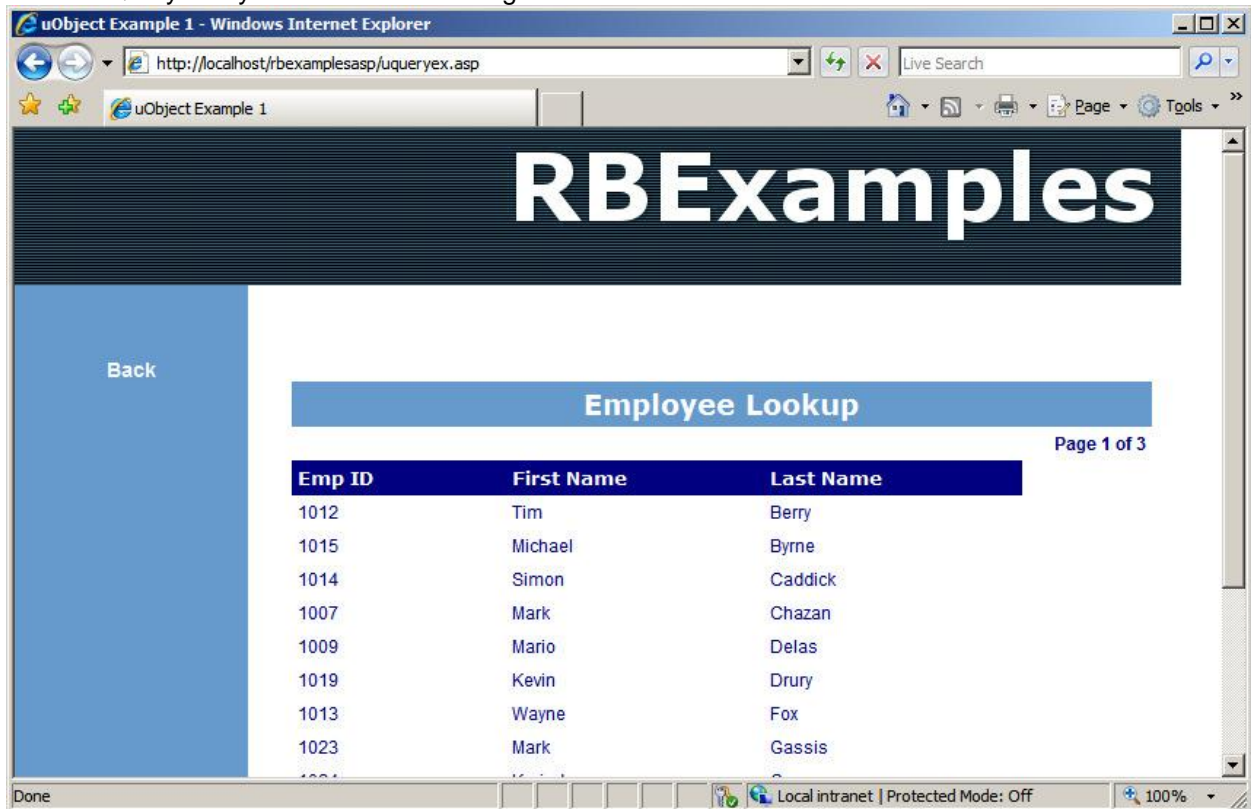
`http://localhost/rbexamples`

## Test ASP Examples

Click on ASP Examples

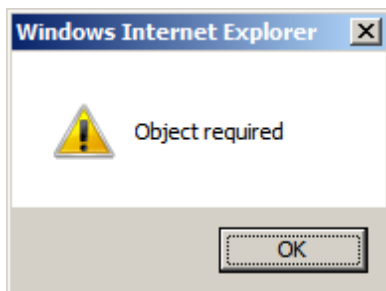


Select uQuery and you obtain the following result:



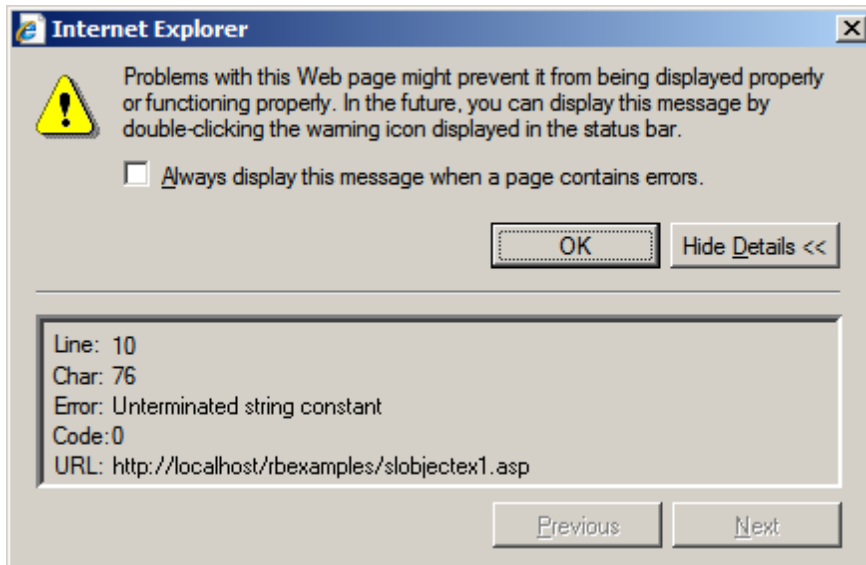
## Errors

### Object Required Pop-UP



If you see the following popup from a webpage, you have not registered RedPages.dll or  
Your Windows 2008 Server is 64-bit and you did not enable 32-bit Applications in the DefaultAppPool

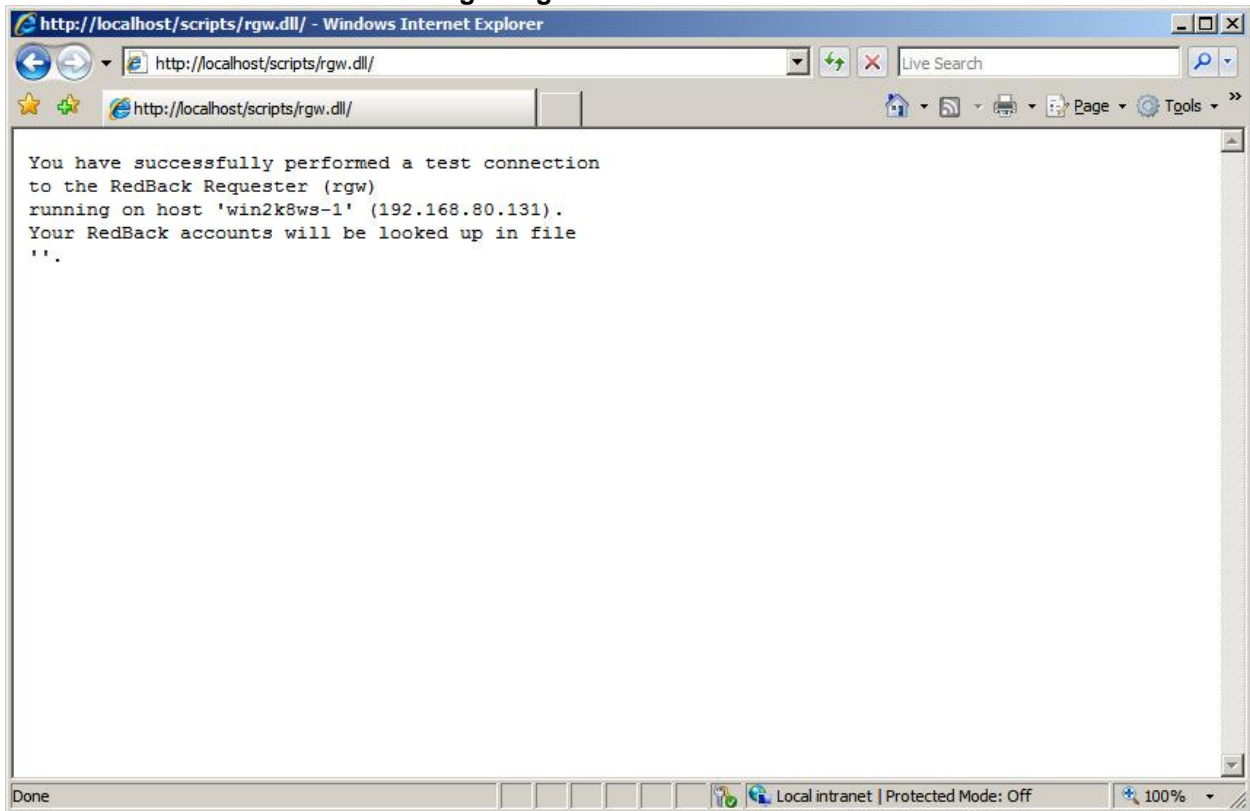
## Cannot Connect to WEBDE Server



This Web page pop-up error can be due to:

1. The ISAPI handler mapping being disabled
2. There is no connection to the RedBack responder
3. The rgw.ini file cannot be found
4. IIS Manager "*machine-name Home*" Service must be restarted after a rgw.ini change

## Location and file Information missing for rgw.ini



Missing lookup file and location is caused by a missing 'Virtual Roots' registry key or the key is misspelled.