

**Guide for IIS7 on Windows 2008 configuration
with
JBOSS EAP 4.3.0 CP02(32bit/64bit Environment)**

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1. Required settings from Windows Registry and JBOSS

1. Download jk 1.2.x isapi redirector file name is isapi_redirect-1.2.28.dll from the location for 32bit dll
<http://apache.imghat.com/tomcat/tomcat-connectors/jk/binaries/win32/jk-1.2.28/>
2. Download jk 1.2.x isapi redirector file name is isapi_redirect-1.2.28.dll from the location for 64 bit location(based on your processor type)
<http://apache.imghat.com/tomcat/tomcat-connectors/jk/binaries/win64/jk-1.2.28/ia64/>
or
<http://apache.imghat.com/tomcat/tomcat-connectors/jk/binaries/win64/jk-1.2.28/amd64/>
3. Rename the isapi_redirect-1.2.28.dll to isapi_redirect.dll.
4. Create a folder called JK and place the isapi_redirect.dll file.
5. Create a following sub folders under the folder JK
 - i. Create a folder called bin
 - ii. Create a folder called conf
 - iii. Create a folder called log

NOTE: Don't use releases prior to mod_jk 1.2.26. Earlier releases appear to have problems with IIS7

6. Create a text file with name isapi_redirect.properties on JK\bin folder. A sample template for the file has been given below.
Sample file of isapi_redirect.properties.
extension_uri=/jakarta/isapi_redirect.dll
log_file=C:\JK\log\isapi_redirect.log
log_level=info
worker_file= C:\JK\conf\workers.properties
worker_mount_file= C:\JK\conf\uriworkermap.properties
7. Create a text file and name it as uriworkermap.properties and copy the following and provide the required application (which needs to be route through IIS) context path should be provided in place of **sample** in the below text.

```
#/jmx-console=default  
#/sampleweb=default  
#/jakarta/*=default
```

```
# Simple worker configuration file  
# Mount the Servlet context to the ajp13 worker
```

```
/jmx-console=loadbalancer  
/jmx-console/*=loadbalancer
```

```
/jmx-console=loadbalancer
```

```
/jmx-console/*=loadbalancer  
  
/web-console=loadbalancer  
/web-console/*=loadbalancer  
  
/sample=loadbalancer  
/sample/=loadbalancer  
/sample/*=loadbalancer
```

8. For a load balanced IIS the worker.properties file should be created as follows: Create a text file and name it as workers.properties and copy the following and modify whereve

```
# Define path of .properties files and jdk  
# Define workers using ajp13  
#worker.list=default  
# Set properties for worker1 (ajp13)  
#worker.default.type=ajp13  
#worker.default.host=default  
#worker.default.port=8009  
#worker.default.lbfactor=50  
#worker.default.socket_keepalive=1  
  
# Load-balancing behaviour  
#worker.loadbalancer.type=lb  
#worker.loadbalancer.balanced_workers=default  
#worker.loadbalancer.sticky_session=1  
#worker.loadbalancer.local_worker_only=1  
#worker.list=loadbalancer  
# Ends worker.properties here  
  
# Define list of workers that will be used  
# for mapping requests  
worker.list=loadbalancer,status  
  
# Define worker1  
# modify the host as your host IP or DNS name.  
worker.node1.port=8009  
worker.node1.host=vmwin2k3ts7.agi.com  
worker.node1.type=ajp13  
worker.node1.lbfactor=1  
  
# Define worker2  
# modify the host as your host IP or DNS name.  
worker.node2.port=8009  
worker.node2.host=vmwin2k3ts8  
worker.node2.type=ajp13  
worker.node2.lbfactor=1  
  
# Load-balancing behaviour  
worker.loadbalancer.type=lb  
worker.loadbalancer.balance_workers=node1,node2
```

```
worker.loadbalancer.sticky_session=1
```

```
# Status worker for managing load balancer  
worker.status.type=status
```

9. If running load balanced we also need to name each node according to the names specified in workers.properties.

10. Edit JBOSS_HOME/server/CONFIGURATION/deploy/jboss-web.deployer/server.xml, Locate the <Engine> element and add an attribute **jvmRoute**:

```
<Engine name="jboss.web" defaultHost="localhost" jvmRoute="node1">
```

11. The jvmRoute attribute must match a name specified in workers.properties under worker.loadbalancer.balance_workers, not worker.list

12. Edit JBOSS_HOME/server/<node>/deploy/jboss-web.deployer/META-INF/jbossservice.xml, locate the <attribute> element with a name of **UseJK**, and set its value to "**true**":

```
<attribute name="UseJK">true</attribute>
```

13. In the server.xml file, make sure that the AJP 1.3 Connector is uncommented, e.g.:

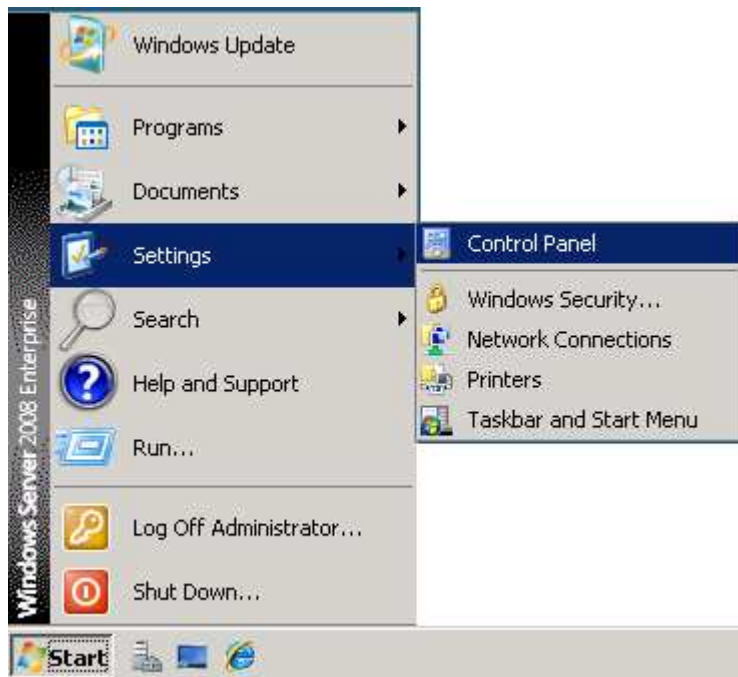
```
<!-- Define an AJP 1.3 Connector on port 8009 -->  
<Connector port="8009" address="{jboss.bind.address}" protocol="AJP/1.3"  
emptySessionPath="true" enableLookups="false" redirectPort="8443"  
></Connector>
```

14. If you are only accepting requests via IIS/IsapiRedirector, you can comment out the regular HTTP Connector; Tomcat then won't listen on port 8080.

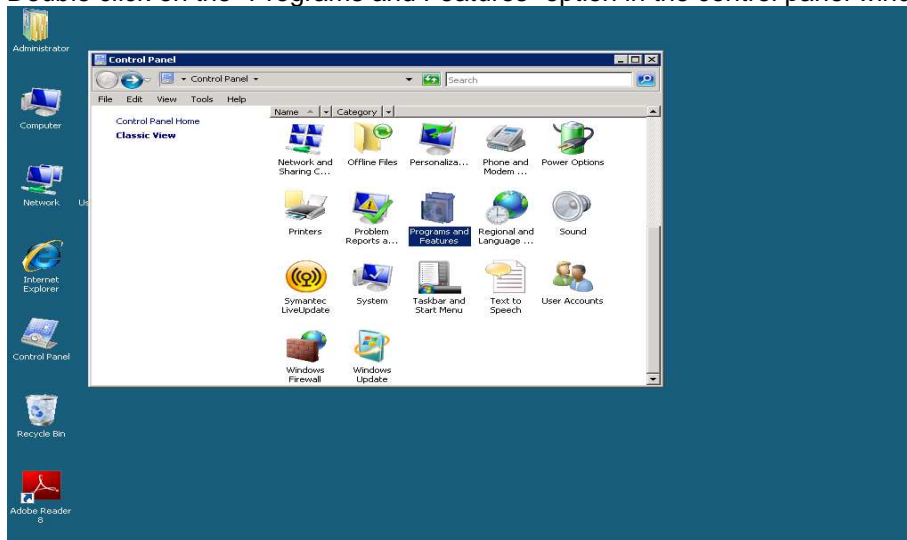
15. Restart JBOSS AS

2. IIS Configuration with JBOSS

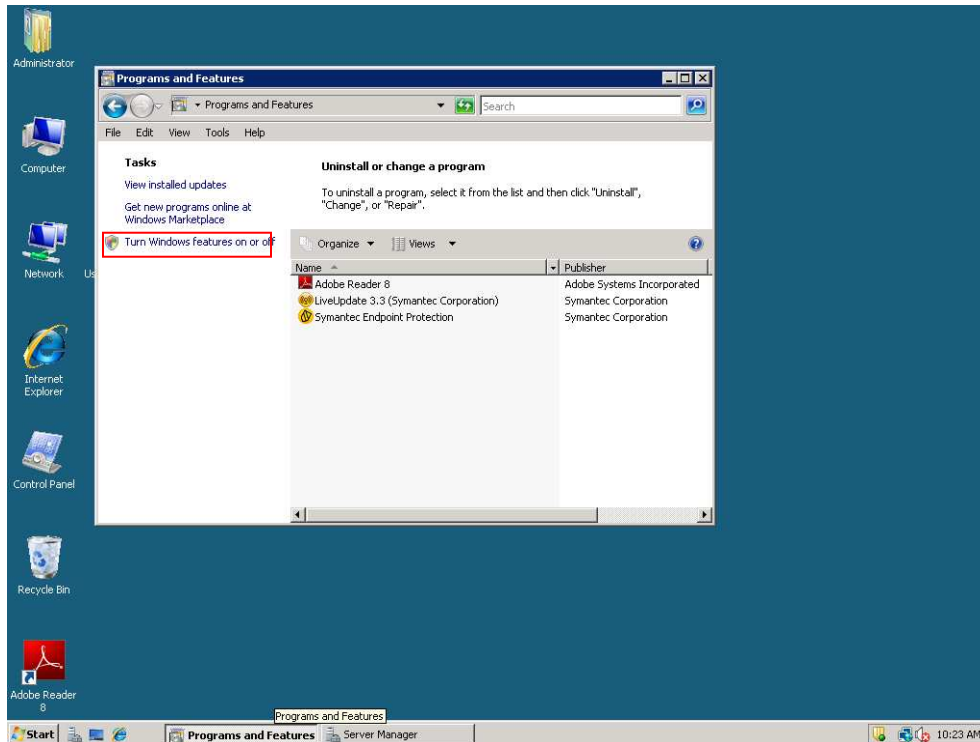
1. Install IIS7.0 on Windows 2008.
2. Open the control panel window by selecting the Control panel option from settings menu in the Start menu



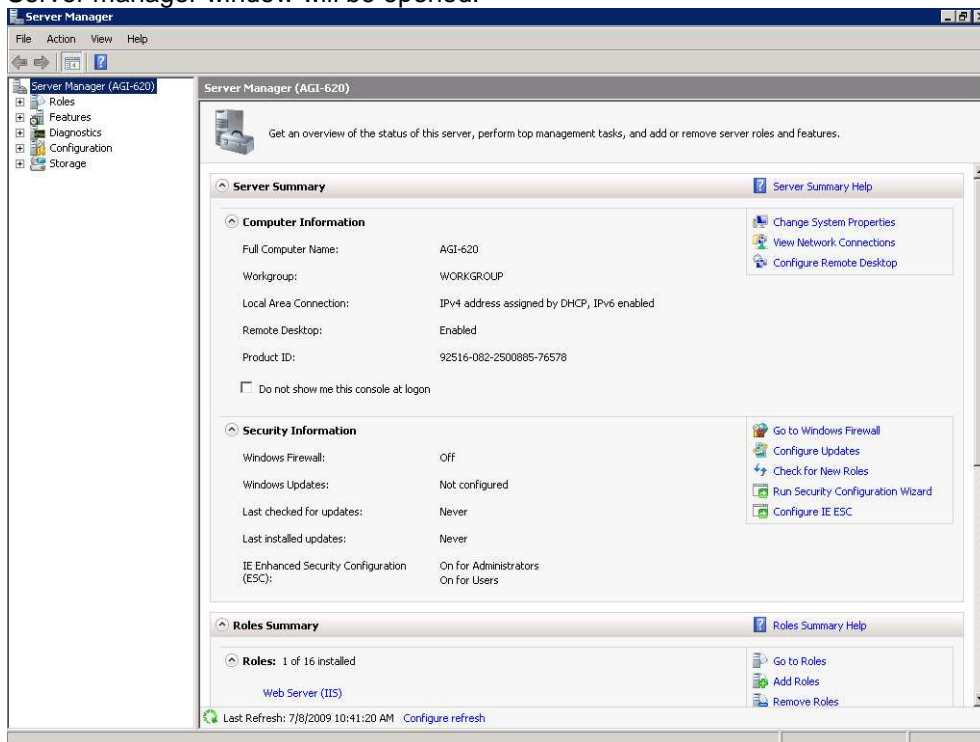
3. Double click on the "Programs and Features" option in the control panel window.



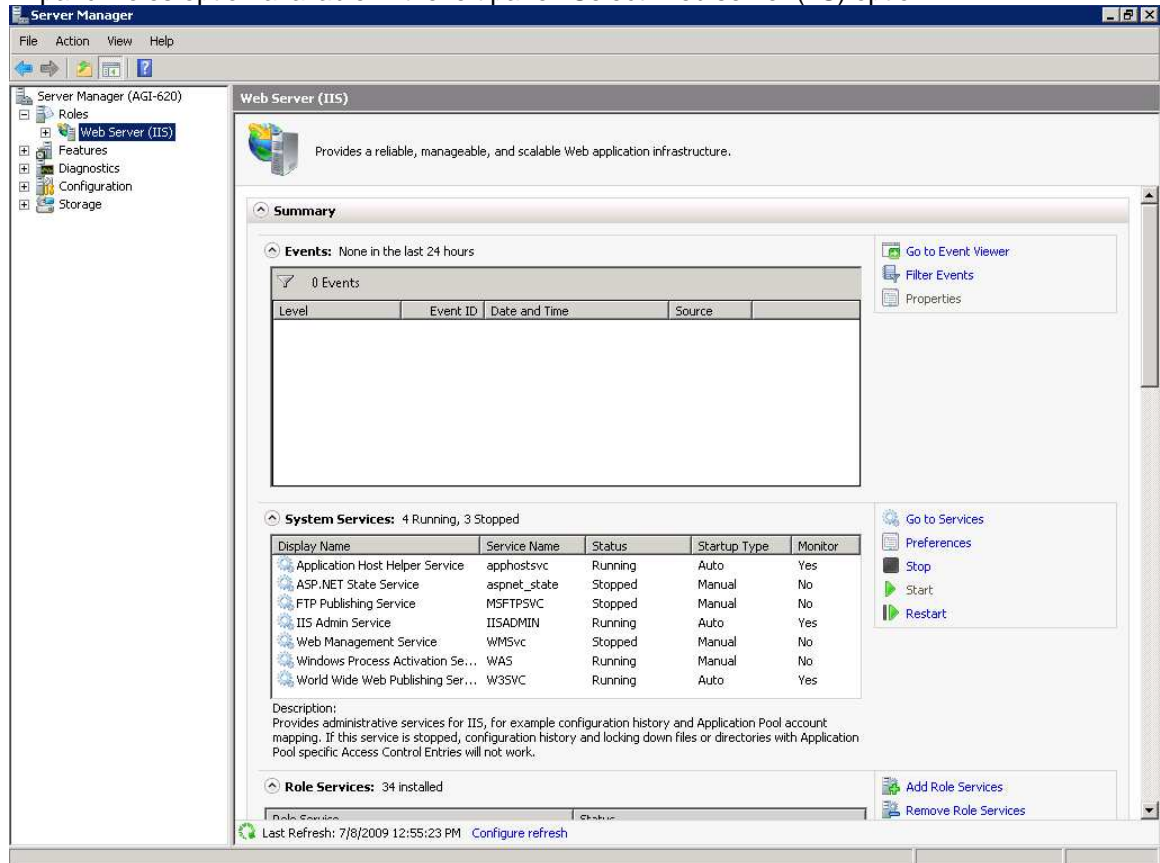
4. You can find an option “Turn Windows features on or off” in the left panel. Click on that link.



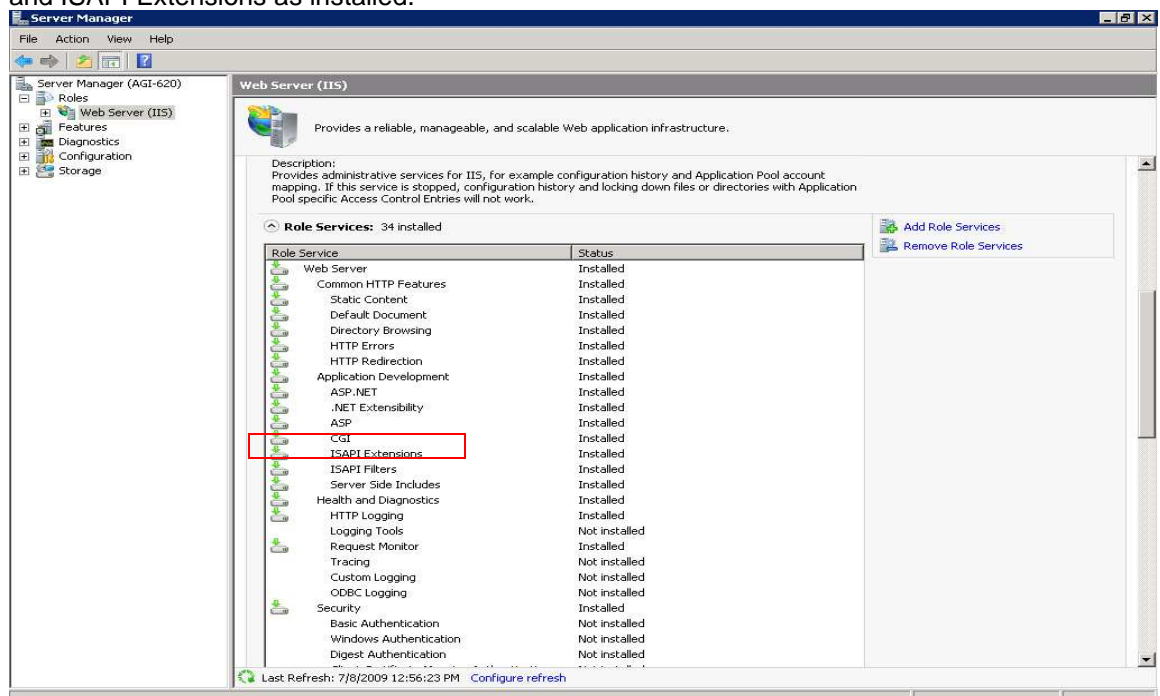
5. Server manager window will be opened.



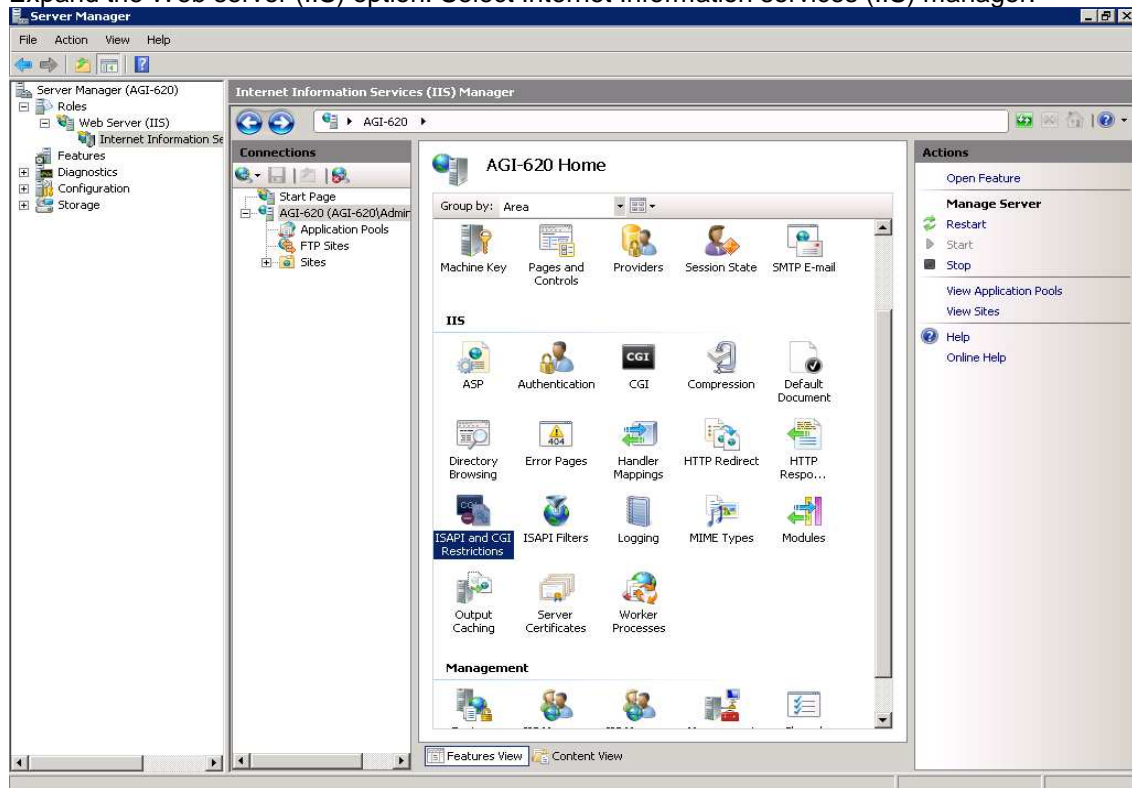
6. Expand Roles option available in the left panel. Select Web server (IIS) option.



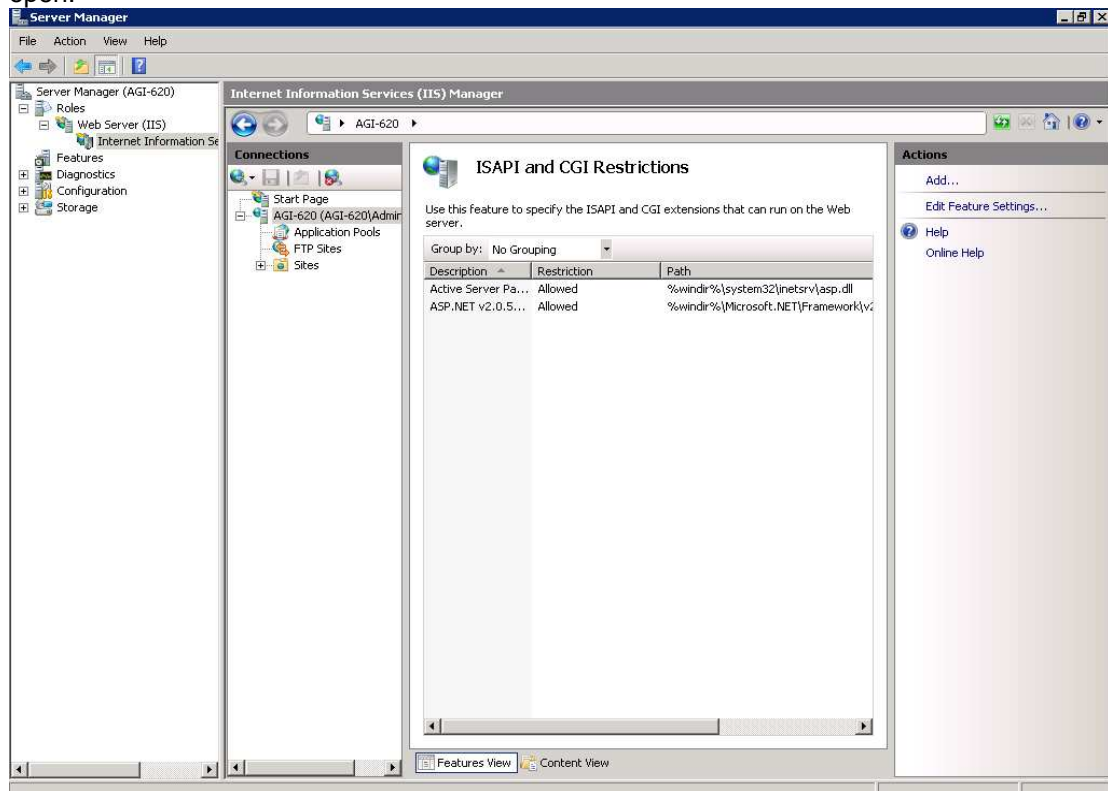
7. Scroll down using scroll bar in the right side to Role services. Make sure that ISAPI filter and ISAPI Extensions as installed.



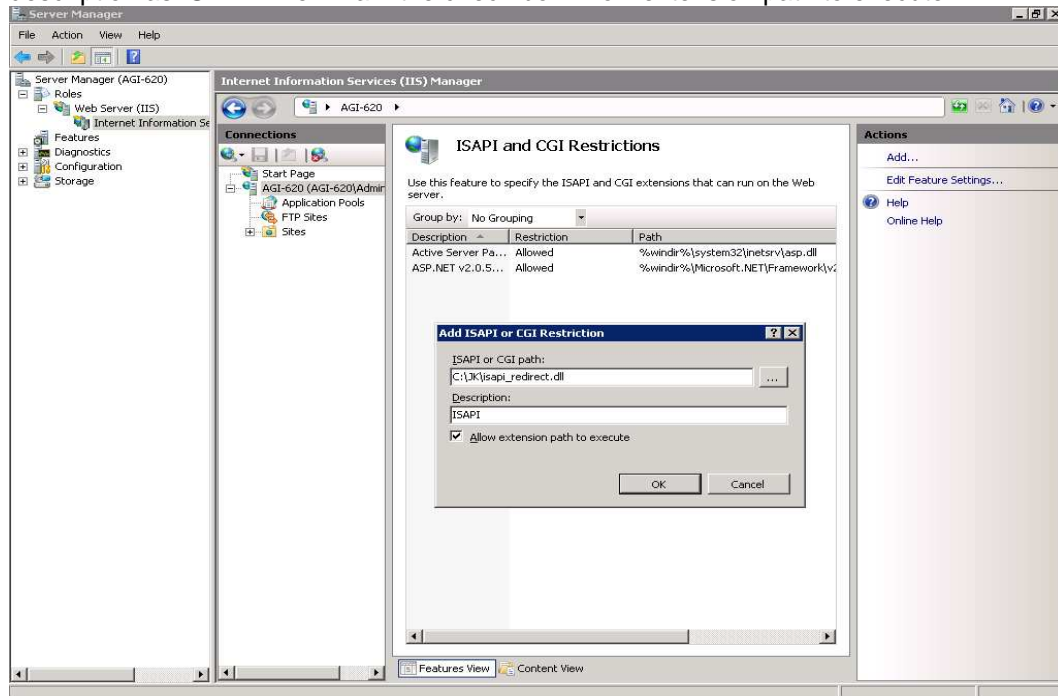
8. Expand the Web server (IIS) option. Select Internet Information services (IIS) manager.



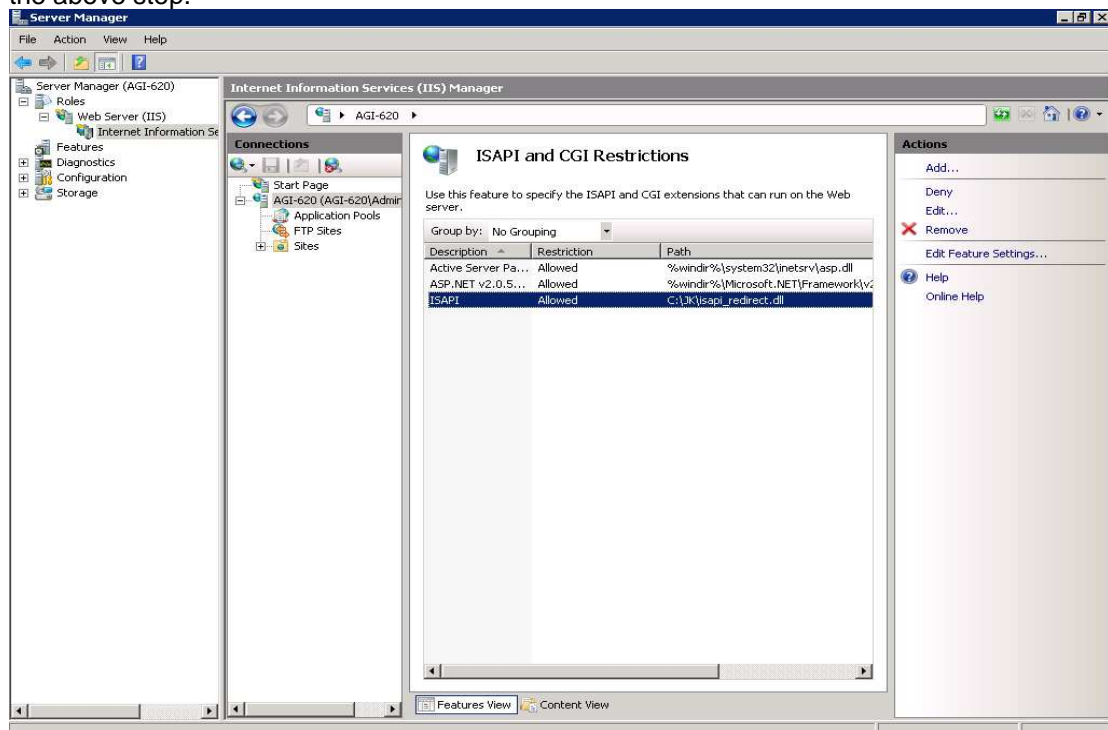
9. Double click on ISAPI and CGI Restrictions. ISAPI and CGI Restrictions window will open.



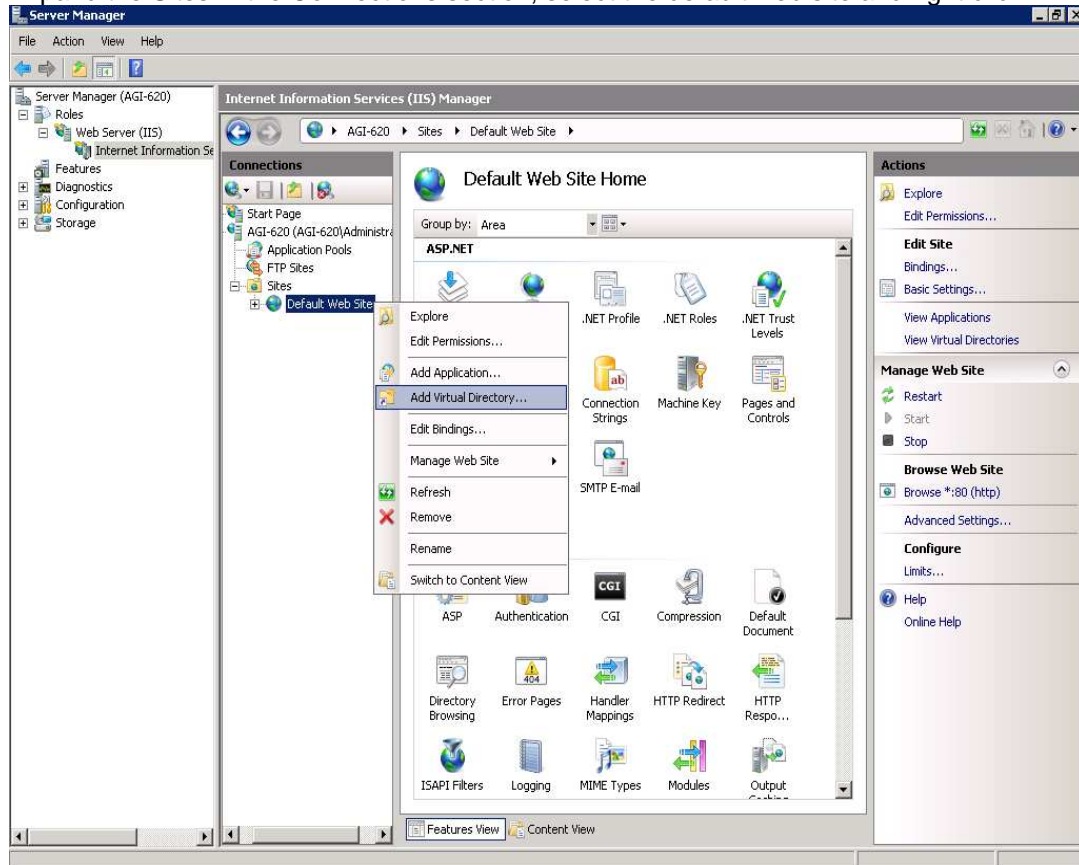
10. Click Add button in the right panel, Add ISAPI or CGI Restrictions window will be displayed. Add isapi_redirect.dll by clicking on the browse button and enter the description as ISAPI. Then mark the check box Allow extension path to execute.



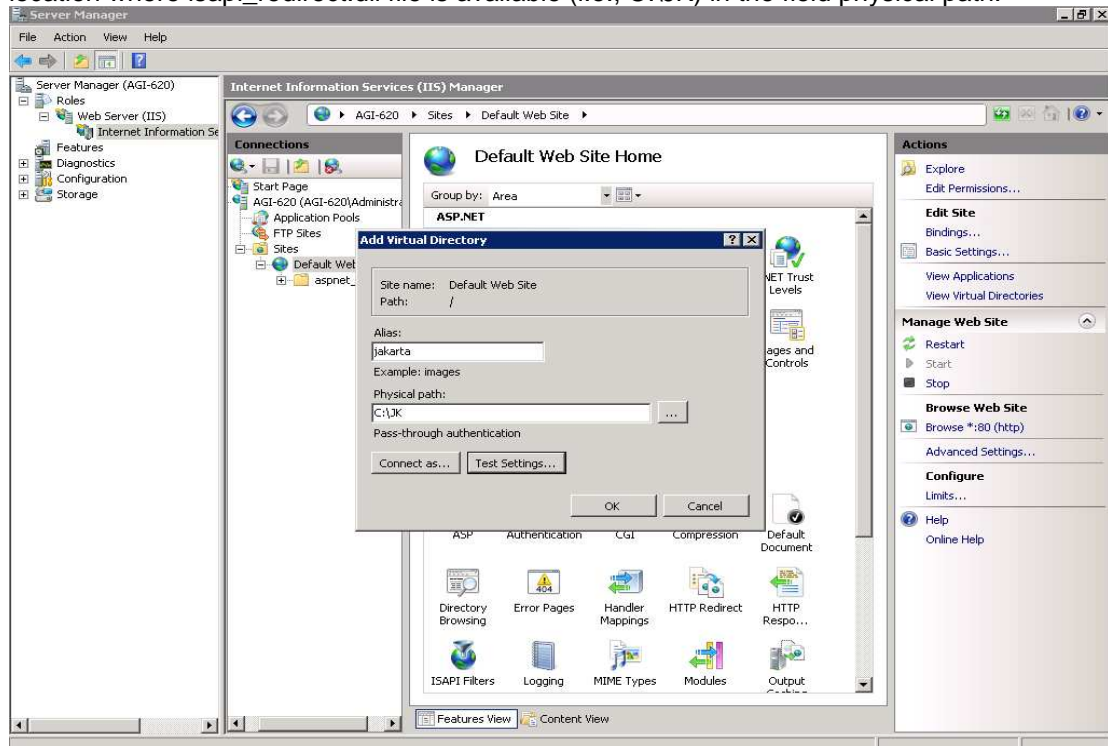
11. Click on OK in "Add ISAPI or CGI Restrictions" window after entering data as indicated in the above step.



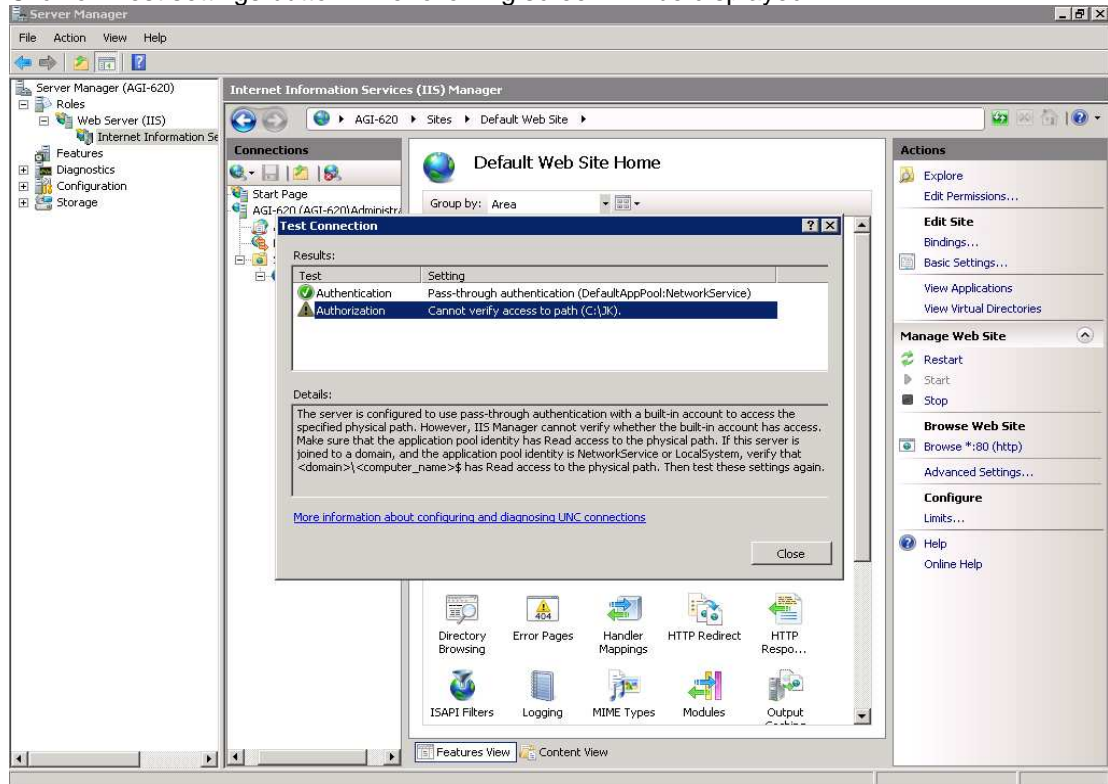
12. Expand the Sites in the Connections section, select the default web site and right click.



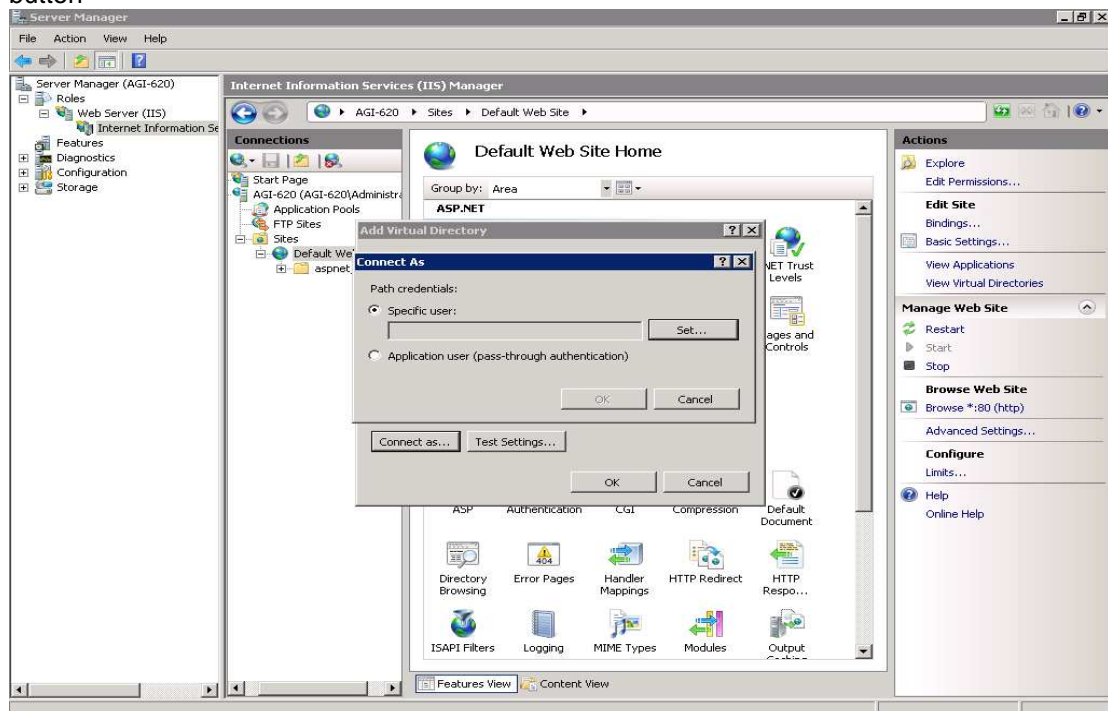
13. Click on Add virtual directory, enter its alias as "jakarta" (case sensitive) and enter the location where isapi_redirect.dll file is available (i.e., C:\JK) in the field physical path.



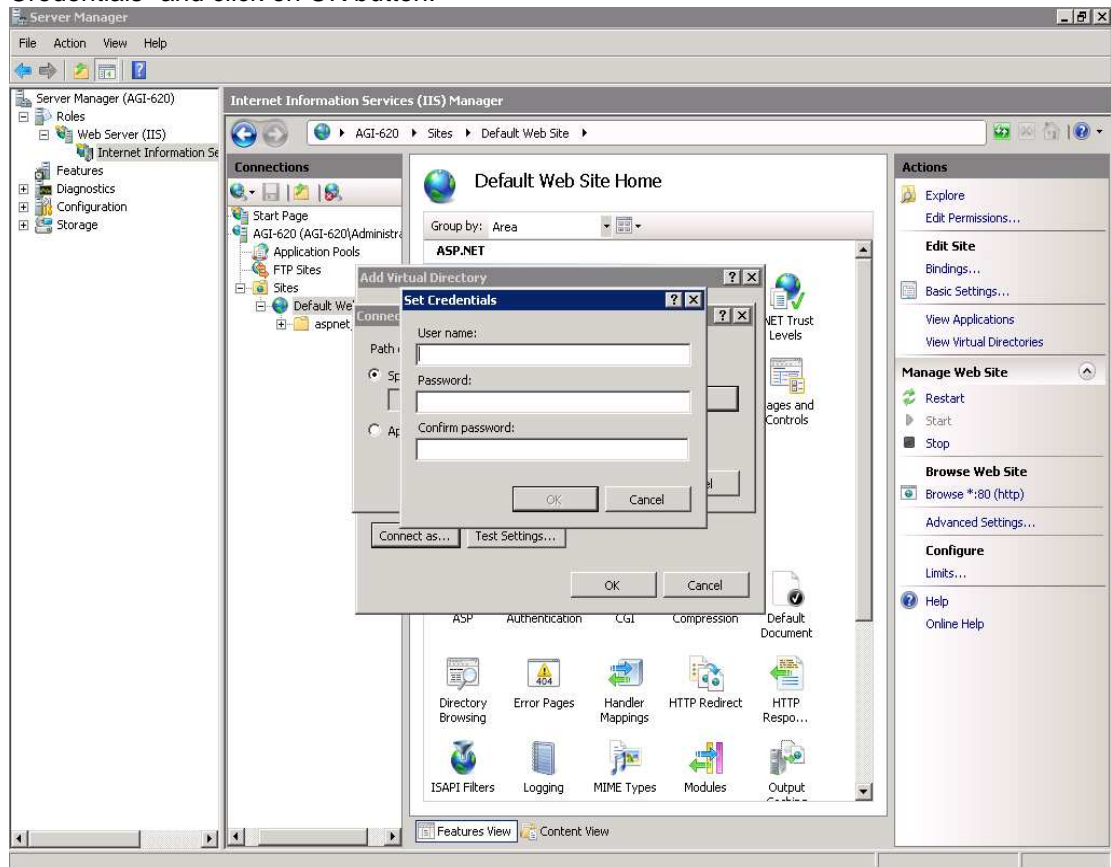
14. Click on Test settings button. The following screen will be displayed.



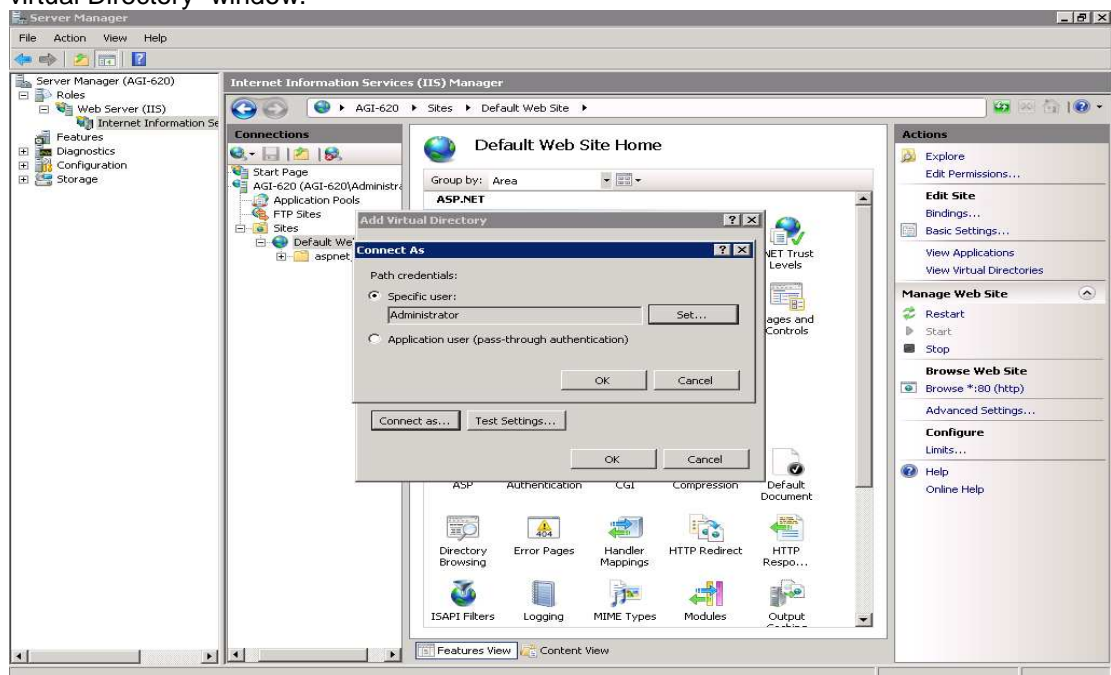
15. If the Authorization is not done for verifying the physical path as shown in the above screen shot which means the user does not have the access to the folder to verify the physical path. Hence close the window and click on "Connect as" button in the "Add virtual directory" window. Then select the radio button "Specific user" and click on "Set .." button



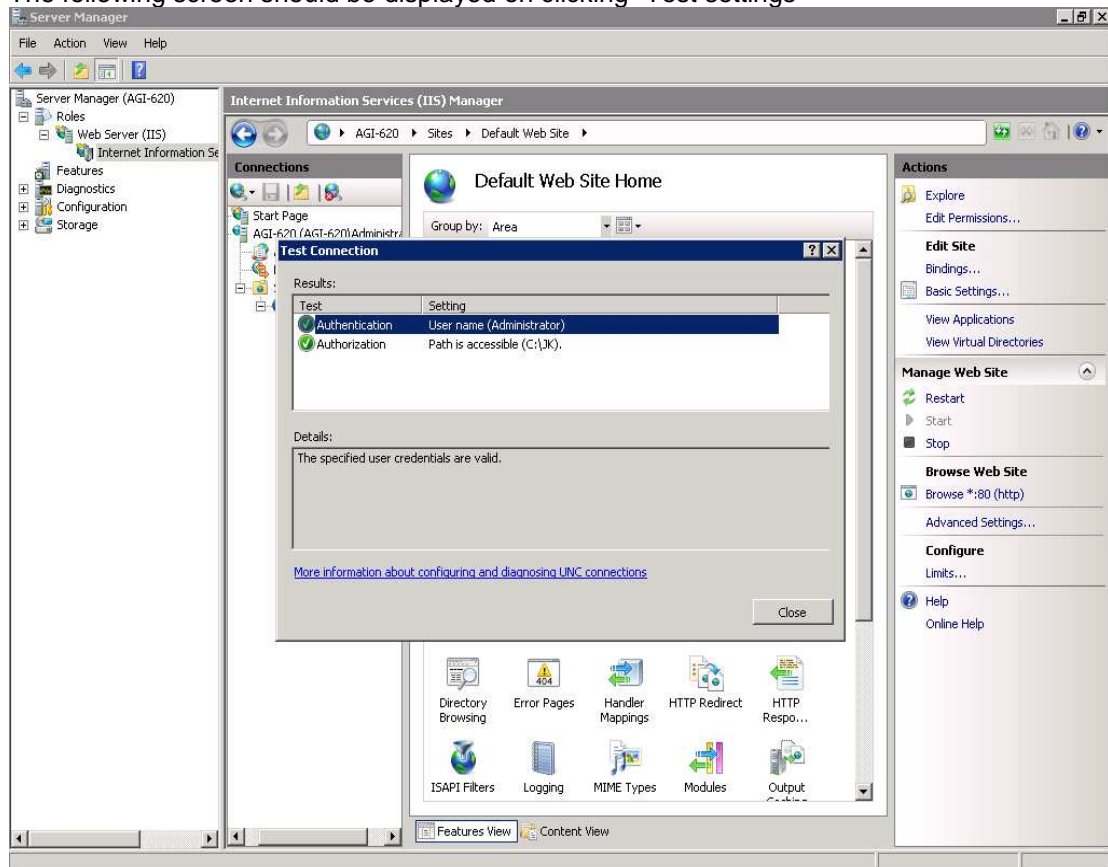
16. Provide the user name and password of the windows login in the window “Set Credentials” and click on OK button.



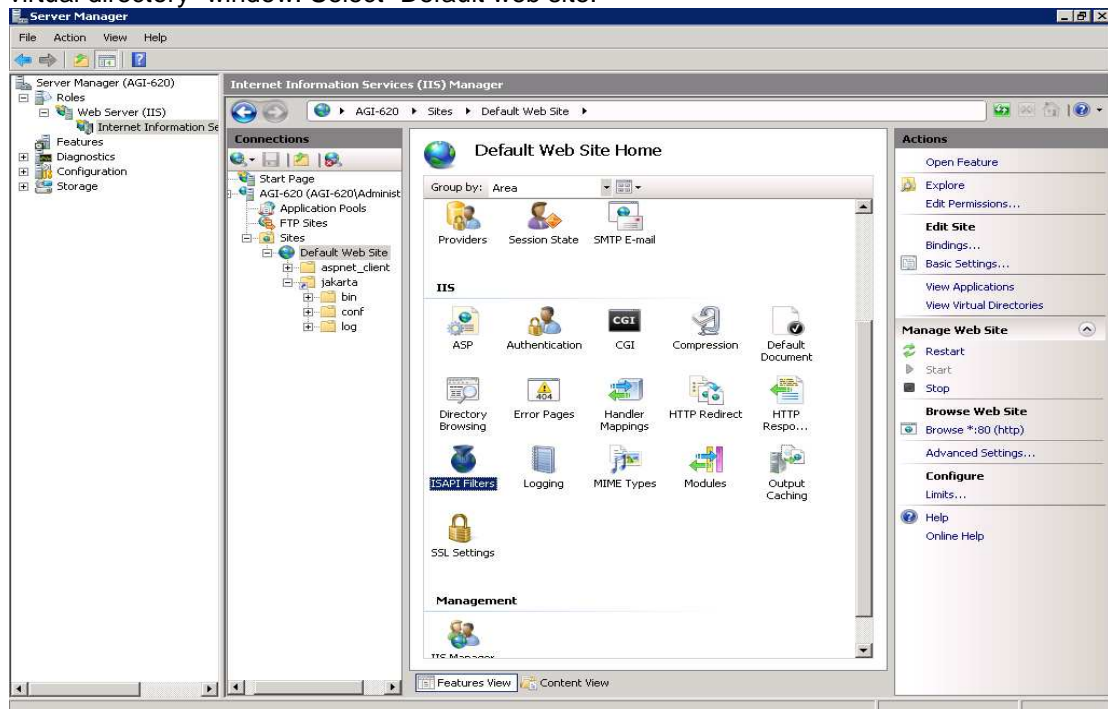
17. Click on Ok in the “Connect as” window. And then Click on “Test settings” button in “Add virtual Directory” window.



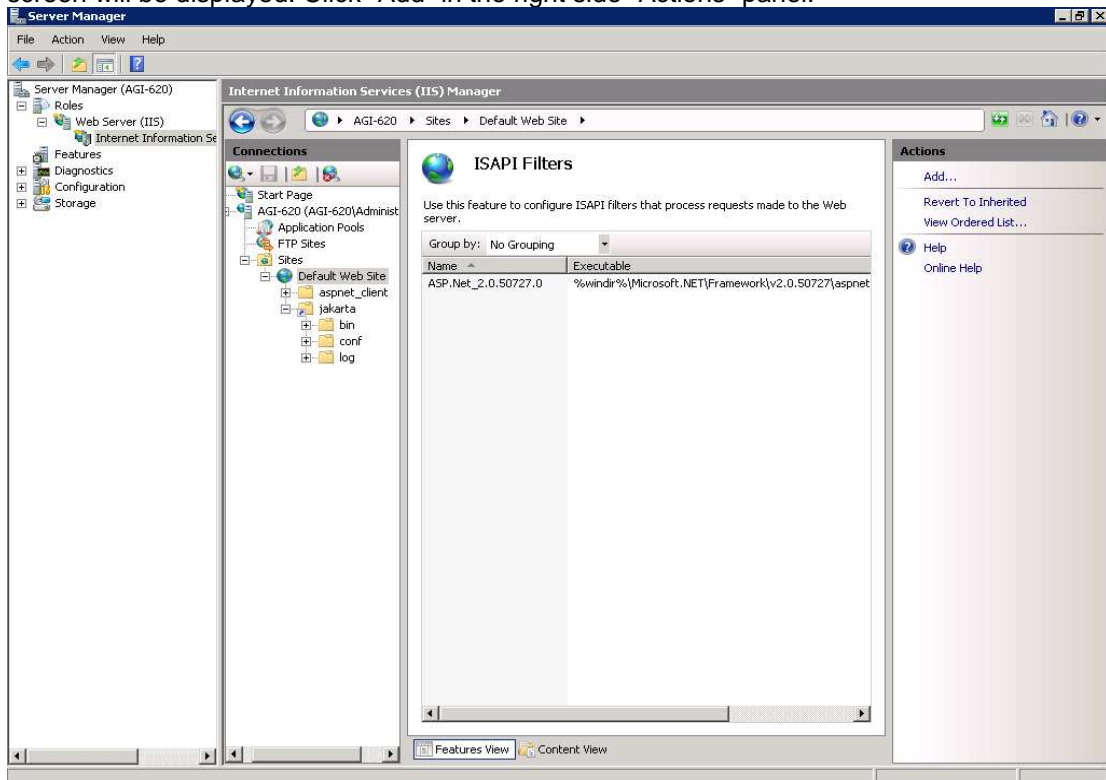
18. The following screen should be displayed on clicking “Test settings”



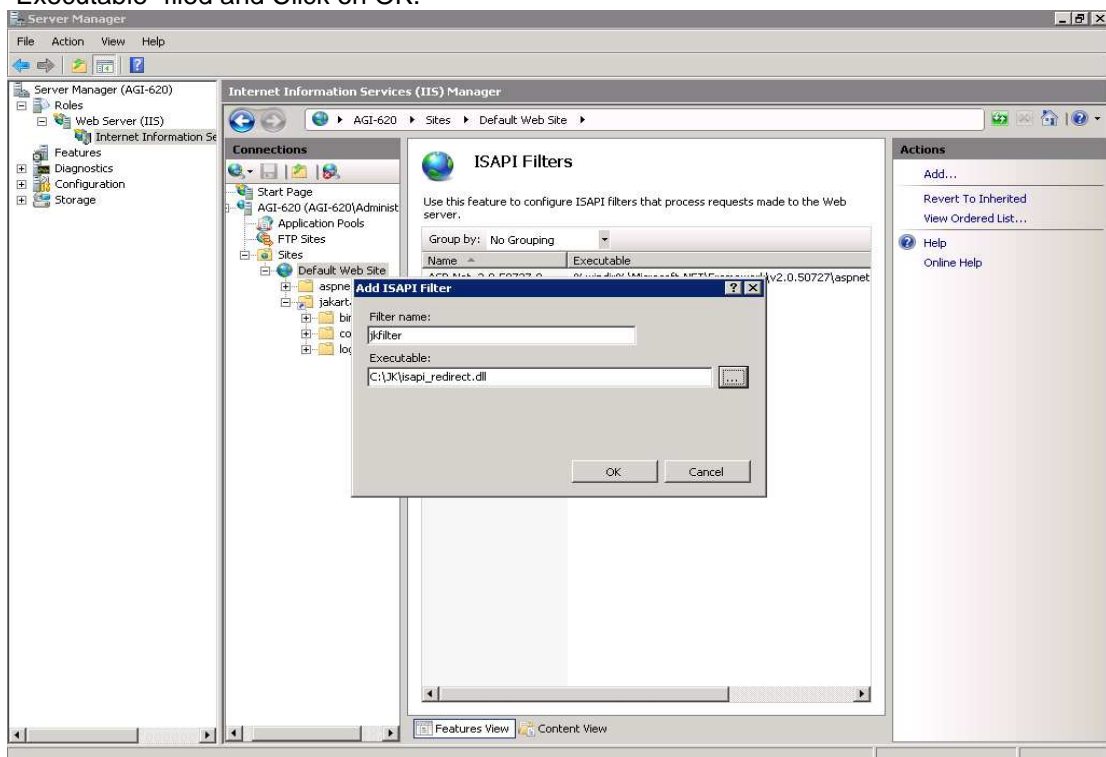
19. Click on Close button to close the Test connection window and click on OK in the “Add virtual directory” window. Select “Default web site.”



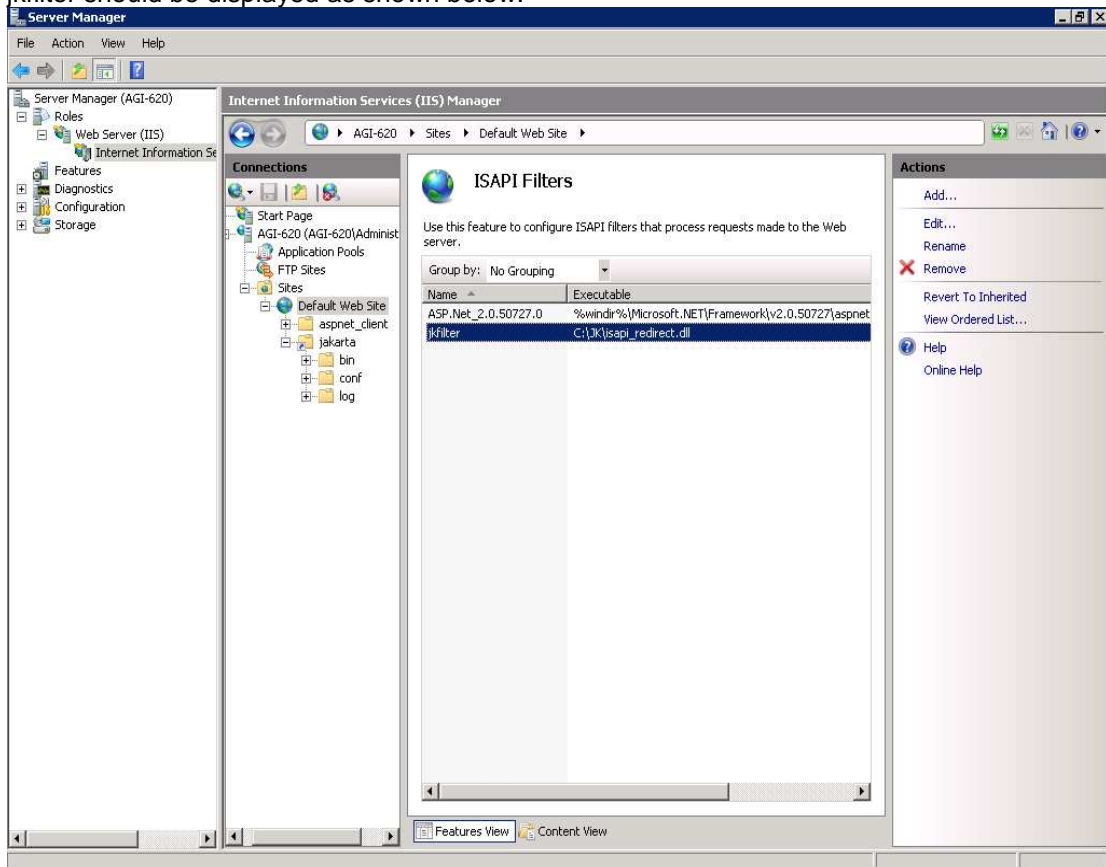
20. Double click on the ISAPI filters in the “Default website Home” page. The following screen will be displayed. Click “Add” in the right side “Actions” panel.



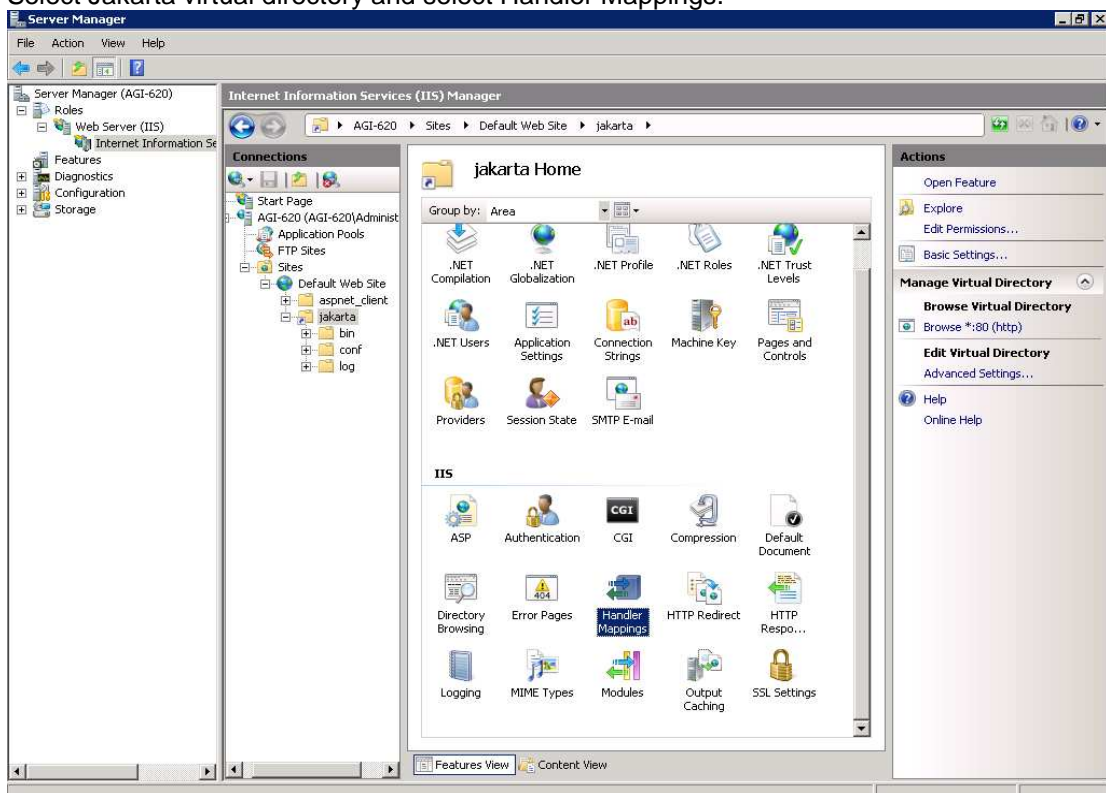
21. Enter the “JKfileter” in the Filter filed and provide the isapi_redirect.dll file path in the “Executable” field and Click on OK.



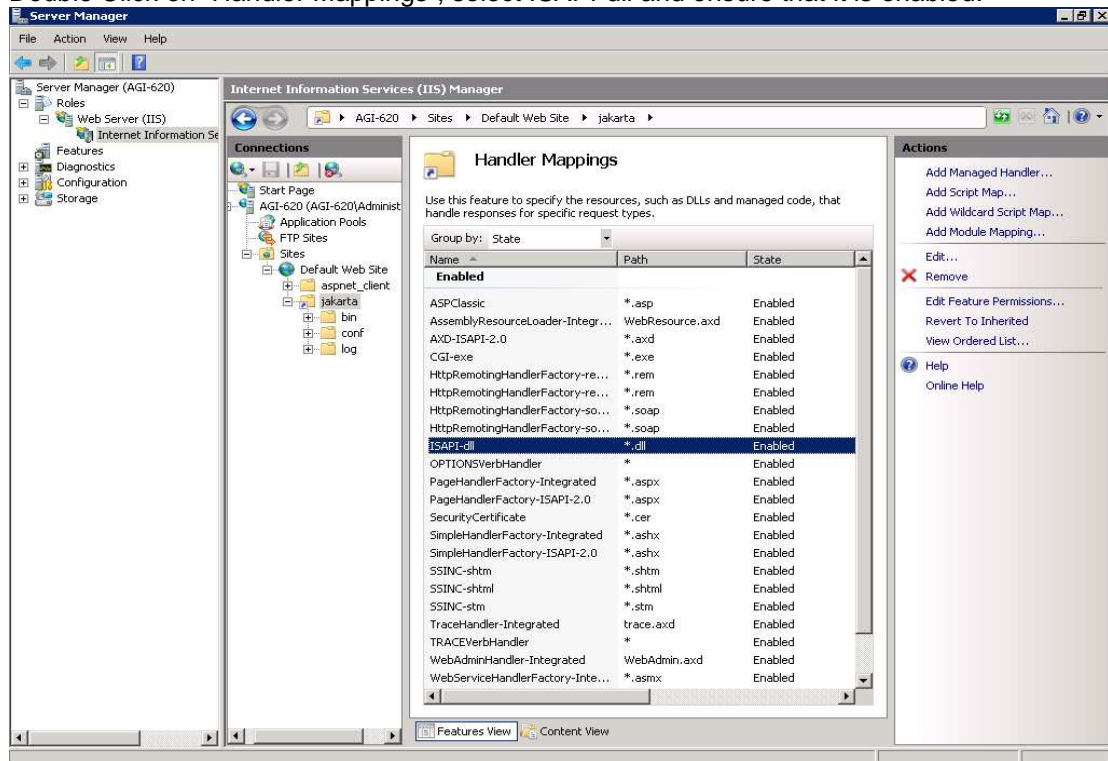
22. `jkfilter` should be displayed as shown below.



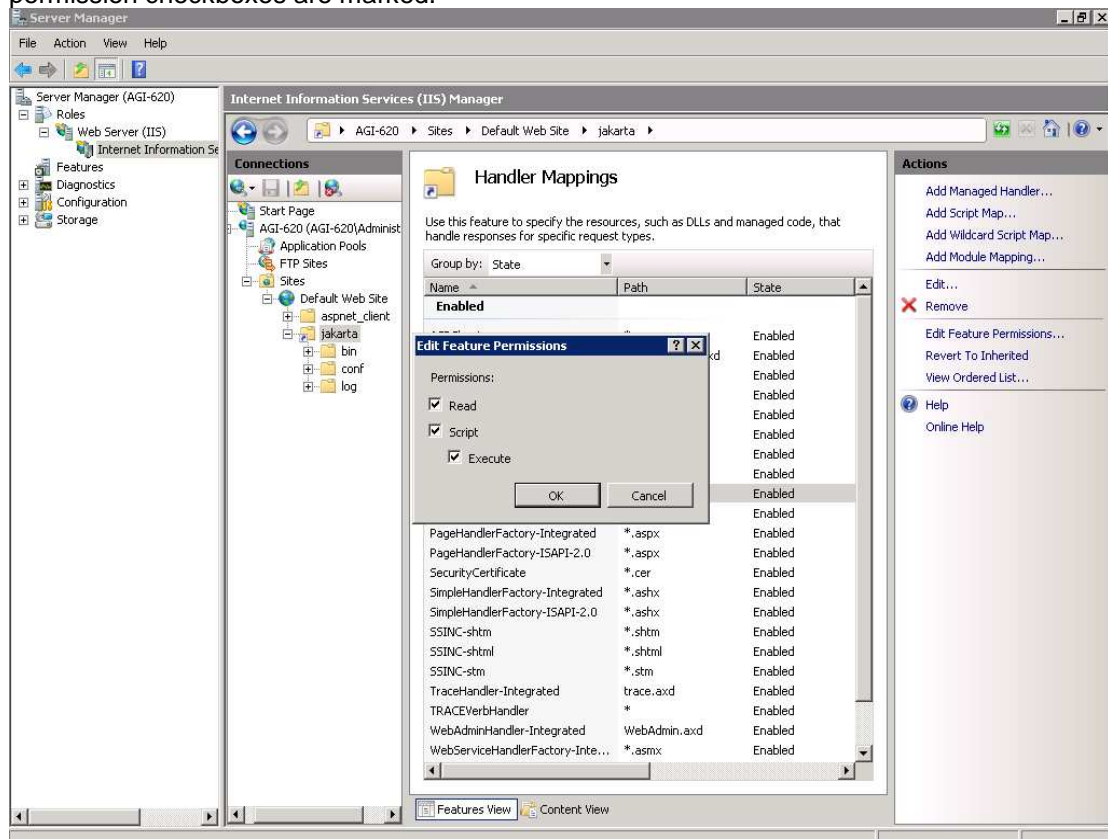
23. Select Jakarta virtual directory and select Handler Mappings.



24. Double Click on “Handler Mappings”, select ISAPI-dll and ensure that it is enabled.

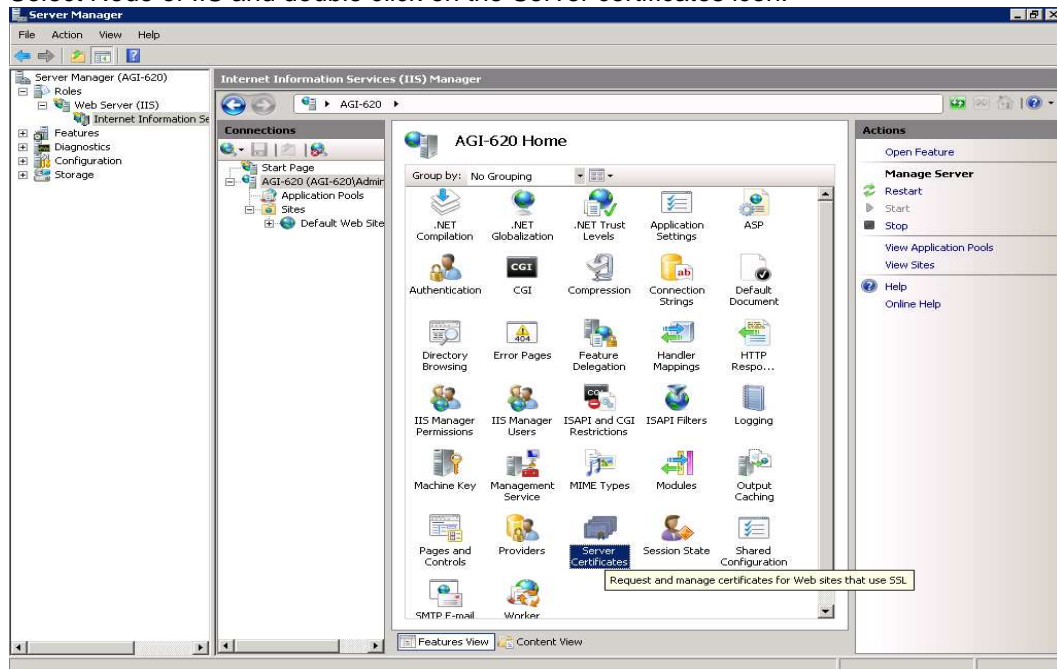


25. Click on “Edit Feature Permissions”; ensure that “Read”, “Script” and “Execute” permission checkboxes are marked.

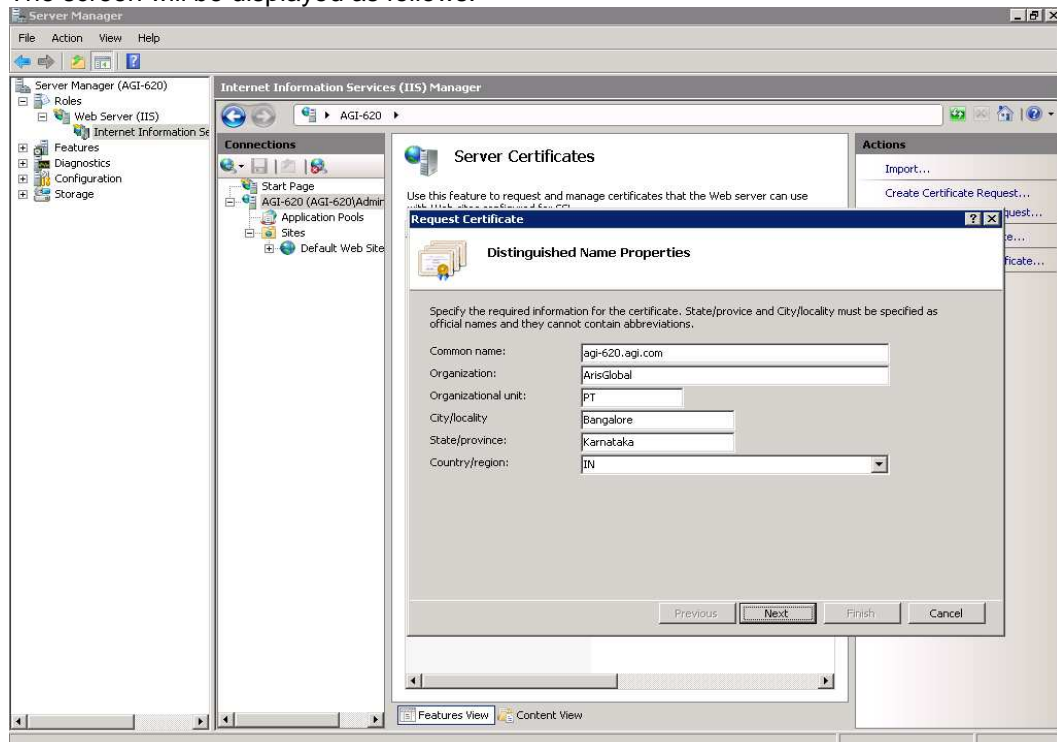


3. Enable SSL on IIS

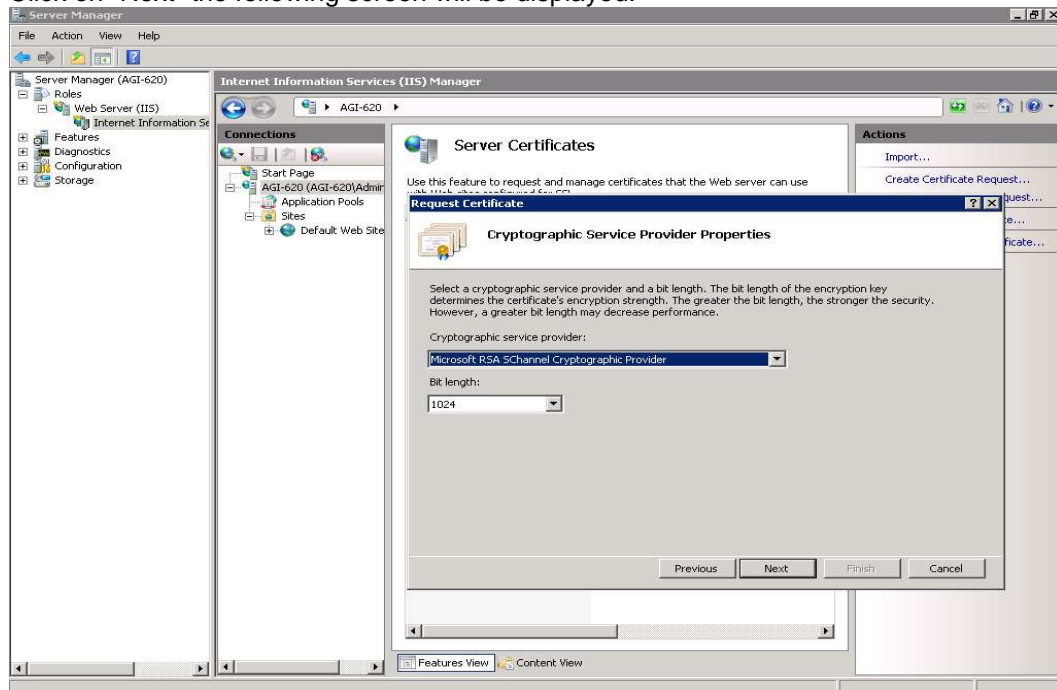
1. Select Node of IIS and double click on the Server certificates icon.



2. Then click on "Create Certificate Request..." link in the Actions pane to generate a CSR file. Request Certificate screen will be displayed, then provide the details as required. The screen will be displayed as follows:

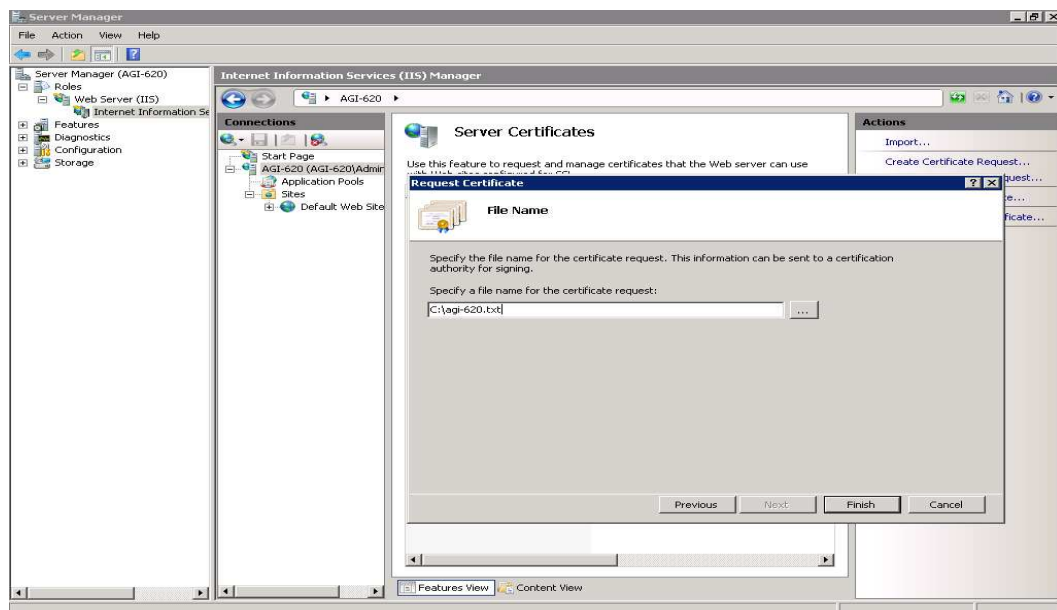


3. Click on “Next” the following screen will be displayed.



4. Click on “Next” with the default settings, the following screen will be displayed. Enter a text file and click on Finish button. The CSR file will be save on the given location. Click on Finish button.

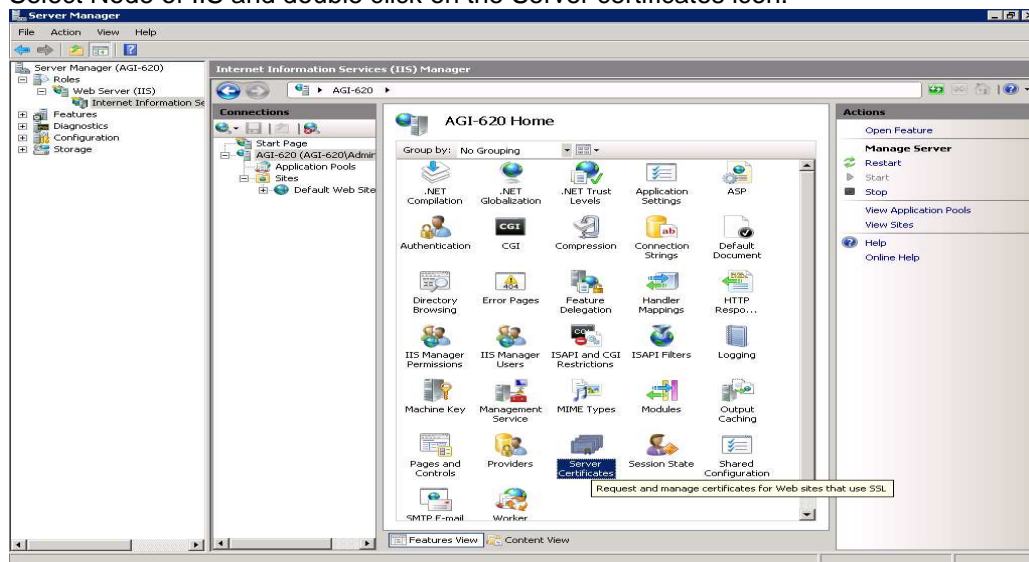
Note: The max you set the bit length the certificate would be that secure. But the performance will be impacted.



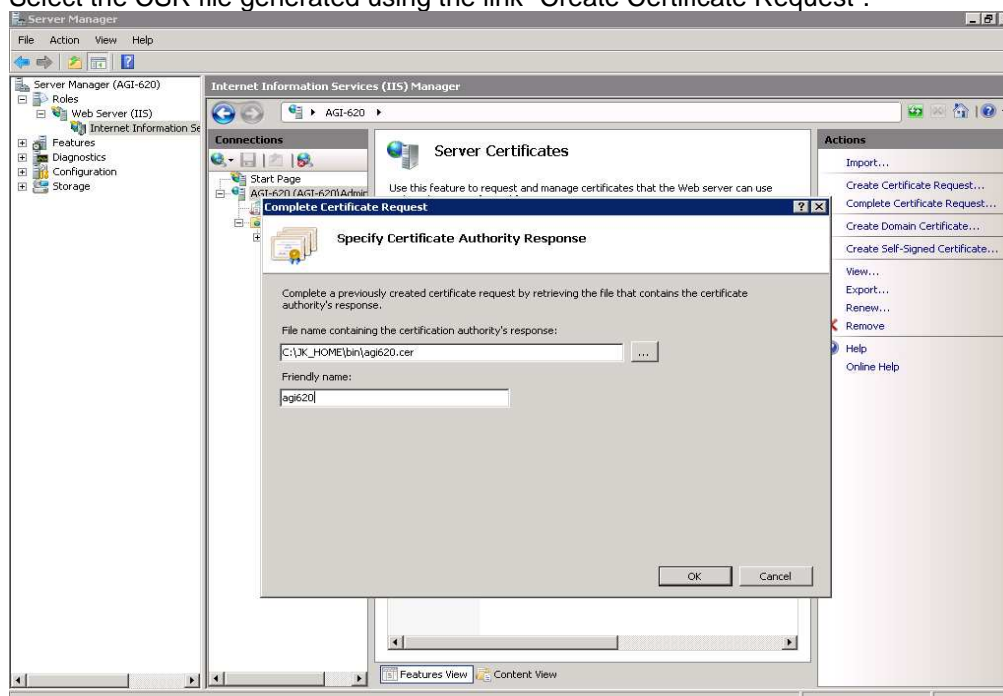
Refer section 5 [Generating 21 days Trial Certificate](#) for obtaining the 21 day SSL Trail Certificate from thawte.

Install of SSL Certificate CSR in IIS 7

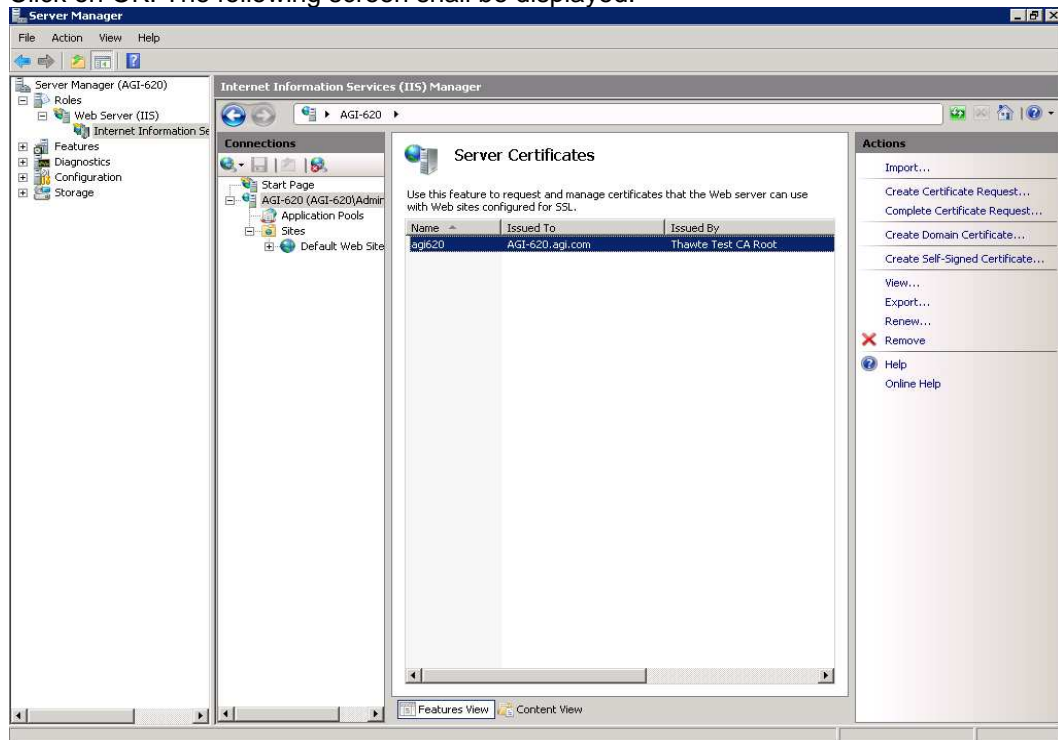
5. After you got SSL certificate from a provider, you will need to install it to the server from which the certificate request was generated.
(To get a trial SSL certificate for 21 days please see the section [Generating 21 days Trial Certificate](#))
6. Open the ZIP file containing your certificate or (if they provide source code please copy the code provided and paste to notepad than save the file named your_domain_name.cer to the desktop or directory of the web server you are securing.(i.e., C:\JK\bin folder).
7. Select Node of IIS and double click on the Server certificates icon.



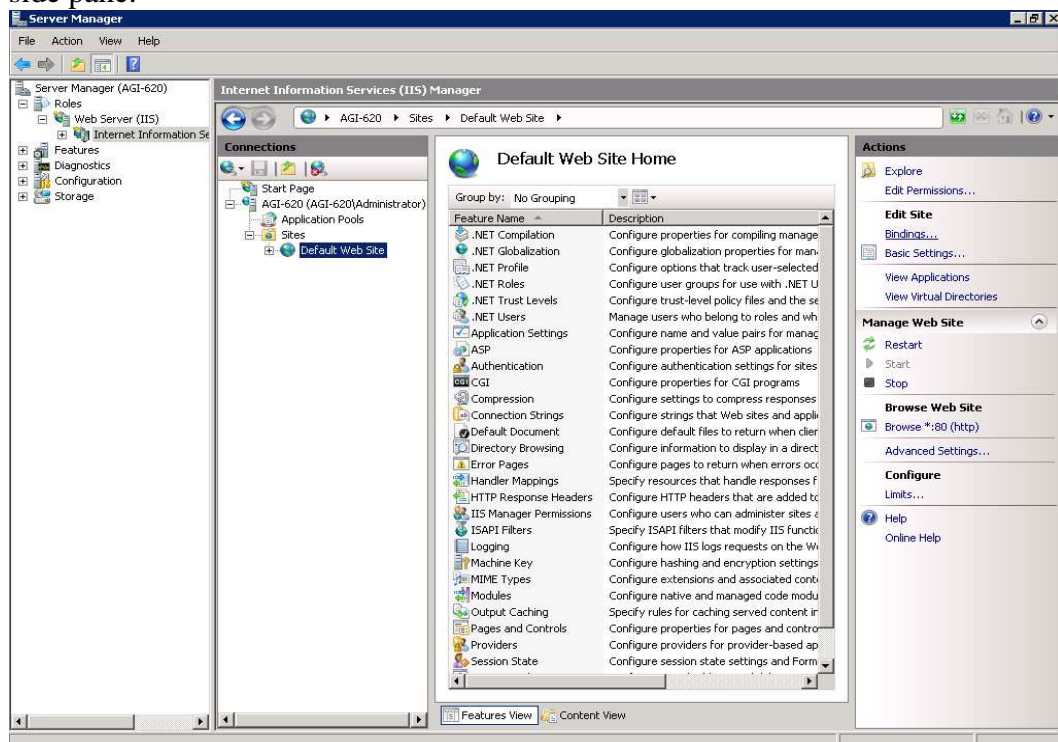
8. Click on "Complete Certificate Request" link. The following screen will be displayed. Then Select the CSR file generated using the link "Create Certificate Request".



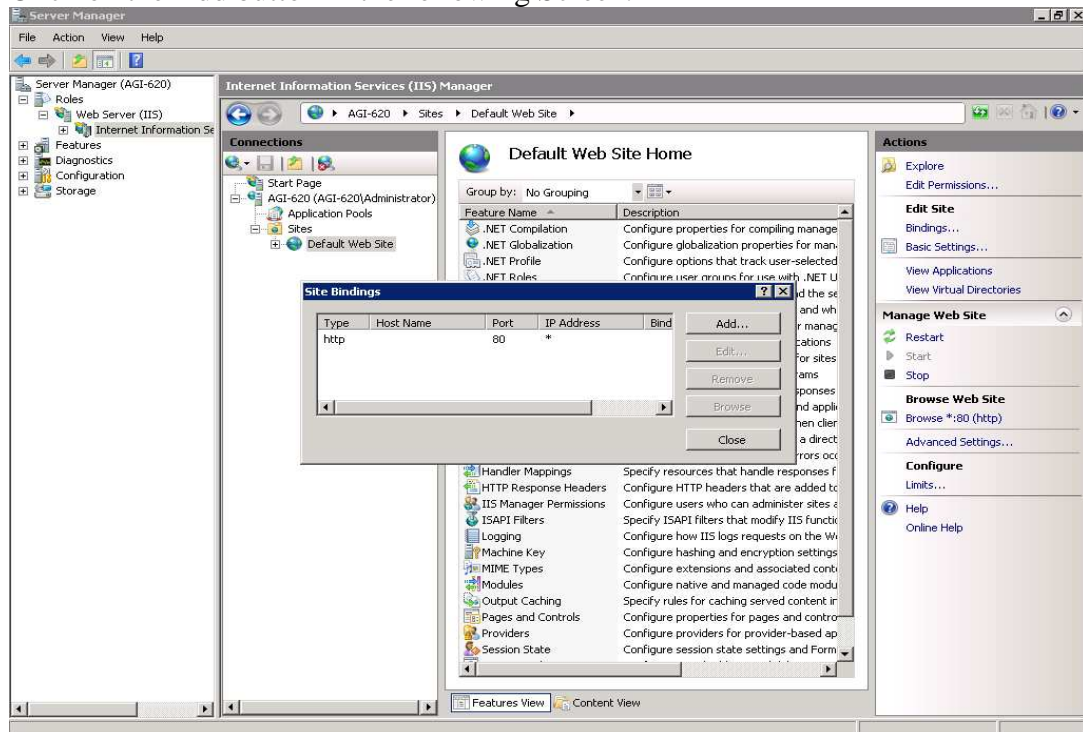
9. Click on OK. The following screen shall be displayed.



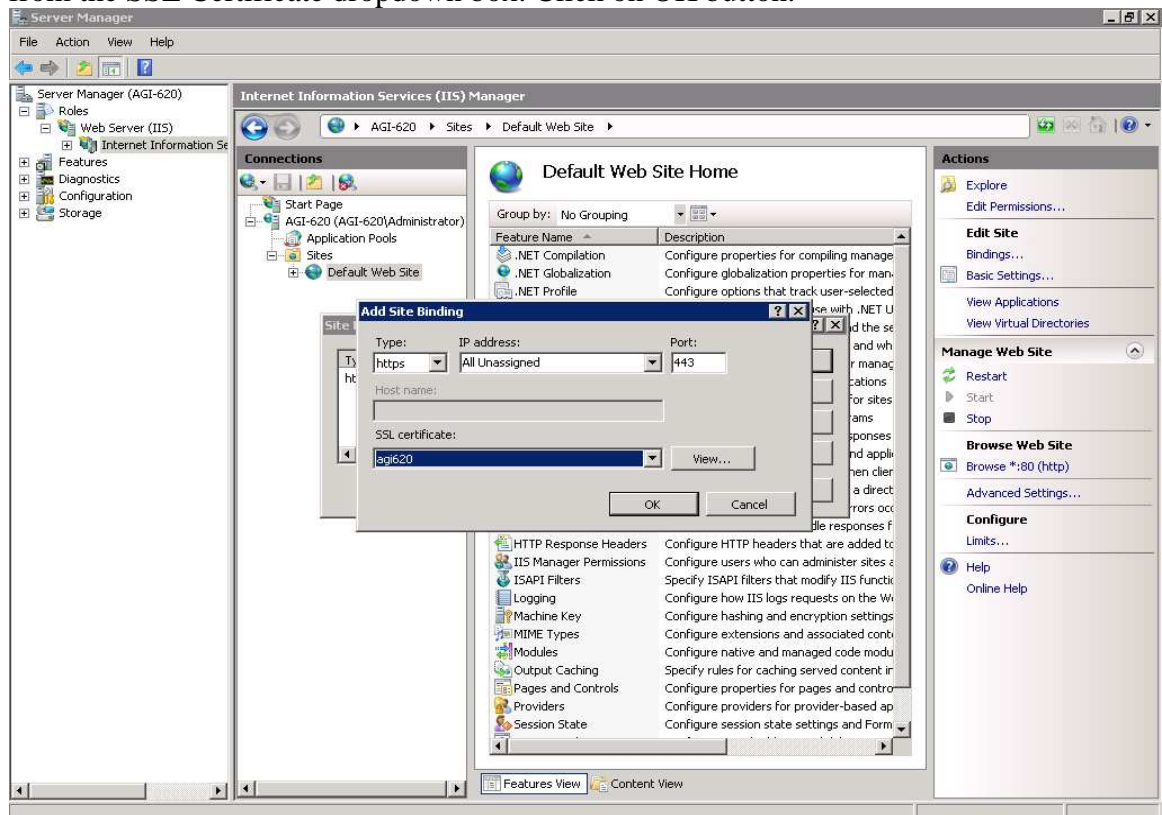
10. Once the SSL certificate has been successfully installed to the server, you will need to assign that certificate to the appropriate website using IIS.
11. Select Default Web Site and click on Bindings link in the Actions section in right side pane.



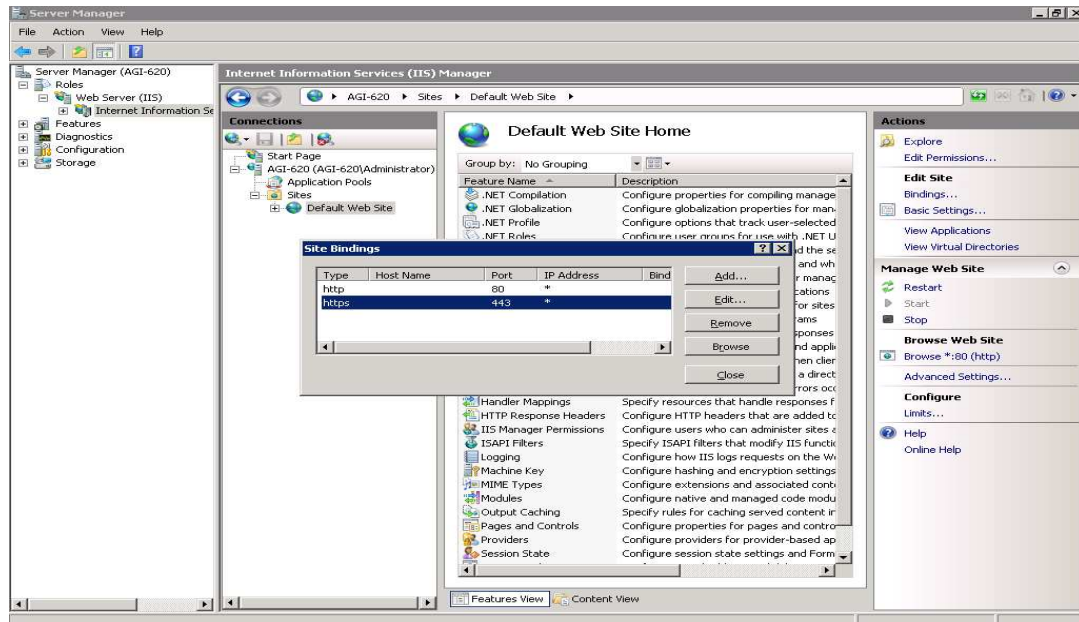
12. Click on the Add button in the following Screen.



13. Select “https” in the Type drop down box and then select the certification name from the SSL Certificate dropdown box. Click on OK button.



14. The following screen should be displayed after adding the https. Click on Close button.



15. Now the IIS 7.0 supports the URLs with SSL also.

4. Test the URL

1. The context paths provided in the uriworkermmap.properties file in the Section 1, step 8 shall be handled by IIS.

Example:

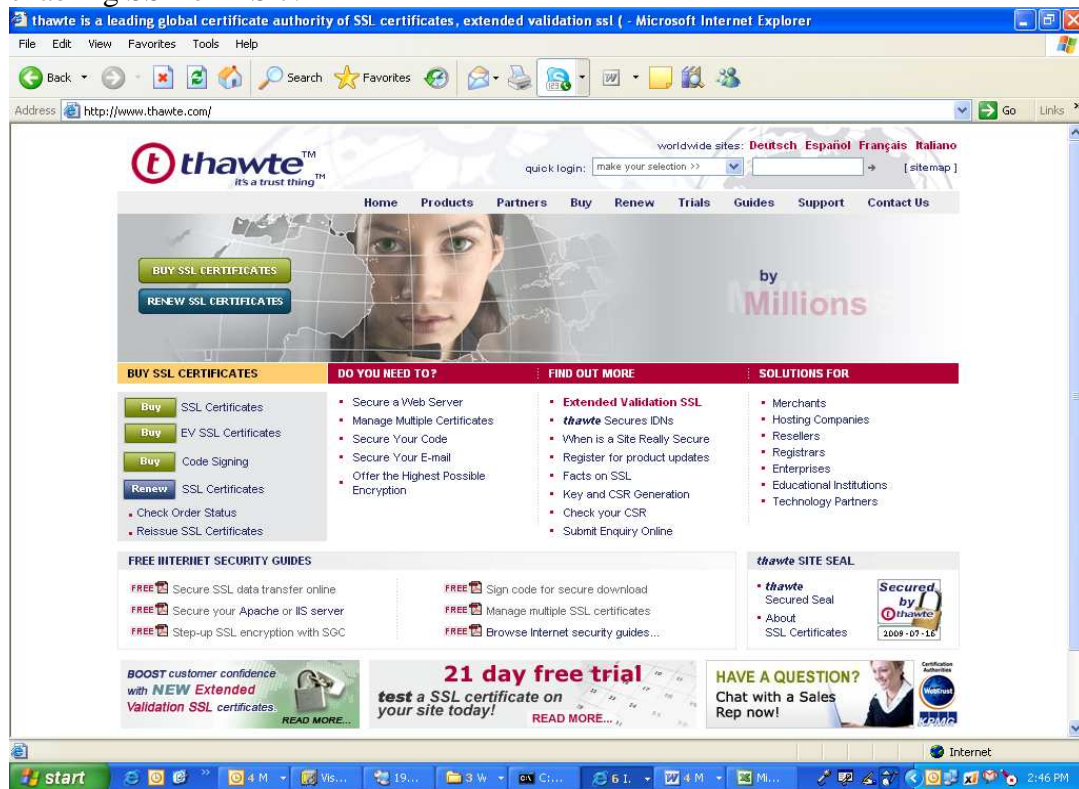
<http://agi-620/jmx-console/>

<http://agi-620/web-console/>

<http://agi-620/sample/>

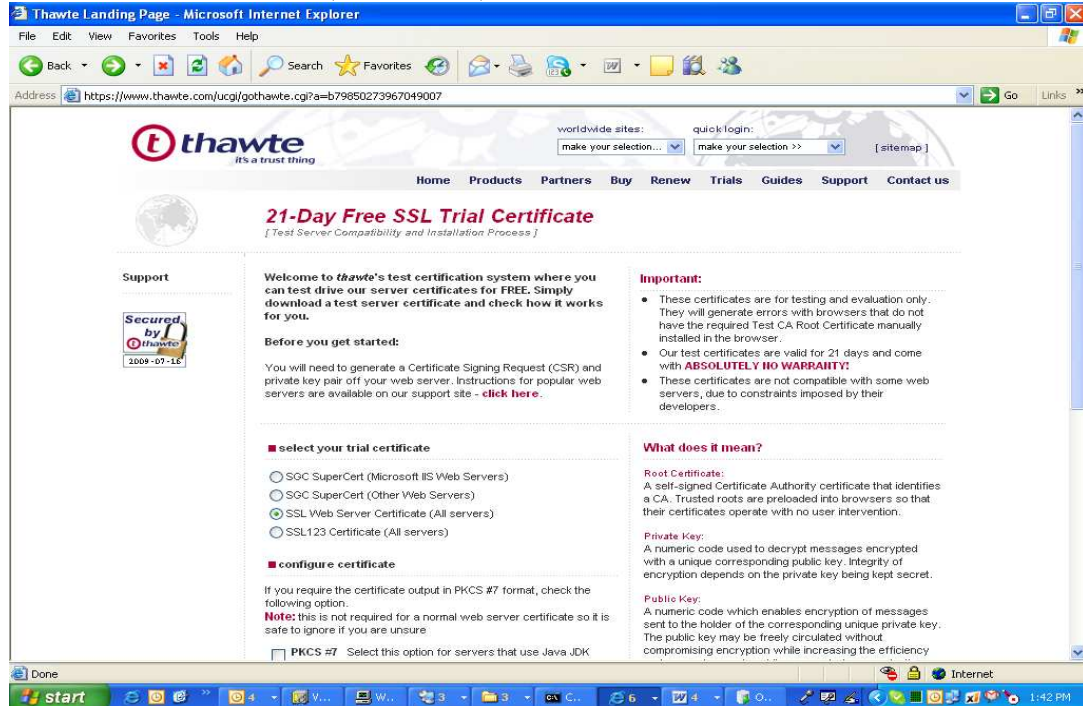
5. Generating 21 days Trial Certificate

1. Paste the URL <http://www.thawte.com/> in the IE. Click on 21 day free trial.
Note: Refer section 3 [Enable SSL on IIS](#) before proceeding with this section for enabling SSL on IIS 7.

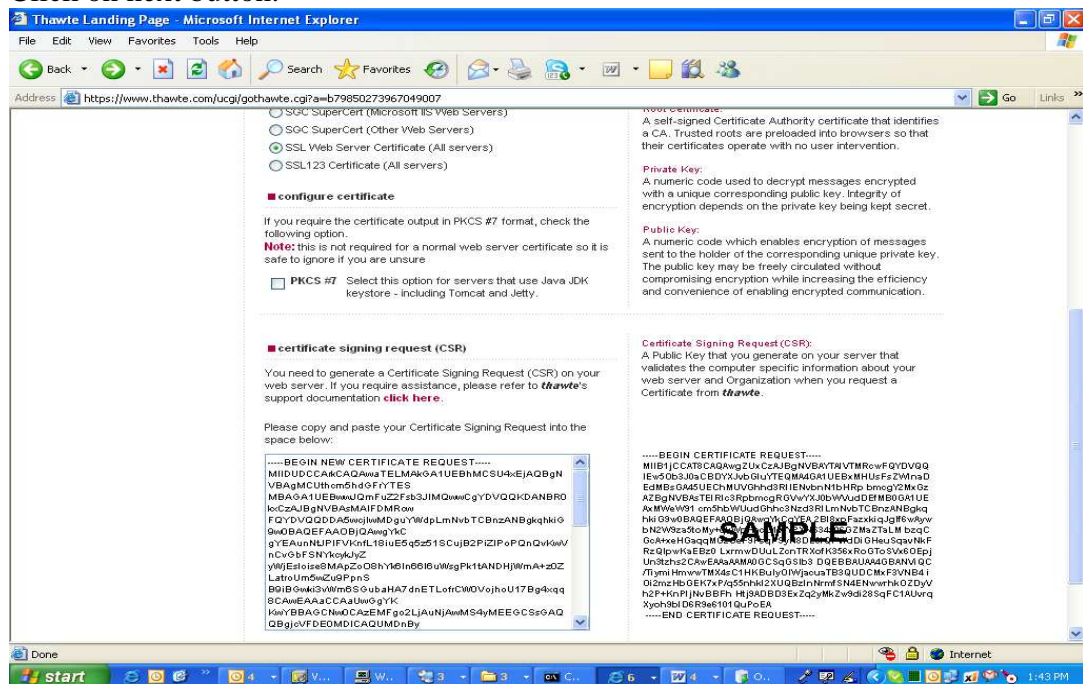


2. Enter the following details and click on 'Continue' button.

3. Select "SSL Web Server(All Servers) radio button.



4. Scroll down the page. Open CSR file generated in Step 2 of Section 3 in any text editor [Ex: Notepad] and paste the contents in the text box provided in the IE. Click on next button.



Note: Text should be copied and pasted including the text "-----BEGIN NEW CERTIFICATE REQUEST-----" and "-----END NEW CERTIFICATE REQUEST-----"

5. 21 day Free SSL Trial Certificate key will be displayed in a text box. Create a text file using notepad with name server.cer and copy the key into the text file.

