



# Microsoft IIS and Tomcat

## Configuration Guide

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## 2 Introduction

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This document outlines the steps involved in setting up the Tomcat application server to work with Microsoft Internet Information Services (IIS). We highly recommend creating a backup of any existing files and configuration before you begin working through this guide. The following definitions will be used throughout this document:

- ❖ **INSTALL\_ROOT** This is the root directory where Academus has been installed, ie: C:\Academus
- ❖ **IIS** Microsoft Internet Information Services
- ❖ **SERVERNAME** Any instance of 'SERVERNAME' should be replaced with the hostname of your web server

## 3 Prerequisites

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The following steps must be completed prior to configuring IIS to interface with Tomcat:

### 3.1 Microsoft IIS

If you've installed Windows Media Services for IIS on Windows 2003 Server then the Administration web site will be listening on port 8080. We recommend disabling this website and deleting the Default web site that IIS creates.

### 3.2 Windows

1. From Control Panel select System Properties (or right-click My Computer and choose Properties)
2. Press the Environment Variables button and add the following two environment variables:
  - ❖ **CATALINA\_HOME** points to the base installation directory of Tomcat:  
**INSTALL\_ROOT\unicon\Academus\portal-tomcat-a**
  - ❖ **JAVA\_HOME** points to the base installation directory of the Java SDK:  
**INSTALL\_ROOT\unicon\tools\j2sdk**
  - ❖ **PATH** points to the bin directory of Aspell6  
**INSTALL\_ROOT\unicon\tools\utils\aspell6\bin**

## 4 IIS Configuration

### 4.1 IIS Configuration Outline

Outlined below are the preliminary steps for configuring IIS to interface with Tomcat:

1. Switch IIS 6 into IIS 5 isolation mode
2. Create the Academus Web Server
3. Install the ISAPI filter DLL
4. Create a virtual directory for the ISAPI filter DLL.
5. Authorize the DLL as a web application
6. Add .properties mime type
7. Edit Registry
8. Restart IIS services

Detailed instructions for each of the above steps have been given below. All of these instructions are performed within the IIS Manager.

### 4.2 Switch IIS 6 into IIS 5 isolation mode

1. Choose the Web Sites container, right-click and choose Properties, and select the Service tab.
2. Click the Run WWW service in IIS 5.0 isolation mode option.
3. Press the OK button and select no if asked to restart IIS.

### 4.3 Create the Academus Web Server

1. Right-Click on the Web Sites Folder and Select New -> Web Site
2. Click Next and enter "Academus" for a Description.
3. For the IP and Port settings, the default port 80 should be used. If you would like IIS to listen on a specific interface you may select it here.
4. Click Next and select the path to the root of the web server:  
**INSTALL\_ROOT\unicon\Academus\portal-tomcat-a\webapps**
5. Click Next and select only the Read option.
6. Click Finish.
7. Right Click on the Academus Web Site and select properties.
8. On the Web Site Tab, change the Active Log Format to NCSA Common Log Format
9. On the Homepage Tab, select "A redirection to a URL" and Type in "http://SERVERNAME/portal" in the "Redirect to:" entry box
10. Place a check mark next to the "A Directory below URL entered"
11. On the Documents Tab, remove all of the content page types and add index.html
12. Click apply, but do not close this dialog as we will need it in the next section

### 4.4 Install the ISAPI filter DLL

1. Select the ISAPI Filters tab
2. Press the Add... button and type a name for the new Filter (Tomcat Connector)
3. Type in or Browse to the location of the isapi\_redirect.dll file. In our case this is:  
**INSTALL\_ROOT\unicon\Academus\portal-tomcat-a\jakarta\isapi\_redirect.dll**
4. Press OK to add the new Tomcat filter. IIS will need to be restarted before the filter will be loaded, but we'll do that later.

5. Press OK to save settings and exit the Web Sites Properties dialog.

## 4.5 Create a virtual directory for the ISAPI filter DLL

1. On the Academus Web-Site, right-click and choose New, then choose Virtual Directory...
2. Create a new Virtual Directory named jakarta. It is important to use this exact case and spelling.
3. Enter the path to the directory where isapi\_redirect.dll is stored. In our case this is  
**INSTALL\_ROOT\unicon\Academus\portal-tomcat-ajakarta**
4. Enable Execute permissions

## 4.6 Authorize the DLL as a web application

1. Select Web Service Extensions in the IIS Console Server Tree.
2. Add a new extension called Jakarta-Tomcat (this can be anything), add isapi\_redirect.dll to the list of required files, and select Set extension status to Allowed
3. Press the OK button.

## 4.7 Edit Registry

1. Open Registry Editor
2. Add the following string values to the HKEY\_LOCAL\_MACHINE\SOFTWARE\Apache Software Foundation\Jakarta Isapi Redirector\1.0 key. If this is not present, please make the indicated structure.

worker\_file=c:\portal\unicon\Academus\portal-tomcat-a\conf\workers.properties

worker\_mount\_file=c:\portal\unicon\Academus\portal-tomcat-a\conf\uriworkermap.properties

extension\_uri=/jakarta/isapi\_redirect.dll

log\_file=c:\portal\unicon\Academus\portal-tomcat-a\logs\mod\_jk.log

log\_level=error

Make sure to change the "c:\portal ..." value to match where in your filesystem the worker files are located.

There is a \*.reg file located under:

C:\portal\unicon\Academus\portal-tomcat-a\conf\Jakarta\_ISAPI.reg

You may double click on this file to install the registry settings. Verify the installation completed successfully and the registry settings are correct after running this \*.reg file.

You may run the batch file:

C:\portal\unicon\bin\Setup\_IIS.bat which in turn runs the \*.reg file.

## 4.8 Add .properties mime type

3. In the IIS Manager, right-click on the local computer and select properties
4. Click the MIME Types... button
5. Click New and enter .properties in the Extension field and text/plain in the MIME type field
6. Click OK until you are back to the IIS Manager

## 4.9 Restart IIS services

1. Choose the Server (local computer), right-click, choose All Tasks, choose Restart IIS...
2. Choose Restart Internet Services and press OK

3. Check that services have restarted and inspect the Event Viewer logs. The isapi\_redirect.dll writes its errors to the Application event log.

Test the server by using Internet Explorer to browse to <http://SERVERNAME/> . If everything is properly configured, you should be redirected to <http://SERVERNAME/portal/main.html> .

## 4.10 Permissions

1. Make sure to give Windows "IUSR\_<Server\_Name>" Read, Read & Execute and List Folder Contents access to the unicon/Academus/portal-tomcat-a/webapps directory.
2. Do this by right clicking on the directory, click on the Security tab and add "Users" to the user list. Click on the Read, Read & Execute and List Folder Contents check boxes.
3. You will need to restart IIS for the new directory permissions to take effect.

## 4.11 Restart IIS services

1. Choose the Server (local computer), right-click, choose All Tasks, choose Restart IIS...
2. Choose Restart Internet Services and press OK
3. Check that services have restarted and inspect the Event Viewer logs. The isapi\_redirect.dll writes its errors to the Application event log.

Test the server by using Internet Explorer to browse to <http://SERVERNAME/> . If everything is properly configured, you should be redirected to <http://SERVERNAME/portal/main.html> .

## 4.12 SSL Configuration (optional)

1. From the IIS Manager, Right-click on the Academus site and then click Properties.
2. Click the Directory Security tab.
3. Under Secure Communications, click Server Certificate.
4. On the Web Site Certificate Wizard, click Next.
5. Choose to Process the Pending Request and Install the Certificate. Click Next.
6. Type in the location of the certificate response file you got from the certificate authority or you self-signed (you may also browse to the file), and then click Next.

**Note:** To create a self-signed certificate, refer to the Academus 2.0 System Administrator Manual. Obtain this document from UNICON, Inc.

7. Specify your SSL port (443 by default).
8. Read the summary screen to be sure that you are processing the correct certificate and then click Next.
9. You will see a confirmation screen. When you have read this information, click Next.
10. You must Stop and Start your Web Site prior to any testing.

Important: If you plan on using SSL, you must change the redirect URL in section 3.7 step 4 to <https://SERVERNAME/portal>. Note the 'https' in the URL.