# REST prerequisites

Before you can enable the Kentico REST service, you must ensure the following:

In Windows

Go to **Control Panel -> Programs and Features** and click **Turn Windows features on or off** in the left menu.

Windows 7 / Windows Server 2008

1. Expand the **Microsoft .NET Framework <version>** item in the dialog window.
2. Make sure that both of the following features are installed:
   - **Windows Communication Foundation HTTP Activation**
   - **Windows Communication Foundation Non-HTTP Activation**
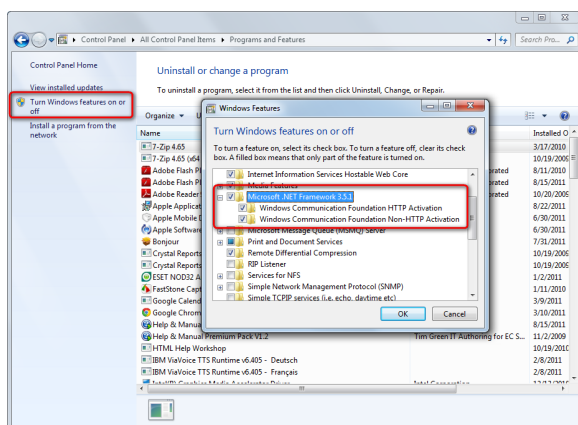
> ⚠️ **Error: *"Could not load type 'System.ServiceModel.Activation.HttpModule' from assembly 'System.ServiceModel'"***
>
> If your application returns the above error after enabling HTTP Activation, you need to manually register the correct version of ASP.NET.
>
> See https://msdn.microsoft.com/en-us/library/hh169179%28v=nav.70%29.aspx for detailed information.

Windows 8 / Windows Server 2012

1. Expand the **.NET Framework 4.5 Advanced Services** item.
2. Make sure that the **WCF Services -> HTTP Activation** feature is installed.

Windows 10

1. Expand the **.NET Framework 4.6 Advanced Services** item.
2. Make sure that the **WCF Services -> HTTP Activation** feature is installed.

In IIS Manager

1. Select the website for which you want REST to be enabled.
2. Open the **Authentication** configuration.
3. Ensure that **Anonymous** authentication is enabled. You can also have either **Forms** or **Windows** authentication enabled depending on your environment.

4. Disable **Basic** and other types of authentication (leave *Anonymous* and either *Forms* or *Windows* enabled).
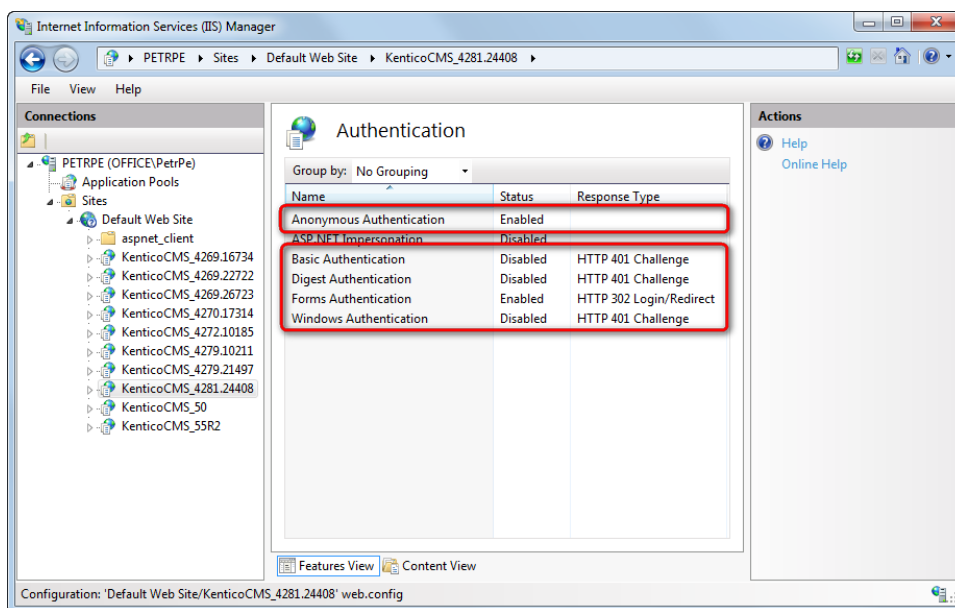
Once you have these prerequisites met, you can proceed to configuring the REST service in the Kentico instance.

Configuring the REST service

Once you meet the prerequisites for using the REST service, configure the following settings for the Kentico instance:

1. Edit your application's **web.config** file.
2. Find the **system.webServer** section directly under the root (i.e. not under a specific *<location>* element).
3. Set the **runAllManagedModulesForAllRequests** attribute to *true* for the opening tag of the **<modules>** element:

```
<system.webServer>
  <modules runAllManagedModulesForAllRequests="true">
    ...
  </modules>
```

4. Sign in to the Kentico administration interface.
5. Open the **Settings** application.
6. Select the **Integration -> REST** category and configure the settings:

REST setting	Description
Service enabled	Enables or disables the Kentico REST service.
Service enabled for	Choose if the REST service allows access to objects, pages, or both.
Always check page security	If disabled, security is not checked when accessing published versions of pages. If enabled, security is always checked.
Page access is read only	If enabled, the REST service only allows GET requests for pages (pages cannot be modified).
Object access is read only	If enabled, the REST service only allows GET requests for objects (objects cannot be modified).
Allowed page types	Specifies a list of page types that the REST service is allowed to access. Enter the code names of page types separated by semicolons.

	If empty, all page types are allowed.
Allowed object types	Specifies a list of object types that the REST service is allowed to access. If empty, all object types are allowed. Enter object type values separated by semicolons. To find the values for specific object types, open the **System** application in the Kentico administration interface and select the **Object types** tab.
Generate authentication hash for URL	Click the link to generate an [authentication](#) hash for specific REST URLs. Enter the full absolute URL of the REST request, including the protocol, website domain name, virtual directory, [REST path](#), and query string parameters. For example: *http://mywebsite.com/rest/content/currentsite/en-us/all/news?format=json* The system adds the authentication hash parameter to the URL. You can copy the URL and use it to perform the REST request without authentication headers. **Restrictions**: • Only works for GET requests (read only data retrieval) • You cannot use hash parameter authentication for */all* object retrieval requests (*~/rest/<object type>/all*).
Default encoding	Sets the character encoding that the REST service uses for requests that do not contain a supported *Accept-Charset* header.
Allow sensitive fields for administrators	If enabled, REST requests authenticated using the credentials of users with the Global administrator [privilege level](#) are allowed to work with data fields that contain sensitive information (for example fields related to passwords). Requests authenticated under non-administrator users can NEVER access sensitive fields, regardless of this setting's value.

> ✅ **Tip**: If you encounter issues with the Kentico REST service in your environment, you can try investigating the WCF traffic using tracing and message logging tools. See the [Tracing and Message Logging](#) article for more information.

Enabling upload of large data

If you are planning to upload large-size data into Kentico through the REST service, it is necessary to specify the required data size limit in the application's *web.config* file. This can be done by adding the following elemts into the **<system.serviceModel>** section of the web.config file:

1. Insert a *<webHttpBinding>* element into the *<bindings>* sub-section.
2. Create a *<services>* sub-section and add two *<service>* elements:

> ⚠️ **Note:**
>
> • The configuration assumes your website [uses SSL](#). Moreover, you need to configure *<transport>* of the *<webHttpBinding>* element according to the type of SSL authentication you are using. For more information, refer to the [<security> element](#) Microsoft documentation.
> • The *baseAddress* set for each service contains a sample value and needs to be replaced with the actual root address of the REST service (depending on your website's domain name).

```
<system.serviceModel>
...
    <bindings>
```

```
        ...
        <webHttpBinding>
                <!-- Limits set to 10 MB (in bytes). You may need to enter
different values according to your specific needs. -->

                <binding name="RESTQuotaBinding" maxReceivedMessageSize="
10485760" maxBufferPoolSize="10485760" maxBufferSize="10485760" closeTimeout="00:
03:00" openTimeout="00:03:00" receiveTimeout="00:10:00" sendTimeout="00:03:00">
                        <readerQuotas maxDepth="32" maxStringContentLength="10485760"
maxArrayLength="10485760" maxBytesPerRead="10485760" />
                        <security mode="Transport">
                                <transport clientCredentialType="Basic">
                                </transport>
                        </security>
                </binding>
        </webHttpBinding>
        ...
    </bindings>
...
        <services>
                ...
                <service name="CMS.WebServices.RESTService">
                <host>
                                <baseAddresses>
                                        <add baseAddress="https://localhost
/KenticoCMS/rest" />
                                </baseAddresses>
                        </host>
                        <endpoint address="" bindingConfiguration="
RESTQuotaBinding" binding="webHttpBinding" contract="CMS.WebServices.
IRESTService" />
            </service>
                <service name="CMS.DocumentWebServices.DocumentRESTService">
                <host>
                                <baseAddresses>
                                        <add baseAddress="https://localhost
/KenticoCMS/rest" />
                                </baseAddresses>
                        </host>
                        <endpoint address="" bindingConfiguration="
RESTQuotaBinding" binding="webHttpBinding" contract="CMS.DocumentWebServices.
IDocumentRESTService" />
            </service>
                ...
        </services>
...
</system.serviceModel>
```