oneeducation

Configuring One Analytics for External Access

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Technical Guide

CAPITA

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Please ensure that you include the document name, version and aspect of documentation on which you are commenting.

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Introduction

The standard configuration of One Analytics has the One Analytics console hosted on the externally facing web servers and the One Analytics Tableau Server on an internal, mid-tier server connected to the data warehouse. When attempting to access any visualisations via the One Analytics console, it is necessary to allow direct access to the One Analytics Tableau Server. However, this server is generally not accessible to users outside the LAN, and therefore attempting to access a visualisation from outside the LAN fails. This document describes how to configure the externally facing web server to use a reverse proxy configuration to enable access to that server via the trusted route on the web server.

NOTE: *This configuration has been penetration tested by third-party security consultants.*

Configuration

Depending on your current installation state, configuration changes may be required on both the One Analytics Tableau Server and the external web server. These instructions assume a basic understanding of IIS administration and installing/configuring Windows Server components.

NOTE: *This documentation assumes installation onto a Windows 2012 Server. If you are still using a Windows 2008 Server for the web server, the version numbers of some of the components will differ, but the process should remain identical.*

Configure your One Analytics Tableau Server to use SSL connectivity

To ensure secure communications, the One Analytics Tableau Server should always be configured to use SSL connectivity, even if only used by internal users. However, if your server does not currently use SSL, follow the instructions provided below to install and activate SSL connectivity for your server.

https://onlinehelp.tableau.com/current/server/en-us/ssl_config.htm

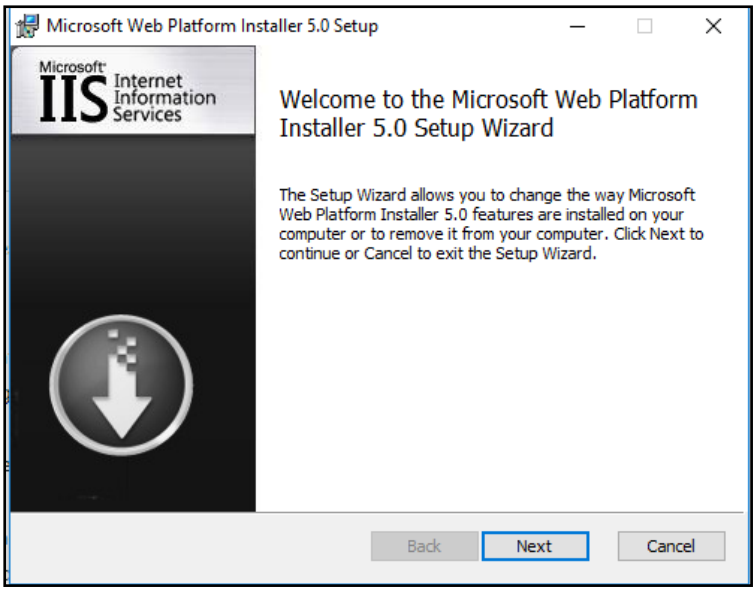
Install IIS components onto your web server

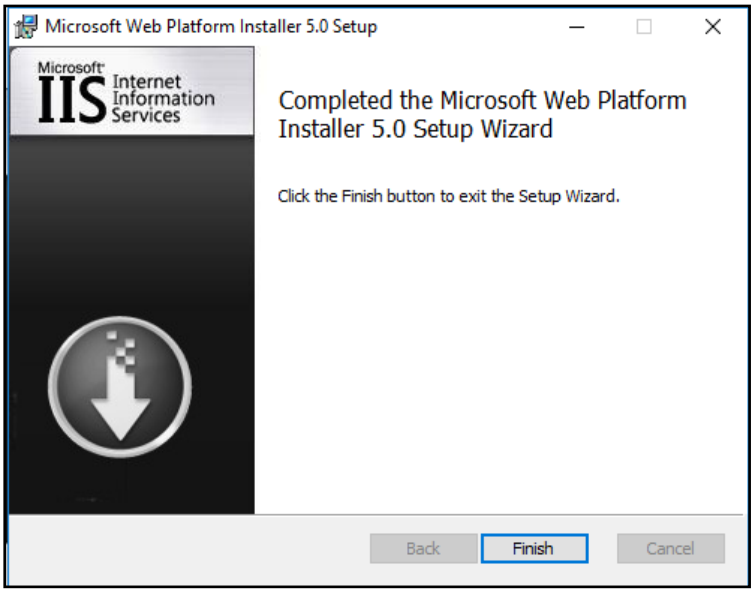
To configure the reverse proxy, two additional components are needed for your web server. These components are part of the standard Microsoft IIS ecosystem.

To install these components:

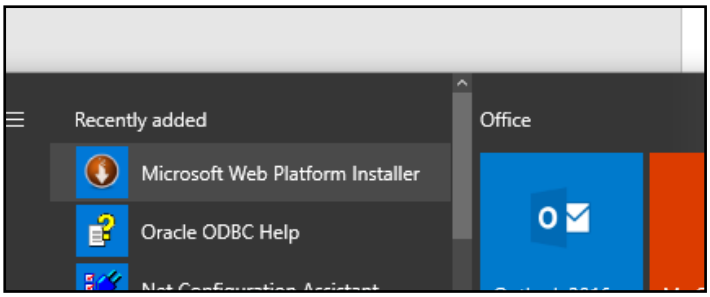
1. Install the Web Platform Installer 5.0 by visiting the location below, and clicking the **Install this Extension** button. This will download an MSI installer; run this and follow the onscreen instructions to complete the installation.

   https://www.microsoft.com/web/downloads/platform.aspx

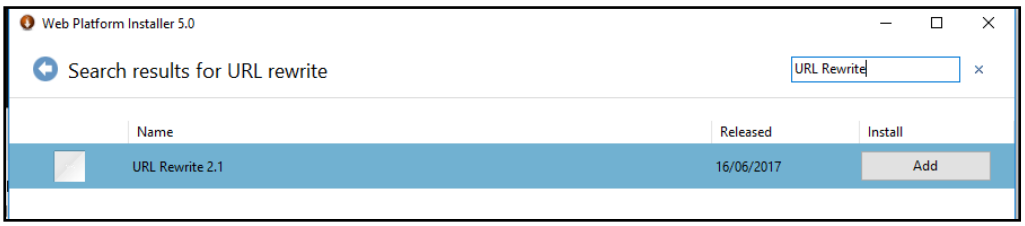




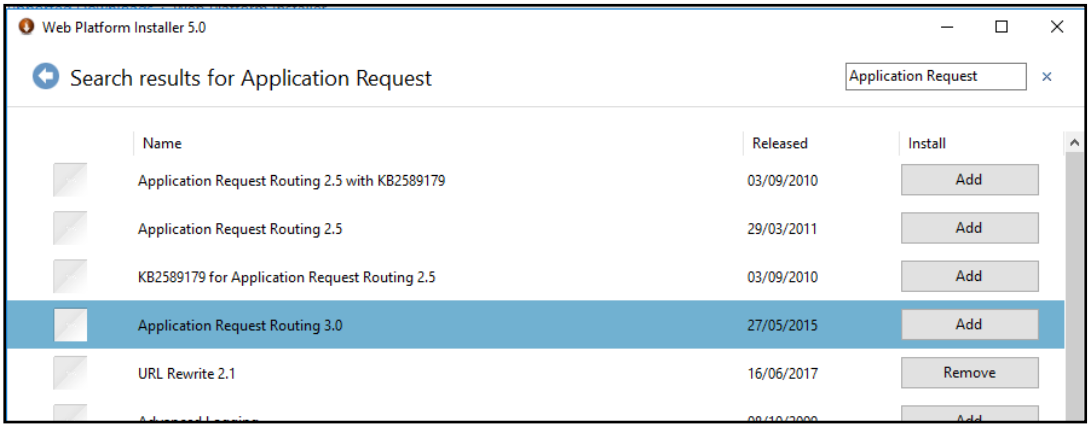
2. Once installed, locate the **Microsoft Web Platform Installer** application from your **Start** menu, and click to run.



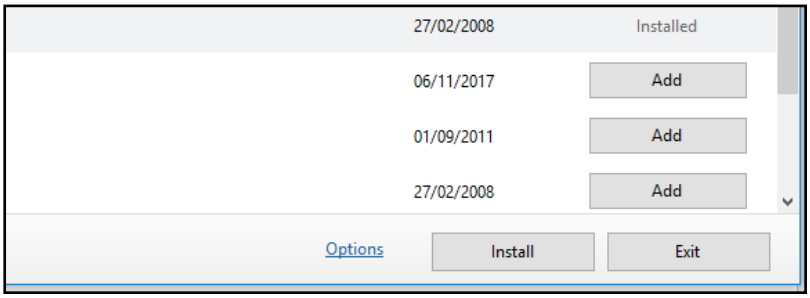
3. Search for **URL Rewrite**, and click the **Add** button once located.



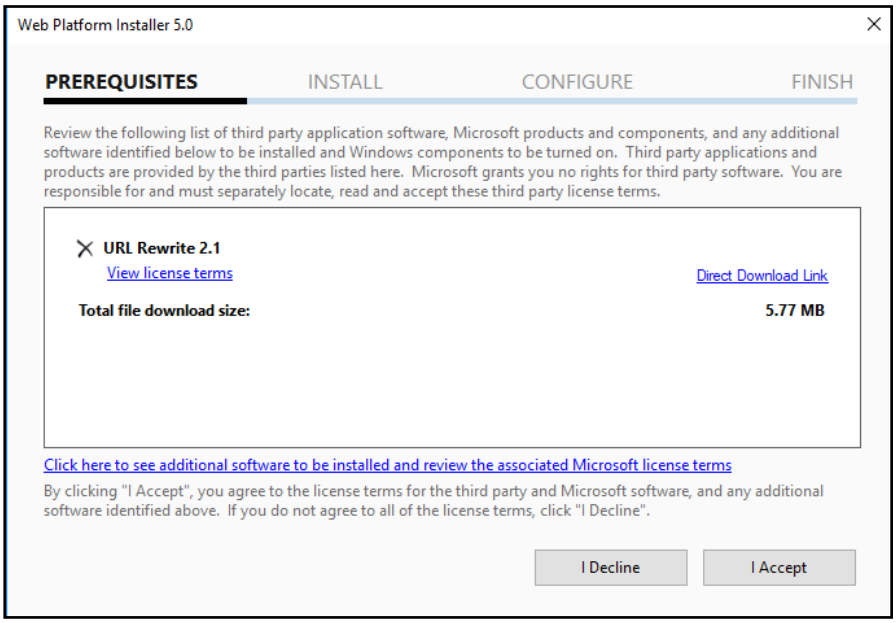
4. Search for **Application Request**, select **Application Request Routing 3.0** and then click the **Add** button.



5. Once both components have been added, click the **Install** button to add those components to your IIS instance.



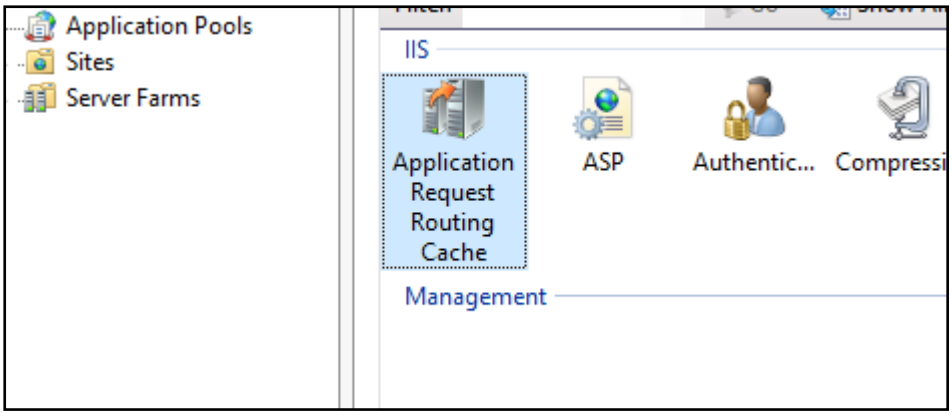
6. If prompted to accept license terms, click the **I Accept** button, then follow the installation process until completed.



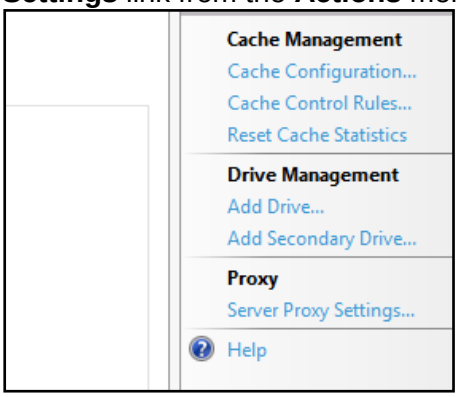
7. Click the **Exit** button to leave the Web Platform Installer.

Configure Application Request Routing

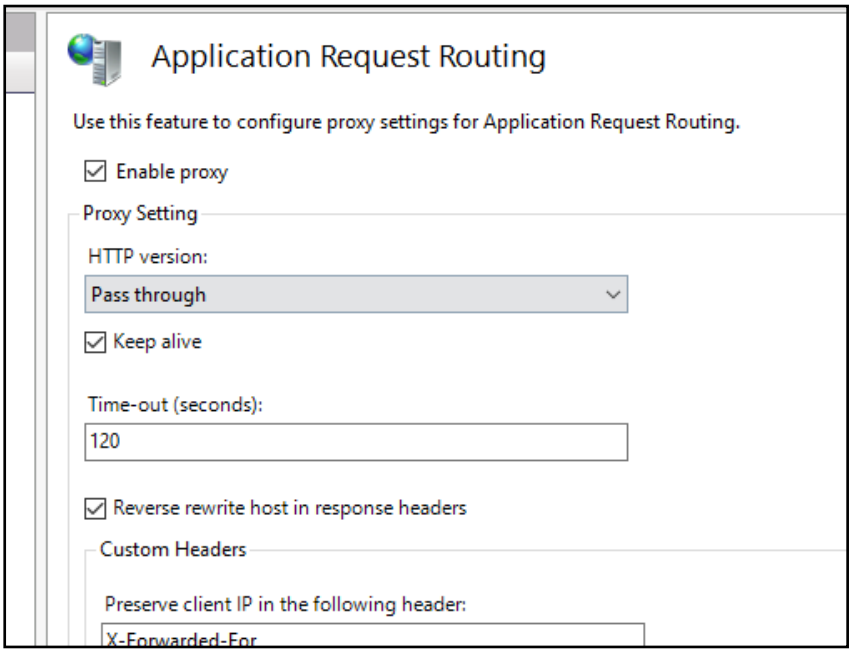
1. Open **Internet Information Services** on the web server.
2. Select your server, then select the **Application Request Routing Cache** feature.



3. From the main Application Request Routing Cache feature page, select the **Server Proxy Settings** link from the **Actions** menu.

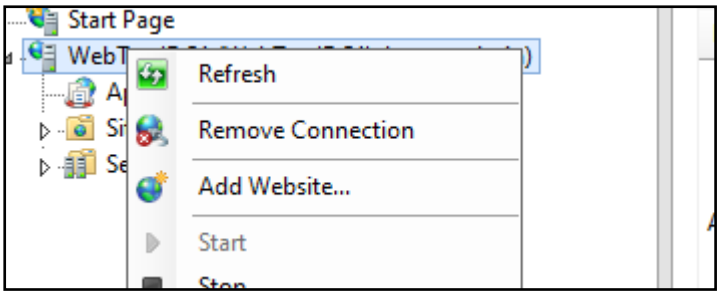


4. In the Application Request Routing configuration page, select **Enable Proxy**, then select **Apply** from the **Actions** menu.

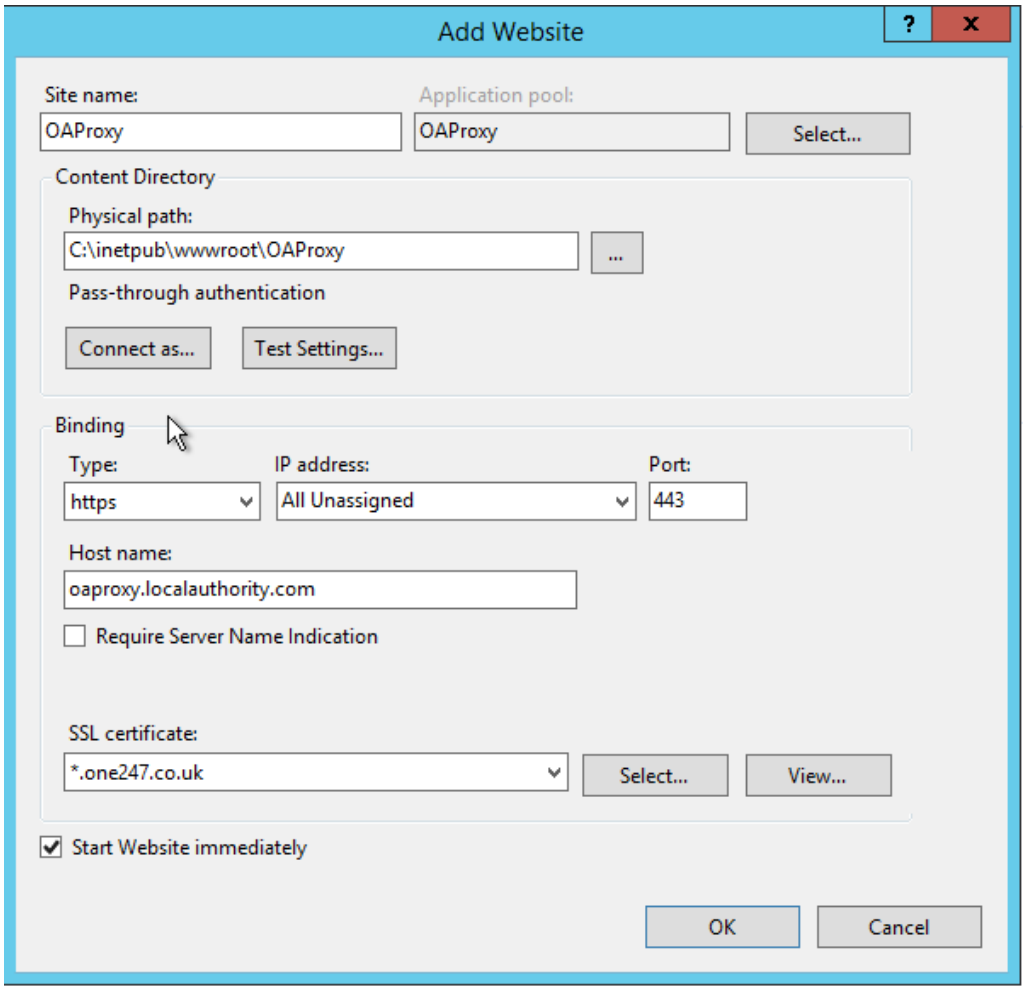


Configure URL Rewrite and Reverse Proxy

1. Open **Internet Information Services** on the web server.
2. Right-click on your server and click the **Add Website** option from the pop-up menu.



3. On the **Add Website** dialog, enter the values appropriate for your server configuration:



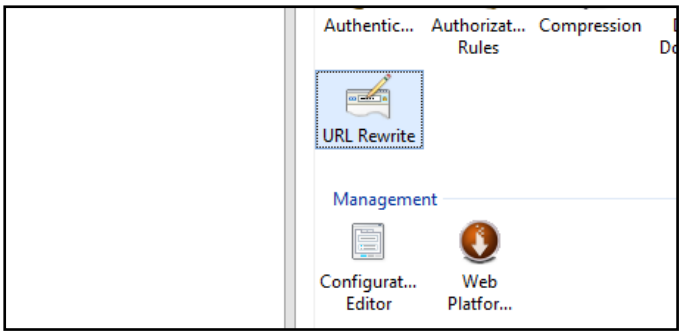
NOTES:

Ensure to bind only HTTPS ports, and not HTTP. This must be on the default port of 443.

If needed, bind to a specific IP address, and enter the hostname that will be used to access the content.

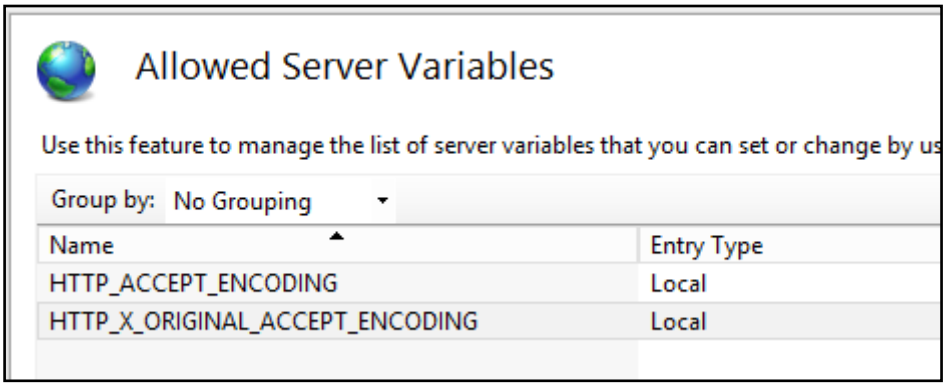
Select the SSL certificate appropriate for your hostname.

4. Select your new website in IIS Manager, and double-click the **URL Rewrite** button.



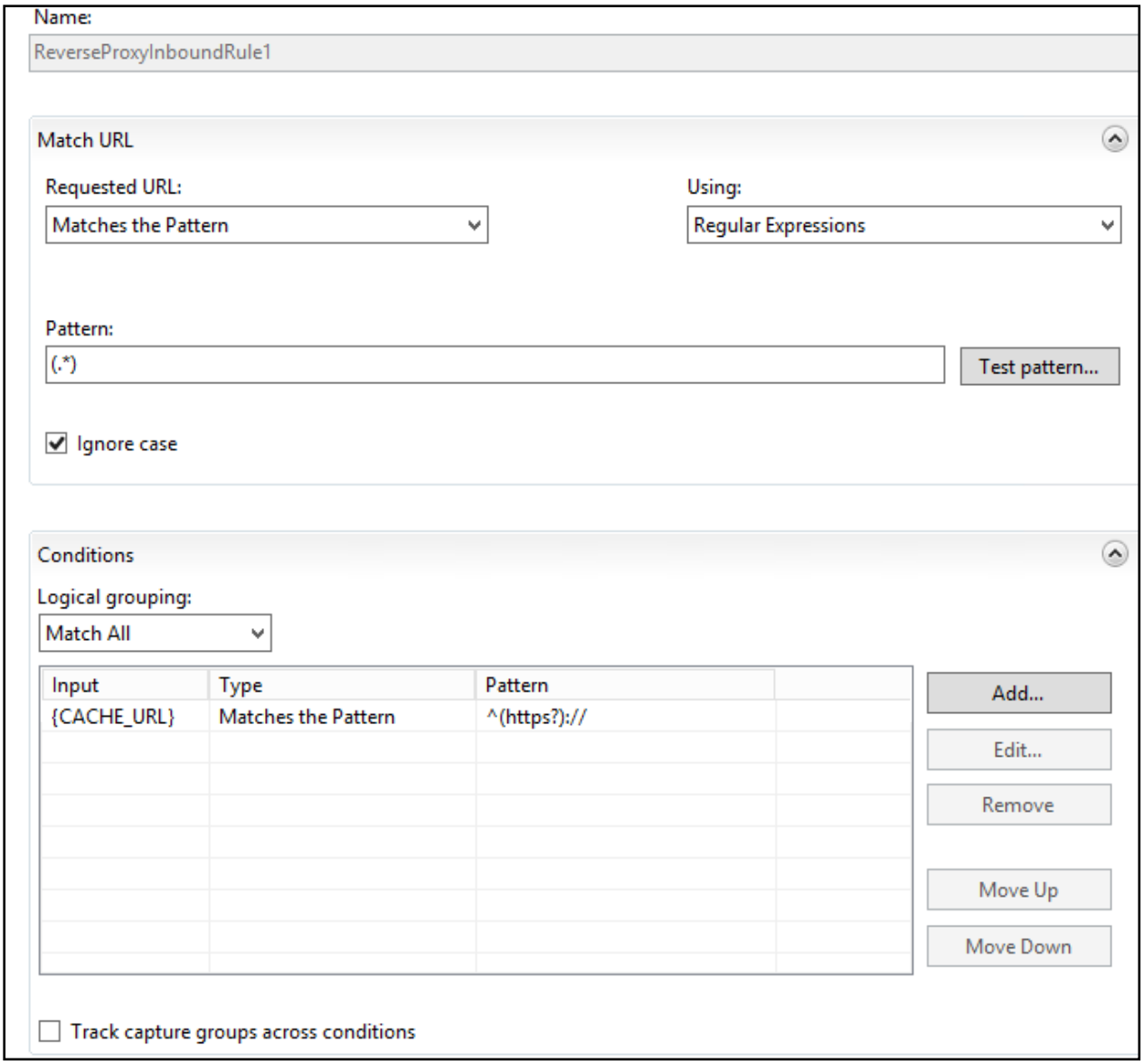
5. Select the **View Server Variables** link.

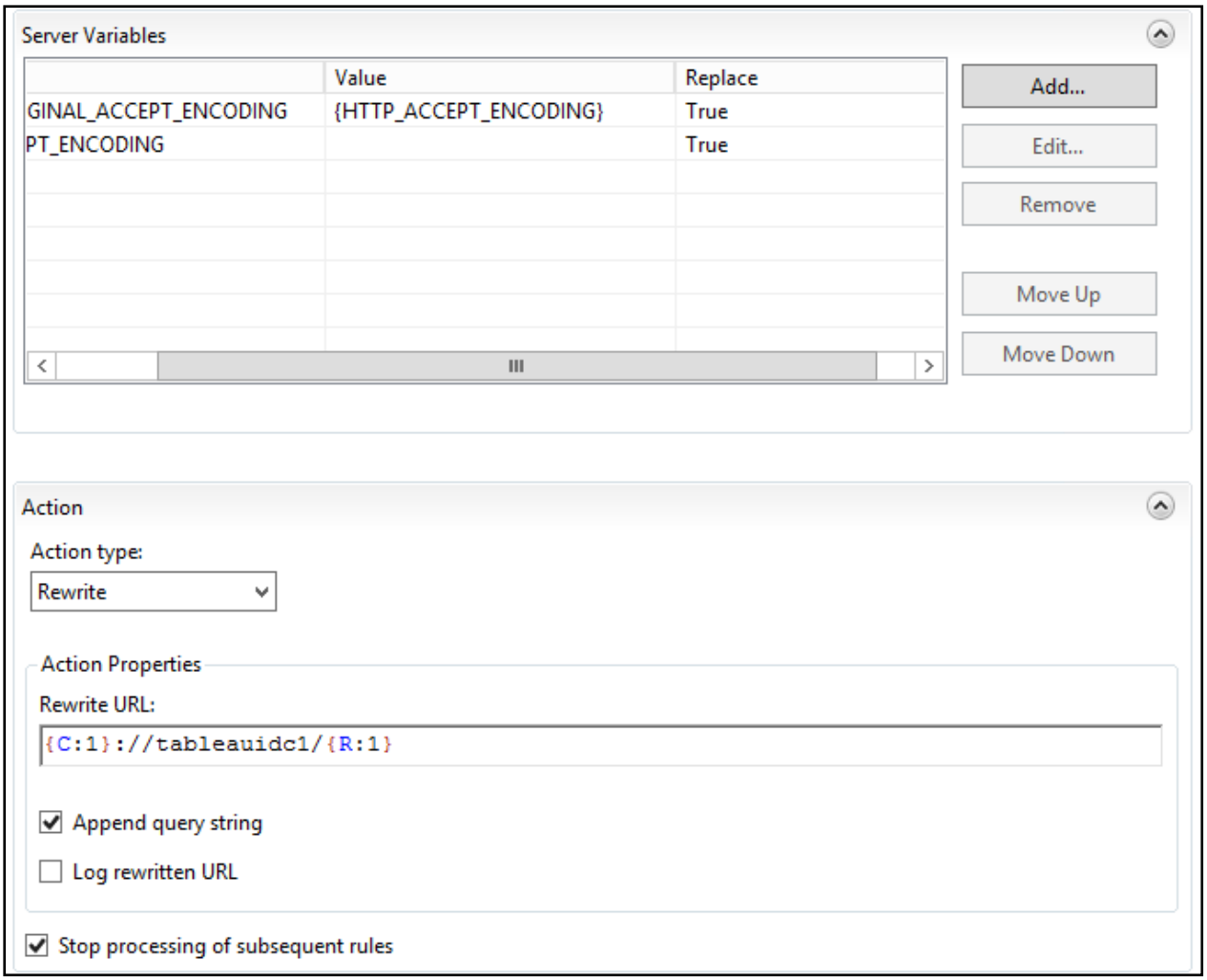
6. Click the **Add** button to add two new server variables:
   - HTTP_ACCEPT_ENCODING
   - HTTP_X_ORIGINAL_ACCEPT_ENCODING



7. Within the URL Rewrite module, click the **Add Rule(s)** link and add new inbound and outbound rules to match the following configuration:

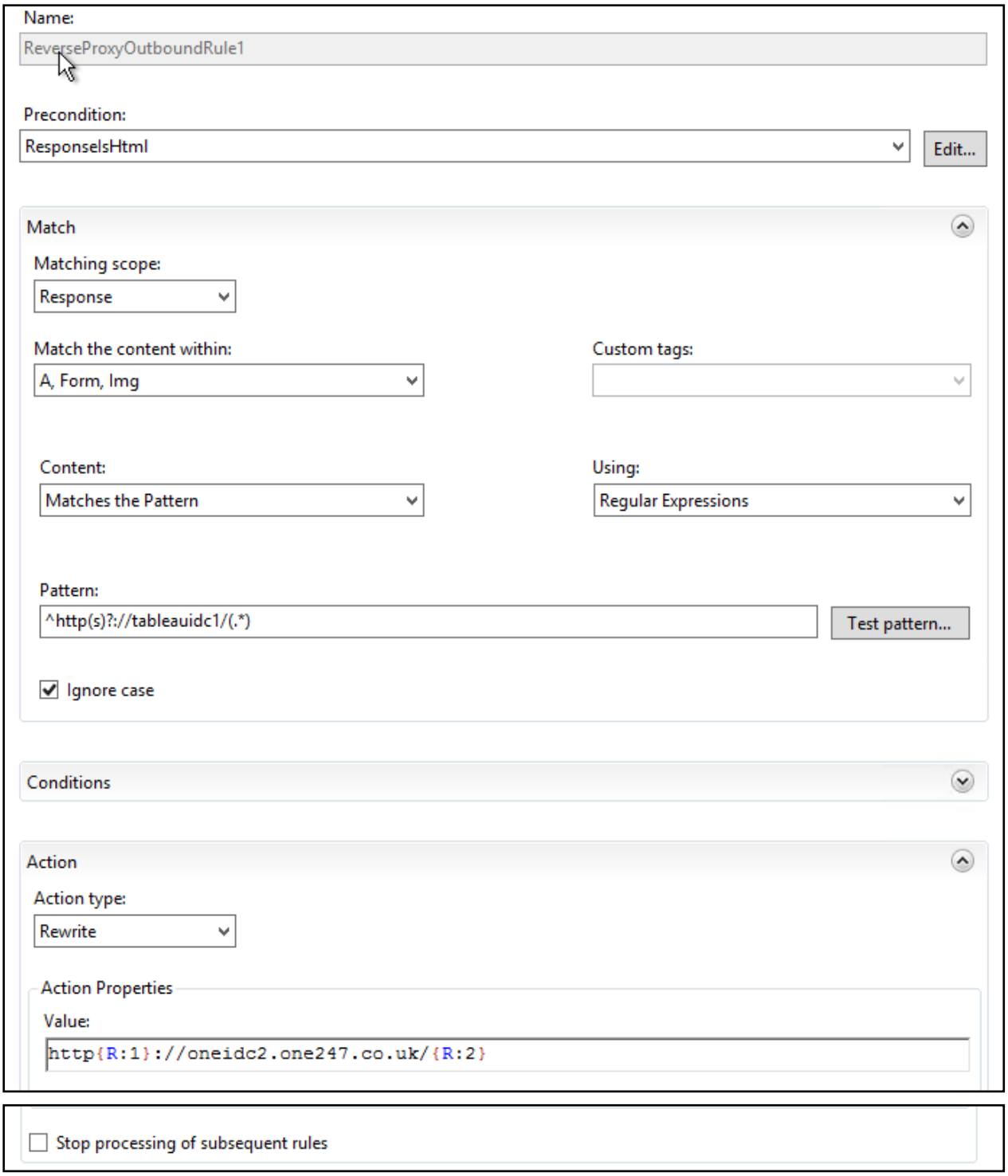
Inbound Rule: ReverseProxyInboundRule1 (2 images)





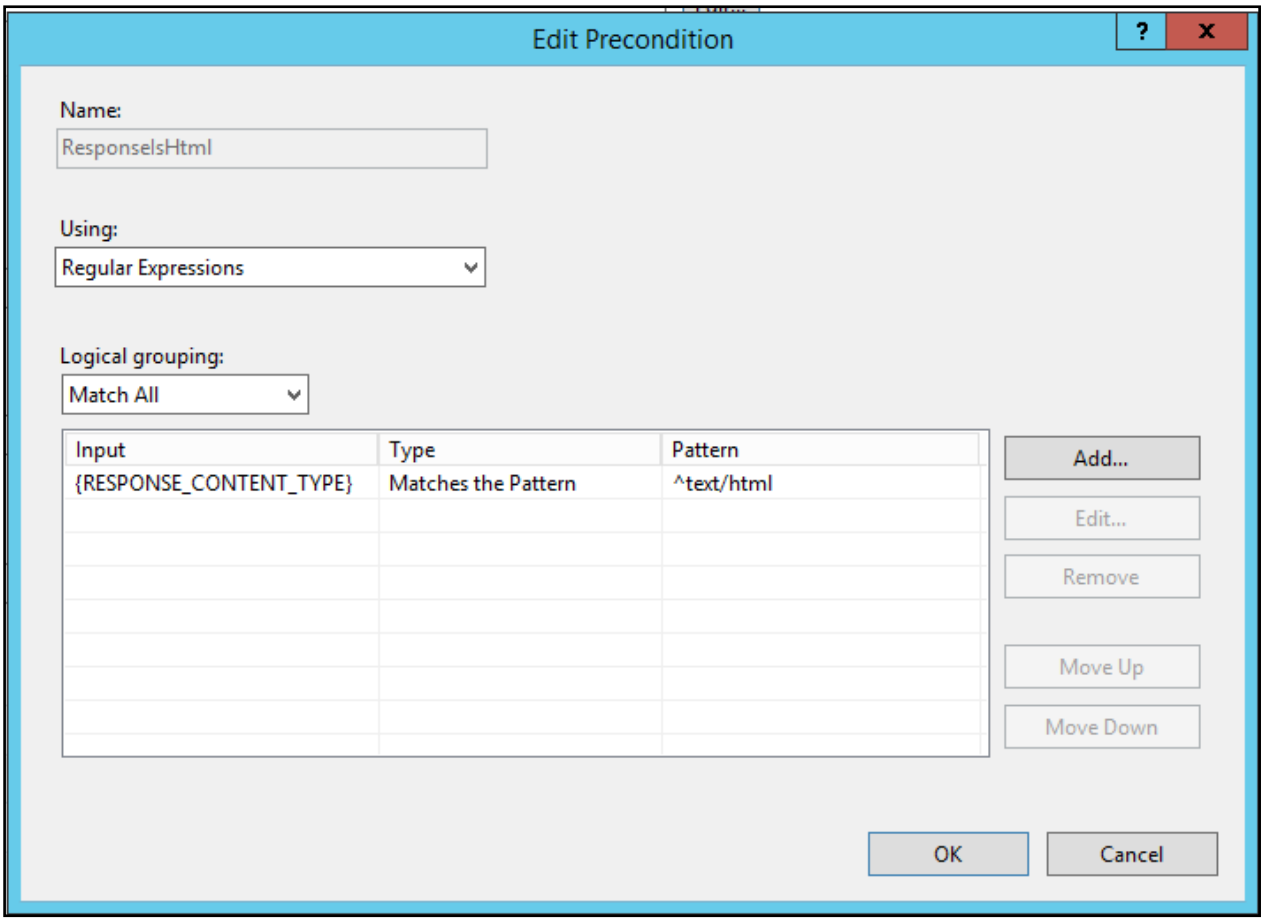
From the image above, in the **Rewrite URL** field, replace **tableauidc1** with the hostname of your internal One Analytics Tableau Server.

Outbound Rule (ReverseProxyOutboundRule1)



From the image above:

- In the **Pattern** field, replace **tableauidc1** with the hostname of your internal One Analytics Tableau Server.
- In the **Action Properties** field, replace **oneidc2.one247.co.uk** with the externally facing hostname that will be used for access (configured as part of the website bindings earlier in this document).
- If the required pre-condition does not yet exist, select **Create New Pre-condition**, and complete the values displayed below:


Edit Precondition
Name:
ResponseIsHtml
Using:
Regular Expressions
Logical grouping:
Match All
Input
Type
Pattern
{RESPONSE_CONTENT_TYPE}
Matches the Pattern
^text/html
Add...
Edit...
Remove
Move Up
Move Down
OK
Cancel

Outbound Rule (RestoreAcceptEncoding)

Name:
RestoreAcceptEncoding

Precondition:
RestoreAcceptEncoding [Edit...]

Match

Matching scope:
Server Variable

Variable name:
HTTP_ACCEPT_ENCODING

Variable value:
Matches the Pattern

Using:
Regular Expressions

Pattern:
^(.*) [Test pattern...]

☑ Ignore case

Conditions

Action

Action type:
Rewrite

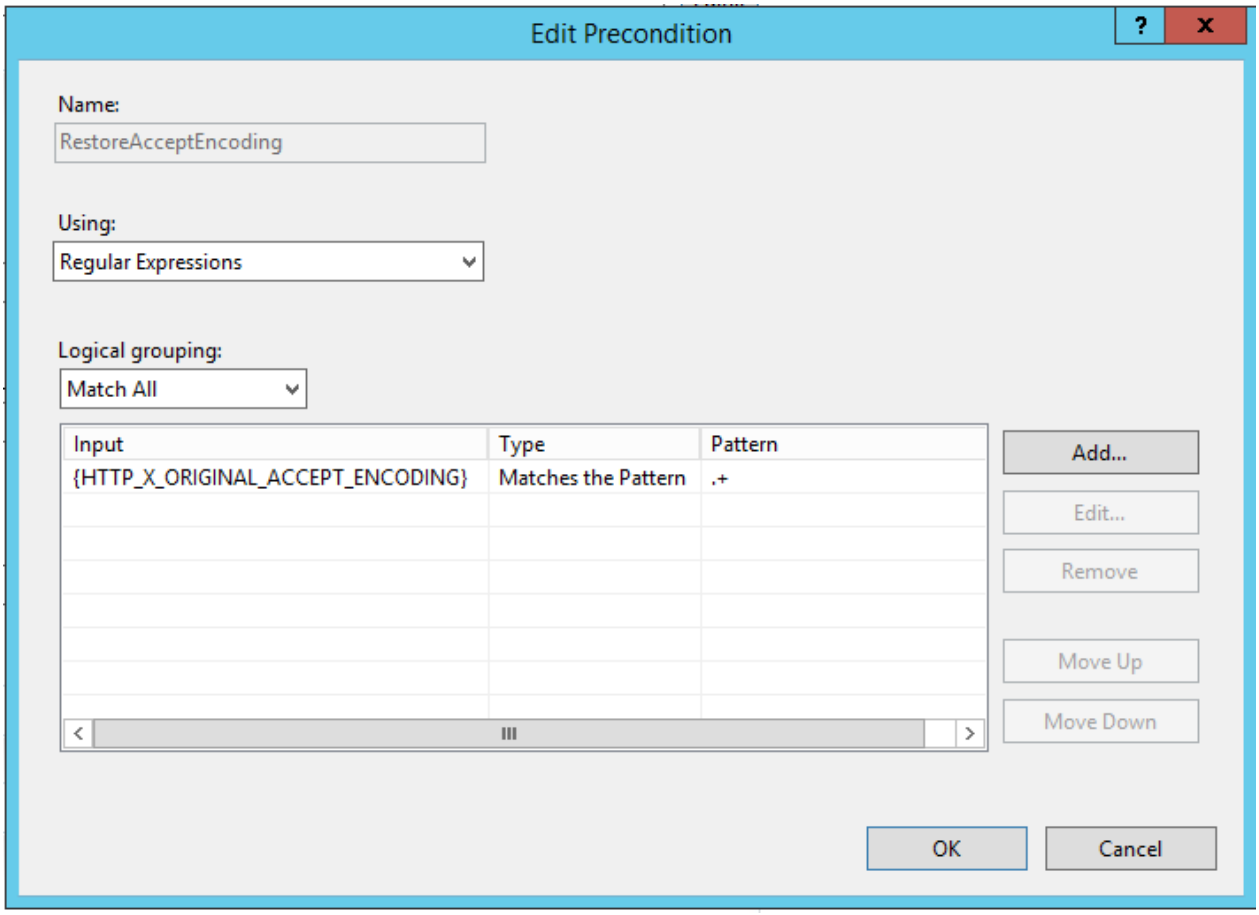
Action Properties

Value:
{HTTP_X_ORIGINAL_ACCEPT_ENCODING}

☑ Replace existing server variable value

☐ Stop processing of subsequent rules

- If the required pre-condition does not yet exist, select **Create New Pre-condition**, and complete the values displayed below:



Configure One Analytics Console to use the new names

1. Locate the One Analytics web.config file (typically located in C:\inetput\wwwroot\OneAnalytics) and locate the setting section.
2. Modify the settings for **TableauServerUrl** and **TableauServerExternalUrl** to match the hostnames set as part of the previous configuration.

```
<applicationSettings>
  <Capita.One.TableauIntegration.UI.Properties.Settings>
    <setting name="TableauServerUrl" serializeAs="String">
      <value>https://TableauIdc1</value>
    </setting>
    <setting name="TableauServerExternalUrl" serializeAs="String">
      <value>https://oneidc2.one247.co.uk</value>
    </setting>
```

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