

Configuring One Analytics for External Access

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01 Configuring One Analytics for External Access

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

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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.

0 Web Platform	Installer 5.0		-		×
🔇 Search	results for URL rewrite	URL Rewrit	e		×
	Name	Released	Install		
× .	URL Rewrite 2.1	16/06/2017		Add	

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

0 Web Platfor	m installer 5.0		- 0	×
😋 Searc	h results for Application Request		Application Request	×
	Name	Released	Install	^
p.	Application Request Routing 2.5 with KB2589179	03/09/2010	Add	
1	Application Request Routing 2.5	29/03/2011	Add	
1º	KB2589179 for Application Request Routing 2.5	03/09/2010	Add	
	Application Request Routing 3.0	27/05/2015	Add	
ph.	URL Rewrite 2.1	16/06/2017	Remove	
	Advanced Lenvin a	00/10/2000	Add	

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

27/02/2008	Installed	
06/11/2017	Add	
01/09/2011	Add	
27/02/2008	Add	~
<u>Options</u> Install	Exit	

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

b Platform Installer 5.0			
PREREQUISITES	INSTALL	CONFIGURE	FINISH
Review the following list of thir software identified below to be products are provided by the th responsible for and must separ	d party application software installed and Windows com ird parties listed here. Micro ately locate, read and accept	Microsoft products and components, ponents to be turned on. Third party a osoft grants you no rights for third party these third party license terms.	and any additional pplications and y software. You are
View license terms		De la compañía de la	act Download Link
Total file download size:			5.77 MB
Click here to see additional soft	ware to be installed and rev	ew the associated Microsoft license ter	ms
By clicking "I Accept", you agre software identified above. If yo	e to the license terms for the ou do not agree to all of the l	e third party and Microsoft software, an icense terms, click "I Decline".	d any additional
sectore activities aborter in ye			

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.

	Application Request Routing
Use this	feature to configure proxy settings for Application Request Routing.
🗹 Ena	able proxy
Proxy S	Setting
HTTP	version:
Pass t	hrough ~
🗹 Kee	alive
Time-	put (seconds):
120	
🗹 Rev	rerse rewrite host in response headers
Cust	om Headers
Pres	erve client IP in the following header:
X-Fo	orwarded-For

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:

Add Website	?	x
Site name: Application pool:	_	
OAProxy OAProxy Select		
Content Directory		
Physical path:		
C:\inetpub\wwwroot\OAProxy		
Pass-through authentication		
Connect as Test Settings		
Binding		
Type: IP address: Port:		
https v All Unassigned v 443		
Host name:		
oaproxy.localauthority.com		
Require Server Name Indication		
SSL certificate:		
*.one247.co.uk View View		
✓ Start Website immediately		
ОК	ancel	

NOTES:

Ensure to bind only HTTPS ports, and not HTTP. This <u>must</u> 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

() A	llowed Server Variables	
Use this fea	ture to manage the list of server variables that	you can set or change by us
Group by:	No Grouping 👻	
Name	▲	Entry Type
HTTP_ACC	EPT_ENCODING	Local
HTTP_X_O	RIGINAL_ACCEPT_ENCODING	Local

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)

latch URL				
Requested URL:			Using:	
Matches the Pat	tern	¥	Regular Expressions	
Dattorn				
(.*)				Test nattern
✓ Ignore case onditions				
✓ Ignore case Conditions ogical grouping:				
✓ Ignore case conditions ogical grouping: Match All	¥			1
✓ Ignore case onditions ogical grouping: Match All Input {CACHE URL}	✓ Type Matches the Pattern	Pattern ^(https?)://		Add
✓ Ignore case conditions ogical grouping: Match All Input {CACHE_URL}	✓ Type Matches the Pattern	Pattern ^(https?)://		Add Edit
✓ Ignore case onditions ogical grouping: Match All Input {CACHE_URL}	✓ Type Matches the Pattern	Pattern ^(https?)://		Add Edit Remove
✓ Ignore case Conditions ogical grouping: Match All Input {CACHE_URL}	✓ Type Matches the Pattern	Pattern ^(https?)://		Add Edit Remove Move Up

Server Variables			ć	•
	Value	Replace	Add	
GINAL_ACCEPT_ENCODING	{HTTP_ACCEPT_ENCODING}	True		
PT_ENCODING		True	Edit	
			Remove	
			Move Up	
<	Ш		Move Down	
Action Action type: Rewrite V				
Provide UPIc				
<pre>{C:1}://tableauidc1 ✓ Append query string</pre>	/{R:1}			
Log rewritten URL				
Stop processing of subsequ	uent rules			

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

Outbound Rule (ReverseProxyOutboundRule1)

Precondition: ResponselsHtml	∠ Edit.
Precondition: ResponselsHtml Match	← Edit.
ResponselsHtml	✓ Edit.
Vatch	
Match	
	٢
Matching scope: Response V	
Match the content within:	Custom tags:
A, Form, Img 🗸	v
Content:	Usina:
Matches the Pattern	Regular Expressions V
Conditions	Q
Action	۲
Action type:	
Rewrite v	
Action Properties	
Value:	
http{R:1}://oneidc2.one247.co.uk/{R:2}	
Stop processing of subsequent subs	

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 Pre	condition	? X
Туре	Pattern	Add
Matches the Pattern	^text/html	
		Edit
		Remove
		Move Up
	▼ Type Matches the Pattern	Type Pattern Matches the Pattern ^text/html

Outbound Rule (RestoreAcceptEncoding)

Name:	
RestoreAcceptEncoding	
Precondition:	
KestoreAcceptEncoding	Y Edit
K	
Match	\bigcirc
Matching scope:	
Server Variable 🗸	
Verieble server	
]
Variable value: Using:	
Matches the Pattern v Regular Expressions	~
Pattern:	
^(.*)	Test pattern
✓ Ignore case	
Conditions	\odot
Action	
Action type:	0
Rewrite V	
C 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:

	Edit Precondit	ion	?
Name:			
RestoreAcceptEncoding]		
leing			
Regular Expressions]		
5	1		
.ogical grouping:			
Match All			
Input	Type	Pattern	Add
	Matches the Dattern		Add
(HTTP_A_OKIOINAL_ACCEPT_ENCODING)	Matches the Pattern	.+	
	Matches the Pattern	.+	Edit
(HTTP_A_ONIGINAL_ACCEPT_ENCODING)	Matches the Pattern	.+	Edit Remove
(HTTP_A_ONIONAL_ACCEPT_ENCODING)	Matches the Pattern	.+	Edit Remove
		.+	Edit Remove Move Up
		.+	Edit Remove Move Up

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.

```
<capitalionSettings/
<CapitalOne.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>
</setting>
```

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