

CAMIO Configuring for HTTPS User Guide

V5.5.2

May 2025



Chyron CAMIO Configuring for HTTPS User Guide V5.5.2 December 2024. This document is distributed by Chyron in online (electronic) form only, and is not available for purchase in printed form.

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Table of Contents

Prerequisite - Enable Web Socket Protocol	3
Configuring LUCI Container	3
CAMIO/LUCI TLS Certificates	4
Steps to generate CAMIO/LUCI TLS certificate.....	4
Steps to install CAMIO/LUCI TLS certificate on CAMIO.....	4
Steps to configure TLS for DataEngine / MediaEngine.....	5
Add Media Engine Rewrite rule.....	6
Steps to install TLS certificate in Google Chrome.....	7

Prerequisite - Enable Web Socket Protocol

Not an HTTPS Specific requirement.

Make sure to enable WebSocket Protocol on the CAMIO server.

- Open Server Manager.
- Under the Manage menu, click Add Roles and Features.
- Select Role-based or Feature-based Installation, and then click Next.
- Select the appropriate server, (your local server is selected by default), and then click Next.
- Expand Web Server (IIS) in the Roles tree, then expand Web Server, and then expand Application Development.
- Select WebSocket Protocol, and then click Next.
- If no additional features are needed, click Next.
- Click Install.
- When the installation completes, click Close to exit the wizard.

Configuring LUCI Container

If LUCI5 Is being run inside the ActiveX Container add the following key to <appSettings> on C:\ProgramData\ChyronHego\Luci Container\luci.dll.config

```
<add key="LuciUrlFormat" value="https://{0}/luci" />
```

Note: in HTTPS mode LUCI URL may not work with an IP in several NRCS for security reasons, so use FQDN or hostnames instead.

CAMIO/LUCI TLS Certificates

Steps to generate CAMIO/LUCI TLS certificate

1. On a Windows 10 machine open Powershell and copy, paste and execute the following script (remember to replace the Subject and DnsName):

```
New-SelfSignedCertificate -Subject REPLACE_WITH_CAMIO_HOSTNAME -DnsName REPLACE_WITH_CAMIO_HOSTNAME  
-KeyAlgorithm RSA -KeyLength 2048 -NotBefore (Get-Date) -NotAfter (Get-Date).AddYears(30) -CertStoreLocation  
"cert:\LocalMachine\My" -FriendlyName "CAMIO" -HashAlgorithm SHA256 -KeyUsage DigitalSignature, KeyEncipherment,  
DataEncipherment -TextExtension @"(2.5.29.37={text}1.3.6.1.5.5.7.3.1)"
```

2. On the same Windows 10 machine go to Start->Manage Computer Certificates and export the certificate certificate. The certificate will be in Personal->Certificates. You can export it by right clicking the certificate -> All Tasks -> Export. Follow the prompts (with Private Key export) by pressing next and enter the desired password when prompted.
3. Save the certificate to disk

Steps to install CAMIO/LUCI TLS certificate on CAMIO

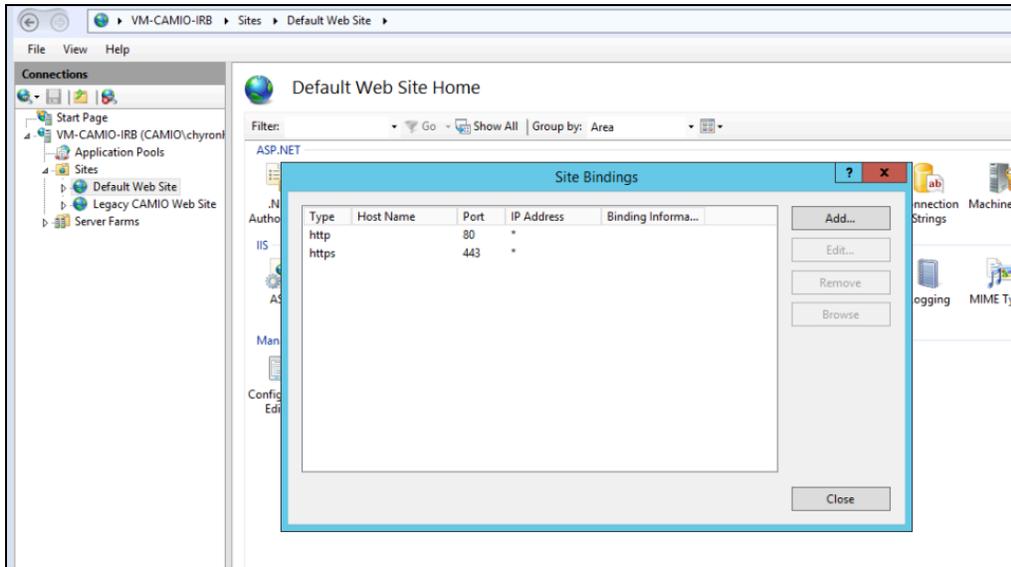
1. Import the certificate used in the previous section/steps into IIS
Open IIS Manager on CAMIO Server
 - select the IIS root host,
 - Double click on server certificates
 - Click import in the top right corner and select the .pfx file from the previous section/steps

2. Enable HTTPS Bindings on CAMIO Server

Open IIS Manager on CAMIO Server

- select the Default Web Site,
- right-click and select Edit Bindings...

- Add Site Binding
 - Type = https
 - IP Address = All Unassigned
 - Port = 443
 - TLS Certificate = select certificate from list of available certificates.
- The certificate will need to be installed on all client workstations.



Steps to configure TLS for DataEngine / MediaEngine

1. Go to IIS->Sites->Default Web Site then double click on URL Rewrite on the right hand side
 - a. Select Reverse Proxy Rule under Inbound
 - b. Give it a name (example: SecureDataEngine)
 - c. For Pattern, use the following: `^dataengine/(.*)`
 - d. For Rewrite URL, use the following: <http://127.0.0.1:4300/{R:1}>
 - e. Check 'Stop processing of subsequent rules'
 - f. Press apply top right corner

Edit Inbound Rule

Name: ReverseProxyInboundRule1

Match URL

Requested URL: Matches the Pattern Using: Regular Expressions

Pattern: ^dataengine/(.*) Test pattern...

Ignore case

Conditions

Server Variables

Action

Action type: Rewrite

Action Properties

Rewrite URL: http://127.0.0.1:4300/{R:1}

Append query string

Log rewritten URL

Stop processing of subsequent rules

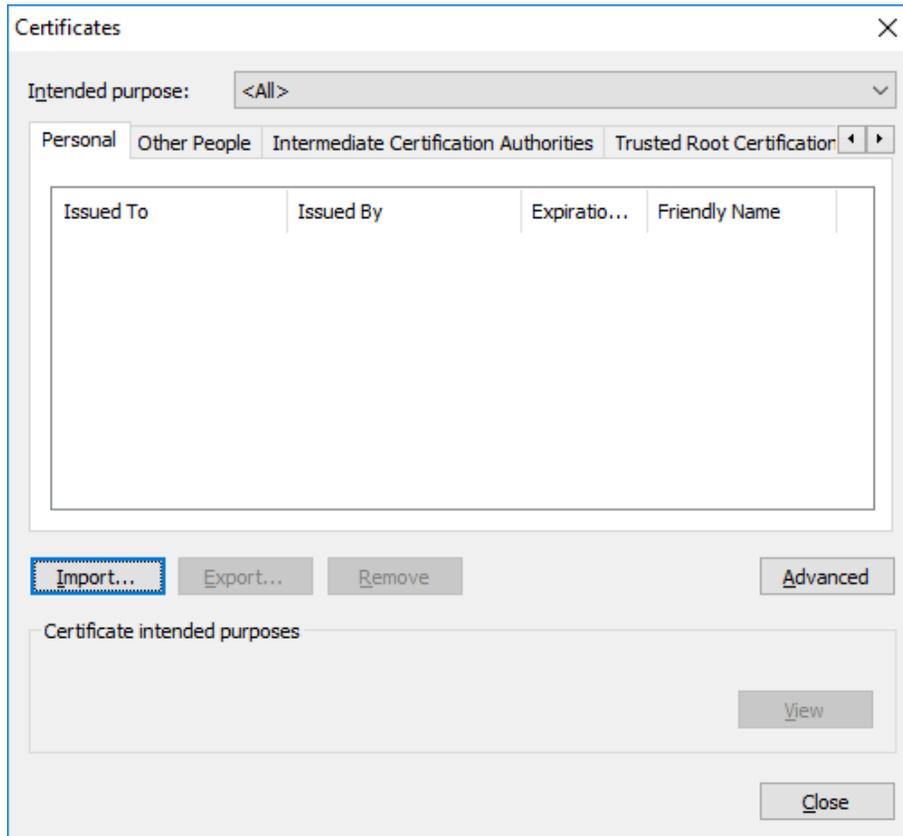
Add Media Engine Rewrite rule

1. Added the Media Engine Rewrite rule into the root web configuration file located on the Camio. (C:\inetpub\wwwroot\web.config)

```
<rule name="MediaEngineInboundRule" stopProcessing="true">
  <match url="^mediaengine/?(.*)" />
  <action type="Rewrite" url="http://172.17.105.23:4303/{R:1}" />
</rule>
```

Steps to install TLS certificate in Google Chrome

1. In Google Chrome go to Settings->Advanced->Manage Certificates
2. Import the certificate created in section 1 into Personal
3. Import the certificate created in section 1 into Trusted Root Certification Authorities



ABOUT US

Chyron is ushering in the next generation of storytelling in the digital age. Founded in 1966, the company pioneered broadcast titling and graphics systems. With a strong foundation built on over 50 years of innovation and efficiency, the name Chyron is synonymous with broadcast graphics. Chyron continues that legacy as a global leader focused on customer-centric broadcast solutions. Today, the company offers production professionals the industry's most comprehensive software portfolio for designing, sharing, and playing live graphics to air with ease. Chyron products are increasingly deployed to empower OTA & OTT workflows and deliver richer, more immersive experiences for audiences and sports fans in the arena, at home, or on the go.

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