



Nucleus Connect

V2.0.0.0

SSL Integration Guide / Setup HTTPS in Web Service Applications

(NucleusConnect-2.0.0.0-SSLIntegrationGuide)



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1 Introduction

This document will describe what is needed in order to setup NucleusConnect to be HTTPS compatible.

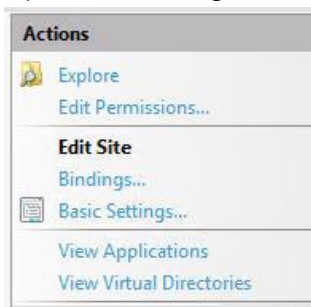
2 HTTPS Requirements

- NucleusConnect
- External DNS hostname must match external public IP.
- Internal DNS hostname must resolve to internal IP.
- Certificate name/friendly name must match external DNS hostname or use a wildcard cert.
- Access to IIS with the Certificate installed.

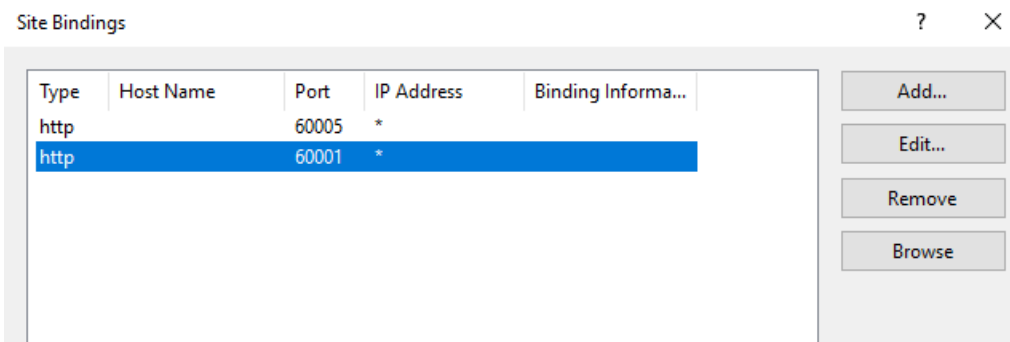
3 Installation Guide

3.1 Configuring HTTPS on an existing site

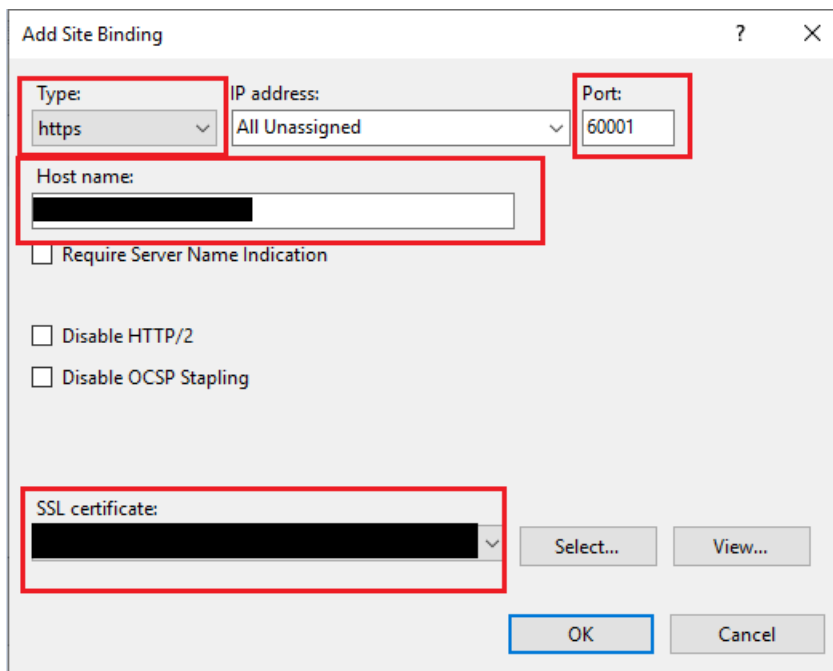
1. Open IIS and navigate to the site, then go “Actions” > “Edit Site” > “Bindings”



2. Once Site Bindings is open, there are two options:
 - a. Create a new port using HTTPS or,
 - b. Recreate the existing port with HTTPS
3. Recreate the existing Port using HTTPS, for that we need to create a dummy site so that we can delete the existing port 60001 site. New port details can be random as it will not be in use:



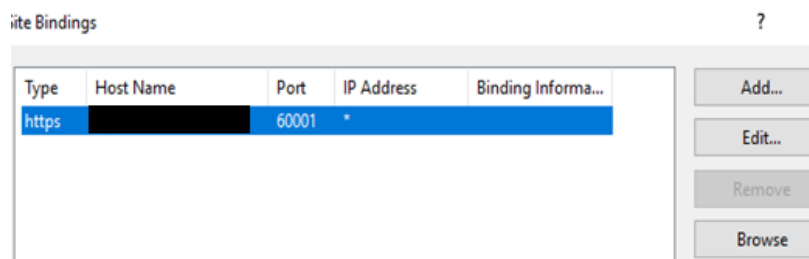
4. Remove that Site Binding and we can recreate it using HTTPS. All fields in RED are needed for HTTPS to work correctly.



The 'Add Site Binding' dialog box shows the following fields and options, with red boxes highlighting the required fields for HTTPS:

- Type:** A dropdown menu set to 'https'.
- IP address:** A dropdown menu set to 'All Unassigned'.
- Port:** A text box containing '60001'.
- Host name:** A text box containing a blacked-out hostname.
- Require Server Name Indication:** An unchecked checkbox.
- Disable HTTP/2:** An unchecked checkbox.
- Disable OCSP Stapling:** An unchecked checkbox.
- SSL certificate:** A dropdown menu showing a blacked-out certificate name, with 'Select...' and 'View...' buttons to its right.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

- a. Type: Select the dropdown "HTTPS".
 - b. Port: Input the port of the site 60001 (original port number).
 - c. Host Name: The DNS hostname that resolves internally and externally to the server.
 - d. SSL Certificate: Select the SSL Certificate, that was installed on the server, will probably be named the same as the DNS hostname.
5. We can now remove the Dummy site and leave the https site:

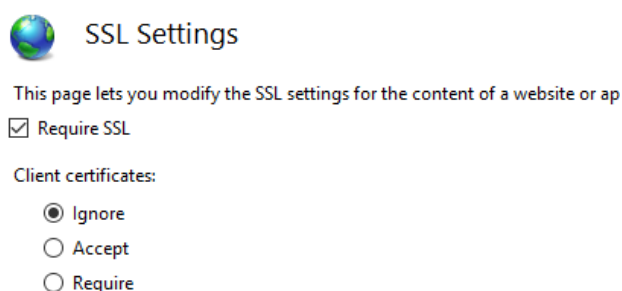


The 'Site Bindings' table shows the following data:

Type	Host Name	Port	IP Address	Binding Informa...
https	[Redacted]	60001	*	

Buttons on the right: Add..., Edit..., Remove, Browse.

6. We now need to Force SSL on the Website by selecting "SSL Settings" on the site menu and ticking "Require SSL":



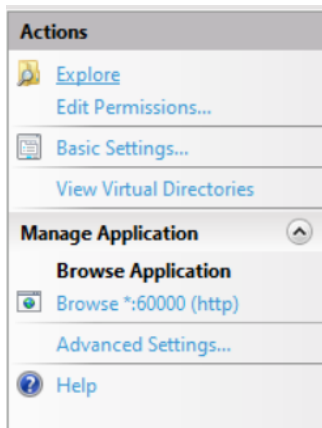
The 'SSL Settings' page includes the following elements:

- Icon:** A globe icon.
- Title:** SSL Settings
- Description:** This page lets you modify the SSL settings for the content of a website or ap
- Require SSL:** A checked checkbox.
- Client certificates:**
 - ☒ Ignore
 - ☐ Accept
 - ☐ Require

7. SSL/HTTPS is now enabled on the NucleusConnect site, next step is to enable it on the application via 3.2.

3.2 Configuring HTTPS on the application settings

1. Enable HTTPS on an applications Web.Config file for that application requires navigation into the sites directory via the “Explore” in IIS.



2. Locate the Web.Config file as highlighted below:

	NucleusRESTAPI	Chrome HTML Document	1,030 KB	2025-07-24 15:57
	Web	XML Configuration File	12 KB	2025-08-11 16:08
	Web.Debug	XML Configuration File	1 KB	2025-07-24 15:56
	Web.Release	XML Configuration File	1 KB	2025-07-24 15:57

3. Edit the Web.Config to allow its SVC to work using https. The Transport security will need to be uncommented to allow HTTPS in the <webHttpBinding> tag:

```
<webHttpBinding>
  <binding name="bindingConfig" maxReceivedMessageSize="2147483647">
    <readerQuotas maxDepth="32" maxStringContentLength="2147483647"
      maxArrayLength="2147483647" maxBytesPerRead="2147483647"
      maxNameTableCharCount="2147483647" />
    <!--Uncomment <security> tags below to use HTTPS-->
    <!--
      <security mode="Transport">
        <transport clientCredentialType="None"/>
      </security>
    -->
  </binding>
</webHttpBinding>
```

4. “mexHttpBinding” needs to be edited to be “mexHttpsBinding” for metadata exchange bindings

```
<service behaviorConfiguration="websvc" name=
  "NSNucleusRESTAPI.NucleusRESTAPI">
  <endpoint address="" behaviorConfiguration="epBehavior" binding=
    "webHttpBinding" bindingConfiguration="bindingConfig" contract=
    "NSNucleusRESTAPI.INucleusRESTAPI" />
  <endpoint address="mex" binding="mexHttpBinding" contract=
    "IMetadataExchange" />
</service>
```



5. If the application's Web.Config has a setting named "WebSvcURL" this must be renamed to the correct value, and not default

```
<value>5000000</value>
</setting>
<setting name="WebSvcURL" serializeAs="String">
  <value>https://[redacted]:60001/BPOCRMWebservice/BPOCRMWebS
</setting>
<setting name="EventQueueLogIntervalSeconds" serializeAs="String">
  <value>10</value>
```

6. Restart site via IIS
7. Navigate to the sites .htm or .svc page via the following URL logic:
 - a. <https://<DNSHostName>:<Port>/SiteName/ApplicationName.svc>
 - b. <https://<DNSHostName>:60000/NucleusRESTAPI/NucleusRESTAPI.htm>