

CA NetQoS Performance Center

Install and Configure SSL for Windows Server 2008

Release 6.1 (and service packs)



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Chapter 1: Installing and Configuring SSL

This document shows you how to install and configure Secure Sockets Layer (SSL) for use by CA NetQoS Performance Center and its data sources. Perform the procedures in the order in which they appear in the document.

This section contains the following topics:

[Prerequisites](#) (see page 7)

[Create or Import the Certificate](#) (see page 7)

[Configure the IIS Application](#) (see page 10)

[Enable HTTPS Through Single Sign-On](#) (see page 11)

[Modify the Single Sign-On XML Files](#) (see page 12)

[Modify the Data Source Connection Method](#) (see page 13)

[Verify Database Settings](#) (see page 13)

[Known Issues](#) (see page 15)

Prerequisites

Before attempting to configure SSL for CA NetQoS Performance Center, ensure that your data source applications are installed, configured, and registered as data sources for CA NetQoS Performance Center.

Create or Import the Certificate

SSL requires you to create a self-signed certificate or to import a certificate from CA.

Create a Self-Signed Certificate

Use this procedure if you did not receive a certificate from CA. Perform the procedure on the CA NetQoS Performance Center console server.

(Optional) Also perform the procedure on the data source console server to enable seamless (using SSO) drill down from views in CA NetQoS Performance Center into the data source.

Follow these steps:

1. Click Start, Control Panel, System and Maintenance, Administrative Tools, Internet Information Services (IIS) Manager.
2. In IIS Manager, double-click Server Certificates in the IIS section of the center pane. The Server Certificates pane opens.
3. In the Actions pane, click 'Create Self-Signed Certificate'.
4. In the Specify Friendly Name dialog, enter a name for the certificate. Users will use this name to access the server.
5. Click OK.
6. Verify that the certificate is trusted:
 - a. Click Start and type **mmc** in the search field. The Console Root window opens.
 - b. Add the certificate snap-in for the local computer:
 - In the Console Root window, click File, Add/Remove Snap-in.
 - Double-click Certificates in the Available snap-ins list and select 'Computer account' from the Certificates snap-in dialog.
 - Click Next.
 - Select 'Local computer' in the Select Computer dialog.
 - Click Finish.
 - Click OK in the Add or Remove Snap-ins dialog.
 - c. In the left pane of the Console Root window, expand Certificates (Local Computer).
 - d. Expand Trusted Root Certification Authorities and click Certificates. The list of certificates appears in the center pane.
 - e. Find your certificate in the list.

Import a Certificate

Use this procedure if you received a certificate from CA. Perform this procedure on the CA NetQoS Performance Center console server.

(Optional) Also perform the procedure on the data source console server to enable seamless (using SSO) drill down from views in CA NetQoS Performance Center into the data source.

Follow these steps:

1. Click Start, Control Panel, System and Maintenance, Administrative Tools, Internet Information Services (IIS) Manager.
2. In IIS Manager, double-click Server Certificates in the IIS section of the center pane. The Server Certificates pane opens.
3. In the Actions pane, click Import.
4. In the Import Certificate dialog, browse to and select your certificate in the 'Certificate file (.pfx)' field.
5. Provide a password in the Password field if the certificate was exported with a password.
6. Clear the 'Allow this certificate to be exported' check box if you do not want to allow more exports of the certificate.
7. Click OK.
8. Verify that the certificate is trusted:
 - a. Click Start and type **mmc** in the search field. The Console Root window opens.
 - b. Add the certificate snap-in for the local computer:
 - In the Console Root window, click File, Add/Remove Snap-in.
 - Double-click Certificates in the Available snap-ins list and select 'Computer account' from the Certificates snap-in dialog.
 - Click Next.
 - Select 'Local computer' in the Select Computer dialog.
 - Click Finish.
 - Click OK in the Add or Remove Snap-ins dialog.
 - c. In the left pane of the Console Root window, expand Certificates (Local Computer).
 - d. Expand Trusted Root Certification Authorities and click Certificates. The list of certificates appears in the center pane.
 - e. Find your certificate in the list.

Configure the IIS Application

The procedure shows you how to configure IIS to respond to SSL requests. Configuring IIS consists of configuring an SSL port for HTTPS, assigning the certificate to the web server, and modifying the HTTP header expiration.

Perform the procedure on the CA NetQoS Performance Center server and the data source server.

Follow these steps:

1. Configure the SSL port and assign the certificate. By default, IIS does not have a port defined for HTTPS.
 - a. Click Start, Control Panel, System and Maintenance, Administrative Tools, Internet Information Services (IIS) Manager.
 - b. In IIS Manager, expand Sites in the Connections pane and click 'Default Web Site'.
 - c. In the Actions pane, click Bindings.
 - d. In the Site Bindings dialog, click Add.
 - e. In the Add Site Binding dialog, complete the following fields:
 - Type: Select **https**.
 - IP Address: Select **All Unassigned**.
 - Port: Enter **443**.
 - SSL Certificate: Select the name of the certificate you [created or imported](#) (see page 7).
 - f. Click OK.
2. Modify the HTTP header expiration for CA NetQoS Performance Center:
 - a. In IIS Manager, expand the 'Default Web Site' and 'npc' folders.
 - b. Click the 'flex_bin' folder. The flex_bin Home page appears in the center pane.
 - c. In the center pane, double-click 'HTTP Response Headers' in the IIS section.
 - d. In the Actions pane, click 'Set Common Headers'.
 - e. In the 'Set Common HTTP Response Headers' dialog, select the 'Expire Web Content' check box.
 - f. Select 'After' and enter '1' and 'Day(s)' in the fields below.
 - g. Click OK.

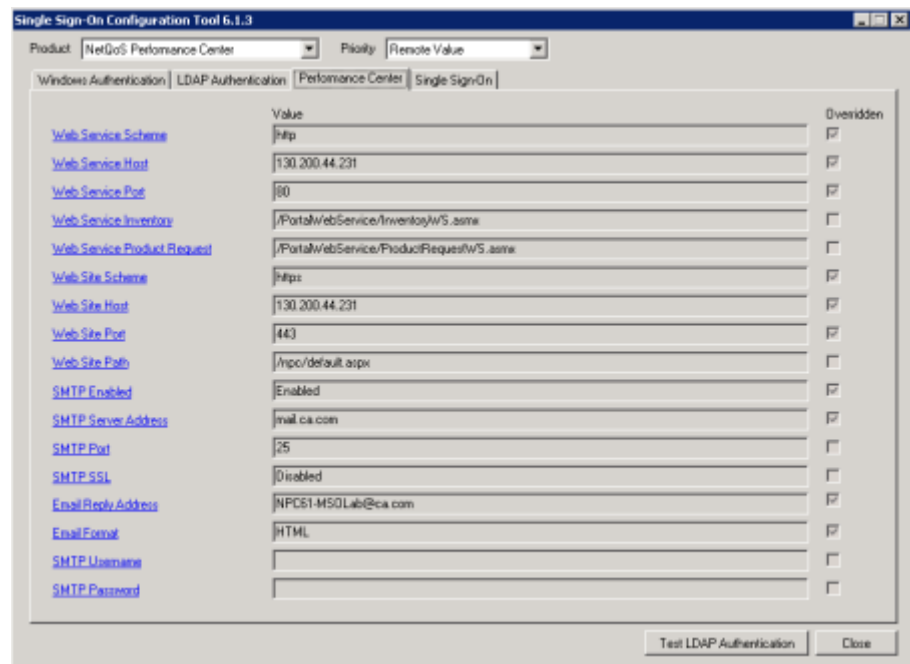
Enable HTTPS Through Single Sign-On

Use the Single Sign-On (SSO) Configuration tool to enable HTTPS. Your changes are propagated to data sources during synchronization.

Perform the procedure on the CA NetQoS Performance Center server and the data source server.

Follow these steps:

1. On the desktop of the CA NetQoS Performance Center server, double-click the SSO icon to open the tool.
2. Click the Performance Center tab. The field names are clickable links.



3. Click the following field names to make the indicated overrides:

- Web Site Scheme: Change to **https**.

Important: Although you are changing the scheme, web services continue to run on HTTP.

- Web Site Host (for SSO version 6.1.3 only): Change to the name of the certificate you created or imported in [Create or Import the Certificate](#) (see page 7).
- Web Site Port: Change to **443**.

- Click the Single Sign-On tab. The field names here are also clickable.
- Click the following field names to make the indicated overrides:

- Scheme: Change to **https**.
- Port: Change to **443**.

Note: These fields control the SSO login pages for CA NetQoS Performance Center and the data sources.

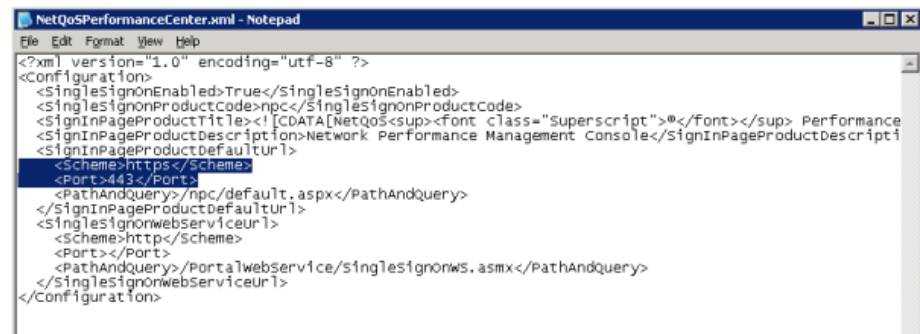
Modify the Single Sign-On XML Files

The SSO configuration XML file controls the SSO settings.

Perform this procedure only on the CA NetQoS Performance Center server.

Follow these steps:

- Navigate to the following directory:
D:\NETQOS\SingleSignOn\Configuration.
- Open the NetQoSPerformanceCenter.xml file in a text editing tool.
- Under <SignInPageProductDefaultURL>, change the Scheme and Port fields as shown in the following picture:



- Scheme: Change to **https**.
- Port: Change to **443**.

Important: Do not change any other field.

- Save your changes and close the file.
- In a command-line window, run the following command:

iisreset

This command forces the website to reload and enables HTTPS access to the website.

Modify the Data Source Connection Method

Perform this procedure *only* if you want to seamlessly (using SSO) drill-down from CA NetQoS Performance Center into a data source.

This procedure enables the drill-down links to use HTTPS.

Follow these steps:

1. In the CA NetQoS Performance Center console, click Admin, Data Sources in the menu bar.
2. Right-click the name of the data source you want to configure and click Edit.
3. In the Edit Data Source dialog, disable the 'Same as above' check box in the Web Console area. Because the web services still run on HTTP, they do not use the same configuration as the data source.
4. Complete the new Host Name, Protocol, and Port fields as follows:
 - Host Name: Provide the same host name that you provided when you [created or imported the certificate](#) (see page 7).
 - Protocol: Select 'https'.
 - Port: Enter **443**.
5. Click Save.
6. Repeat steps 2 through 5 for each data source you want to configure.

Verify Database Settings

The final task in the process is to verify several database settings. You want to ensure that CA NetQoS Performance Center uses the same host name or FQDN that is listed on the certificate.

Follow these steps:

1. From a command prompt, connect to the CA NetQoS Performance Center database:

```
mysql netqosportal
```

2. From a command prompt, list all the settings for SSO:

```
"select * from performance_center_properties;"
```

The list of settings includes the following fields, which are listed as Priority 1:

- NpcWebSiteHost: set to the FQDN or hostname
- NpcWebSiteScheme: set to https
- NpcWebSitePort: set to 443
- SsoScheme: set to https
- SsoPort: set to 443

3. From a command prompt, change the performance_center_properties value that updates the FQDN or host name in the data_sources2 table:

```
REPLACE INTO performance_center_properties VALUES ('NpcWebSiteHost', 2,  
'NPC.fqdn.com', 'N', UNIX_TIMESTAMP());
```

NPC.fqdn.com

Provide the actual FQDN or host name from the certificate.

4. Restart the NetQoS Device Manager Service on the CA NetQoS Performance Center server.

After the restart, you will have three entries for NpcWebSiteHost. Each entry has a value of 0, 1, and 2, respectively. The entry with a priority of 2 is the entry for the data_sources2 table.

Note: The underlying data sources do not have priority 2 in the performance_center_properties table.

5. Repeat step 1, and then run the following command to display the console settings that CA NetQoS Performance Center uses when generating a PDF:

```
"select * from data_sources2;"
```

The list of settings includes the following fields:

- ConsoleHost (for SourceID 0, which is CA NetQoS Performance Center): set to the priority 2 NpcWebSiteHost value in performance_center_properties
- ConsolePort: set to 443 as updated by the NpcWebSitePort value in performance_center_properties
- ConsoleProtocol: set to https as updated by the NpcWebSiteScheme in performance_center_properties.

6. For the CA NetQoS Performance Center and data source servers, add the DNS suffix to the computer name if you are using FQDN.
 - a. Right-click My Computer and select Properties.
 - b. Click 'Advanced System Settings'.
 - c. On the Computer Name tab, click Change.
The Computer Name/Domain Changes dialog opens.
 - d. Ensure the 'Computer name' and 'Domain' or 'Workgroup' fields are accurate.
 - e. Click More.
The DNS Suffix dialog opens.
 - f. In the 'Primary DNS suffix of this computer' field, provide the DNS suffix to make the full computer name match the certificate.
 - g. Click OK in the DNS Suffix dialog.
 - h. Click OK in the Computer Name/Domain Changes dialog.
 - i. Click OK in the Properties dialog.
 - j. Reboot the server.
7. Ensure that the URL for accessing CA NetQoS Performance Center matches the FQDN or host name from the certificate and the database settings.

Known Issues

This topic presents known issues and their workarounds.

Images Do Not Appear in a PDF

For CA NetQoS Performance Center 6.1.158 and 6.1.194 SP1, images in PDFs sent in scheduled email do not appear when you use SSL.

Workaround: Apply the patch to 6.1.158 or 6.1.194 SP1, or install version 6.1.205 SP2, which includes the patch. You can obtain the patch from the following locations:

- ftp://ftp.ca.com/pub/netqos/product_patches/NPC/6.1/26034-NPC.6.1.158.SSL.ScheduledEmailPatch.zip
- ftp://ftp.ca.com/pub/netqos/product_patches/NPC/6.1.194%20%28SP1%29/26034-NPC.6.1.194.SSL.ScheduledEmailPatch.zip

Note: If you upgrade from 6.1.158 to 6.1.194 SP1, reapply the patch after upgrading. You do not need to reapply the patch when upgrading to 6.1.205 SP2 from either of the earlier versions.