Purpose

This document describes how to install the Nagios Cross Platform Agent (NCPA) on Windows, Linux and Mac OS X. NCPA is intended to simplify and universalize agent-based monitoring across different operating systems.

Target Audience

This document is intended for use by Nagios Administrators who wish to use NCPA to monitor servers. NCPA simplifies monitoring configurations and maintenance by allowing Nagios to monitor servers using the same agent regardless of platform.

NCPA Installation Overview

This documentation covers installing NCPA using the ready built packages for the following platforms:

- Windows
  - EXE Package
- Linux
  - RHEL / CentOS / Oracle Linux
    - Nagios Repository
    - RPM Package
  - openSUSE / SUSE SLES / AIX
    - RPM Package
  - Ubuntu / Debian
    - DEB Package
- Mac OS X
  - DMG Package

You can also install NCPA from source by following the Building NCPA documentation.

Active vs Passive

NCPA can be used for both Active and Passive monitoring:

- Active = Nagios is responsible for performing the check on a schedule
- Passive = NCPA is responsible for submitting check results in Nagios

The NCPA installer may prompt you for settings for active and passive. Active is the most common method used. If you are not using passive monitoring then you do not need to configure those settings.

Downloading NCPA Packages

Please visit the downloads page to obtain the relevant download package for your operating system (OS):
NCPA Downloads

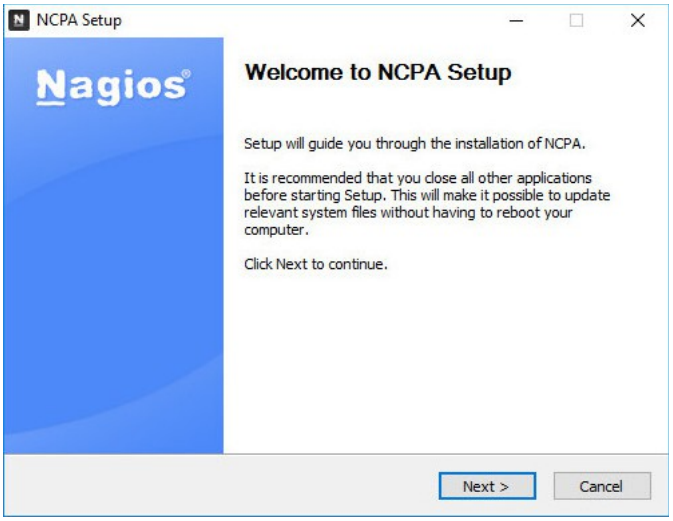
If you are installing NCPA on Linux then the steps below for each Linux distribution will show you how to download the package at the command line, you do not need to download it right now.

Installing NCPA On Windows

The following instructions are for the graphical install of NCPA. If you wish to perform a silent installation please proceed to the Silent Install section.

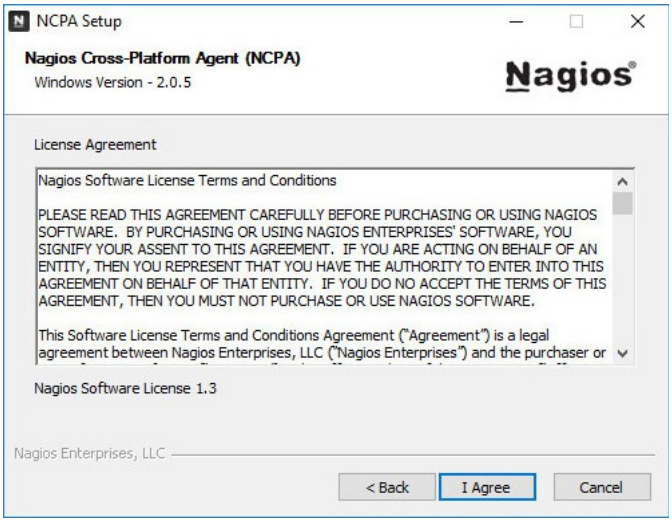
Navigate to the location that the installer package was downloaded to and double-click the installer, this will bring up the Welcome screen.

Click Next to continue.



The license agreement will be shown.

Click **I Agree**

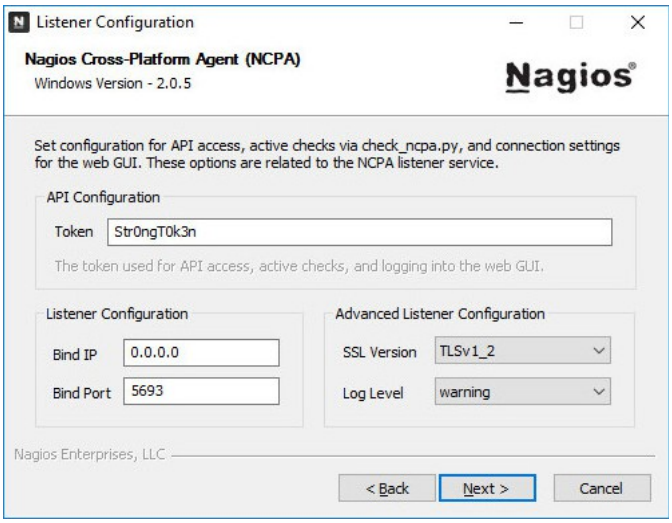


The configuration screen for **Passive** checks will be shown.

The only setting that is required here is a **Token**. This is what your Nagios server will use to authenticate with NCPA.

The Bind IP of `0.0.0.0` means that NCPA will listen on all Ipv4 addresses on the Windows machine. The default port of `5693` is used.

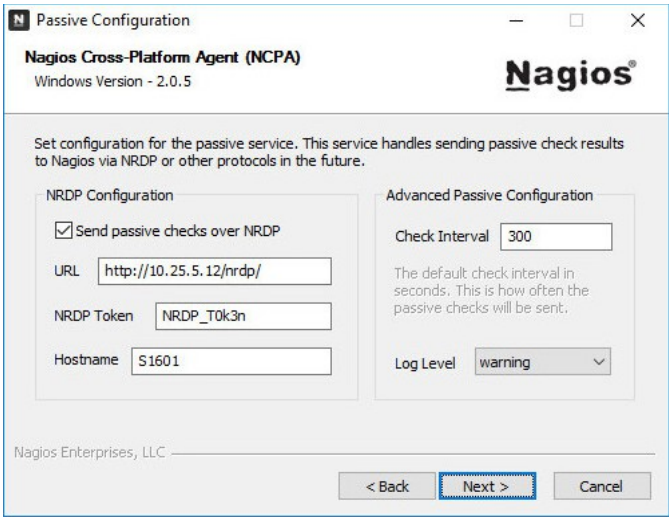
Click **Next** to proceed.



The configuration screen for **Passive** checks will be shown. You will need to check the **Send passive checks over NRDP** box to enable passive checks. You will also need to provide the following NRDP settings:

URL

This is the URL on your Nagios Host that accepts passive check results to be submitted.



NRDP Token

This is the token you will be using when passing NCPA passive checks to Nagios for NRDP to accept the check. This is separate from the token that was provided for active checks.

The URL and NRDP token in Nagios XI are configured via **Admin** > **Check Transfers** > **Inbound Transfers**.

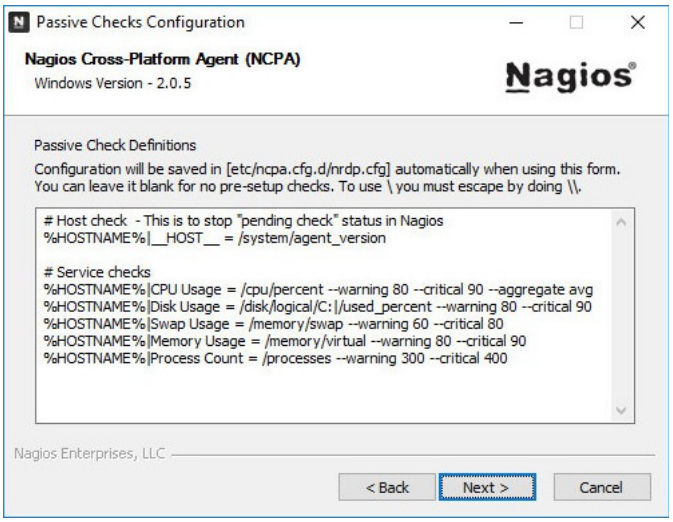
Hostname

The hostname that the passive checks belong to on the Nagios server.

Click **Next** to proceed.

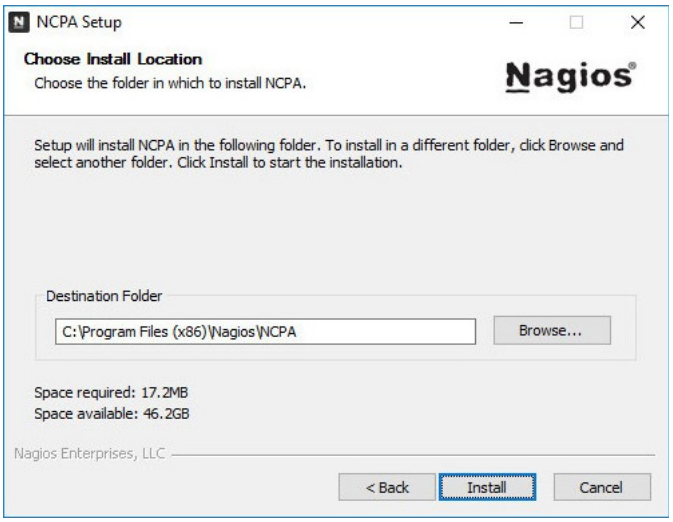
Continuing with Passive checks, you will be presented with the default passive service checks that will be executed and send to your Nagios server. These can be changed if required.

Click **Next** to proceed.

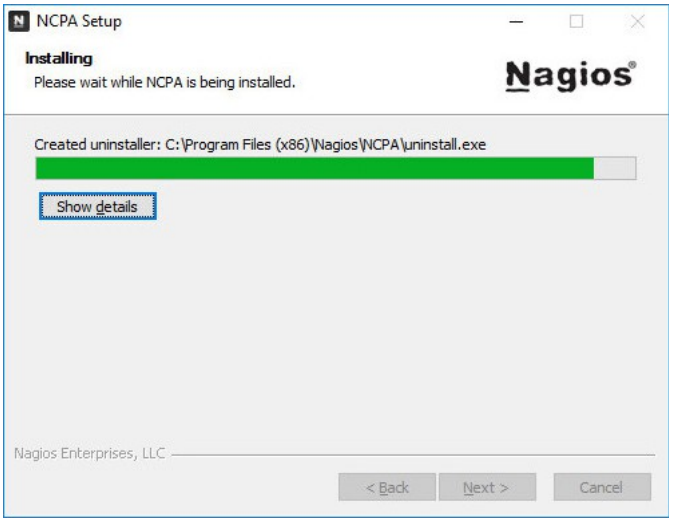


You will be presented with the install location. Change the destination folder if required.

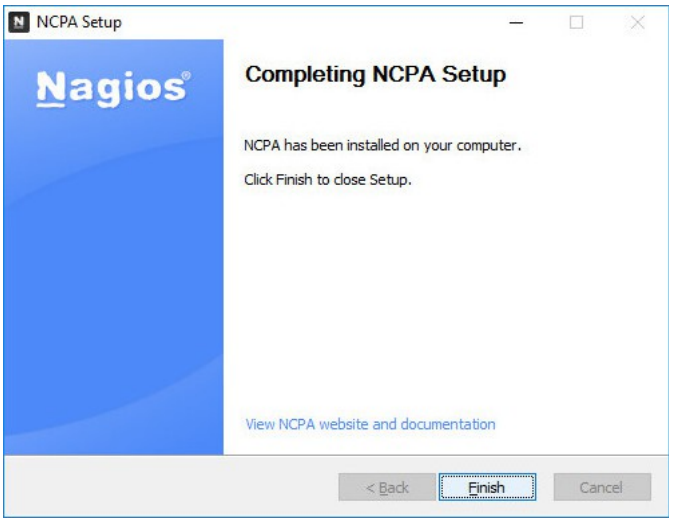
Click the **Install** button to install NCPA.



Wait while NCPA is installed and configured.



Click **Finish** once NCPA has been installed.



Now that NCPA has been installed please proceed to the Configure Firewall - Windows section of this document.

Installing NCPA On Windows - Silent

The installer also supports a silent install, which allows system administrators to easily manage their network workstations without disrupting the workflow of the office. The following arguments currently supported.

Directive	Explanation
`/S`	This is how you tell the installer you are performing a silent install
`/D`	The directory to install NCPA to. This is optional, must be the last argument, cannot contain quotes, and must be an absolute path.
`/TOKEN`	The token that will be used to access the agent's API and web interface
`/IP`	The IP address to bind to. The default is **`0.0.0.0`** which binds to all IPv4 addresses. Use **`::`** for binding to IPv6 addresses.
`/PORT`	The port to bind to. The default is **`5693`**.
`/NRDPURL`	This is the URL on your Nagios Host that accepts passive check results to be submitted
`/NRDPTOKEN`	This is the token you will be using when passing NCPA passive checks to Nagios for NRDP to accept the check. This is separate from the token that was provided for active checks.
`/NRDPHOSTNAME`	The hostname that the passive checks belong to on the Nagios server

Using the previous graphic install of NCPA as an example, here is how you would install NCPA silently using those settings:

```
ncpa-2.1.6.exe /S /TOKEN='Str0ngT0k3n' /NRDPURL='http://10.25.5.12/nrdp/'
/NRDPTOKEN='NRDP_T0k3n' /NRDPHOSTNAME='S1601'
```

Now that NCPA has been installed please proceed to the Configure Firewall - Windows section of this document.

Installing NCPA On Linux

There are several methods for installing NCPA on Linux depending on your OS distribution. You will need to establish a terminal session as a root user to complete these steps.

Using Nagios Repository

The Nagios Repository can be used to install NCPA on RHEL / CentOS / Oracle Linux. The first step is to install the repository depending on the version of Linux.

6.x

```
rpm -Uvh http://repo.nagios.com/nagios/6/nagios-repo-6-4.el6.noarch.rpm
```

7.x

```
rpm -Uvh http://repo.nagios.com/nagios/7/nagios-repo-7-4.el7.noarch.rpm
```

8.x

```
rpm -Uvh http://repo.nagios.com/nagios/8/nagios-repo-8-1.el8.noarch.rpm
```

Once the repository has been installed you will need to execute the following command to install NCPA:

```
yum install ncpa -y
```

Now that NCPA has been installed please proceed to the Configuring NCPA section of this document.

Using RPM Package

An RPM package can be used to install NCPA on RHEL / CentOS / Oracle Linux / openSUSE / SUSE SLES / AIX. The step below depends on the version and architecture of Linux you are running.

RHEL / CentOS / Oracle Linux 6.x i386

```
rpm -Uvh https://assets.nagios.com/downloads/ncpa/ncpa-latest.el6.i386.rpm
```

RHEL / CentOS / Oracle Linux 6.x x86_64

```
rpm -Uvh https://assets.nagios.com/downloads/ncpa/ncpa-latest.el6.x86_64.rpm
```

RHEL / CentOS / Oracle Linux 7.x

```
rpm -Uvh https://assets.nagios.com/downloads/ncpa/ncpa-latest.el7.x86_64.rpm
```

RHEL / CentOS / Oracle Linux 8.x

```
rpm -Uvh https://assets.nagios.com/downloads/ncpa/ncpa-latest.el8.x86_64.rpm
```

SUSE SLES 11.x i386

```
sudo rpm -Uvh https://assets.nagios.com/downloads/ncpa/ncpa-latest.sle11.i386.rpm
```

SUSE SLES 11.x x86_64

```
sudo rpm -Uvh https://assets.nagios.com/downloads/ncpa/ncpa-latest.sle11.x86_64.rpm
```

SUSE SLES 12.x x86_64

```
sudo rpm -Uvh https://assets.nagios.com/downloads/ncpa/ncpa-latest.sle12.x86_64.rpm
```

SUSE SLES 15.x x86_64

```
sudo rpm -Uvh https://assets.nagios.com/downloads/ncpa/ncpa-latest.sle15.x86_64.rpm
```

openSUSE 15.x x86_64

```
sudo rpm -Uvh https://assets.nagios.com/downloads/ncpa/ncpa-latest.os15.x86_64.rpm
```

AIX 7.x x86_64

```
rpm -Uvh https://assets.nagios.com/downloads/ncpa/ncpa-latest.aix7.1.ppc.rpm
```

Now that NCPA has been installed please proceed to the Configuring NCPA section of this document.

Using DEB Package

An DEB package can be used to install NCPA on Ubuntu / Debian. The steps below depends on the version and architecture of Linux you are running.

Debian 8.x i386

```
wget https://assets.nagios.com/downloads/ncpa/ncpa-latest.i386.deb
dpkg -i ./ncpa-latest.i386.deb
```

Debian 8.x amd64

```
wget https://assets.nagios.com/downloads/ncpa/ncpa-latest.amd64.deb
dpkg -i ./ncpa-latest.amd64.deb
```

Debian 9.x i386

```
wget https://assets.nagios.com/downloads/ncpa/ncpa-latest.d9.i386.deb
dpkg -i ./ncpa-latest.d9.i386.deb
```

Debian 9.x amd64

```
wget https://assets.nagios.com/downloads/ncpa/ncpa-latest.d9.amd64.deb
dpkg -i ./ncpa-latest.d9.amd64.deb
```

Debian 10.x amd64

```
wget https://assets.nagios.com/downloads/ncpa/ncpa-latest.d10.amd64.deb
dpkg -i ./ncpa-latest.d10.amd64.deb
```

Ubuntu i386

```
wget https://assets.nagios.com/downloads/ncpa/ncpa-latest.i386.deb
sudo dpkg -i ./ncpa-latest.i386.deb
```

Ubuntu amd64

```
wget https://assets.nagios.com/downloads/ncpa/ncpa-latest.amd64.deb
```

```
sudo dpkg -i ./ncpa-latest.amd64.deb
```

Now that NCPA has been installed please proceed to the Configuring NCPA section of this document.

Using DMG Package

An DMG package can be used to install NCPA on Mac OS X.

```
curl -L -o ncpa-2.2.1.dmg https://assets.nagios.com/downloads/ncpa/ncpa-2.2.1.dmg
sudo hdiutil attach ncpa-2.2.1.dmg
cd /Volumes/NCPA-2.2.1
sudo sh ./install.sh
cd /
sudo hdiutil detach /Volumes/NCPA-2.2.1
```

Now that NCPA has been installed please proceed to the Configuring NCPA section of this document.

Configuring NCPA

This section is specifically for the Linux / Mac OS X / AIX installations as they do not provide configuration options as part of the installer. However the configuration file in Windows is the same, hence the information here is also valid for Windows.

This documentation will only focus on configuring NCPA for Active checks. Passive checks are covered in the following documentation:
Using NCPA For Passive Checks

The NCPA configuration file is located here:

```
/usr/local/ncpa/etc/ncpa.cfg
```

Execute the following command to open the file in vi:

```
sudo vi /usr/local/ncpa/etc/ncpa.cfg
```

When using the vi editor, to make changes press `i` on the keyboard first to enter insert mode. Press `Esc` to exit insert mode.

Find the following line:

```
community_string = mytoken
```

Change it to your required token, for example:

```
community_string = Str0ngT0k3n
```

When you have finished, save the changes in vi by typing:

```
:wq
```

and press Enter.

You will now need to restart the `ncpa_listener` service for these changes to take affect, please proceed to the Restart Service section of this documentation.

Restart Service

The command required for this will differ depending on your OS and version.

RHEL / CentOS / Oracle Linux 6.x

```
service ncpa_listener restart
```

RHEL / CentOS / Oracle Linux 7.x +

```
systemctl restart ncpa_listener.service
```

Ubuntu 12.x / 13.x / 14.x

```
sudo service ncpa_listener restart
```

Ubuntu 15.x +

```
sudo systemctl restart ncpa_listener.service
```

Debian 7.x

```
service ncpa_listener restart
```

Debian 8.x +

```
systemctl restart ncpa_listener.service
```

openSUSE / SUSE SLES 11.x

```
sudo /sbin/service ncpa_listener restart
```

openSUSE Leap 42.x + / SUSE SLES 12.x +

```
sudo systemctl restart ncpa_listener.service
```

AIX

```
stopsrc -s ncpa_listener
startsrc -s ncpa_listener
```

Mac OS X

```
sudo launchctl stop com.nagios.ncpa.listener
sudo launchctl start com.nagios.ncpa.listener
```

Now that the `ncpa_listener` service has been restarted please proceed to the Configure Firewall - Linux section of this document.

Configure Firewall - Windows

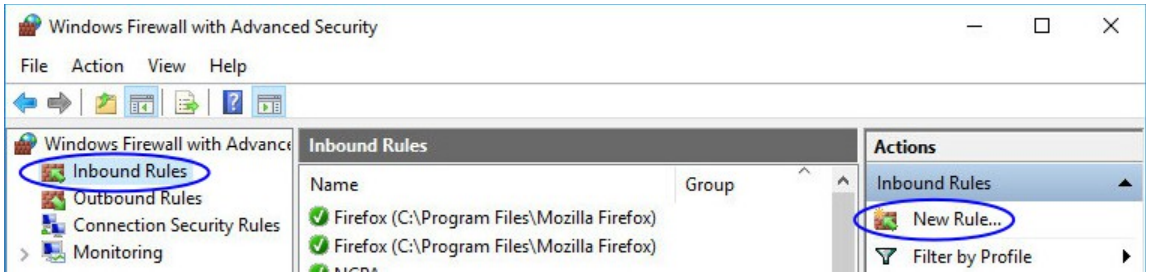
A firewall rule needs to be created on your Windows machine to allow incoming traffic to NCPA on TCP Port 5693.

To change the firewall settings, select **Start** and type `firewall` in the search dialog box and open **Windows Firewall with Advanced Security**.

In Server 2012 / 2016 this is located at **Server Manager** > **Tools** > **Windows Firewall with Advanced Security**.

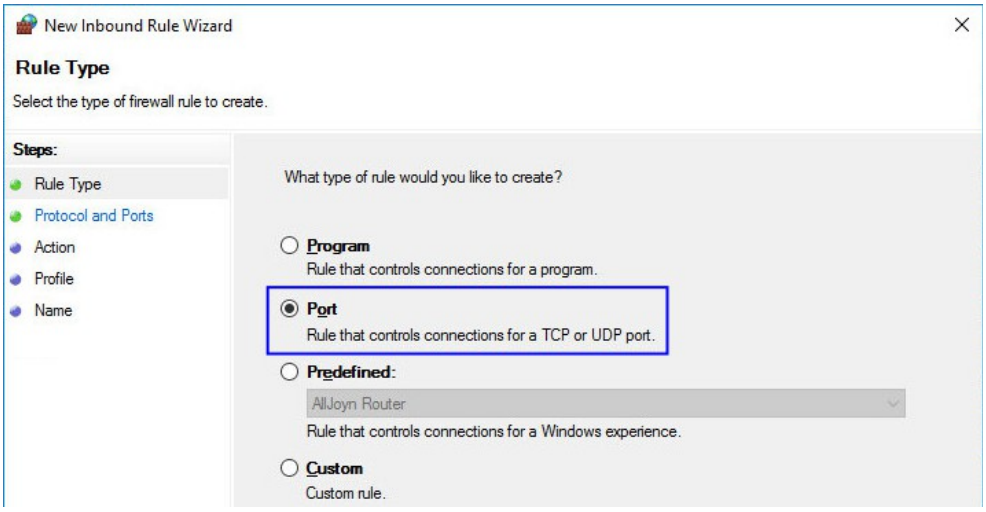
In the left hand pane click **Inbound Rules**

In the right hand pane click **New Rule**



Select **Port**

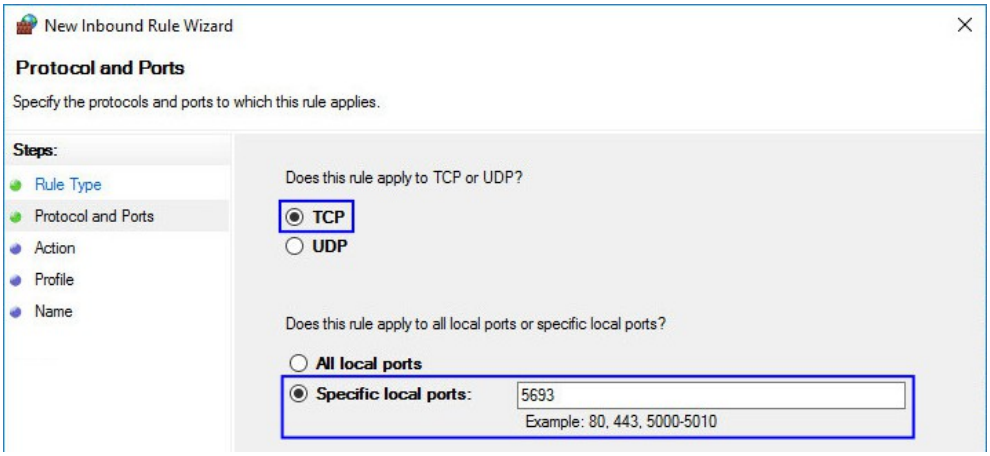
Click **Next**



Select **TCP**

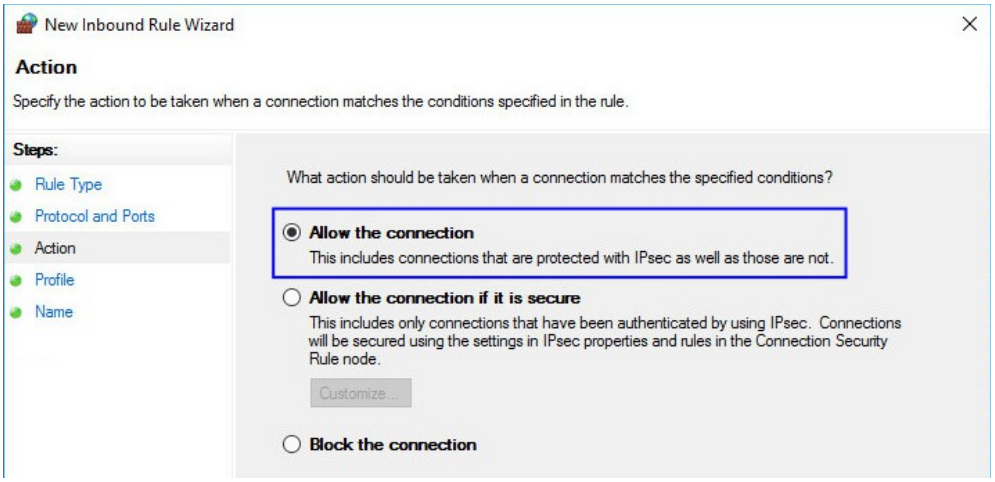
Select **Specified local ports** and type `5693` in the field.

Click **Next**

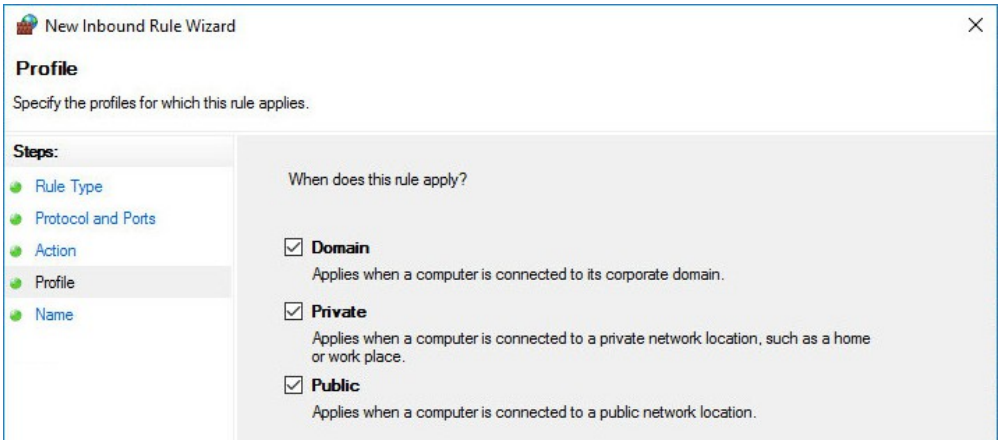


Select **Allow the connection**

Click **Next**

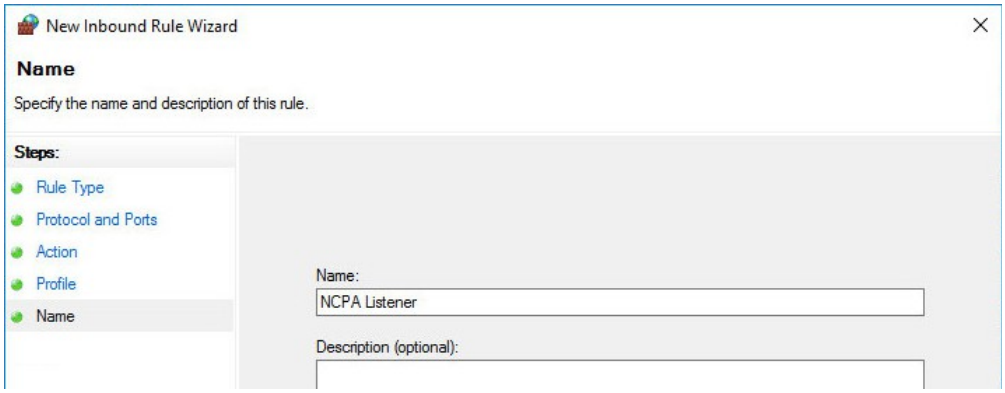


Make any changes to where the rule should apply and click **Next**.



Give the rule a **Name**

Click **Finish** to create the rule.



Now that the firewall has been created please proceed to the Test NCPA section of this document.

Configure Firewall - Linux

A firewall rule needs to be created on your Linux machine to allow incoming traffic to NCPA on TCP Port 5693. The command required for this will differ depending on your OS and version.

RHEL / CentOS / Oracle Linux 5.x / 6.x

```
iptables -I INPUT -p tcp --destination-port 5693 -j ACCEPT
service iptables save
ip6tables -I INPUT -p tcp --destination-port 5693 -j ACCEPT
service ip6tables save
```

RHEL / CentOS / Oracle Linux 7.x +

```
firewall-cmd --zone=public --add-port=5693/tcp
firewall-cmd --zone=public --add-port=5693/tcp --permanent
```

Ubuntu

```
sudo mkdir -p /etc/ufw/applications.d
sudo sh -c "echo '[NCPA]' > /etc/ufw/applications.d/ncpa"
sudo sh -c "echo 'title=Nagios Cross Platorm Agent' >> /etc/ufw/applications.d/ncpa"
sudo sh -c "echo 'description=Nagios Monitoring Agent' >> /etc/ufw/applications.d/ncpa"
sudo sh -c "echo 'ports=5693/tcp' >> /etc/ufw/applications.d/ncpa"
sudo ufw allow NCPA
sudo ufw reload
```

Debian

```
iptables -I INPUT -p tcp --destination-port 5693 -j ACCEPT
apt-get install -y iptables-persistent
Answer yes to saving existing rules
```

SUSE SLES 11.x

```
sudo sed -i '/FW_SERVICES_EXT_TCP=/s/\"$/\ 5693\"/' /etc/sysconfig/SuSEfirewall2
sudo /sbin/service SuSEfirewall2_init restart
sudo /sbin/service SuSEfirewall2_setup restart
```

SUSE SLES 12.x +

```
sudo /usr/sbin/SuSEfirewall2 open EXT TCP 5693
sudo systemctl restart SuSEfirewall2.service
```

openSUSE Leap

The firewall is not enabled by default and allows port 5693.

AIX

Please refer to the AIX documentation.

Mac OS X

The firewall is not enabled by default and allows port 5693.

Now that the firewall has been defined please proceed to the Test NCPA section of this document.

Test NCPA

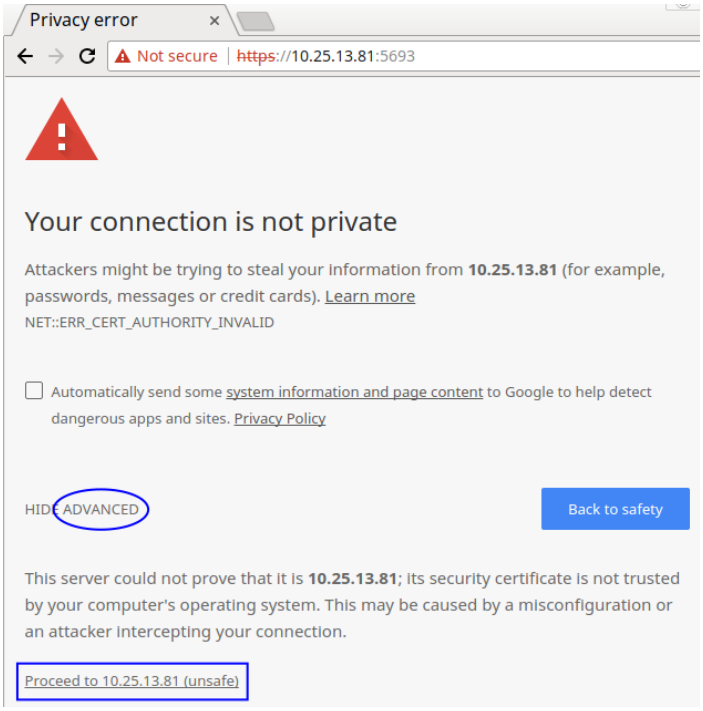
To ensure that the installation was successful and NCPA is now listening, try accessing the web interface of the agent. In order to do this you will need to know:

- The IP Address of the machine you installed NCPA on
- The `token` / `community_string` you configured NCPA to use

Open a web browser and connect to the NCPA web interface using the following URL:

```
https://<NCPA IP Address>:5693/
```

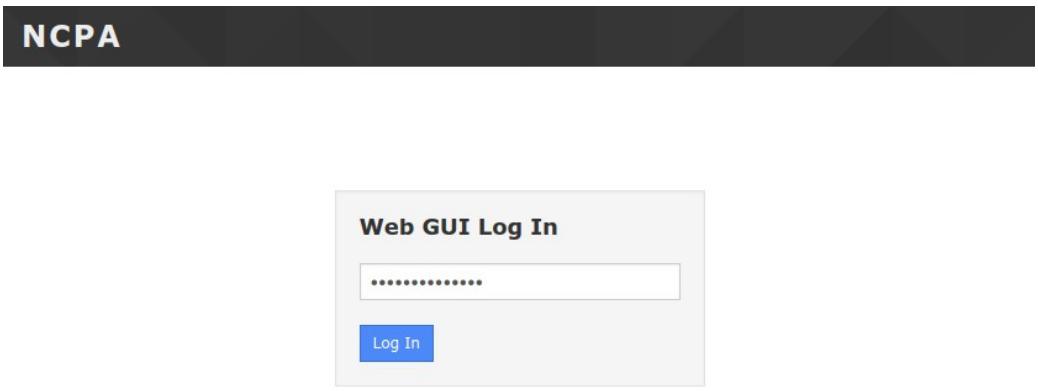
You will be presented with a security message. This is completely **OK** and expected. NCPA is using self signed certificates as it allows the communication to be encrypted. Your web browser is warning you because it does not know about the certificate.



You will need to click **Advanced** and then **Add Exception** or **Proceed to xxx** to allow you to use the NCPA page.

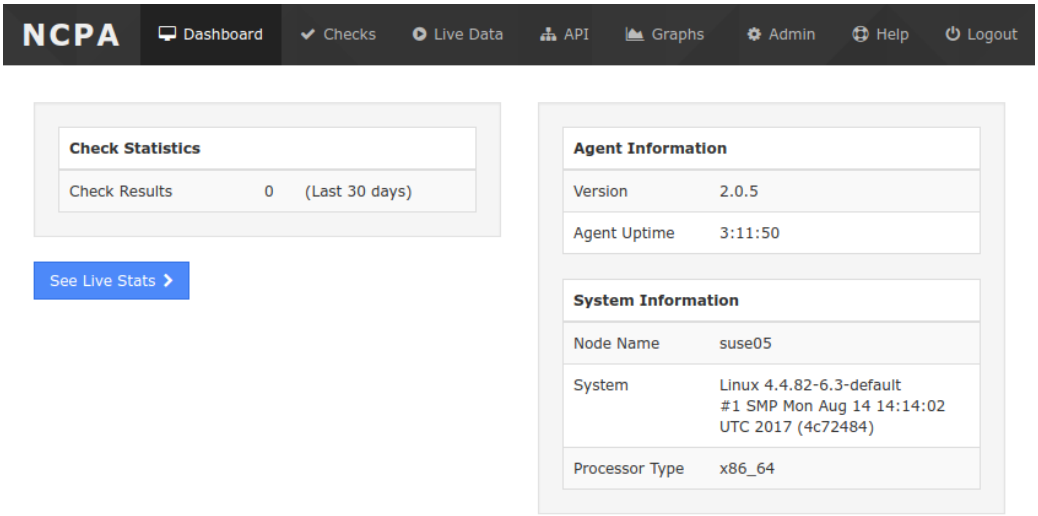
More information on certificates is explained in the Understanding Certificate Warnings KB article.

You will then be shown the NCPA login page.



Type the token in the field and then click the **Log In** button.

Once you log in you will be placed on the Dashboard page with a summary of the NCPA version and machine it is running on.



Congratulations, NCPA is now ready to be monitored by Nagios.

Please proceed to the Configuring Nagios section of this document.

Configuring Nagios

Now that NCPA is installed on the remote machine, you can monitor the machine using the NCPA monitoring wizard in Nagios XI. Please refer to the following documentation for detailed steps:
Monitoring Devices Using The NCPA Agent And Nagios XI

The NCPA agent has built-in documentation in web interface, this is located on the **Help** tab. This gives the options to view or change configuration settings remotely as well as access additional info on NCPA.

Finishing Up

This completes the documentation on how to install the Nagios Cross Platform Agent.
If you have additional questions or other support related questions, please visit us at our Nagios Support Forums:

https://support.nagios.com/forum

The Nagios Support Knowledgebase is also a great support resource:

https://support.nagios.com/kb