Purpose

This document describes how to monitor AIX with Nagios XI 2024

Target Audience

This document is intended for use by Nagios XI Administrators who want to monitor AIX systems using Nagios XI.

Download Pre-Compiled Binaries

You will need to download two packages of pre-compiled binaries to your AIX server:

- First download the pre-compiled Nagios plugin binaries for AIX 5.3.
- Next download the pre-compiled NRPE binaries from the following URL.

Create Directories

Login to your AIX server as the root user and run the following commands:

```
cd /usr/local
mkdir nagios
```

Unpack Binaries

1. Unpack the pre-compiled plugins and place the extracted files into the `/usr/local/nagios/` directory using these commands:

```
cd /tmp
tar xzf /path/to/aix53_nrpe-nsca-plugins.tgz
cd   /tmp/nagios
cp -R * /usr/local/nagios
```

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2. Unpack the pre-compiled NRPE binaries using these commands:

```
cd /tmp
tar xzf   /path/to/AIX-5.3-nrpe-2.12-binaries.tar.gz
cp  usr/local/nagios/bin/nrpe  /usr/local/nagios/bin
cp   usr/local/nagios/etc/nrpe.cfg   /usr/local/nagios/etc
```

Create Nagios User And Group

1. Create a Nagios user and group on the AIX server. Use the following command to create a new group:

```
mkgroup  nagios
```

2. Make a home directory for a Nagios user using the following commands:

```
cd  /users/
mkdir  nagios
```

3. Open up smitty and add a new user with the name nagios. with the following command:

```
smitty user
```

4. Once smitty opens, select **Add a user** and use the following settings:

```
User NAME: nagios
Primary Group users
Group SET users,nagios
HOME directory /users/nagios
```

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Set Permissions

1. Change folder permissions so NRPE will operate properly, with the following command:

```
chown -R nagios.nagios /usr/local/nagios
```

2. Verify the permissions on the directory using the following commands:

```
chown /usr/local/nagios
ls  -l
```

Specify NRPE Port Number

1. Edit the `/etc/services` file to add a port number for NRPE.

2. To edit the file, use the following command:

```
vi /etc/services
```

3. Add a line to the file that looks exactly like this:

```
nrpe 5666/tcp #nrpe
```

4. Save the file.

Configure NRPE

You'll need to modify the NRPE configuration file to include any command definitions that should be used for monitoring. The following command definitions provide an example of what can be added to the NRPE configuration file `/usr/local/nagios/etc/nrpe.cfg`.

```
command[check_users]=/usr/local/nagios/libexec/check_users -w 5 -c 10
command[check_load]=/usr/local/nagios/libexec/check_load -w 15,10,5 -c 30,25,20
command[check_zombie_procs]=/usr/local/nagios/libexec/check_procs -w 5 -c 10 -s Z
command[check_total_procs]=/usr/local/nagios/libexec/check_procs -w 150 -c 200
command[check_aix_ram]=/usr/local/nagios/libexec/check_aix_ram 80 100
command[check_aix_home]=/usr/local/nagios/libexec/check_disk -w 90 -c 95 -p /home
command[check_aix_root]=/usr/local/nagios/libexec/check_disk -w 90 -c 95 -p /
command[check_aix_var]=/usr/local/nagios/libexec/check_disk -w 90 -c 95 -p /var
command[check_aix_usr]=/usr/local/nagios/libexec/check_disk -w 90 -c 95 -p /usr
```

Configure NRPE For Automatic Startup

Configure NRPE to automatically start when the AIX server reboots. To do this, use the following command:

```
nohup /usr/local/nagios/bin/nrpe -c /usr/local/nagios/etc -n -d
```

You should get this response:

```
Sending nohup output to nohup.out.
```

Note: The `-n` flag specifies that the NRPE server should run without SSL support. This reduces security of the NRPE daemon, but dramatically increases performance under heavy server load and may be okay if your server is on an internal network protected by a firewall.

Start NRPE

Start NRPE using the following command:

```
/usr/local/nagios/bin/nrpe -c /usr/local/nagion/etc/nrpe.cfg -n -d
```

Test Your NRPE Configuration

Test your AIX server to see if NRPE is running properly, to do this, use the following command:

```
ps -ef | grep nrpe
```

You should see something that looks like this:

```
nagios 111345 43675 /usr/local/nagios/bin/nrpe -c /usr/local/nagios/etc/nrpe.cfg -n — d
```

Note: The output you see may differ slightly, as the PID number will be different on your system. If you don't see any output when running the above command, then it means something is wrong with your setup. This may be related to problems in your NRPE configuration file located in `/usr/local/nagios/etc/nrpe.cfg`.
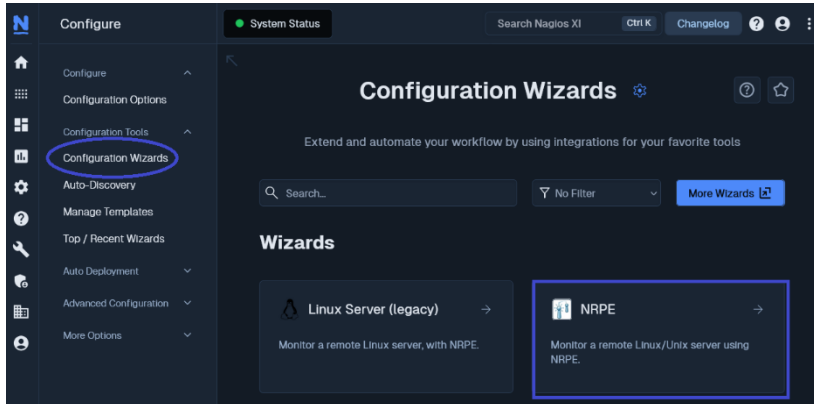
Nagios Configuration

Once you have finished installing and configuring NRPE on the AIX server, you'll need to modify the monitoring configuration on your Nagios server.

The process for configuring your monitoring setup is determined by whether you are using Nagios XI or Nagios Core.

Nagios XI Setup

1. To begin using the NRPE wizard navigate via the top menu bar to **Configure** > **Configuring Wizards** > select the **NRPE** wizard. In the following screenshot you can see how the search field allows you to quickly find a wizard.
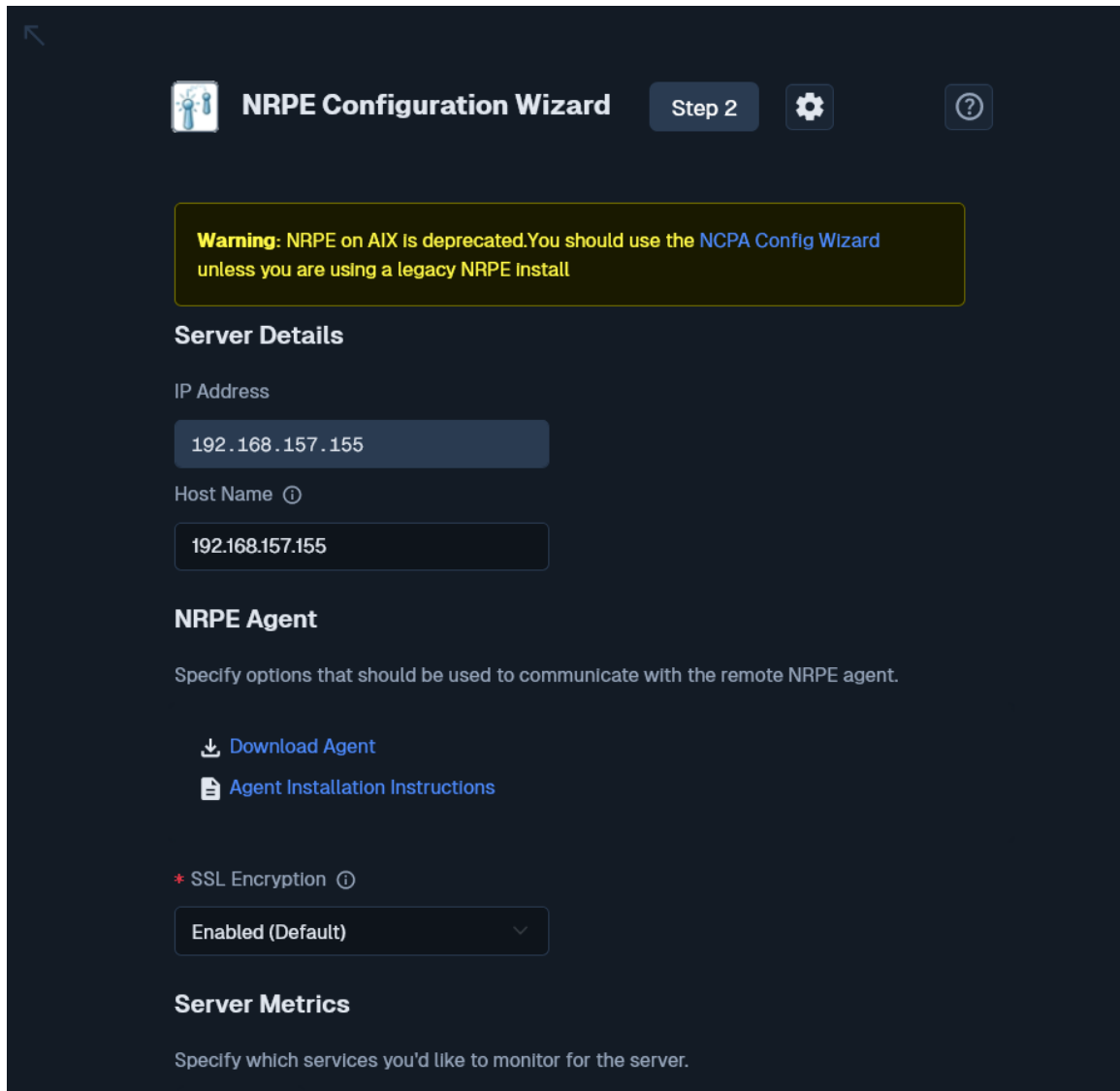

2. On Step 1 you will be asked to supply the IP Address of the AIX server.
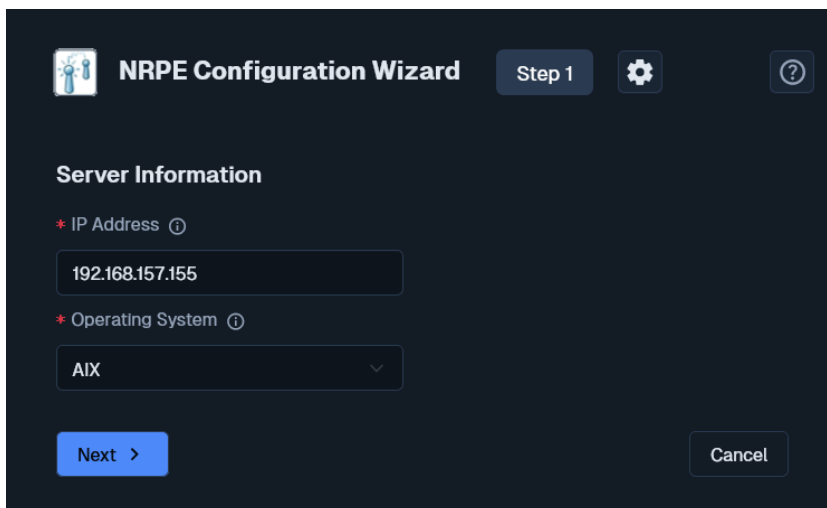
3. You will also have to select the Operating System which of course is AIX.

4. Click Next to progress to step 2.

5. On step 2 you will configure all of the options for monitoring.

6. To start off with make sure a valid **Host Name** has been entered. The NRPE Agent section can be ignored because you have already installed it.

7. The NRPE wizard allows you to specify which NRPE commands should be executed and monitored and what display name (service description) should be associated with each command.

8. The commands you enter in the wizard must correspond to the command names that you defined in the NRPE configuration file on your AIX server. In the screenshot below you can see there are two commands defined with their respective arguments.

9. Click **Next** and then complete the wizard by choosing the required options in Step 3 - Step 5. To finish up, click on **Finish** in the final step of the wizard. This will create the new hosts and services and begin monitoring.

10. Once the wizard applies the configuration, click the **View Status Details** for your AIX server link to see the new host and services that were created.

Service		Status	Duration	Attempt	Last Check	Status Information
HTTP		● Ok	3h 22m 47s	1/5	2024-11-28 22:21:18	HTTP OK: HTTP/1.1 302 Found - 237 bytes in 0.004 second response time
Ping		● Ok	3h 23m 33s	1/5	2024-11-28 22:20:33	OK - 192.168.157.133: rta 0.986ms lost 0%
SSH		● Ok	3h 22m 41s	1/5	2024-11-28 22:21:25	SSH OK - OpenSSH_8.7 (protocol 2.0)
CPU Usage		● Ok	2h 7m 11s	1/1	2024-11-28 22:23:01	OK: Percent was 0.25 %

This completes the steps required to monitor the AIX server using Nagios XI.

Nagios Core Setup

If you're using Nagios Core, you'll need to manually edit one or more configuration files to configure monitoring.

```
A command definition like the following needs to be setup in one of your object
configuration files:
    define command{
    command_name            check_nrpe
    command_line        $USER1$/check_nrpe   -H  $HOSTADDRESS$ -c  $ARG1$
}
```

Next, configure host and service definitions to monitor the AIX server. The following examples show how to setup monitoring for an AIX server with multiple services. Customize these definitions for your setup and add them to a Nagios Core object configuration file.

```
define host{
use                     linux-server
host_name               aixbox
address                 192.168.5.24
}
define service {
use                     generic-service
host_name               aixbox
service_description             CPU LOAD
check_command           check_nrpe!check_load
}
define service {
use                     generic-service
host_name               aixbox
service_description             RAM USAGE
check_command           check_nrpe!check_aix_ram
}
define service {
use                     generic-service
host_name               aixbox
service_description             Home Directory Free Space
check_command           check_nrpe!check_aix_home
}
define service {
use                     generic-service
host_name               aixbox
service_description             RAM USAGE
check_command           check_nrpe!check_aix_ram
}
define  service {
use                     generic-service
host_name               aixbox
service_description             Home Directory Free Space
check_command           check_nrpe!check_aix_home
}
define service {
use                     generic-service
host_name               aixbox
service_description             Root Directory Free Space
check_command           check_nrpe!check_aix_root
}
define service {
use                     generic-service
host_name               aixbox
service_description             Var Directory Free Space
check_command           check_nrpe!check_aix_var
}
define service {
use                     generic-service
host_name               aixbox
service_description             Usr Directory Free Space
check_command           check_nrpe!check_aix_usr
}
```

Once you're done editing the Nagios Core configuration files, restart Nagios Core using the following command:

```
service nagios restart
```

More Information:

For more information on how to use and configure wizards in Nagios XI, see: Understanding and Using Configuration Wizards 2024

Finishing Up

This completes the documentation on how to monitor AIX with Nagios 2024. If you have additional questions or other support-related questions, please visit us at our Nagios Support Forum, Nagios Knowledge Base, or Nagios Library:

Visit Nagios Support Forum   Visit Nagios Knowledge Base   Visit Nagios Library