Nagios XI　　Passive Monitoring with NRDS

Purpose

This document describes how to passively monitor Linux/Unix hosts with Nagios XI by using Nagios Remote Data Sender (NRDS). If you wanted to monitor Windows hosts, please refer to the Passive Monitoring With NRDS_Win document instead.

Target Audience

This document is intended for use by Nagios XI Administrators who want to setup custom monitoring of servers using NRDS or who have existing hosts with the NRDS agent already installed and configured.

NRDS Overview

NRDS is a passive agent that is used to monitor Linux and Unix machines, which sends results to a Nagios Remote Data Processor (NRDP) server.

The NRDS client configuration can be managed centrally by the NRDP server, or more easily through the NRDS Config Manager Component in Nagios XI.

Once a configuration is made it can be shared by many clients and updates to the configuration on the NRDP server are automatically picked up by all clients using that configuration.

The NRDS client runs on a cron job at an interval specified by the administrator at install time. Each time the NRDS client runs, it will run all of the commands specified in the config file and send the results back to the Nagios server.
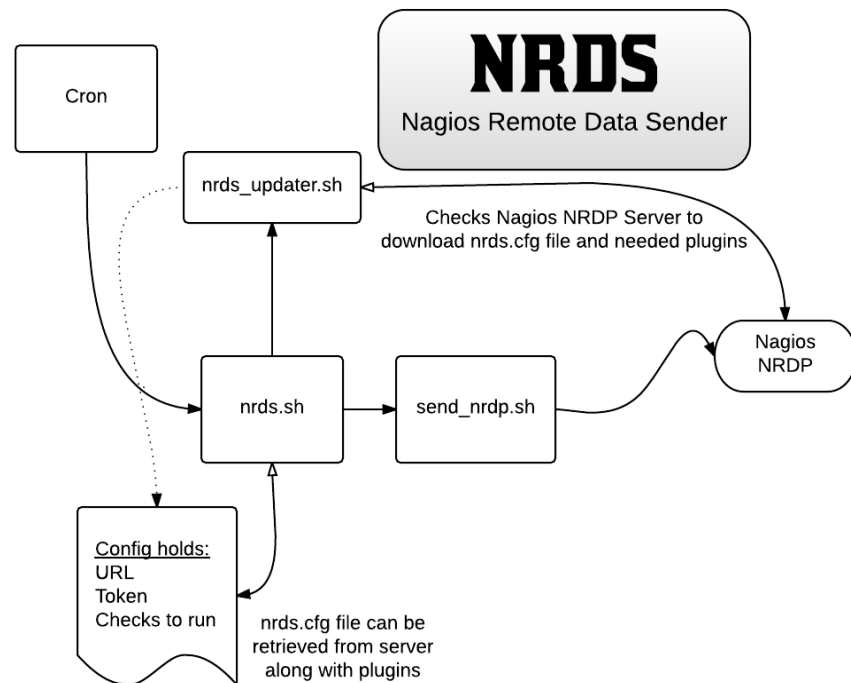
Additionally, it will check to see if there is a newer version of the configuration file it is using and if so, it will download the configuration file as well as all of the plugins it needs from the server and install them on the client.

Configuring NRDP Inbound Transfers

Before you can receive passive check results from NRDS agents you need to configure NRDP Inbound Transfers. This can be done by navigating to **Admin > Check Transfers > Inbound Transfers**.

Please refer to the following documentation **Configuring Inbound Checks** for detailed steps on configuring NRDP:

https://assets.nagios.com/downloads/nagiosxi/docs/Configuring_Inbound_Checks_With_XI.pdf

Using NRDS Config Manager

To use the NRDS config manager navigate to **Admin > Monitoring Config > NRDS Config Manager**.

Adding Configuration

Click the **Create Config** button, select the desired **Operating System** (in this example we will be using **Linux**) and then click Next.

You will be presented with the **Edit NRDS Config** screen which will be pre-populated with some defaults.

Main Config

The **CONFIG_NAME** field is a name used to identify this config. Your remote clients will be requesting the config with this name, so once you deploy the clients you should not change the name of the config (otherwise you'll need to manually update the name of the configs on each client).

The **URL** field should be your NRDP server URL and this URL must be accessible from the client machines. It should be correctly populated by Nagios XI, however it can be changed if required.

The **TOKEN** drop down list will have a choice of valid tokens that have been set up in the NRDP server. You will have done this when you configured Inbound Transfers under **Admin > Check Transfers**.

Note: If you need to change your token on the NRDP server, it would be advised to add the new token to the NRDP server, then change it in the NRDS configs. Allow enough time for all of your client machine to connect and download the new config before removing the old token from the NRDP server.

Commands

The commands are the checks you would like the client to run every time the cron job is called and the results will be returned to the Nagios server.

They are listed one per line in the following format:
```
command[SERVICE NAME]=/path/to/command/to/run ARGS
```

One special **SERVICE NAME** is `__HOST__` and this will be used to specify the HOST check, whereas all other checks will be identified by whatever is in place of **SERVICE NAME**.

Additional Settings

The settings here should only need to be changed for custom setups.

Once you've completed making all the changes, click the **Save** button.

Edit NRDS Config

Main Config

URL is the NRDP URL on this server. The URL must be reachable by the client.

VERSION:	**0**
CONFIG_NAME	NDRS_Linux
URL	http://10.25.5.11/nrdp/
TOKEN	MbHpRJidIRLI

Commands

(One per line) format:
command[SERVICE_NAME]=/path/to/check_plugin ARGS

```
command[__HOST__]=/usr/local/nagios/libexec/check_ping -H localhost -w 200.0,40% -c 400.0,80% -p 1
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 Disk]=/usr/local/nagios/libexec/check_disk -w 20% -c 10% -p /
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
```

Additional Settings

These items are for advanced configurations and aren't normally changed.

PLUGIN_DIR	/usr/local/nagios/libexec
SEND_NRDP	/usr/local/nrdp/clients/send_nrdp.sh
TMPDIR	/usr/local/nrdp/clients/tmp
COMMAND_PREFIX	
LOG_FILE	
UPDATE_CONFIG	Yes
UPDATE_PLUGINS	Yes

[Save] [Apply] [Cancel]

Once the configuration is created it will now appear in the list:

Config Name	Directory	Owner	Group	Permissions	Last Changed	Actions
NDRS_Linux	configs	48	500	rw-rw----	2016-12-12 16:58:17	

Actions

In the list of configs there are four icons in the actions column which are explained as follows:

Edit

> Edit the existing config.

Client Install Instructions

> Please refer to the following section which explains this.

Download Client

> You can download a `.tar.gz` file of the client with the configs.

Delete

> This will remove the config, once deleted the clients will not longer be able to receive any

updates.

Client Installation Instructions

By clicking on the Client Install Instructions you will be presented with download code that can be used on every machine that will be using this configuration.

There are two pieces of information you will need to modify in the instructions per your requirements.

HOSTNAME - The name the client will send to the Nagios server as the host.
INTERVAL - The frequency in minutes that you want the checks to be run. (1-59)

For example:

```
./installnrds webserver01 5
```

The install process will perform the following operations:

- Install NRDS client

- Add a nagios user and group

- Add cron job to process checks

- Download plugins from the NRDP server

Once the client starts sending results, if the host/service has not been configured yet it will be found under **Admin > Monitoring Config > Unconfigured Objects**. From here the received check results can be used to create the required services using the Unconfigured Object wizard.

More information on the Unconfigured Objects and passive services can be found in the following documentation:

https://assets.nagios.com/downloads/nagiosxi/docs/Monitoring_Unconfigured_Objects_With_XI.pdf
https://assets.nagios.com/downloads/nagiosxi/docs/Configuring-Passive-Services-With-Nagios-XI.pdf

Plugins

Any plugins you want to run on the client machines should be loaded into the appropriate plugin sub-directory on the Nagios XI server. The base location is:

```
/usr/local/nrdp/plugins
```

Plugins should be placed in the folder that best matches their OS, then architecture of the machine. NRDS will search for the best available plugin by searching in the following order:

```
/usr/local/nrdp/plugins/$OS$/$ARCH$/$OS_VER$
/usr/local/nrdp/plugins/$OS$/$ARCH$
/usr/local/nrdp/plugins/$OS$
/usr/local/nrdp/plugins/Generic/$ARCH$
```

```
/usr/local/nrdp/plugins/Generic
/usr/local/nagios/libexec
```

This allows the same config to deliver plugins specific to different OS/architecture.

Additional Resources

We also have a video tutorial of the usage of NRDS available at the following location:

https://library.nagios.com/library/products/nagiosxi/tutorials/553-nagios-remote-data-sender-nrds-tutorial

Finishing Up

This completes the documentation on how to passively monitor hosts with Nagios XI by using Nagios Remote Data Sender (NRDS).

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