

The Industry Standard in IT Infrastructure Monitoring

Purpose

This document describes how to install, configure, and use the NRDP (Nagios Remote Data Processor) addon with either Nagios Core or Nagios XI.

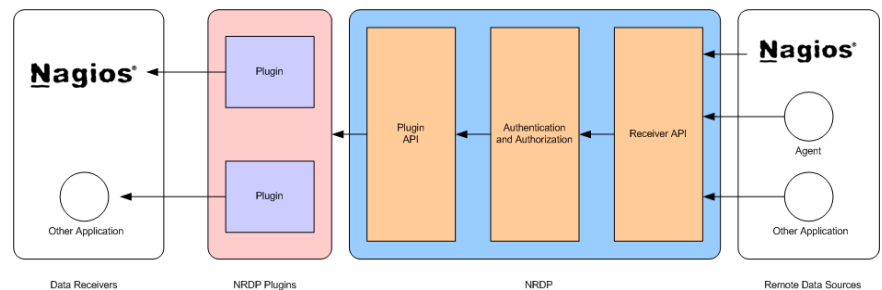
Target Audience

This document is intended for use by Nagios Administrators.

About NRDP

NRDP is designed to be a flexible data transport mechanism and processor for Nagios.

It is designed with a simple and powerful architecture that allows for it to be easily extended and customized to fit individual users' needs.



Capabilities

By default, NRDP has the capability of allowing remote agents, applications, and Nagios instances to submit commands and host and service check results to a Nagios server. This allows Nagios administrators to use NRDP to configure distributed monitoring, passive checks, and remote control of their Nagios instance in a quick and efficient manner.

The capabilities for NRDP can be extended through the development of additional NRDP plugins.

Benefits Over NSCA

The NSCA (Nagios Service Check Acceptor) addon has historically been the addon of choice for Nagios administrators that need to establish data feeds or passive check transmission between Nagios installations. The NRDP addon allows administrators to migrate from using NSCA to NRDP fairly easily.

NRDP has several benefits over NSCA, including:

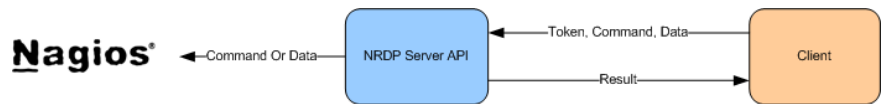
- NRDP uses standard ports and web protocols, which means that firewall configuration and client development is simplified
- NRDP uses the Apache web server to provide optional SSL encryption and authentication
- NRDP supports multi-line host and service check output
- NRDP write check output directly to the Nagios Core spool directory – bypassing the external command file for increased performance

How It Works

Step 1.

A remote client submits a request to the NRDP server API. The client needs to submit:

- A valid token that has been authorized in the NRDP server config file
- The command it is asking the NRDP server to process
- Data associated with the command



Step 2.

NRDP verifies the token and passes the client's request to the appropriate NRDP plugin.

Step 3.

An NRDP plugin processes the client's request and submits data to Nagios or another application.

Step 4.

NRDP returns result information to the client in XML format.

Getting NRDP

The latest version of NRDP can be obtained from the following URL:

<http://assets.nagios.com/downloads/nrdp/nrdp.zip>

Installation Instructions

First, login to your Nagios server as the root user.

Download and unpack the NRDP package in the /tmp directory:

```
cd /tmp
wget http://assets.nagios.com/downloads/nrdp/nrdp.zip
unzip nrdp.zip
```

Create an installation directory for NRDP:

```
mkdir /usr/local/nrdp
```

Copy the NRDP files to the installation directory:

```
cd nrdp
cp -r * /usr/local/nrdp
```

Set permissions on NRDP directory/files:

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

Edit the NRDP server config file:

```
vi /usr/local/nrdp/server/config.inc.php
```

And add at least one token string to the `$cfg['authorized_tokens']` variable. Example:

```
$cfg['authorized_tokens'] = array(
    "asd7fjk3l34",
    "df23m7jadI34",
);
```

Copy the Apache configuration file for NRDP. Optionally edit the `/etc/httpd/conf.d/nrdp.conf` file to configure settings as you need to restrict access by address or enable SSL or basic authentication.

```
cp nrdp.conf /etc/httpd/conf.d
```

Restart Apache

```
/etc/init.d/httpd restart
```

The NRDP server has now been installed!

Testing The NRDP API

Once you install NRPE, you can test the NRDP server API by accessing:

```
http://<ipaddress>/nrdp
```

where `<ipaddress>` is the IP address of your Nagios server.

The API test page will allow you to submit either a command or one or more host and service checks to Nagios.

Note: You must enter a valid token in order to access the API. Use a token that you defined in the `$cfg['authorized_tokens']` variable in the NRDP server config file.

Submit Nagios Command:

Token:

Command:

Submit Check Data

Token:

Check Data:

```
<?xml version='1.0'?>
<checkresults>
  <checkresult type='host'>
    <hostname>somehost</hostname>
    <state>0</state>
    <output>Everything looks okay!|perfdats</output>
  </checkresult>
  <checkresult type='service'>
    <hostname>somehost</hostname>
    <servicename>someervice</servicename>
    <state>1</state>
    <output>WARNING: Danger Will Robinson!|perfdats</output>
  </checkresult>
</checkresults>
```

Using The NRDP Client

A basic client is distributed with the NRDP addon. After NRDP is installed, you will find a `send_nrdp.php` client located on your Nagios server at the following location:

```
/usr/local/nrdp/clients/send_nrdp.php
```

You can distribute this standalone client to remote Linux servers that you want to submit check results or send commands from. The client requires that PHP be installed on the server the client runs from.

You can execute the client without command arguments to get usage information:

```
/usr/bin/php /usr/local/nrdp/clients/send_nrdp.php
```

The output from the client will show you the available options. Example:

```
send_nrdp - NRDP Host and Service Check Client  
Copyright (c) 2010 Nagios Enterprises, LLC
```

```
Usage: /usr/local/nrdp/clients/send_nrdp.php --url=<url> --token=<token> --host=<hostname> [--  
service=<servicename>] --state=<state> --output=<output>
```

```
<url>           = The URL used to access the remote NRDP agent.  
<token>        = The secret token used to access the remote NRDP agent.  
<hostname>     = The name of the host associated with the passive host/service check result.  
<servicename> = For service checks, the name of the service associated with the passive check  
result.  
<state>       = An integer indicating the current state of the host or service.  
<output>      = Text output to be sent as the passive check result. Newlines should be encoded  
with encoded newlines (\n).
```

Send a passive host or service check result to a remote Nagios instance using the NRDP agent.

An example usage of the client to send a passive check result to an NRDP server running at IP address 192.168.1.5 is:

```
/usr/bin/php /usr/local/nrdp/clients/send_nrdp.php --url=http://192.168.1.5/nrdp --token=sometoken  
--host=somehost --service=someservice --state=0 --output="The service looks okay"
```