

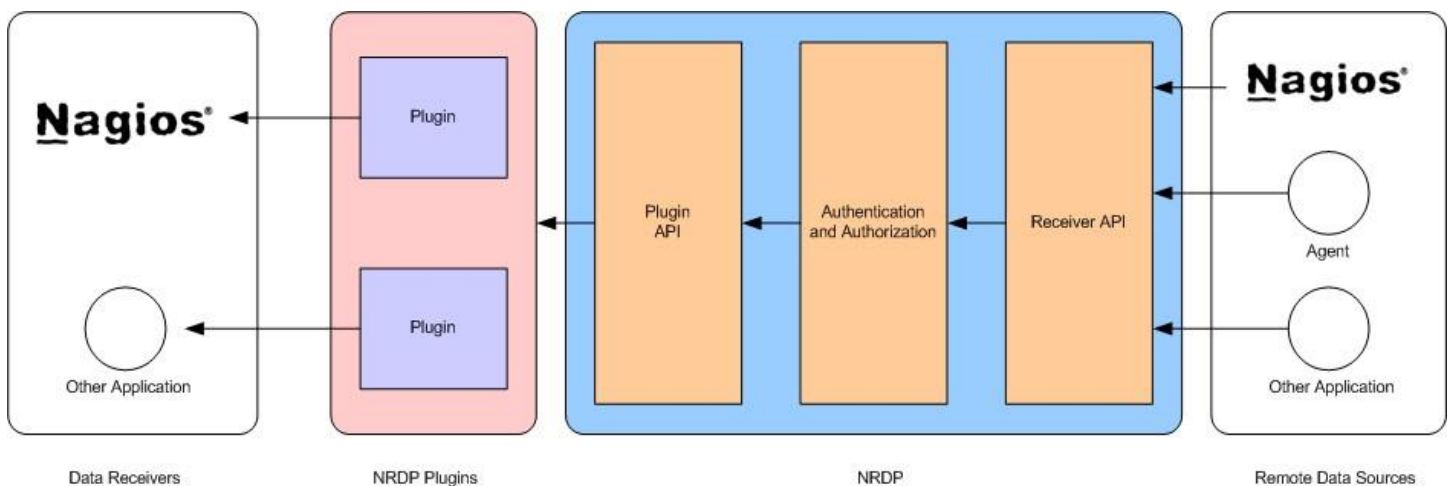
How to Use NRDP in Nagios XI and Core

Purpose

This document describes how to use NRDP in Nagios XI & core.

About NRDP

NRDP is designed to be a flexible data transport mechanism and processor for Nagios, built on top of web technologies which are becoming a more popular transport mechanism. It is designed with simple and powerful architecture that allows it to be easily extended and customized to fit individual users' needs.



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

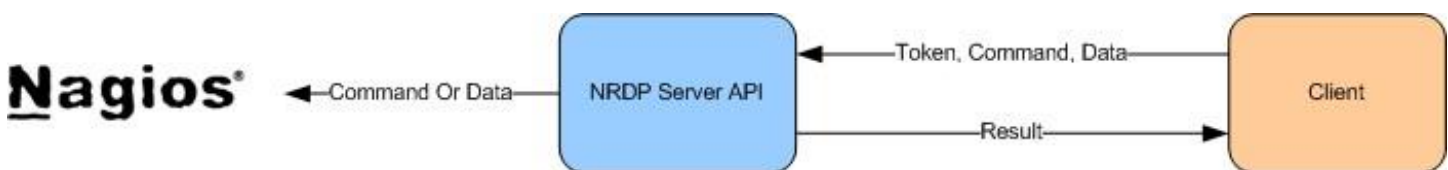
NRDP has several benefits over NSCA, including:

- Uses standard ports and web protocols, which means that firewall configuration and client development is simplified.

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- Uses the Apache web server to provide optional SSL encryption and authentication.
- Supports multi-line host and service check output.
- NRDP writes check output directly to the Nagios Core spool directory, by passing the external command file for increased performance.

How It Works



Submit Request

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 command.

Verify

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

Process

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

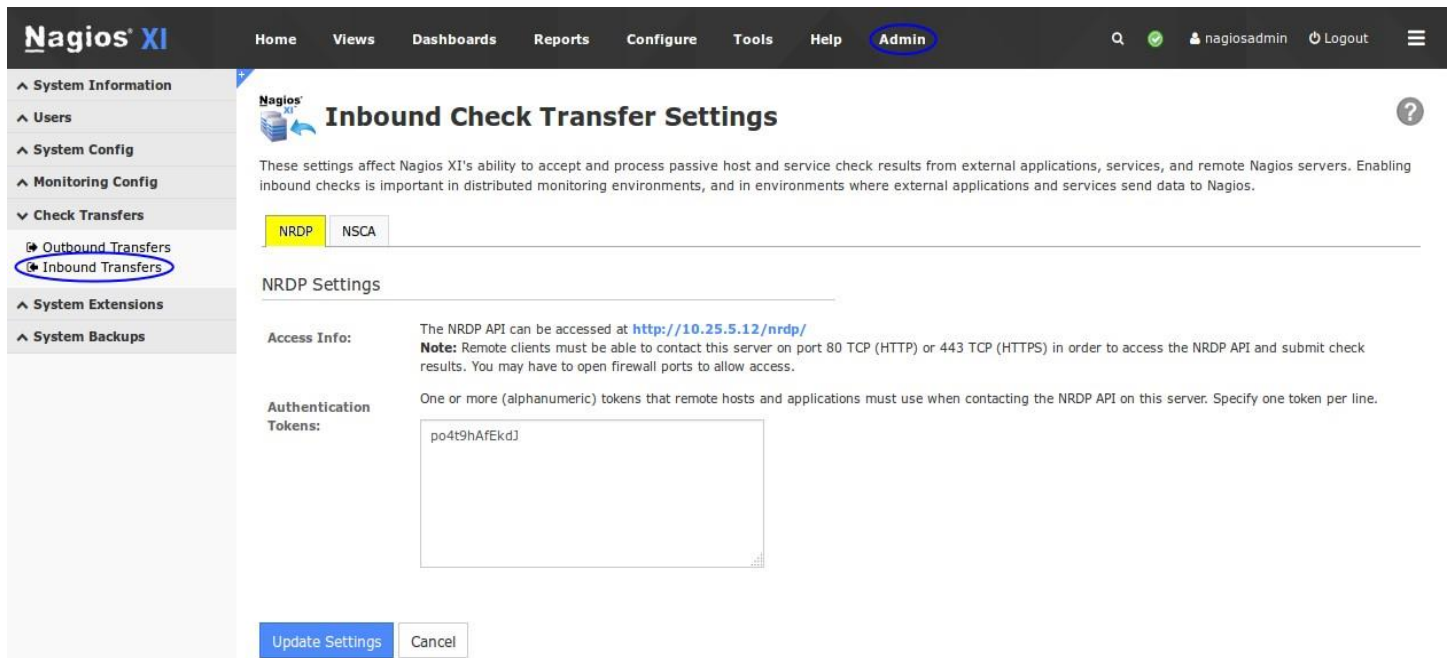
Return Result

NRDP returns result information to the client in XML format.

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NRDP In Nagios XI

NRDP is already installed in Nagios XI. To configure NRDP navigate to **Admin > Check Transfers > Inbound Transfers**.



The screenshot shows the Nagios XI web interface. The top navigation bar includes Home, Views, Dashboards, Reports, Configure, Tools, Help, and Admin (circled in red). The left sidebar shows a menu with System Information, Users, System Config, Monitoring Config, Check Transfers (expanded), Outbound Transfers, and Inbound Transfers (circled in red). The main content area is titled "Inbound Check Transfer Settings" and includes a description of the settings, tabs for NRDP and NSCA, and a section for NRDP Settings. The NRDP Settings section contains "Access Info" with a URL and a note, and "Authentication Tokens" with a text input field containing "po4t9hAfEKdJ". At the bottom are "Update Settings" and "Cancel" buttons.

The only configuration setting required is to define Authentication Token(s) on the server. By default, a randomly generated token is already defined in Nagios XI. You can define as many tokens as you require. The token is what the client uses to authenticate with NRDP on the Nagios XI server. You can use the same token on all your clients, or you could define a different token for each client. Defining a different token for each client allows you to revoke access later by removing the token, but it also adds an extra level of administration.

NRDP In Nagios Core

The latest version of NRDP can be obtained from [GitHub](#).

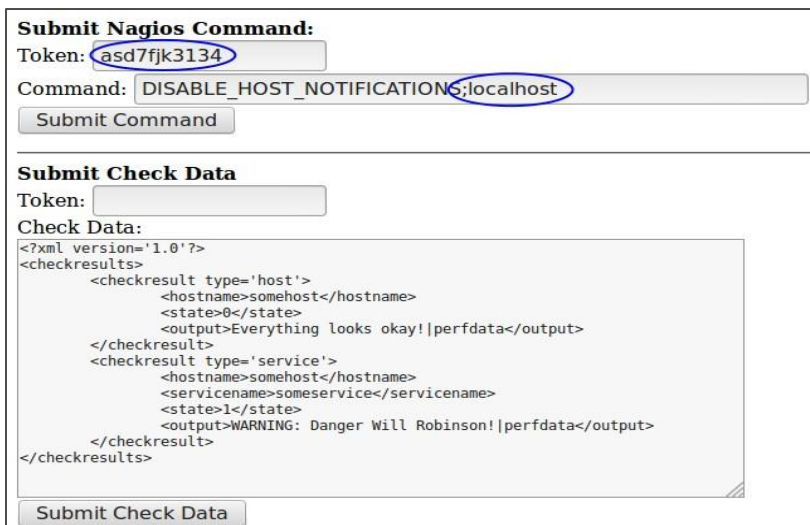
To install NDRP please refer to this [KB article](#), it contains detailed instructions for many operating systems.

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Testing The NRDP API

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

`http://<ipaddress>/nrdp`



The screenshot shows a web interface for testing the NRDP API. It is divided into two main sections: 'Submit Nagios Command' and 'Submit Check Data'. In the 'Submit Nagios Command' section, there is a 'Token' field containing 'asd7fjk3134' and a 'Command' field containing 'DISABLE_HOST_NOTIFICATIONS;localhost'. Below these fields is a 'Submit Command' button. The 'Submit Check Data' section has a 'Token' field and a 'Check Data' field containing XML data. Below this field is a 'Submit Check Data' button.

```
Submit Nagios Command:
Token: asd7fjk3134
Command: DISABLE_HOST_NOTIFICATIONS;localhost
Submit 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!|perfdato</output>
  </checkresult>
  <checkresult type='service'>
    <hostname>somehost</hostname>
    <servicename>some-service</servicename>
    <state>1</state>
    <output>WARNING: Danger Will Robinson!|perfdato</output>
  </checkresult>
</checkresults>
Submit Check Data
```

Where `<ipaddress>` is the IP address of your Nagios XI or Nagios Core 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 to use the API. Use a token that you defined in Nagios XI Inbound Transfers OR in Nagios Core in the `$cfg[' authorized_tokens ']` array in the NRDP server config file `config.inc.php`.

In the screenshot above you can see that under **Submit Nagios Command**, the Token has been provided and in the **Command** field the **localhost** object is being targeted.

Once you click the **Submit Command** button the screen will refresh with a result of the command in XML.

```
-<result>
  <status>0</status>
  <message>OK</message>
</result>
```

How to Use NRDP in Nagios XI and Core

When you check the status in Nagios XI or Nagios Core you will see that notifications are now disabled:

Host	Status	Duration	Attempt	Last Check	Status Information
localhost	Up	6h 15m 3s	1/10	2017-02-21 16:47:33	OK - 127.0.0.1: rta 0.010ms, lost 0%

Last Updated: 2017-02-21 Notifications are disabled for this host Page 1 of 1 15 Per Page Go

Limit Results: 100

Host	Status	Last Check	Duration	Status Information
localhost	UP	02-21-2017 16:41:04	119d 5h 0m 9s	PING OK - Packet loss = 0%, RTA = 0.03 ms

Results 1 - 1 of 1 Matching Hosts Notifications for this host have been disabled

Using The NRDP Client

A basic client is distributed with the NRDP add-on. After NRDP is installed, you will find `send_nrdp.php`, `send_nrdp.py` and `send_nrdp.sh` clients located on your Nagios server at the following location:

```
/usr/local/nrdp/clients/
```

You can distribute this standalone client to remote Linux servers that you want to submit check results or send commands from. The client you choose to use is entirely up to you, they each provide the same basic functionality. Detailed examples on how to use each one of these clients can be found in this [KB article](#):

In Nagios XI you can use the Nagios Remote Data Sender (NRDS) Config Manager to extend the capabilities of the NRDP client. A summary of NRDS is as follows:

- NRDS allows you to create config files to be distributed to remote clients.
- The clients will process the checks passively at the interval specified when installed.
- Any modifications to the config will be picked up by the clients using that configuration.
- Additionally, any plugins needed by the remote machine will be downloaded every time the configuration changes.

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Here is an example screenshot of a NRDS config:

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

URL

TOKEN

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

SEND_NDRP

TMPDIR

COMMAND_PREFIX

LOG_FILE

UPDATE_CONFIG

UPDATE_PLUGINS

Please refer to the following documentation for more detailed information on NRDS: [Nagios XI - Passive Monitoring With NRDS](#)

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Finishing Up

This completes the documentation on how to use NRDP in Nagios XI & core. 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](#)