## Purpose

This document describes how to use Nagios Remote Data Processor (NDRP) as a distributed monitoring solution. You will be shown how a central Nagios XI server can receive check results from Nagios XI and Nagios Core servers.

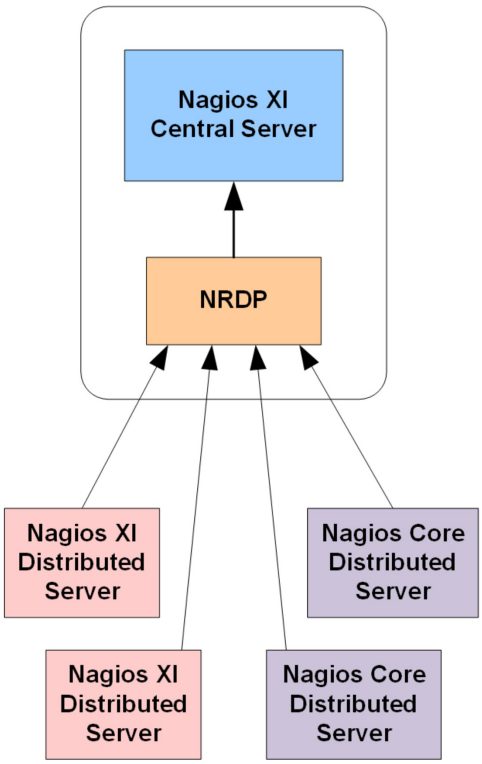
## Target Audience

This document is intended for use by Nagios Administrators that require a central Nagios XI server that will receive check results from Nagios XI or Nagios Core servers.

## Overview

Nagios XI comes bundled with NRDP, a flexible data transport mechanism that can be used to accept check results from Nagios XI and Nagios Core servers. With this solution, the central Nagios XI server does not perform any active monitoring, it is simply receiving passive check results from Nagios XI and Nagios Core servers.

- Nagios XI Central Server
  - Accepts incoming NRDP check results via http or https (https is more secure)
  - Configured via Inbound Transfers
- Nagios XI Distributed Servers
  - Sends host and service check results to the central Nagios XI server
  - Configured via Outbound Transfers
- Nagios Core Distributed Servers
  - Sends host and service check results to the central Nagios XI server
  - Configured using the Obsessive Compulsive Processor Commands



## Configure Central Nagios XI Server

Nagios XI already has the NDRP components installed, the only step required is to define the token(s) to be used by the remote servers. The NDRP configuration is located at **Admin** > **Check Transfers** > **Inbound Transfers**. Detailed documentation on configuring inbound checks is located in the following documentation:
Nagios XI - Configuring Inbound Checks

It is recommended that NRDP is configured to use SSL/TLS (https) for security and encryption. Please refer to the following documentation for steps on how to implement this:
NRDP - Configuring SSL/TLS

## Configure Distributed Nagios XI Server(s)

When using Nagios XI as the distributed monitoring server, the NDRP components are already installed, all that is required is to define the target host to send the check results to (the central Nagios XI server). This setting is located at **Admin** > **Check Transfers** > **Outbound Transfers**. Detailed documentation on configuring outbound checks is located in the following documentation:
Nagios XI - Configuring Outbound Checks

It is worth mentioning that **Host Name Filters** can be applied so that check results for specific hosts and services can be excluded.

Once configured please proceed to the Unconfigured Objects section in this document.

# Configure Distributed Nagios Core Server(s)

When using Nagios Core as the distributed monitoring server you will need to perform the following:

- Install `send_nrdp.php` script
- Create host and service command definitions for the `send_nrdp.php` script
- Define Obsessive Compulsive Processor Commands in `nagios.cfg`
- Disable obsession on specific host or service objects
- Restart Nagios Core

### Install send_nrdp.php script

Execute the following commands on your Nagios Core server:

```
cd /usr/local/nagios/libexec/
wget -O send_nrdp.php https://raw.githubusercontent.com/NagiosEnterprises/nrdp/master/clients/send_nrdp.php
chmod +x send_nrdp.php
chown nagios:nagios send_nrdp.php
```

### Create Host And Service Commands

You will now need to create the commands that will be used by the obsessive compulsive processor commands. The `.cfg` file that you need to place these commands will be specific to your Nagios Core deployment, this example will use the `/usr/local/nagios/etc/objects/commands.cfg` file. These command definitions require:

- The NRDP token defined on the central Nagios XI server, these examples use
  - `--token XXXXX`
- The NRDP URL of the central Nagios XI server, these examples use
  - `--url https://10.25.5.17/nrdp/`
- `command_line` should be typed as one long line (wrapped over multiple lines below)

```
define command{
    command_name     send_nrdp_host
    command_line     $USER1$/send_nrdp.php --url=https://10.25.5.17/nrdp/ --token=XXXXX
    --host="$HOSTNAME$" --state=$HOSTSTATEID$ --output="$HOSTOUTPUT$|$HOSTPERFDATA$"
    }

define command{
    command_name     send_nrdp_service
    command_line     $USER1$/send_nrdp.php --url=https://10.25.5.17/nrdp/ --token=XXXXX
    --host="$HOSTNAME$" --service="$SERVICEDESC$" --state=$SERVICESTATEID$
    --output="$SERVICEOUTPUT$|$SERVICEPERFDATA$"
    }
```

### Define Obsessive Compulsive Processor Commands

The next step is to configure `nagios.cfg` to use these commands and to enable the obsessive compulsive processor commands. This example will use the `/usr/local/nagios/etc/nagios.cfg` file, edit it and make the following changes.

```
obsess_over_hosts=1
obsess_over_services=1
ochp_command=send_nrdp_host
ocsp_command=send_nrdp_service
```

### Disable Obsession On Specific Host Or Service Objects

By default the `obsess` directive on host and service objects will be set to `1` if it is not defined. There are some objects on your distributed server that should not be reported back to the central Nagios XI server. The most common is the `localhost` host object and it's services. These objects already exist on the central Nagios XI server and if your distributed server is sending the same check results back then it will be really confusing when there is an issue. All that is required is the directive `obsess 0` to be defined on any of these host and service objects.

### Restart Nagios Core

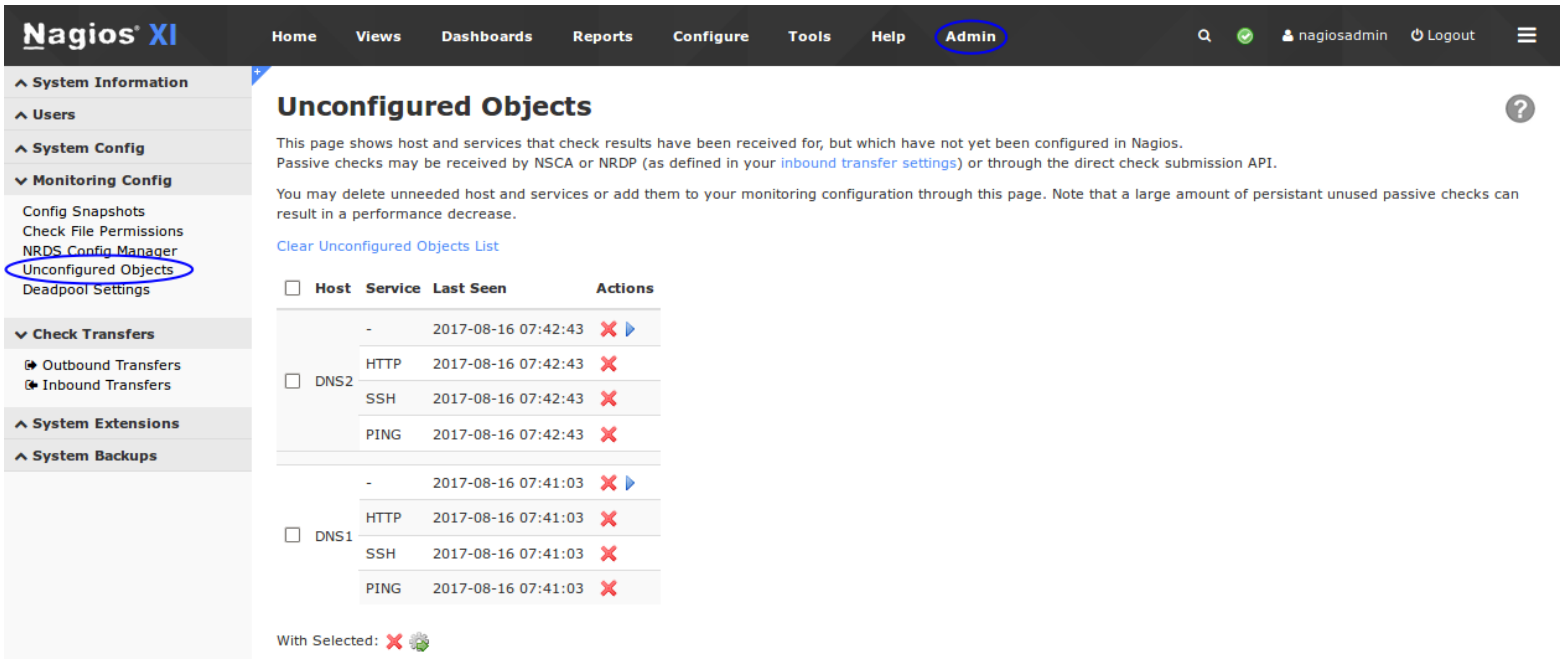
After making all of those changes you need to restart Nagios Core to implement them. Execute the restart command specific to your operating system, for example in CentOS/RHEL:

```
service nagios restart
```

You can now proceed to the Unconfigured Objects section in this document.

## Unconfigured Objects

Once the central Nagios XI server receives the check results from the distributed Nagios servers they need to be added to the Nagios XI configurations so they appear in the interface. Navigate to **Admin** > **Monitoring Config** > **Unconfigured Objects**.




Using the icons on this page you will add these objects to your monitoring configuration using the Unconfigured Passive Object wizard.

Once the wizard has finished, the objects will remain in a Pending state until the next check result is received.

| Host | Service | Status | Duration | Attempt | Last Check | Status Information |
|---|---|---|---|---|---|---|
| DNS1 | HTTP | Pending | N/A | 1/1 | N/A | No check results for service yet... |
| | PING | Ok | 24s | 1/1 | 2017-08-16 07:58:37 | PING OK - Packet loss = 0%, RTA = 0.57 ms |
| | SSH | Pending | N/A | 1/1 | N/A | No check results for service yet... |
| DNS2 | HTTP | Critical | 1m 27s | 1/1 | 2017-08-16 07:57:34 | connect to address dns2.box293.local and port 80: Connection refused |
| | PING | Ok | 1m 0s | 1/1 | 2017-08-16 07:58:01 | PING OK - Packet loss = 0%, RTA = 0.41 ms |
| | SSH | Pending | N/A | 1/1 | N/A | No check results for service yet... |

More detailed information about unconfigured objects and passive services can be found in the following documentation:

Monitoring Unconfigured Objects With Nagios XI

Configuring Passive Services With Nagios XI

An overview of NRDP can be found in the following documentation:

NRDP Overview

## Finishing Up

This completes the documentation on distributed monitoring with NRDP and Nagios XI.

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