

## The Industry Standard in IT Infrastructure Monitoring

### Purpose

This document describes different methods for configuring a distributed monitoring solution with Nagios.

### Target Audience

This document is intended for use by Nagios Administrators.

### Distributed Monitoring Overview

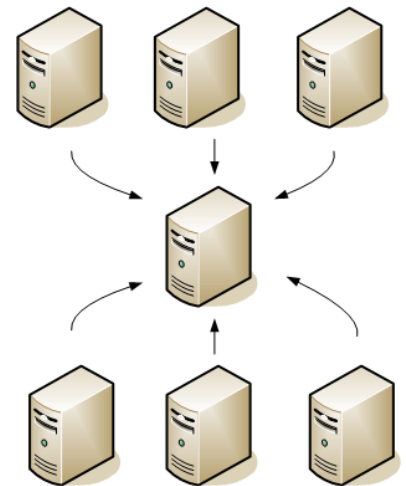
The goal of distributed monitoring is to allow your Nagios environment to monitor a large infrastructure.

Methods of achieving a distributed monitoring solution can sometimes be complicated. Before you embark on designing and deploying a distributed monitoring solution you should outline the goals you wish to achieve with the solution you are proposing.

This document describes different options for setting up a distributed monitoring environment, along with their strengths and weaknesses. No single solution is the “right” solution for every environment. The method you choose to implement should be based on your end-goals, as well as the time and effort required to deploy and maintain the chosen solution.

The following distributed monitoring solutions are covered in this document:

- **Mod-Gearman**
- **Nagios Fusion**
- **Federated Monitoring**

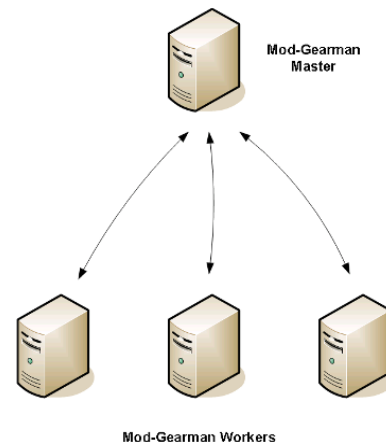


## Mod-Gearman

Mod-Gearman is a popular load-balancing add-on that works with both Nagios Core and Nagios XI. It is suitable for admins with relatively large installations who need to reduce the load on their monitoring server by offloading checks to other machines.

Mod-Gearman approaches the problem of scalability and complexity of distributed Nagios setups with a master/worker configuration, where one Nagios server hands out jobs to worker nodes. These worker nodes have the Nagios plugins installed, but do not have any configuration of their own, and no checks actually “assigned” to them. This relieves the administrator of the problem of having to maintain configurations on multiple machines and losing service checks if a worker node goes down.

With Mod-Gearman, the master server contains all of the configuration and check definitions. Each time a check needs to be executed, the master server passes it off to one of the worker nodes to complete, and the worker node then reports back with the results. Worker nodes can be added or removed at will, as the master keeps track of which ones are telling it they are available, and adjusts its assignments accordingly.



### Mod-Gearman Highlights

- Expand your monitoring setup by adding more worker nodes
- Configuration is handled on the central (master) server
- Performance graphing and other I/O intensive tasks are handled on the central server, which may limit scalability

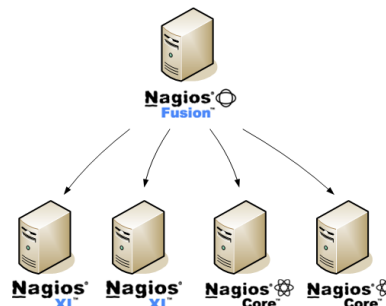
More information on using Mod-Gearman with Nagios can be found in the following documents:

- [Integrating Mod-Gearman With Nagios XI](#)
- [Mod-Gearman Queues and Workers](#)

## Nagios Fusion

Nagios Fusion is a commercial distributed monitoring solution that provides a central dashboard to multiple Nagios Core or Nagios XI servers.

Fusion allows you to scale your monitoring environment by deploying additional Nagios XI or Nagios Core servers to monitor additional hosts, services, and applications. Each XI or Core server monitors a portion of the entire infrastructure, and Fusion provides a central dashboard that allows you to quickly see the status of everything from a single page.



### Nagios Fusion Highlights

- Expand your monitoring setup by adding more monitoring servers
- Multiple users can be setup to access the Fusion interface
- Users can customize their views and dashboards
- Automatic authentication to distributed Nagios XI servers
- Central dashboard provides overall picture of environment
- Configuration is handled on the distributed (child) servers
- Performance graphing and other I/O intensive tasks are handled by the distributed servers

More information on Nagios Fusion and its capabilities can be found at:

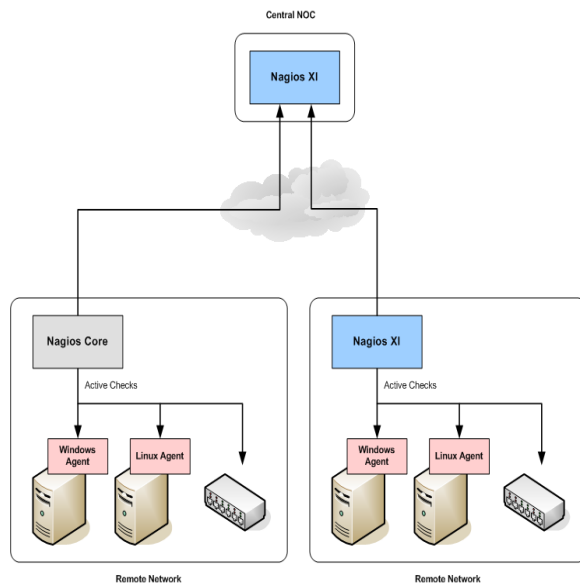
<http://www.nagios.com/products/nagiosfusion>

## Federated Monitoring

MSPs with clients that have large remote networks, or that require complex or in-depth monitoring of remote network elements may choose to deploy a federated monitoring architecture.

In this model, remote networks and their elements are monitored by dedicated Nagios servers. Each remote Nagios server may be managed by central NOC staff or by the client. Notifications, reports, and configuration is generally handled by each remote Nagios server.

Remote Nagios servers can be configured to transfer check results (status information) back to a central Nagios XI server at the NOC. This allows NOC staff to have a birds-eye view of the entire network, and provides them with centralized reporting and optional notifications.



### Federated Monitoring Highlights

- Distributed management, notifications, and reporting
- Clients can be given administrative access to the Nagios server on their network
- Onsite monitoring servers allow for more powerful, in-depth monitoring capabilities than other models
- Central monitoring server can be configured with different notification settings relevant to NOC staff

## Other Solutions

Other contributed solutions for facilitating a distributed monitoring setup can be found in the “Distributed Monitoring” category of the Nagios Exchange site at:

<http://exchange.nagios.org/directory/Addons/Distributed-Monitoring>