Purpose
This document describes various monitoring architectures that are suitable for deployment by both Managed Service Providers (MSPs) and large organizations with remote locations.

Target Audience
This document is intended for use by system administrators and project managers involved in the planning and deployment of a distributed monitoring solution.

Documentation Resources
Technical documentation that can be used to design and deploy a monitoring solution is available on the Nagios Library (http://library.nagios.com).

Solutions Overview
The solutions presented in this document are examples of how to design a monitoring architecture, but they are not absolutes. It is common to mix features of different architectures when designing a solution to meet your organizational needs.
Option 1 - Central Monitoring

MSPs may choose to deploy a central monitoring server at their NOC. In this model, monitoring configuration, notifications, and reporting are handled by the central Nagios XI server.

The central monitoring server can be configured to monitor clients' public websites and email servers.

If MSPs have direct access to the network elements on a remote network (through a persistent VPN or some other method), they can configure the central monitoring server to monitor Windows and Linux machines, as well as network devices (switches, routers, etc).

In the case of inaccessible networks (due to firewalls, proxies, etc), MSPs can install passive agents on remote Windows machines to allow for monitoring of disk, memory, and CPU metrics, as well as service state.

Feature Highlights:

- Centralized management, notifications, and reporting
- Central monitoring system can be configured with multi-tenancy features
- Some administrative tasks limited to central NOC staff
- Passive agents allow monitoring of otherwise inaccessible network servers

Recommended Reading:

The following documents located on the Nagios Library [http://library.nagios.com](http://library.nagios.com) are useful in understanding the agents, components, and configuration necessary to deploy a central monitoring solution:

- Multi-Tenancy With Nagios XI
- Using NSClient++ For Passive Checks
- Monitoring Unconfigured Objects With Nagios XI
- Configuring Passive Services In Nagios XI
- Monitoring Windows Event Logs With Nagios XI
- Installing The XI Linux Agent
- Installing The XI Windows Agent
Option 2 - 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 bird's-eye view of the entire network, and provides them with centralized reporting and optional notifications.

Feature 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

Recommended Reading:

The following documents located on the Nagios Library (http://library.nagios.com) are useful in understanding the agents, components, and configuration necessary to deploy a federated monitoring solution:

• Multi-Tenancy With Nagios XI
• Monitoring Windows Event Logs With Nagios XI
• Installing The XI Linux Agent
• Installing The XI Windows Agent
Nagios Fusion

MSPs that deploy multiple Nagios servers may wish to have a central dashboard that provides high-level information on the status of monitored system. Nagios Fusion is designed to fit those needs.

Nagios Fusion is designed to provide IT staff with a means of visualizing the operational status of Nagios monitoring servers across an organization’s entire IT infrastructure. It can display the status of both Nagios XI and Nagios Core servers, making it an ideal solution for keeping track of the status of monitored elements across your entire network.

Nagios Fusion provides automatic authentication to remote Nagios XI servers. Once a user logs into the central Nagios Fusion interface, they are automatically authenticated to remote Nagios XI servers. This makes it easy for central NOC staff to quickly run reports, adjust settings, and change the configuration of remote Nagios XI server.

More information on Nagios Fusion can be found online at:

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

Nagios XI vs. Nagios Core

Both Nagios XI and Nagios Core are highly capable of monitoring network elements. Nagios XI is generally recommended for MSPs, as it provides many features over Nagios Core that make it an attractive solution, including:

- Per-user preferences
- Dashboards
- Advanced reporting
- Web-based configuration
- Data visualizations

Design And Deployment Assistance

Nagios Enterprises can provide your organization with assistance in designing and deploying an effective monitoring solution for your company’s needs.

More Information

For more information on Nagios monitoring solutions, contact us:

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