



# Nagios<sup>®</sup>

LinoBox Technology Solutions provides One day workshop cum training program for Nagios. Our trainings are conducted in Mumbai. For students outside Mumbai we provide a complete package including accommodation etc, for more details kindly call us for pricing. If requested we provide on-site training at client premises.

**Topic:** Nagios - Monitoring Server

**Date:** 8th August 2009 (weekend - saturday)

**Time:** 10am till 5pm

**Fees:** Rs. 2000

## **Who should attend?**

Current or potential system administrators who need to administer, integrate and use Nagios as a monitoring solution.

## **Course objective:**

This course will provide the trainee the understanding of the conceptual framework of Nagios, are able to install and maintain Nagios and have experience to intelligently integrate Nagios into their IT environment.

At the end of the course, trainees will learn how to:

- Installing Nagios, NRPE, NDO, Plugins
- Understanding of configuration file structure
- How to monitor windows, linux/unix servers, switch, UPS, etc
- Configure Thresholds
- NagVis installation
- PNP-Grapher

This course will also provide the trainee the understanding of the Nagios plug-in architecture

- Distributed Monitoring
- Nagios optimization for large (enterprise deployment)
- Plug-in-Architecture
- How to create own check-plugins

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## Course Curriculum:

### # Introduction to Nagios

- \* Overview of the Nagios system
- \* Common Use Cases
- \* Features & Functionality
- \* Extensibility
- \* Licensing Restrictions

### # Installing Nagios

- \* Overview of Installation Procedure
- \* Understanding & Installing pre-requisites
- \* Adding Nagios Accounts & Configuring Security
- \* Installing Nagios
- \* Installing Nagios Plugins

### # Understanding the Nagios Configuration Files

- \* The Main Nagios Configuration File
- \* Understanding Resource File(s)
- \* Object Definition File(s)
- \* CGI Configuration File(s)

### # Configuring the Nagios Web Interface (and associated permissions)

### # Starting and Stopping Nagios (including init scripts)

### # Configuring & Using Nagios Plugins

- \* Understanding the Nagios Plugin model
- \* Locating Plugins online
- \* Downloading and Installing Plugins
- \* Determining How to Use Plugins (--help)
- \* Understanding Nagios Macros
- \* Configuring & Using Basic Plugins with Macros
- \* Configuring Nagios Plugins
  - o Host Checks
  - o Verification of Services
  - o Passive Checks
  - o Handling Transient Failures/Errors (SOFT/HARD states)
  - o Controlling Check Frequency and Timeouts
- \* Monitoring Windows System States (private services)
  - o Installing NSClient++
  - o Configuring the check\_nt Plugin
  - o Configuring the Windows Agent
  - o Configuring Authentication Credentials

## **# Configuring Email Notifications with Nagios**

- \* Get notified when service or host problems occur via E-mail, pager, and cellphone.
- \* If you don't answer the call, Nagios has multi-user notification escalation capabilities - it'll call the next person in line.

## **# Configuring Nagios Event handlers**

- \* Understanding Local and Global Event Handlers
- \* Defining Commands for Event Handlers
- \* Basic Event Handler Scripts
- \* Debugging Event Handlers
- \* Firing SNMP Traps with Event Handlers

## **# Problem Remediation**

- \* Event handlers allow automatic restart of failed applications, services, and services

## **# Define Host Status**

- \* Create a recognition of down and unreachable servers to eliminate false positives.

## **# Monitoring Common Services with Nagios**

- \* Monitoring PostgreSQL with Nagios
- \* Monitoring MySQL with Nagios
- \* Monitoring Apache with Nagios
- \* Monitoring SMTP with Nagios
- \* Monitoring IMAP with Nagios
- \* Monitoring POP with Nagios
- \* Monitoring NFS with Nagios
- \* Monitoring Tomcat with Nagios
- \* Monitoring Printers with Nagios
- \* Monitoring Switches with Nagios
- \* Monitoring Routers with Nagios

## **# Monitoring of Host Resources**

- \* Nagios will allow you to monitor processor load, disk and memory usage, running processes, log files, etc.

## **# Monitoring of Environmental Factors**

- \* Able to monitor temperature changes and problems with Nagios.

## **# Modelling the Network in Nagios**

- \* Adding Connectivity Information
- \* Understanding Nagios Parent/Child host relationships.

## **# Nagios addons**

- \* Nagios Remote Plugin Executor (NRPE)
  - Nagios Remote Plugin Executor
  - Installation and Configuration of NRPE

- Monitoring Local Resource from Remote Nagios Server
- check\_nrpe plugin
- Xinetd Modification for NRPE

- \* Nagios Service Check Acceptor (NSCA)
- \* NagVis
- \* NDOutils
- \* PNP4Nagios
- \* NagiosGrapher
- \* NagiosQL - a web based administration tool
- \* Statusmap Icons
- \* Add-ons for Firefox

### # **Creating Custom Nagios Plugins**

- \* Understanding Plugin Return Codes
- \* Understanding Plugin Output Requirements
- \* Understanding Plugin Output Requirements

### # **Multi-Tenant Capabilities**

- \* Multi-user access to web interface allows stake holders to view infrastructure status
- \* User-specific views ensures clients see only their infrastructure components

# **Nagios®**