Nagios XI vs. Kronometrix - Comparative evaluation

In this article, we compare monitoring software for monitoring server environments. Both are popular with data centers and server administrators. Nagios XI is a product that has been on the market for a long time and is very widely used. Kronometrix is newer and has a slightly different design philosophy.

In the article, we compare the products through seven points. They are:

- Installation and Deployment
- Configuration
- Dashboard and User Interface
- Protocol Support
- Alarms
- Notifications
- Pricing

Note! The article is not completely unbiased, but we have tried to find the concrete differences between the products. You should always choose the product that best suits the situation.
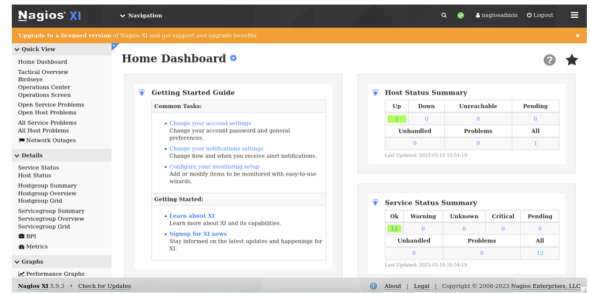
Kronometrix

ver 1.8.6
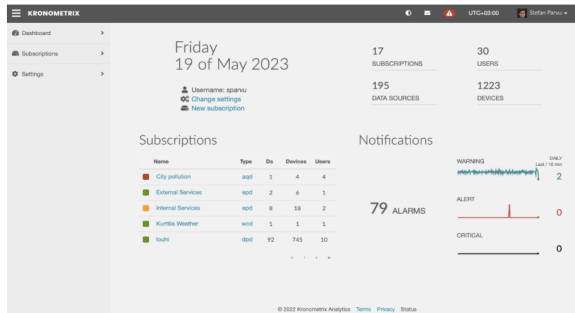
NagiosXi

ver 5.9.3

Nagios XI vs. Kronometrix: Installation and Deployment

Nagios & Kronometrix are both easy to install

Nagios XI includes several methods to deploy inside your organization, supporting several operating systems from Windows to Linux or a ready virtual machine image for VMware hypervisor. The installation process is simple, offering access to a quick method to automatically fetch all needed components from the network, or a manual setup, based on a full installation image which includes everything inside.

Kronometrix is an easy to use data analytics platform, which offers all necessary tools and components, delivered as a single package available for different computer systems. It includes its own operating system, powered by FreeBSD, and running several web services on top of OpenResty and Redis to capture and analyse various data. It can be deployed easily on any cloud provider or a private network, on bare-metal or a virtual platform, using KVM, Xen, Nutanix, Vmware, HyperV or VMware hypervisors.

Kronometrix has been designed to run with less system components than NagiosXi which makes it simpler to deploy and maintain over time, related to system and security updates.

Nagios XI uses several operating systems utilities and applications to function and perform its operations: Cron, Perl, PHP, Apache, Postgresql compared with fewer system components used by

Kronometrix is built only on top of OpenResty and Redis to reduce complexity and speed up processing. Kronometrix does not rely on Cron jobs, having its own system of scheduling different tasks at different moments of time. Compared to Nagios it uses fewer system components.

Having fewer system components and modules means less maintenance and support, improved security and easy adoption to run on different computer system architectures, like ARM64. This makes Kronometrix more attractive for Edge computing deployments, using single-board computers like Raspberry PI than NagiosXi.

Nagios vs. Kronometrix: Configuration

To get started Nagios XI requires very few steps to configure and setup: the time zone, the user interface theme and language, and the user administrator password, using a web browser. The configuration is very straight forward, automatically set, without any extra steps needed to accomplish.

Kronometrix data analytics platform offers a separate UI access to all platform core component functionality. This level is called the operator level and it is accessed via a separate URL and port number, entirely separated from the users and data processing. The operator level (admin level) can run on a different computer system if required.

This differs Kronometrix from Nagios XI as there is not a similar concept in it.

The operator level can be used to understand how well the platform is functioning or set different global settings used by all users:

- Platform operator username and password - which
- SMTP server, username and password - which will be used for all email notifications
- Alarm levels
- Summary Statistics

Nagios XI vs. Kronometrix: Dashboard and User Interface

Both systems offer user interface capabilities using HTML5. Kronometrix offers a much cleaner and more fluid UI to provision and visualize data than NagiosXI.

We evaluated four different UI-areas.

- Host Performance & Availability
- Operational Availability
- Data Provisioning
- Auto-discovery

Host Performance & Availability

Nagios XI and Kronometrix offer reporting capabilities for performance and availability visualization.

Nagios XI combines several metrics as host performance, under Host Status Details, called rta, pl, rtmax, rtmi, current load as load average, the number of current users logged on the server, memory usage.
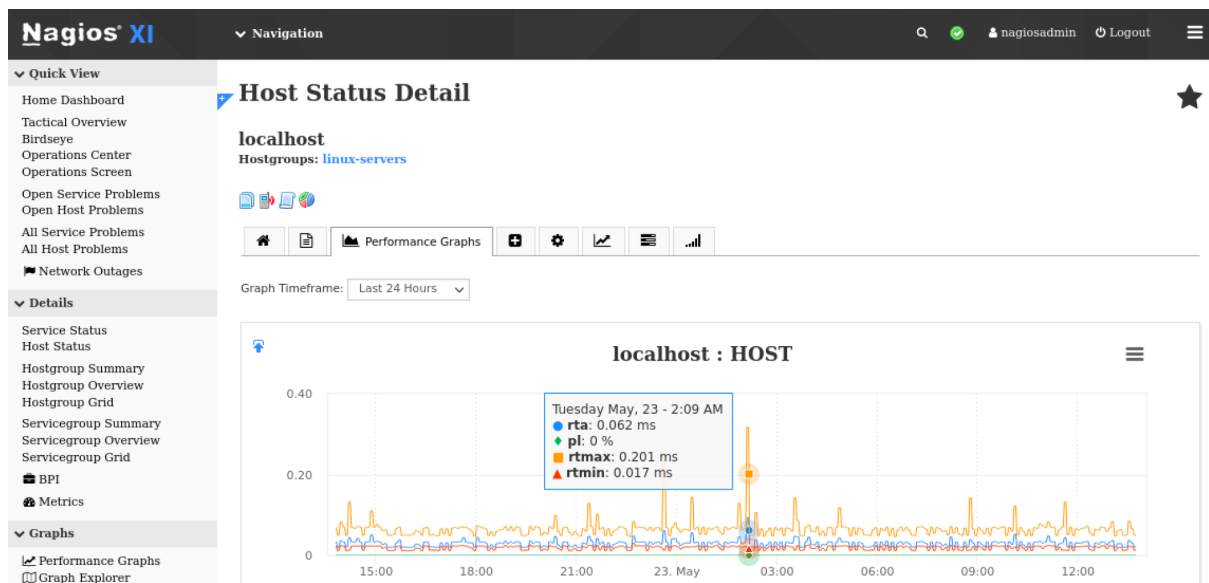

Kronometrix, on the other hand, displays several performance metrics following very closely overall system utilization and saturation, offered as different applications, including CPU, memory, disk and network IO,utilization and throughput.

Kronometrix dashboards are organized as simple and intuitive HTML5 applications which can easily be used to get a general view of the system, same time offering per component drill-down capabilities. Using this approach users can quickly understand the utilization and saturation of the system in very few steps or UI changes. Check out more information about Kronometrix Computer performance applications

Operational Availability

Kronometrix can keep track of operational availability including planned maintenance breaks for one or many data sources. This helps to report service or system operational availability, including the following operational states: ONLINE, DEGRADED, OFFLINE, NODATA and MAINTENANCE. There is no equivalent of such a feature in NagiosXi.
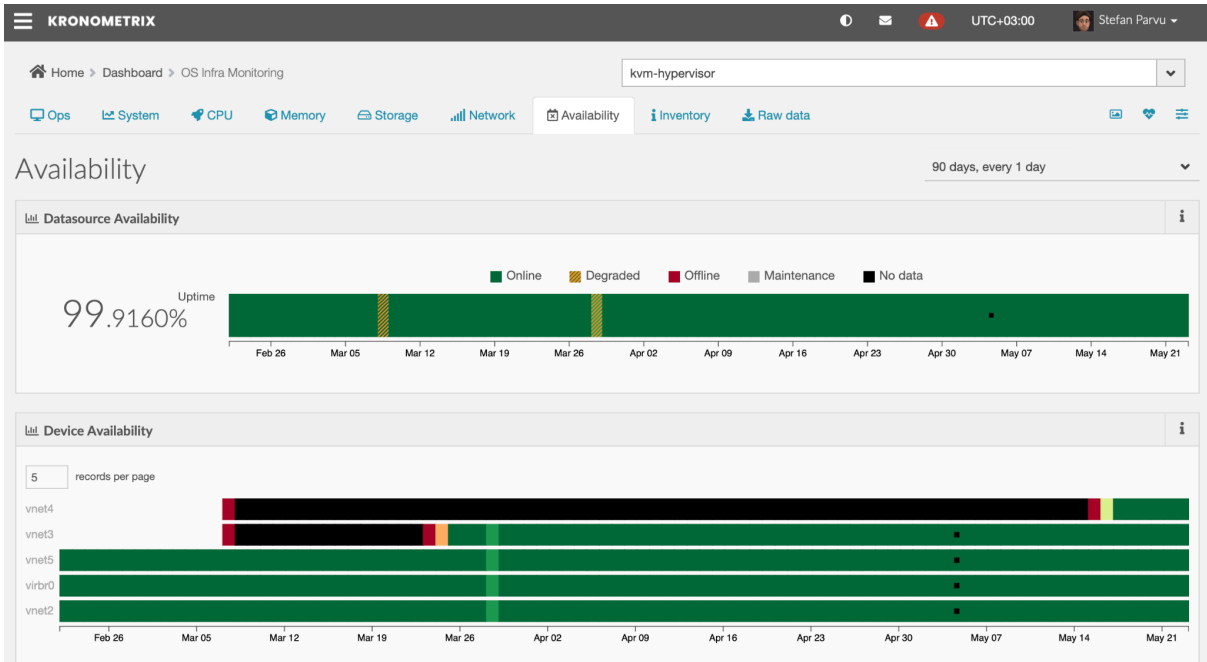
Nagios XI does not offer a similar capability, instead they are reporting the status of the system as Up or Down, allowing users to initiate actions from the main user interface as pinging or tracerouting the network.

Data Provisioning

Both platforms support different systems and services to be monitored. There are some differences between these two, listed below:

Nagios XI

There are different ways to provision data to Nagios XI installation: deploying a monitoring agent, using auto-discovery or via template based advanced configuration. To get started the agent based installation can be used. There are as well different agent deployments using the latest NCPA installation type, or the legacy NRPE agent type. Same time, NagiosXi supports as well SNMP type of data agent. The default option is NCPA.

Configuration Options

Choose what how you would like to configure Nagios XI. To get started right away, try using a configuration wizard under the 'Start Monitoring Now' section.

Deploy Monitoring Agents and Configure

Quickly deploy NCPA (our monitoring agent) on a Linux system and configure what you'd like to monitor.

Run Auto Deployment ❯

Start Monitoring Now

Quickly monitor a new device, server, application, or service using an easy configuration wizard.

Run a configuration wizard ❯

Auto-Discovery

Run an auto-discovery job to automatically find hardware, devices, and services to monitor.

Use the auto-discovery tool ❯

Advanced Configuration

Manage your monitoring config files using an advanced web interface. ***Recommended for experienced users***.

Go to Nagios Core Config Manager ❯

Manage Account Settings

Modify your account information, preferences, and notification settings.

Edit your profile settings ❯

This requires to install on each server the agent and configure it then under NagiosXI to receive data from. Nagios XI supports far more systems and applications than Kronometrix to provision data from, for example capturing data from public cloud providers, like Amazon AWS or Google GCP.

Kronometrix

Same way as Nagios XI, Kronometrix allows provisioning data from different operating systems or services using a simple data provisioning page. For example, to provision data from a Linux system one has to follow the simple instructions from the provisioning page, installing a data recording package (similar to the agent NCPA package) on the server and deploy a ready configuration. This way one can easily deploy a large number of systems using same configuration file.
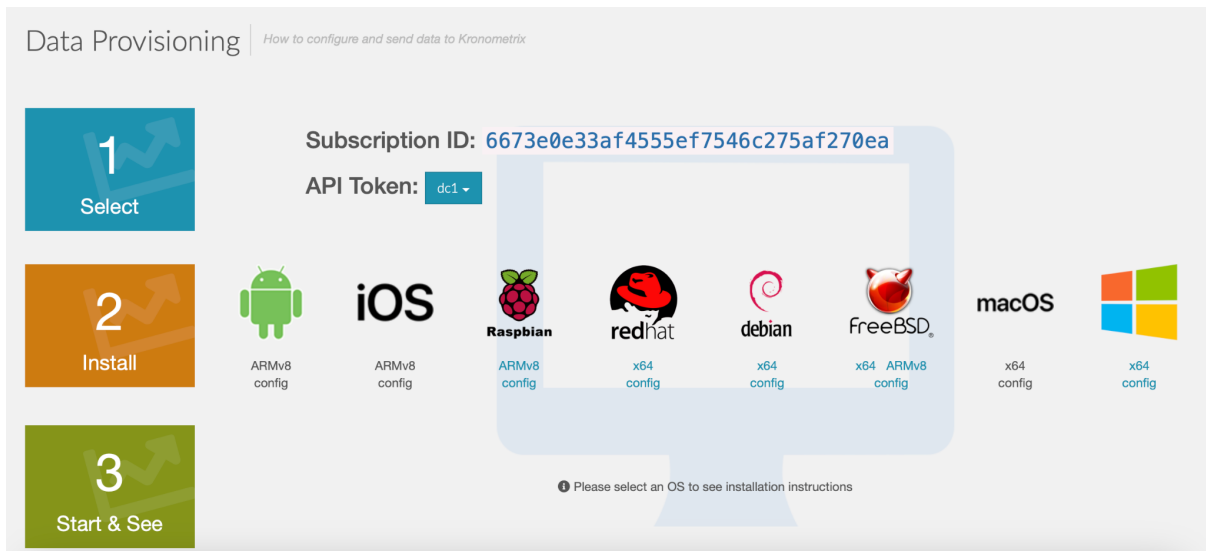
Auto-discovery

In order to automatically add hosts and services for data analysis and visualization one can enable and configure a mechanism, called auto-discovery.

Nagios XI supports automatic discovery.

Kronometrix does not support. In Kronometrix you can plan to provision a large number of hosts using a standard configuration which can be replicated to a number of hosts to automatically add them to Kronometrix, if required.

Nagios XI vs. Kronometrix: Protocol Support

Both systems offer support for a wide variety of protocols.

	Kronometrix	NagiosXi
HTTP	yes	yes
SMTP	yes	yes
FTP	yes	yes
IMAP	yes	yes
POP3	yes	yes
MySql, MariaDB	yes	yes
MODBUS	yes	no
RS232/RS485	yes	no
SNMP	Partial* Recorders yes	yes
X.509 Security Certificates	yes	yes
AWS EC2 API	no	yes
GCP API	no	yes
Azure API	no	yes

(*) Partial - The feature is not 100% implemented. Example, for SNMP equipment, Kronometrix can capture data but it does not offer data visualization capabilities right now.

What ports are in use?

Ports / Service	Kronometrix	NagiosXi
80 HTTP	yes	yes
443 HTTPS	yes	yes
161-162 SNMP	Not required	yes
22 SSH	yes	yes

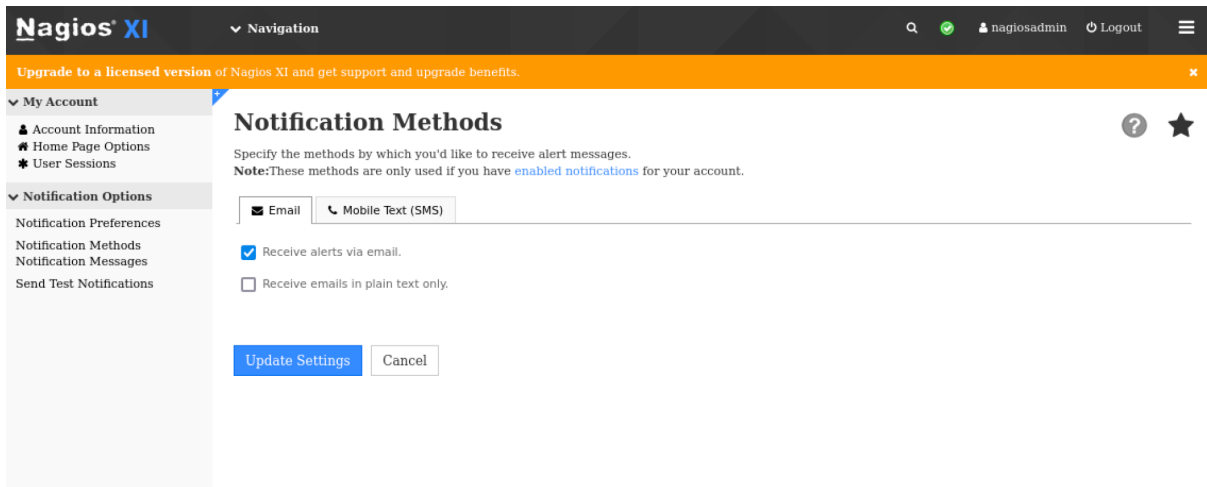# Nagios XI vs. Kronometrix: Alarms

Kronometrix offers, by default, a mechanism which helps to reduce the number of repetitive alarms. Using a special algorithm, based on sampling the prescribed frequency and duration of trigger events, Kronometrix is capable of eliminating the typical flood of unnecessarily repetitive alarms, the bane of every on-call technical support person.

Nagios XI does not offer similar capabilities.

Nagios XI vs. Kronometrix: Notifications

To be able to communicate and inform its users of the number of alarms NagiosXi supports email and SMS notifications. Kronometrix supports only email notifications. Both platforms support a simple way to configure the notifications.

Nagios XI

Kronometrix
To configure the notifications one must be logged under the platform operator
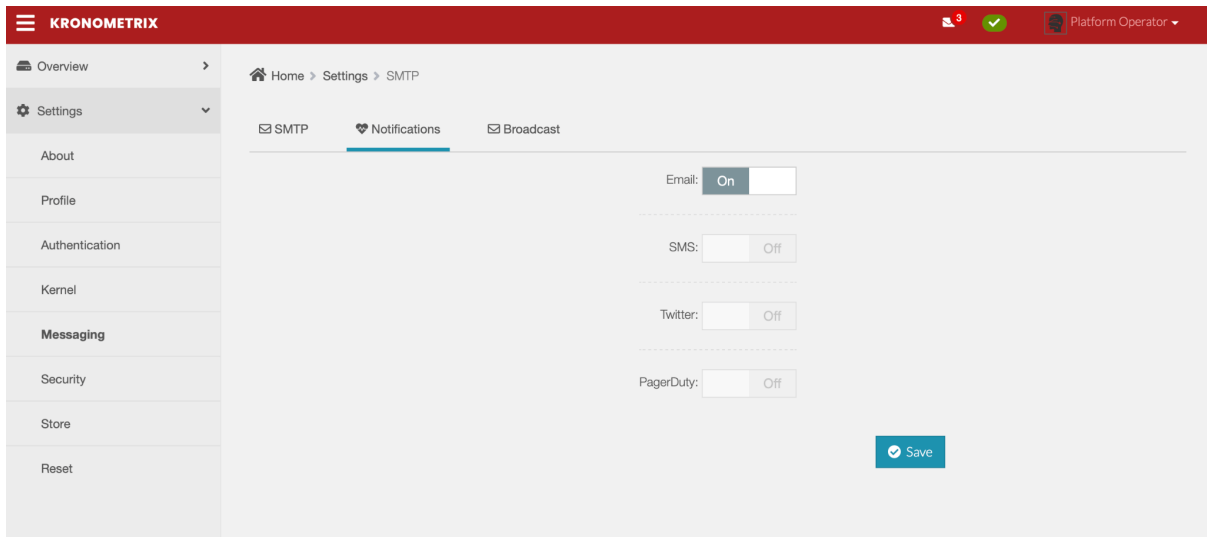
Nagios XI vs. Kronometrix: Pricing

Nagios XI starts at $1995 with a free option of up to 100 services or host checks.

Kronometrix supports two different versions: SaaS and on-premises. The simplest way is to select the SaaS version which is free up to 5 hosts and $9/mo. up to 20 hosts, More information available under: https://www.kronometrix.com/price-plans/