

System Monitoring with Checkmk - Part 1: Basics

With **Checkmk**, the setting up of a monitoring system is a breeze, even on large installations. Working with the command line is reduced to a minimum, as **WATO** provides a powerful graphical configuration interface. With this you do not need to be a Linux expert to implement a monitoring system that easily manages big and complex setups.

Using the **Open Monitoring Distribution (OMD)** as a basis makes installation and updates run very smoothly, including many popular addons such as NagVis (graphical visualization) and PNP4Nagios. (long-term recording of metrics)

In our basic course **System Monitoring with Checkmk**, you learn how to set up a professional monitoring system and structure it in a sensible way, to monitor the network, servers, operating systems and applications. You **do not need any Linux expertise**. All that you need to know, you will learn in the course.

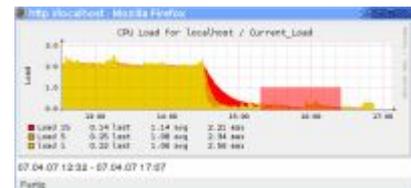
For this we follow a very practical approach. First we install a full monitoring environment with OMD, then we address the monitoring of Windows and Linux, network devices and services as well applications step by step. This way you learn how Checkmk operates, how acknowledgements and downtimes work, the difference between passive and active checks, how to configure notifications, how to assign hosts and services to users, and a lot more.

Of course you will also learn all about the advantages Checkmk has compared to other systems and what its users love about it, such as:

- Automatic discovery and configuration of monitored services
- The rule-based configuration based on host tags, that is an advantage especially in complex environments
- Distributed Monitoring (centralized visualization of multiple monitoring servers)
- The very customizable UI of Checkmk

With the add-on **PNP4Nagios** we will record and graphically evaluate metrics (e.g. PING times, network load, cpu utilization) over a longer period of time.

With **NagVis** we create graphical maps and diagrams to represent current system states clearly.



Note: After completing this course, or should you already have learned the contents in practice, you are optimally prepared for our exciting part two: System Monitoring with Checkmk - Part 2: Advanced Topics.

Topics

Introduction and Installation:

- Installation of Checkmk and addons with OMD
- Using OMD: Creating and managing sites
- The virtual appliance Checkmk virt1
- Snapshots, backup and restore
- Updating Checkmk

Checkmk Overview:

- Existing Modules
- The data model: Hosts and services
- The principle of active and passive services

- Staleness

The Graphical Interface (Multisite)

- Sidebar and snapins
- Using and customizing views
- Editing dashboards
- Tips and tricks

Working with WATO - Checkmk's Configuration Tool

- Adding hosts and services to the monitoring
- Structuring the environment with host tags, folders, host and service groups
- Configuration of levels and other parameters
- Working with many hosts: Bulk discovery and bulk import
- Representing network relationships of hosts via parents

Monitoring in Practice

- Monitoring Linux and Windows
- Monitoring log files
- Monitoring processes and windows services
- Monitoring file systems in detail
- Monitoring network devices via SNMP
- Monitoring network interfaces in detail
- Agent Bakery: Packaging customized Checkmk-Agents
- Documentation of check plugins (man pages)
- Monitoring via SSH
- Custom connection to agents with your own scripts

Extending Checkmk with your own checks

- How check plug-ins work
- Using your own scripts (local checks)
- Using check_mk and nagios plugins

Notifications

- The concept of notifications
- Mapping hosts and services to people (responsibilities):

Contacts and contact groups

- Acknowledgement of problems
- Definition of time periods (e.g. 9 am to 5 pm on workdays)
- Notification via email, customizing the email's contents
- Configuration of the Linux mail service
- Working with scheduled downtimes
- Rule-based configuration of notifications

Users, roles and permissions

- Managing users and permissions
- The role-based permission system
- Visibility of hosts and services

Distributed Monitoring

- Reasons for distributed monitoring
- Setting up distributed monitoring with Livestatus and Checkmk Multisite

Using Checkmk to record and analyze metrics

- Long-term storage of metrics in RRD databases
- Using PNP4Nagios

Visualization with NagVis

- Introduction to NagVis
- Creating maps and placing objects