



Is Checkmk the Answer to Your
Monitoring Needs Moving Forward?

Featured Speaker



Douglas Mauro is the Senior Vice President of Monitoring Services at FirstLight and joined the company through the recent acquisition of TruePath Technologies Inc., where he was the Founder and Senior Engineer for 16 years. With over 25 years of experience in Enterprise Data Centers, Douglas is an O'Reilly author of Amazon's #1 selling network management book "Essential SNMP" (now in its second edition). He leads the Monitoring Services Group at FirstLight, which specializes in network and enterprise monitoring solutions.

What is Checkmk?



Checkmk is a world-class IT infrastructure and application monitoring software



4.7/5.0



4.6/5.0



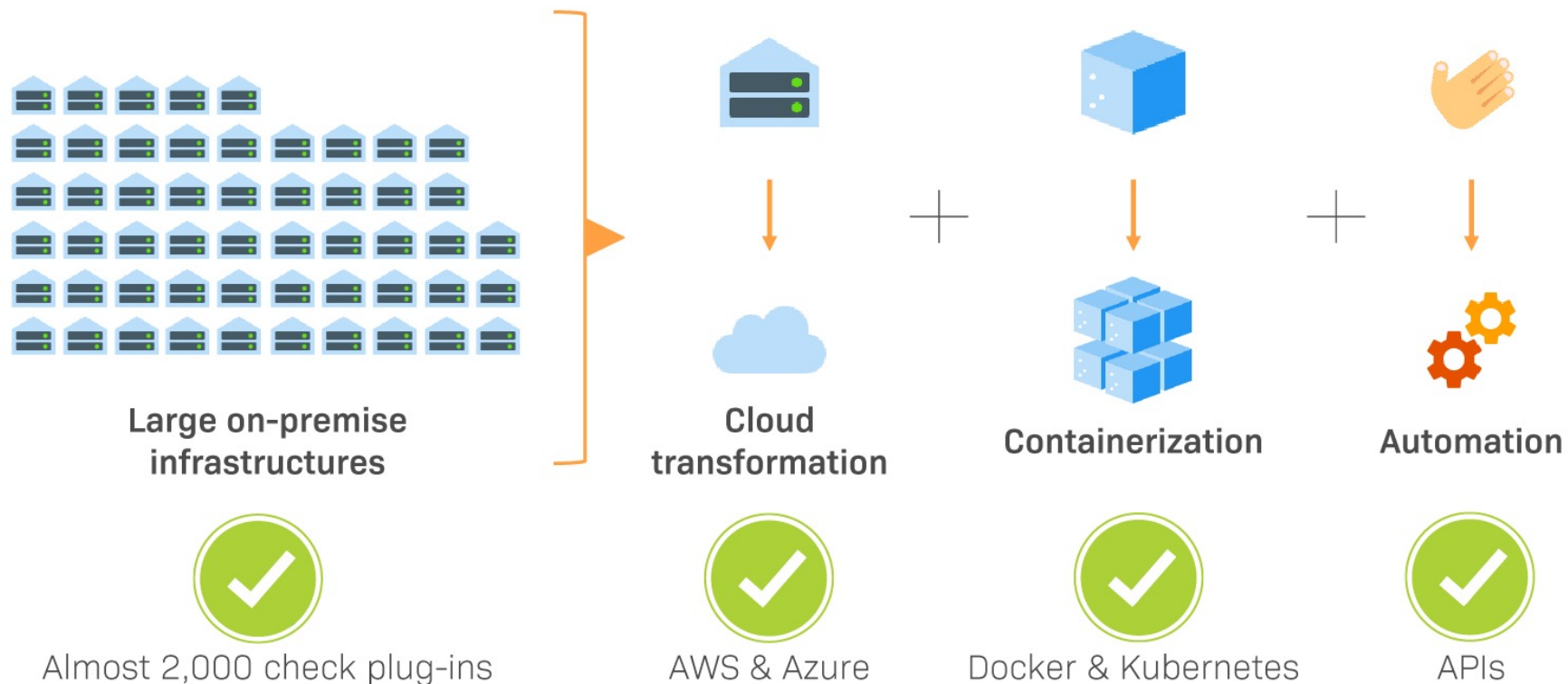
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Top-rated solution on every platform

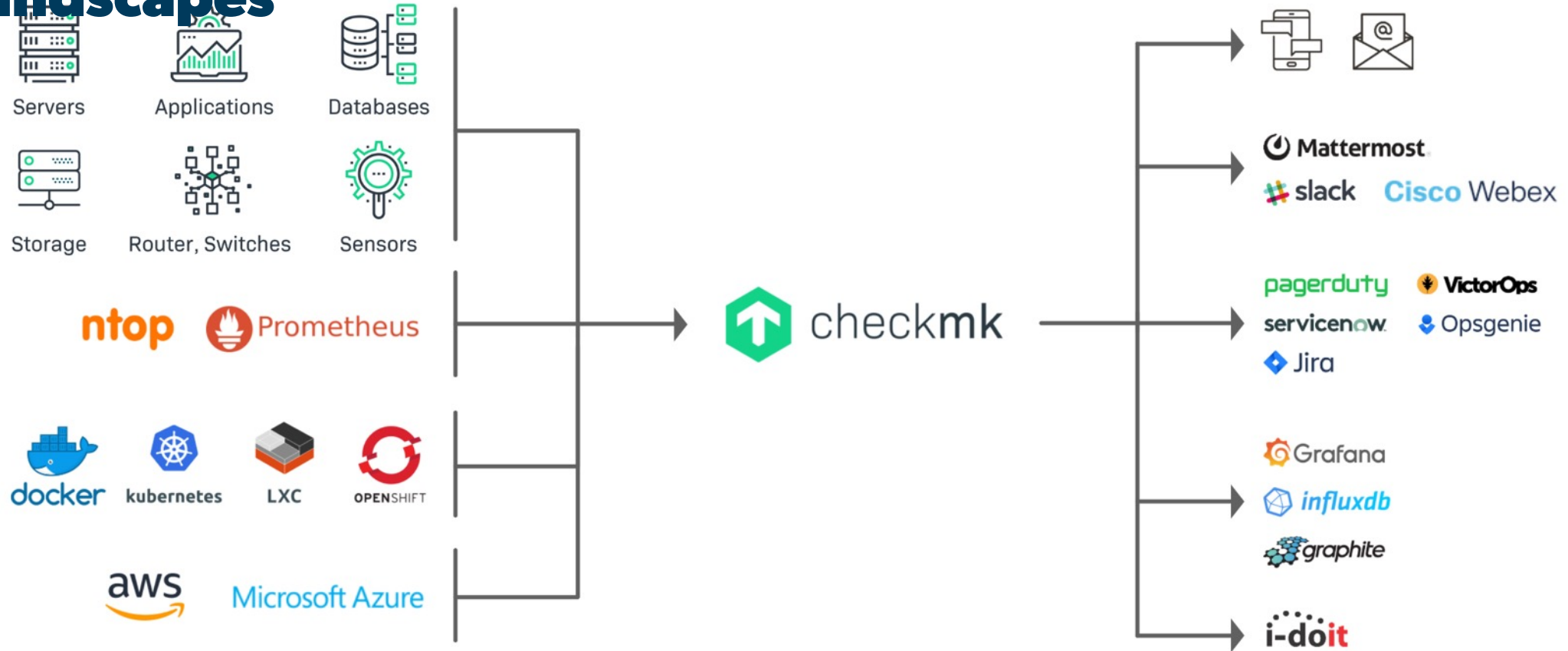
“Our partnership with FirstLight has been a critical component to our network monitoring, they have given us the insight and tools that we needed to become an elite Internet service provider for our customers.”

Engineer, Internet Service Provider

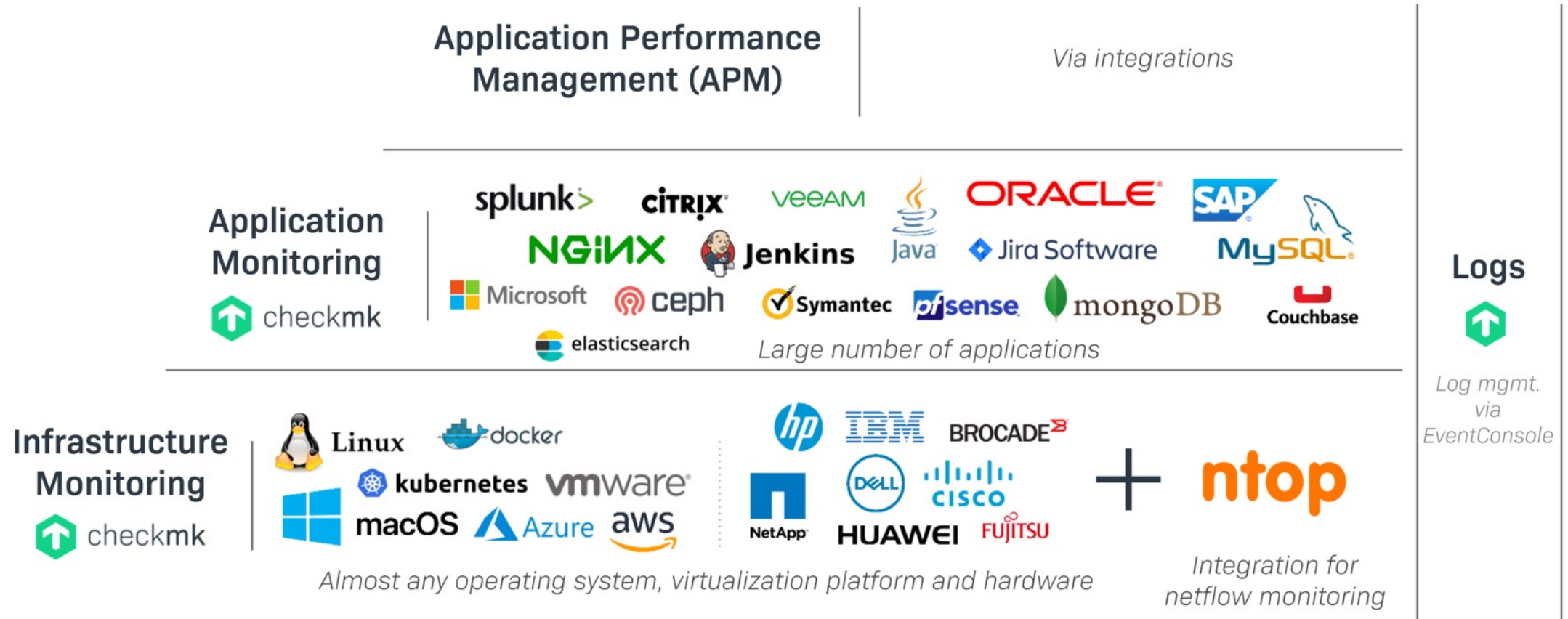
Checkmk excels at Hybrid IT monitoring



Checkmk integrates into Enterprise IT landscapes



...and covers the largest breadth of systems







“If you are looking for a pretty UI, there are plenty of monitoring systems that will fit the bill. But if you are looking for a monitoring system that is solid, fairly easy to use, can monitor just about anything, and can scale well, Checkmk stands alone.”

Systems Administrator, California-based University

Almost 2,000 intelligent plug-ins out of the box



Servers

Windows, Linux, AIX, Solaris, NetBSD, Mac OS, vSphere, Hyper-V, and more ...



Applications

Exchange, Apache, Nginx, SAP, Java, Citrix, Skype, Websphere and more ...



Databases

PostgreSQL, MongoDB, MS SQL, Oracle, MySQL, Informix, IBM DB2, and more ...



Cloud Services

AWS S3, AWS ELB, AWS EBS, AWS EC2, Azure VM, Azure SQL, Azure Web, Azure Storage, and more ...



Storage

Fujitsu, Oracle, EMC, Dell, HP, IBM, Hitachi, NetApp and more ...



Networks

Brocade, Juniper, Intel, IBM, HP, Dell, Cisco, Huawei, and more ...



Environment & Sensors

Bachmann, Emerson, Raritan, Kentix, Rittal, Gude, ELTEK, Wagner, and more ...



Containers

Docker, Kubernetes, and more ..

Continuously maintained and improved as part of the core product

Checkmk: Simple, ultra-scalable, and low cost



Deploy in minutes

From 0 to Monitoring in <10 min

- ✓ Fast installation from a single package, available for many platforms
- ✓ Identification of more than 90% of devices and services via auto-discovery
- ✓ Intelligent alarms with pre-set thresholds based on industry expert know-how



With unlimited scale

Hundred thousands of hosts

- ✓ Possibility to monitor several hundred thousand services from one instance
- ✓ Distributed architecture with up to several hundred instances
- ✓ Minimal hardware requirements on server and client-side



Highly automated

Let Checkmk do the work for you

- ✓ Auto-discovery, auto-configuration and automated agent updates
- ✓ Automated monitoring for dynamic ephemeral infrastructures
- ✓ Powerful API enabling integrations with other ITOM/ITSM systems

Checkmk: Simple, ultra-scalable, and low cost

1

Checkmk is an on-premise solution to **monitor IT systems**: open-source & commercial version

2

Monitor everything: 1900+ plug-ins for servers, applications, networks, storage, databases ...

3

Checkmk is **simple to use**: Live in <15min, automatic discovery & configuration

4

Checkmk is **ultra-scalable**: millions of services can be monitored using one system

5

Low total cost of ownership: purchase, installation & consulting, HW requirements

6

Future-proof: Cloud & Container monitoring, Automation – ready and continuously improved

7

More than 2500 customers in 45 countries - from small companies to large corporations

8

Close cooperation with large user community, direct contact to dev team & expert support

9

Without marketing, without external financing to a company of **75+ employees**

10

See Checkmk in action: schedule a demo or request the trial version

Trusted around the globe by many leading organizations



2500+ Customers

45+ Countries

97% Renewal rate

How can Checkmk appliances make your job easier?

Typical issues	With Checkmk Appliance
No time for installation & maintenance?	Completely pre-installed image with operating system
Looking for a simple HA option?	Very easy to implement using two appliances
No Linux knowledge?	Interactive setup and web-based configuration

Broad functionality for entire monitoring process



Service state
monitoring with
1900+ plug-ins



Log & event-based
monitoring



Dynamic **graphing** &
efficient **long-term**
storage



User-defined
dashboards



Reporting with
Availability & SLA
analysis



Management view:
Business Intelligence



Flexible **notifications**
and **alert handling**



Dynamic **hardware**
and
software inventory



Rule-based
configuration,
automatic **discovery**



Ultra-scalable,
high-performance
core

State-based monitoring

Log & event-based monitoring

Graphing and analytics

Customizable GUI

Reporting

Business Intelligence

Notifications and alert handler

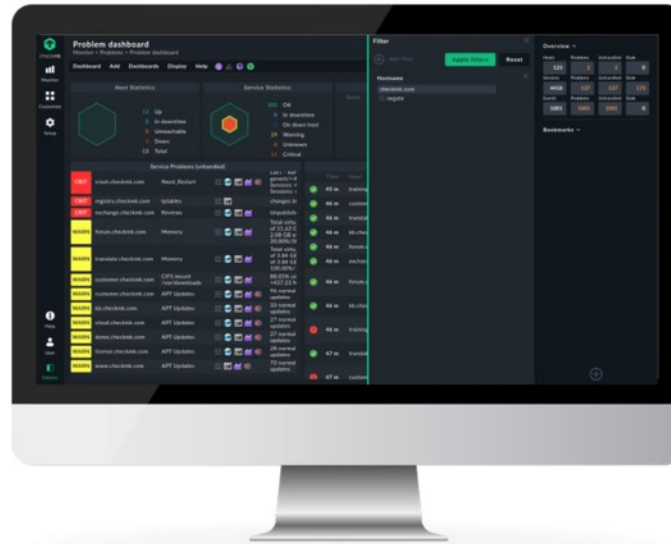
Hardware / software inventory

Configuration & auto-discovery

High-performance core



Service state monitoring



Functionality

- Monitor everything using 1,700 included 'smart plug-ins' to collect data from all kinds of hard- and software
- Quickly identify problems in your IT environment through a differentiated 'state' (OK, WARN, CRIT) of each monitored component or system – drill down with one click
- Benefit from regularly updated plug-ins. Your software and hardware constantly changes, so you need plug-ins, which are maintained¹
- Use both a powerful agent-based monitoring and an agentless monitoring via HTTP, SNMP, or connecting directly to the APIs of many applications

1. Most heavily used plug-ins are maintained at our own cost. Other plug-ins maintained as part of paid feature requests but included in future releases

State-based monitoring

Log & event-based monitoring

Graphing and analytics

Customizable GUI

Reporting

Business Intelligence

Notifications and alert handler

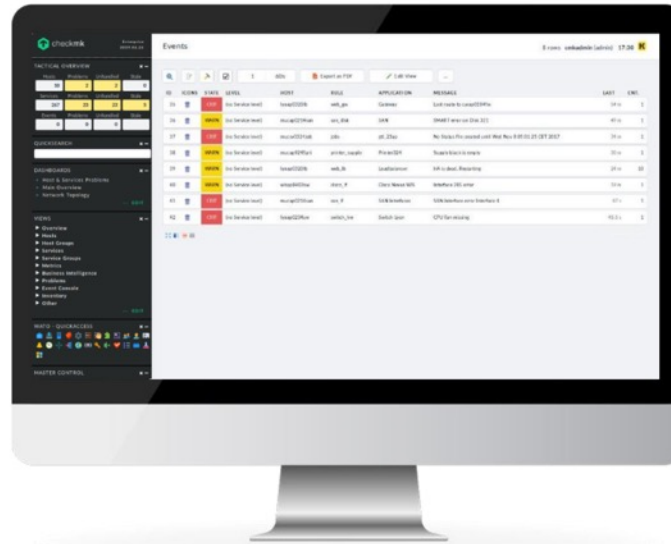
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Log- and event-based monitoring



Functionality

- Monitor logs for the analysis of error messages via syslog, SNMP-traps and other arbitrary log files
- Forward events to trigger scripts or generate notifications. Never miss a failing hard disk again!
- Summarize equal entries to one single event (e.g. several failed logons) to stay on top of your events
- Filter incoming messages to only see important events. No more manual filtering and information overload

State-based monitoring

Log & event-based
monitoring

Graphing and analytics

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High-performance core



Metrics, dynamic graphing, and efficient long-term storage



Functionality

- Analyze time-series metrics over long time horizons with interactive HTML5 graphs
- Leverage graphic maps and diagrams with live-monitoring data to get a better view on your IT health
- Compare metrics across multiple graphs at a glance
- Integrate metrics data from a wide range of data sources and formats (JSON, XML, SNMP data etc.)
- Store metrics in disk-space-efficient long-term data storage
- Alternatively use exporters for Graphite / InfluxDB
- Real-time sample with 1s measurement interval

State-based monitoring

Log & event-based monitoring

Graphing and analytics

Customizable GUI

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Notifications and alert handler

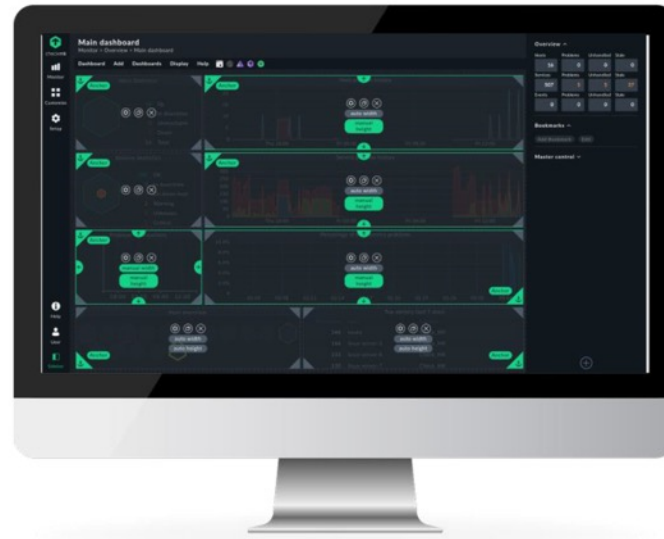
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Configuration & auto-discovery

High-performance core



Customizable GUIs



Functionality

- Use web interface for visualization and operations
- Customize dashboards and views to your needs
- Differentiate dashboards and views among users or user groups, e.g. vSphere specific views for VMware admins
- Bookmark key views so they're only a click away
- Customize the side menu – e.g. monitoring admins need various statistics while network admins might only need reporting
- Use the German or English versions of the GUI
- Adapt the GUI towards your corporate design with a few clicks

State-based monitoring

Log & event-based monitoring

Graphing and analytics

Customizable GUI

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Notifications and alert handler

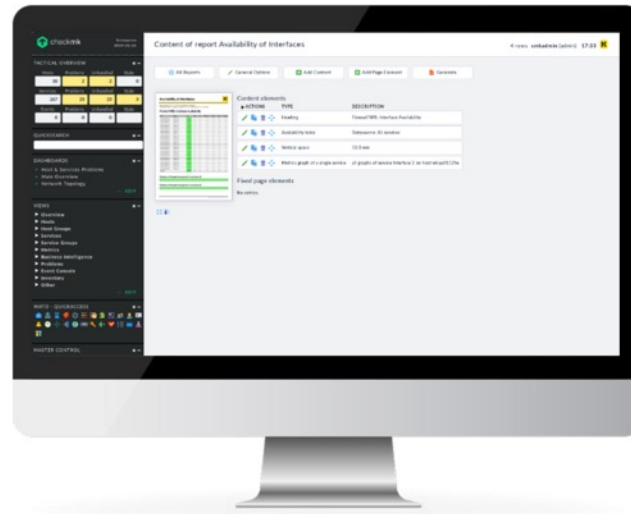
Hardware / software inventory

Configuration & auto-discovery

High-performance core



Comprehensive reporting incl. Availability and SLA



Functionality

- Review the history of states in one click over any desirable timeframe with computation of availability. In real time!
- Deaverage availability data. Exclude non-monitored times, change the resolution, ignore short intervals
- Get notified before you break your SLA contracts by monitoring the compliance of your complex SLAs. Even if the SLA definition contains only working hours
- Generate PDF reports with your corporate identity containing all the views you build – ad-hoc or automated at regular intervals

State-based monitoring

Log & event-based monitoring

Graphing and analytics

Customizable GUI

Reporting

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Notifications and alert handler

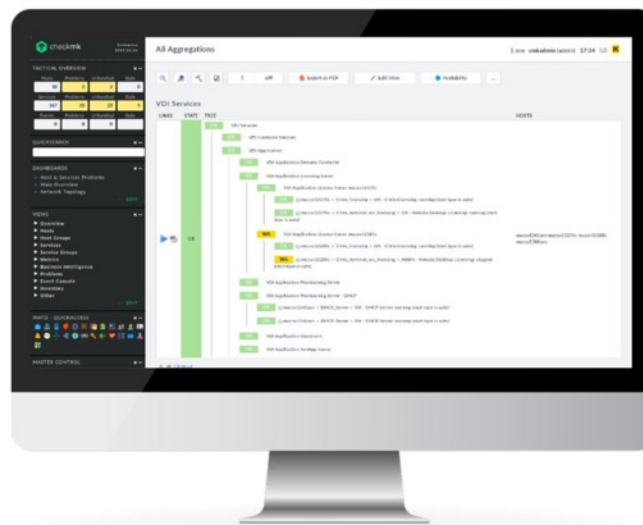
Hardware / software inventory

Configuration & auto-discovery

High-performance core



Business Intelligence



Functionality

- Monitor business processes by mapping dependencies into a single view
- See the availability and performance of complex systems at a look
- Aggregate services and hosts into a single state
- Review historical states of an aggregation to understand root causes for degraded performances in the past
- Deliver more reliable services to customers through a completely transparent view, which is easy to understand
- Configure all possible setups such as HA with two or more nodes, HPC, etc. with maximum and unique freedom
- Simulate worst case scenarios in real time. See the impact of failing components before they become real

Log & event-based monitoring

Customizable GUI

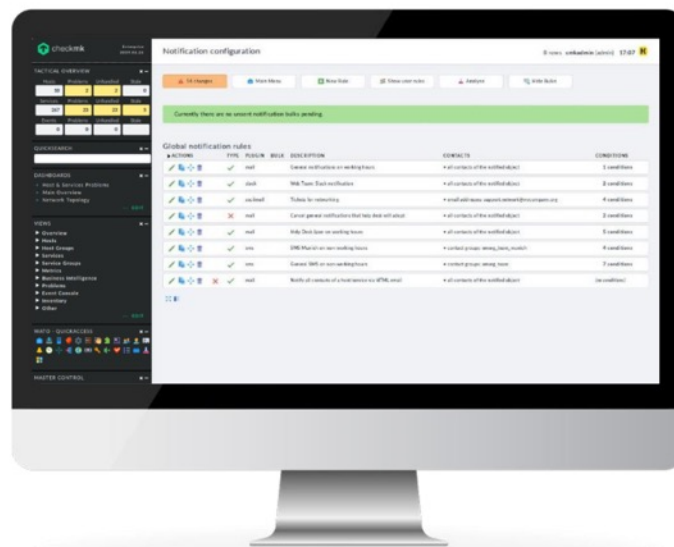
Business Intelligence

Hardware / software inventory

Configuration & auto-discovery



Notification and alert handler



- Notify the responsible team quickly – e.g. notify only the storage admins for a failing disk, but not the email admins
- Notify via email, SMS, and 3rd party tools, such as Slack, PagerDuty and VictorOps – use your established tools for handling incidents
- Leverage comprehensive, rule-based notifications to fulfill complex custom requirements regarding time periods, service levels, etc. Get notified only when you want it!
- Configure additional alerts or cancel an alert for specific cases. Escalate problems, if they are not handled in time
- Handle alerts centrally also in distributed environments
- Automatically trigger actions as reaction to detected problems (alert handler), e.g. via scripts

State-based monitoring

Log & event-based monitoring

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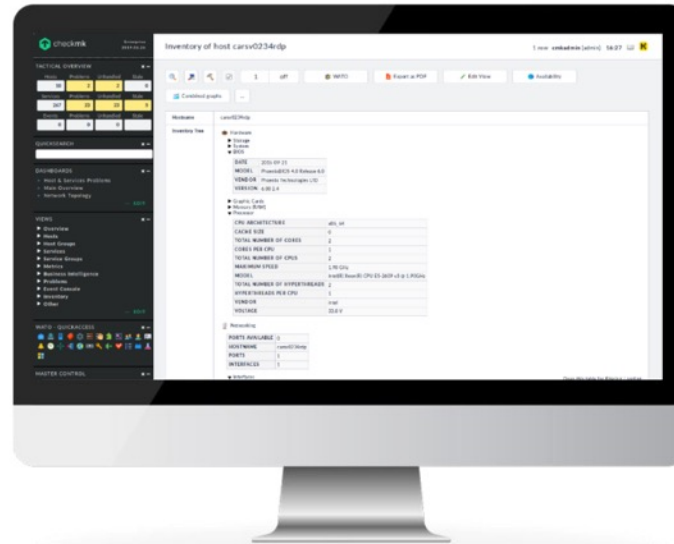
Hardware / software inventory

Configuration & auto-discovery

High-performance core



Dynamic hardware and software inventory



Functionality

- Identify the inventory of all hard- and software installed on devices and systems
- Monitor changes in hard- and software – use this unique feature to control the access to your hardware and servers and never miss installing a security update again
- Benefit from integration of regularly updated dynamic parameters such as disk space utilization that are updated via monitoring data

State-based monitoring

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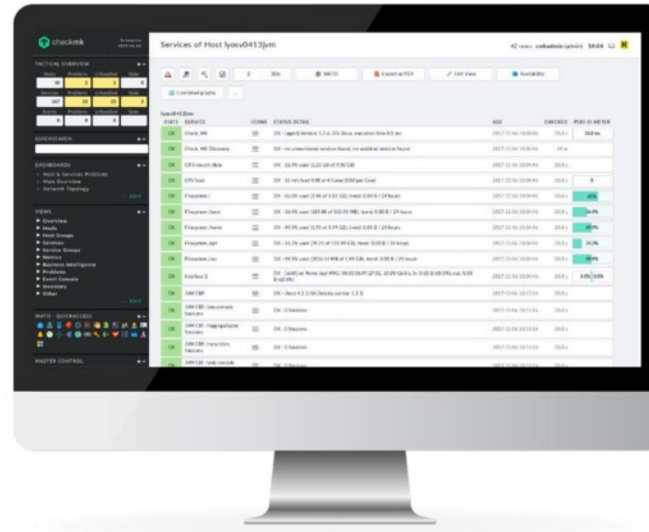
Hardware / software inventory

Configuration & auto-discovery

High-performance core



Rule-based config, automated discovery & agent deployment



Functionality

- Modern, rule-based 1-to-N configuration remains intuitive even in complex environments
- Monitor with less effort thanks to automatic detection & configuration of components – all relevant components, their metrics, and their thresholds will be suggested
- Centrally automate agent updates ('agent bakery')
- Configure everything in a web interface. No YAML, JSON or other serialization languages needed
- Feed monitoring directly via HTTP-API with already existing information from Configuration Management Databases (CMDB). You can use automation tools (Ansible, i-doit CMDB, etc.)
- Use your existing role-based access controls (LDAP, AD) with a fine-grained permission model for users and groups

State-based monitoring

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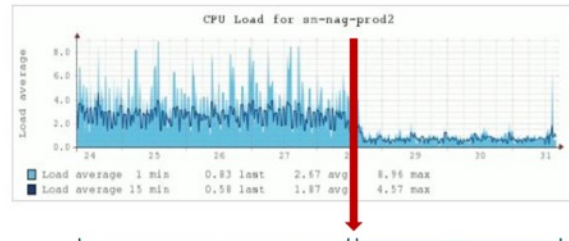
Configuration & auto-
discovery

High-performance core



High performance core 'CMC'

CPU load comparison: Nagios vs. Checkmk



18.000
services
monitoring
system with
Nagios core

Replacement
with Checkmk
micro core
(CMC)

Source: Munich airport, 730 hosts, 18.000 services

Functionality

- Profit from Checkmk's own high-performance core 'CMC' (the 'core' queries the plug-ins, collects their results, provides states to the GUI, etc.)
- Monitor thousands of devices on one single monitoring server. No need to maintain and synchronize several monitoring instances
- Scale across hundreds of sites and millions of devices. Checkmk supports globally distributed setups – few monitoring systems scale as well
- Leverage highly efficient monitoring agents with minimal CPU-, RAM-, storage-utilization. No need for DLLs, libraries, etc. – runs on smallest servers
- Profit from a highly secure design incl. encrypted communications between agents and servers
- Activate changes in fractions of a second, allowing frequent configuration changes, e.g. for container monitoring

Questions?

