

Newest Developments in checkmk

CHECKMK CONFERENCE #5 – MUNICH, APRIL 29, 2019

Our development priorities for checkmk



User
Experience



Cloud
monitoring



Container
environments



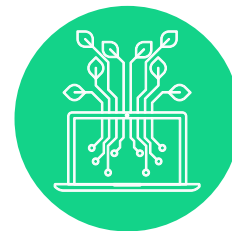
Dynamic
environments



Metrics &
Visualization



Monitoring
base



Seamless
integrations



User Experience



Modernize the look & feel



Simplify interactions



Increase flexibility



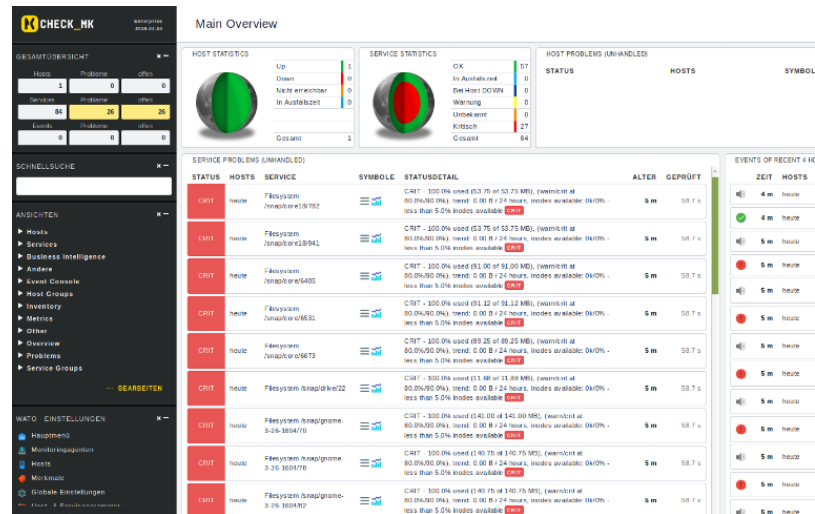
Modernize the look & feel

Simplify interactions

Increase flexibility



Modern theme in 1.5





- 👷 Slightly improve modern theme
 - Higher data density
 - Better usability

Status quo

GESAMTÜBERSICHT

Hosts

Probleme

offen

1

0

0

Services

Probleme

offen

84

26

26

Events

Probleme

offen

0

0

0

SCHELLSUCHE

ANSICHTEN

► Hosts

► Services

► Business Intelligence

► Andere

► Event Console

► Host Groups

► Inventory

► Metrics

► Other

► Overview

► Problems

► Service Groups

... BEARBEITEN

WATO · EINSTELLUNGEN

Hauptmenü

Monitoringagenten

Hosts

Merkmale

Globale Einstellungen

© MATHIAS KETTNER

Maximum density

GESAMTÜBERSICHT

Hosts

Probleme

offen

1

0

0

Services

Probleme

offen

80

26

26

Events

Probleme

offen

0

0

0

SCHELLSUCHE

ANSICHTEN

► Hosts

► Services

► Business Intelligence

► Andere

► Event Console

► Host Groups

► Inventory

► Metrics

► Other

► Overview

► Problems

► Service Groups

... BEARBEITEN

WATO · EINSTELLUNGEN

Hauptmenü

Dynamische Konfiguration

Monitoringagenten

Hosts

Merkmale

Globale Einstellungen

Host- & Serviceparameter

Manuelle Checks

Checkplugins

Host- & Servicegruppen

Benutzer

Rollen & Berechtigungen

Kontaktgruppen

Alarmierung

© MATHIAS KETTNER

Status quo

Suche 1 90s Als PDF exportieren Verfügbarkeit

HOST IST IN GRUPPE

☐ invers

SERVICE IST IN GRUPPE

☐ invers

STATUDETAIL

☐ invers

SERVICECHECK BEFEHL

SERVICE IN ALARMIERUNGSPERIODE

☐ ja ☐ nein ☒ (ignoriere)

SERVICE IN SERVICEPERIODE

☐ ja ☐ nein ☒ (ignoriere)

AKTIVE CHECKS AKTIVIERT

☐ ja ☐ nein ☒ (ignoriere)

ALARME AKTIVIERT

☐ ja ☐ nein ☒ (ignoriere)

Suche

Der Master, heute

Maximum density

Suche 1 90s Als PDF exportieren ...

HOST IST IN GRUPPE

☐ invers

SERVICE IST IN GRUPPE

☐ invers

SERVICE-STATUS

☒ OK ☒ WARN ☒ KRIT ☒ UNKNOWN ☒ PEND

PROBLEM QUITTIERT

☐ ja ☐ nein ☒ (ignoriere)

HOST/SERVICE IN WARTUNGSZEIT

☐ ja ☐ nein ☒ (ignoriere)

AKTIVE CHECKS AKTIVIERT

☐ ja ☐ nein ☒ (ignoriere)

Suche

Der Master, heute

STATUS	SERVICE	SYMBOLE	STATUDETAIL
OK	Check_MK		OK - [agent] Version: 1.5.0p11, OS: linux, execution time 0.3 sec
OK	Check_MK Discovery		OK - no unmonitored services found, no vanished services found
OK	Check_MK HW/SW Inventory		OK - Found 32 inventory entries
OK	CPU load		OK - 15 min load: 0.89 at 8 Cores (0.11 per Core)
OK	CPU utilization		OK - User: 1.32%, System: 0.489%, Wait: 0.00624%, Total CPU:
OK	Disk IO SUMMARY		OK - Utilization: 0.001%, Read: 0.00 B/s, Write: 63.93 kB/s, Aver
OK	Filesystem /		OK - 40.3% used (86.53 of 214.94 GB), trend: +606.20 MB / 24 h
OK	Filesystem /boot/efi		OK - 15.2% used (29.84 of 196.91 MB), trend: 0.00 B / 24 hours
CRIT	Filesystem /snap/core18/782		CRIT - 100.0% used (53.75 of 53.75 MB), (warn/crit at 80.0%/90
CRIT	Filesystem /snap/core18/941		CRIT - 100.0% used (53.75 of 53.75 MB), (warn/crit at 80.0%/90
CRIT	Filesystem /snap/core/6405		CRIT - 100.0% used (91.00 of 91.00 MB), (warn/crit at 80.0%/90
CRIT	Filesystem /snap/core/6531		CRIT - 100.0% used (91.12 of 91.12 MB), (warn/crit at 80.0%/90



User Experience



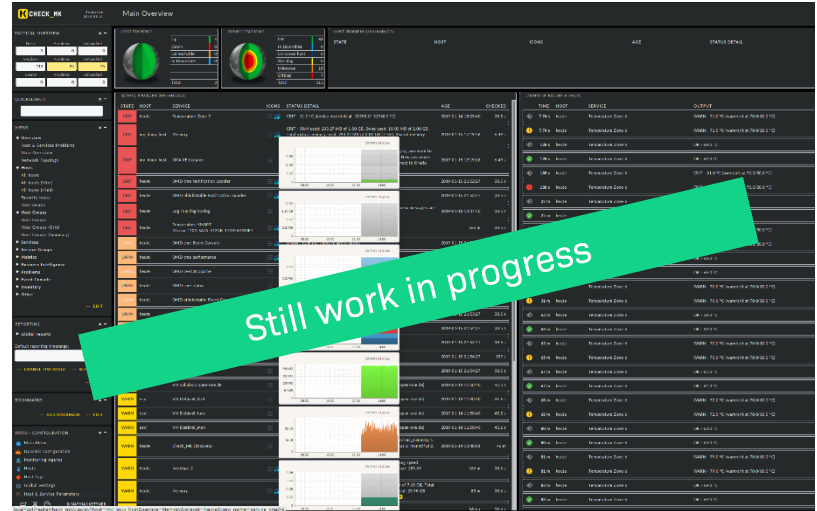
Modernize the look & feel

Simplify interactions

Increase flexibility



Additional dark theme





User Experience

-
-
-
- Modernize the look & feel
-
-
- Simplify interactions
-
-
-
-
- Increase flexibility



Effective check parameters



German user interface also in CRE
#7178



Searchable dropdown fields
#7016



User Experience

- Modernize the look & feel
- Simplify interactions
- Increase flexibility

- ✓ Improved timeperiod management
#6628
- ✓ New "Distributed Monitoring" page
#7081
- ✓ Predefined conditions for rulesets
#7333
- ✓ "omd cleanup"
#6283



User Experience

Modernize the look & feel

Simplify interactions

Increase flexibility



Service discovery usability

#6930

Full scan running for 1.35 s

Automatic refresh (tabula rasa) Full scan Show checkboxes Hide check parameters Stop job

+ Monitored services

	STATE	SERVICE	STATUS DETAIL	CHECK PLUGIN
	Undecided	Disable		
	CRIT	APT Updates	18 normal updates(!), 5 security updates (tzdata, freeradius-common, freeradius-config, freeradius-utils, libfreeradius3)(!!)	apt
	OK	CPU load	15 min load: 1.11 at 8 Cores (0.14 per Core)	cpu.loads



User Experience

-
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-
- Modernize the look & feel
-
-
-
- Simplify interactions
-
-
-
- Increase flexibility



Host and service labels



Discovery of generic host labels
#7336



Where can labels come from?

WATO

Set labels
for hosts

WATO

Set labels via
Host/service rules

HW/SW inventory

Discover
for hosts



User Experience

-
-
-
- Modernize the look & feel
-
-
-
- Simplify interactions
-
-
-
- Increase flexibility



Host and service labels



Discovery of generic host labels
#7336



Discovery of AWS, Azure & Kubernetes labels



Labels in Rule-Conditions



Where can you see labels?

WATO:
Hosts/service
analysis sets

HW/SW
inventory tree

Host/Service
detail views



User Experience

Modernize the look & feel

Simplify interactions

Increase flexibility



Tags for Services

New rule: Service tags

cmkadmin (admin)

Abort

Predef. conditions

Use this ruleset to assign Tags to services.

RULE PROPERTIES

SERVICE TAGS



Criticality

Business critical

Add new element

CONDITIONS



- 
- Flexible rule conditions





- ✔ “Customizable” login page
#6426
- ✔ Customizable snapins
#6555
- ✔ Customizable tactical overview and host matrix
#6556



Cloud monitoring



Monitoring cloud services

Introduction to Check_MK's monitoring of key AWS and Azure services

Moritz Kiemer

Tuesday
11:00 a.m. – 11:45 a.m.



Container environments



Monitoring Docker and Kubernetes

Introduction to Check_MK's monitoring of Docker and Kubernetes environments

Tom Bärwinkel

Monday
12:20 p.m. – 01:00 p.m.

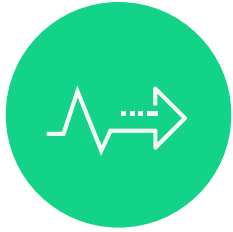


Running Check_MK in a Docker container

Best-practices and troubleshooting for running Check_MK in container environments

Ronny Bruska & myself

Monday
03:00 p.m. – 03:45 p.m.



Dynamic environments



Monitoring of highly dynamic environments

How Check_MK will handle the very dynamic nature of containers, and other dynamic things

Tom Bärwinkel

Monday
11:45 a.m. – 12:20 p.m.



Metrics & Visualization



Improve graphing usability



Integrate with Grafana



Aggregate metrics



Metrics & Visualization

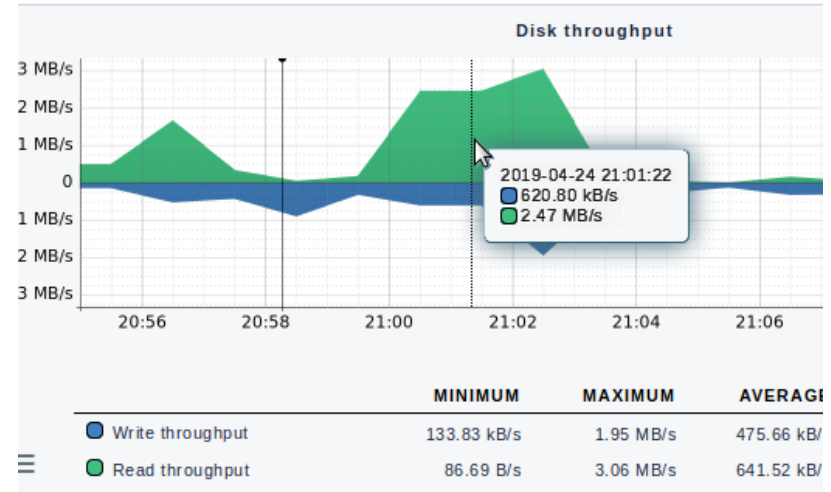
•
•
•
● Improve graphing usability

•
•
•
● Integrate with Grafana

•
•
•
● Aggregate metrics



Graph values on mouse position
#6770





- 

Use cases and how to integrate the two popular tools

Tuesday
08:30 a.m. – 09:20 a.m.



Metrics & Visualization

- ...
- Improve graphing usability
- ...
- Integrate with Grafana
- ...
- Aggregate metrics



Unfortunately not
going to happen for 1.6, but...

➡ you can also do it with Grafana

➡ Large Scale Storage Monitoring
at VW Group @ 02:30pm



Monitoring base

- Enable IT ops analysis
- Improve performance
- Maintain high security
- Improve existing functionality
- Improve stability
- Extend monitoring scope



Monitoring base

-
-
- **Enable IT ops analysis**
-
- Improve performance
-
- Maintain high security
-
- Improve existing functionality
-
- Improve stability
-
- Extend monitoring scope



New BI visualizations – finally ...

A snapshot of the new visualization options for the Business Intelligence

Mathias Kettner

Monday
05:15 p.m. – 05:45 p.m.



Monitoring base



Enable IT ops analysis



Improve performance



Maintain high security



Improve existing functionality



Improve stability



Extend monitoring scope



Capacity Management

Predictive planning of IT infrastructure demand with Check_MK

Dr. Óscar Nájera

Tuesday

11:00 a.m. – 11:45 a.m.



Monitoring base

- Enable IT ops analysis
- **Improve performance**
- Maintain high security
- Improve existing functionality
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- Extend monitoring scope



Faster CMC config generation
#6702



Distributed agent bakery



- ✓ Encrypted Livestatus
#7017
- ✓ Comprehensive security audit
#6516, #6565, #6566, #6567, #6568, #6609, #6610, #6611, #6612, #6613, #6614, #6615, #6618, #6619, #6620, #6621, #6622, #6709, #6710, #6711, #6774, #6786, #6787, #6788, #6846



Monitoring base

-
- Enable IT ops analysis
-
- Improve performance
-
- Maintain high security
-
- **Improve existing functionality**
-
- Improve stability
-
- Extend monitoring scope

- ✓ Connect to Livestatus via IPv6
#7018
- ✓ EC: Apply rules only on specific sites
#6226
- ✓ Global config of HTTP proxies
#6920



Monitoring base

- Enable IT ops analysis
- Improve performance
- Maintain high security
- Improve existing functionality
- **Improve stability**
- Extend monitoring scope



The new Windows agent

Introducing Windows Agent 2.0 - our brand new agent

Mathias Kettner

Monday
05:15 p.m. – 05:45 p.m.



Monitoring base

-
- Enable IT ops analysis
-
- Improve performance
-
- Maintain high security
-
- Improve existing functionality
-
- **Improve stability**
-
- Extend monitoring scope

- ✓ Major refactoring of code base
- ✓ Check_MK GUI as WSGI application
#6096
- ✓ Unit tests, linter tools & CI



Monitoring base

- Enable IT ops analysis
- Improve performance
- Maintain high security
- Improve existing functionality
- Improve stability
- Extend monitoring scope

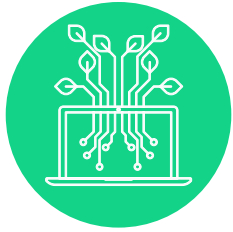
- ✓ 176 minor to medium feature changes in Checks & Agents
- ✓ 376 minor to medium fixes in Checks & Agents



Monitoring base

- Enable IT ops analysis
- Improve performance
- Maintain high security
- Improve existing functionality
- Improve stability
- **Extend monitoring scope**

- ✓ Elasticsearch Monitoring
#7202
- ✓ New SAP Hana monitoring
#7100
- ✓ Extended Oracle monitoring
#5966, #6146, #6480, #6482, #6492, #6753, #6764,
#7004, #7006, #7095, #7107, #7109, #7120, #7365,
#7375, #7397, #7454
- ✓ Family of checks for Cisco UCS,
Enviromux, DELL management
boards



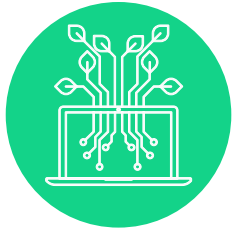
Integrations

-
-
-

● Integrate into workflows

-
-
-

● Make data available



Integrations



Integrate into workflows



Make data available

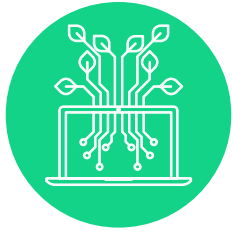


The i-doit & checkmk integration

The new interface between i-doit's CMDB and checkmk

Benjamin Heisig

Monday
04:00 p.m. – 04:45 p.m.



Integrations



Integrate into workflows

Make data available



 **slack**

#6639



servicenow

#7201



 **JIRA**

#7195



 **Opsgenie**

#7406



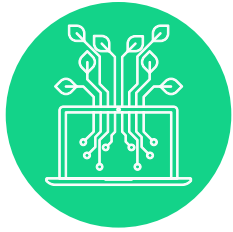
 **VictorOps**

#6648



pagerduty

#6649



Integrations



Integrate into workflows



Make data available

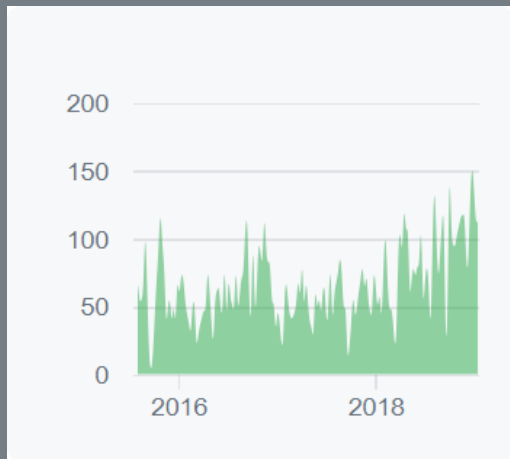


Service state to Graphite/InfluxDB
#6580



New Web-API Calls
#5809, #6240, #6689, #6966, #7073, #7341

These are the major features for checkmk 1.6



commits

> 1000 werks

- ◆ Many more smaller features
- ◆ Look for details on our werks pages
- ◆ The major features will be presented the next 2 days

Thank you!



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