

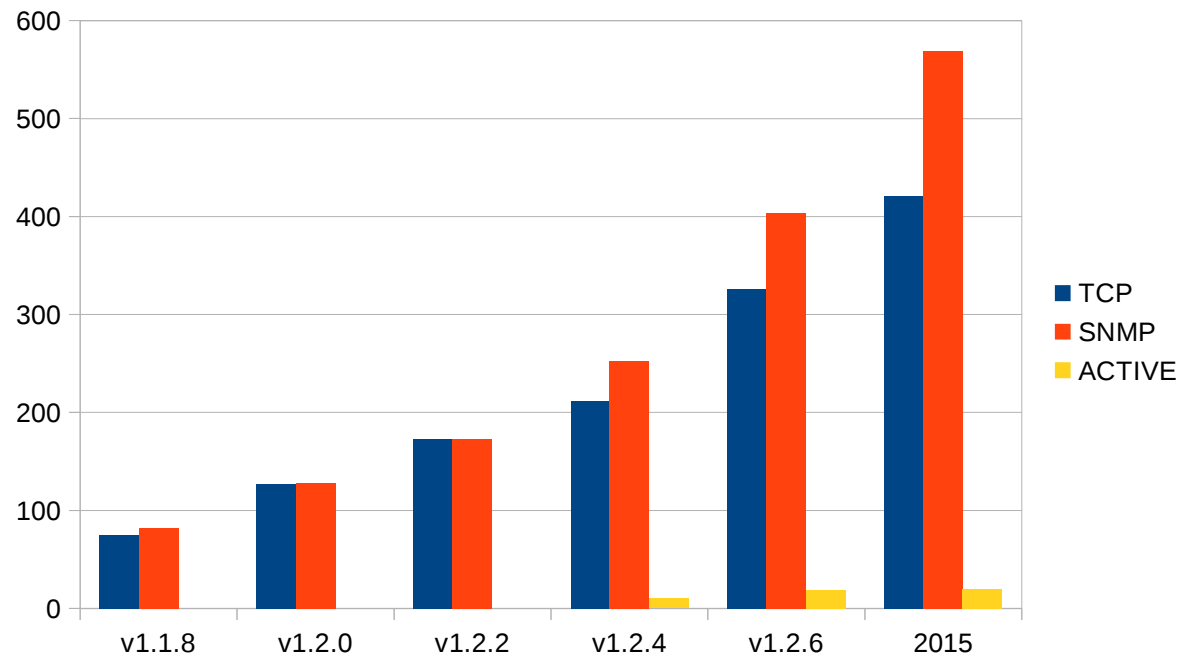
Checks & Agents



New Check Plugins

Version 1.2.6:
748 check plugins

October 2015:
1008 check plugins



This is an increase of ...



4

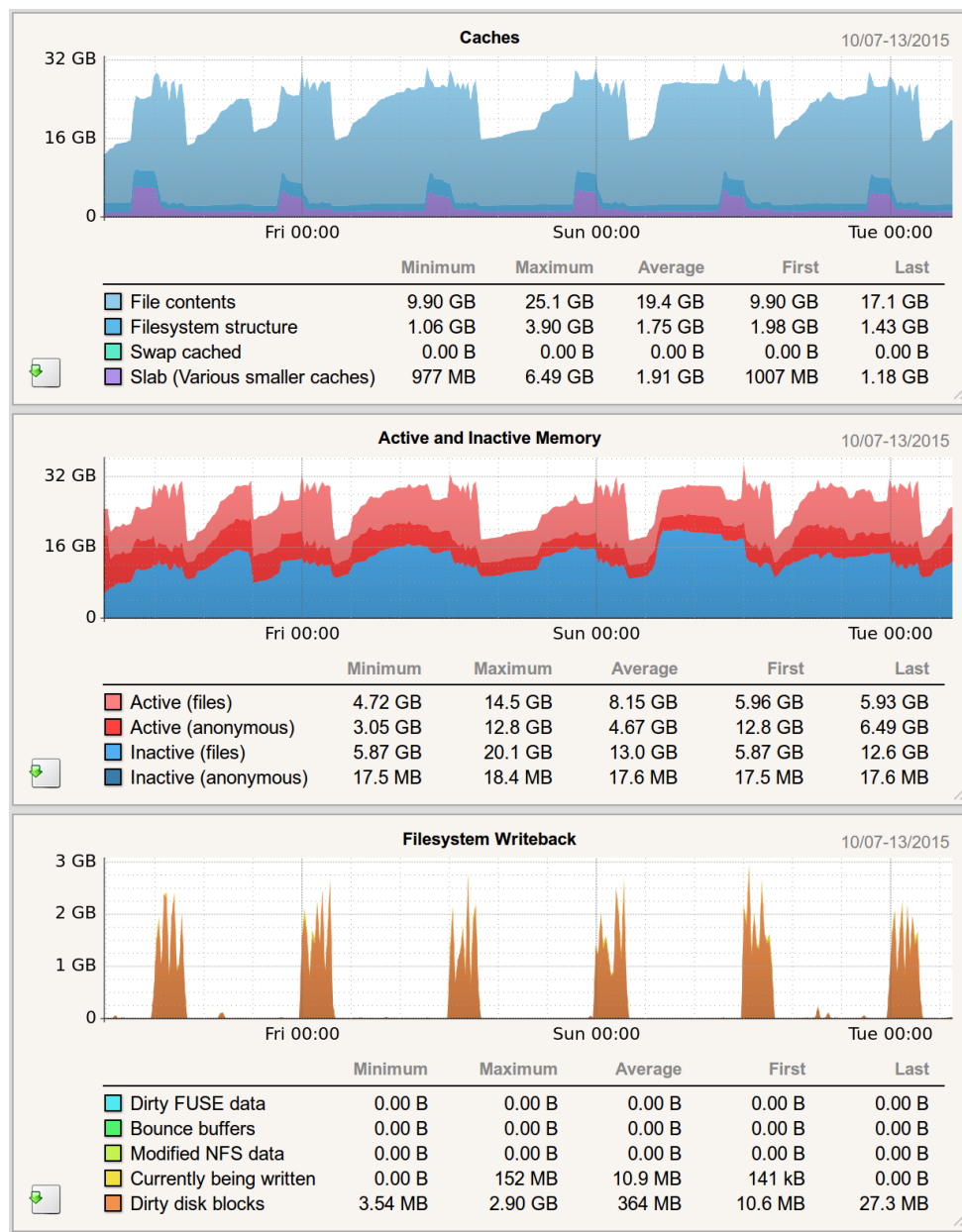
Just a few examples

#1665

agent_netapp: New special agent for
NetApp monitoring via Web-API

#1820

mem.linux: new dedicated check for
Linux memory management



#1831

diskstat: detect multipath devices and
handle them instead of the physical paths



#2057

New checks for postgresql monitoring

#2057 PostgreSQL

Check	Description	Limits configurable
postgres_bloat	Size of wasted table- and indexspace	X
postgres_connections	Number of connections to database	X
postgres_locks	Number of SharedAccess and ExclusiveLocks	X
postgres_stats	Time of last VACUUM and ANALYZE	X
postgres_query_duration	Displays longest running query	
postgres_version	Displays PostgreSQL version	
postgres_conn_time	Time to connect to database	



#2083 Added Siemens PLC (SPS) monitoring




Devices to fetch information from

Name of the PLC
|

Network Address
|

Number of the Rack
|


 Number of the Slot
|

TCP Port number
|

☐ Connect Timeout

Values to fetch from this device

Values to fetch from all devices

	Area	Address	Datatype	Type of the value	Ident of the value
	Datenbaustein	1	0.0	Double Integer (DINT)	Seconds

Check Harmonisation



Goals of harmonisation of checks:

- Identical user experience for all checks of same type
 - Example: same output text, same graphs
- Simpler code (by using common code)
- Better feature set
 - Example: **all** temperature checks support trend detection





Believe it or not:

Check_MK ships

72

check plugins for temperatures!





Current situation

- Some areas are already harmonised:
 - Temperature checks
 - Humidity
 - Electrical phase
 - Fans
 - Disk IO
- Others are still to do:
 - e.g. Storage devices (disks)





Check Catalog



Now directly integrated into WATO



Appliances, other dedicated hardware

Switches, load balancers, storage, UPSes, environmental sensors, etc.



Operating systems

Plugins for operating systems, things like memory, CPU, filesystems, etc.



Applications

Monitoring of applications such as processes, services or databases



Networking checks without agent


Plugins that directly check networking protocols like HTTP or IMAP



Generic check plugins

Plugins for local agent extensions or communication with the agent in general




- Description of the Check
- Direct link to parameter rule set
- Example for parameters

Title	Age and size of files
Name of plugin	fileinfo
Description	<p>This check monitors the size and age of specific files in the target host's filesystem. You can set lower and upper limits on both the modification time and the size of a file. When the file is missing then the check will go UNKNOWN.</p> <p>This check needs some configuration in the agent, as the agent needs to know the information about which files need to be sent.</p> <p>Currently Windows, Linux, FREEBSD, MACOSX and Solaris agents supports this type of check.</p> <p>For windows, the configuration is done in <code>check_mk.ini</code> in the section <code>[fileinfo]</code>. Put one or more entries of the format <code>path = C:\Some Dir*.log</code> into this section. The agent will send all files that match the pattern. Wildcards are only allowed in the filename part, not in the directory path.</p> <p>For Linux, FREEBSD, MACOSX and Solaris the configuration is done via <code>fileinfo.cfg</code> located in the <code>\$MK_CONFDIR</code> (usually <code>/etc/check_mk/fileinfo.cfg</code>). To add files to the check, simply add one path pattern <code>/tmp/*.log</code> per line. Wildcards or patterns can be used as usual on the console.</p>
Service name	File <input type="checkbox"/>
Parameter rule set	 Size and age of single files
Example for Parameters	<ul style="list-style-type: none"> <input type="checkbox"/> Minimal age <input type="checkbox"/> Maximal age <input type="checkbox"/> Minimal size <input type="checkbox"/> Maximal size <input type="checkbox"/> Only check during the following times of the day

News in the Core System



Automatic Service Discovery

State	Service	Icons	Status detail
OK	Check_MK	 	Agent version 1.2.7i3, execution time 0.1 sec
WARN	Check_MK Discovery		4 unmonitored services (mknotifyd:1, livestatus_status:1, omd_apache:1, ps:1) WARN , no vanished services found

- Enabled by default in new installations.
#1648
- Optionally updates services automatically.
#2595

Improved error reporting during service discovery. [#2231](#)

- In Discovery Check
- On Commandline (cmk -l)
- In Service List (WATO)
- During Bulk Discovery

- Agents are now included in Check_MK package. [#1759](#)
- Linux agent supports systemd. [#1228](#)



New Counter APIs

- *get_rate* replaces *get_counter* #1723
- *get_average* interface simplified #1725
- *get_item_state*, *set_item_state* store arbitrary data
- Counter names automatically unique



Inline SNMP



Why Inline SNMP?

- Classic Check_MK SNMP uses command line tools → *A lot of process creations*
- Inline SNMP directly uses Net-SNMP libraries → *Saves about 50% of CPU resources*

Basic information

- Available in Check_MK Enterprise Edition
- Activated per default
- Compatible with SNMP versions 1, 2, 3
- Behaves like classic SNMP
- Inline SNMP also used when running
`cmk --snmpwalk` and `cmk --snmpget` (#8265)

What is new?



Modify ranges

- Can limit OID table entries from start, middle and end
- Only specific checks supported, currently
 - interface checks (if/if64, tplink, lancom),
 - emc_isilon_quota
- Relevant werks:
#8060, #8228, #8166, #8262

Further features and prospects

- Already added Inline SNMP profiling
- Determine walk bulk size (Currently fixed to 10 OIDs)
- Adapting walks table size based on first column
- Use OIDs contained in responses exceeding the requested table

Hard- and Software-Inventory





Switch Port Inventory

- Gathered via SNMP
- Allows searching for unused ports

Host	Product	Interfaces	Ports	Ports available
switch-cisco-c4500-4	Cisco IOS Software, IOS-XE Software, Catalyst 4500 L3 Switch Software (cat4500es8-UNIVERSALK9-M), Version 03.06.00.E RELEASE SOFTWARE (fc3) Technical Support: http://www.cisco.com/techsupport Copyright (c) 1986-2014 by Cisco Systems, Inc. Compiled Fri	2	305	97
switch-cisco-c4500	Cisco IOS Software, Catalyst 4500 L3 Switch Software (cat4500-IPBASEK9-M), Version 12.2(53)SG2, RELEASE SOFTWARE (fc1) Technical Support: http://www.cisco.com/techsupport Copyright (c) 1986-2010 by Cisco Systems, Inc. Compiled Tue 16-Mar-10 00:30 by pr	2	199	97



8	GigabitEthernet1/1/7	*** Client & Voice Port ***	down	up	used	1 Gbit/s	20 days ago
9	GigabitEthernet1/1/8	*** Client & Voice Port ***	down	up	free	1 Gbit/s	36 days ago
10	GigabitEthernet1/1/9	*** Client & Voice Port ***	up	up	used	1 Gbit/s	39 days ago
11	GigabitEthernet1/1/10	*** Client & Voice Port ***	up	up	used	1 Gbit/s	42 days ago

Network Interface: Last Change from: <input type="text" value="0"/> days to: <input type="text" value="0"/> days		Network Interface: Operational Status <input checked="" type="checkbox"/> up <input checked="" type="checkbox"/> down <input checked="" type="checkbox"/> testing <input checked="" type="checkbox"/> dormant <input checked="" type="checkbox"/> not present	
Hostname (exact match) <input type="text" value="switch-cisco-c4500-4"/> <input type="checkbox"/> negate		Network Interface: Administrative Status <input type="radio"/> up <input type="radio"/> down <input checked="" type="radio"/> (ignore)	
Network Interface: Description <input type="text"/>		Network Interface: Index from: <input type="text"/> to: <input type="text"/>	
Network Interface: Port Usage <input type="radio"/> used <input type="radio"/> free <input checked="" type="radio"/> (ignore)		Network Interface: Physical Address (MAC) <input type="text"/>	
Network Interface: Speed <input type="text"/>		Network Interface: Alias <input type="text"/>	



Track changes

- Track changes in inventory
- Hardware and Software

Date/Time	Removed	new	changed	Inventory changes		
32 sec	5	4	0	<div>  Software  Packages Open this table for filtering / sorting </div>		
				Removed entries:		
				Name	Version	Architecture
				apt	1.0.9.7ubuntu4	x86_64
				bsdutils	1:2.25.2	x86_64
				tzdata	2015c	all
				udev	219	x86_64
				util-linux	2.25.2	x86_64
				Type	Description	Package Version
				deb		
				deb		4ubuntu2
				deb		1
				deb		7ubuntu3
				deb		4ubuntu2
				New entries:		
				Name	Version	Architecture
				apt	1.0.9.7ubuntu4.1	x86_64
				tzdata	2015f	all
				udev	219	x86_64
				util-linux	2.25.2	x86_64
				Type	Description	Package Version
				deb		
				deb		0ubuntu0.15.04
				deb		7ubuntu6
				deb		4ubuntu3

Additional changes

- #1479 Collect inventory data from remote sites
- #1452 Added support for Solaris
- #2298 Host name (Linux, AIX, Windows)
- #2298 IP addresses, routes (Linux)
- #1855 ESX: Info about the host OS
- #2128 Windows: Inventory plugin available as VBS script

News in the Event Console



**#2248 The Event Console can now
translate incoming SNMP traps**



SNMP MIBs for Trap Translation

omdadmin (admin) 12:24

[Main Menu](#) [Rule Packs](#) [3 EC-Changes](#) [Server Status](#) [Settings](#)

Upload MIB file

Use this form to upload MIB files for translating incoming SNMP traps. You can upload single MIB files with the extension .mib or .txt, but you can also upload multiple MIB files at once by packing them into a .zip file. Only files in the root directory of the zip file will be processed.

▶ Upload MIB file

Upload MIB(s)

Custom MIBs

▶ Actions	Filename	MIB	Organization	Size
	TRAPEZE-NETWORKS-AP-TC.txt	TRAPEZE-NETWORKS-AP-TC	Trapeze Networks	24.3 kB
	TRAPEZE-NETWORKS-ROOT-MIB.txt	TRAPEZE-NETWORKS-ROOT-MIB	Trapeze Networks	2.03 kB
	TRAPEZE-NETWORKS-TRAP-MIB.txt	TRAPEZE-NETWORKS-TRAP-MIB	Trapeze Networks	145 kB

MIBs shipped with Check_MK

▶ Actions	Filename	MIB	Organization	Size
	AGENTX-MIB.txt	AGENTX-MIB	AgentX Working Group	17.0 kB
	BRIDGE-MIB.txt	BRIDGE-MIB	IETF Bridge MIB Working Group	49.8 kB
	DISMAN-EVENT-MIB.txt	DISMAN-EVENT-MIB	IETF Distributed Management Working Group	66.5 kB
	DISMAN-SCHEDULE-MIB.txt	DISMAN-SCHEDULE-MIB	IETF Distributed Management Working Group	24.0 kB
	DISMAN-SCRIPT-MIB.txt	DISMAN-SCRIPT-MIB	IETF Distributed Management Working Group	62.8 kB
	EtherLike-MIB.txt	EtherLike-MIB	IETF Ethernet Interfaces and Hub MIB Working Group	82.5 kB





- Untranslated:
.1.3.6.1.4.1.12345.2.1.3.1.2.10 = 2
- Translated:
abcPortState = up
- Trap OID goes into Application field
- EC matching happens after that!
- Translates all OIDs found in available MIBs





#2099 Allow replication of Event Console rule and settings





- Central configuration of EC Rules via WATO
- Distribution via WATO (just like normal setting)
- **But:** Still no central view (unfortunately)





















#2225 Restructured Event Console rules into packs





#2225 Rule Packs

Rule packs				
Actions			ID	Title
    		win	Windows Eventlogs	
      		snmp	SNMP Traps	
    		ora	ORACLE Logfiles	

- Rules are now grouped into packs
- New rule action: skip current pack
- Example: „ORA-“ not in message → **SKIP**
- **Advantages:**
 - Easier to configure
 - Faster to execute



LEVEL 2

- #1719 Allow both host name and IP address when checking for events in Event Console
- #1845 Keep record of original source IP address of a syslog message or SNMP trap
- #1672 Now able to reclassify logwatch messages before forwarding them to the event console
- #2099 Allow replication of Event Console rule and settings**
- #2248 The Event Console can now translate incoming SNMP traps**
- #2225 Restructured Event Console rules into packs**
- #2533 Allow inverted match in Event Console rules

LEVEL 1

- #1169 Added host state type filter to "recent event history" view
- #1718 Show groups of regex match of events in details views of Event Console
- #2107 mkeventd: can now handle syslog format of Sophos firewalls
- #2223 Allow cancelling actions to be omitted of the cancelled event is not (yet) open
- #2333 The Event Console log level can now be configured via GUI
- #2334 Logging details about loaded SNMP MIB modules during startup
- #2326 Allow relating Event Console hosts to monitoring hosts now also by alias
- #2411 Check check_mkevents: Now able to look for events matching the host alias
- #2508 It is now possible to upload multiple zipped MIB files at once
- #2562 SNMP trap translation can now be configured to put trap description into event text



PAUSE / BREAK