Activate Changes

#4075

- Complete Rework of Activate Changes
- Bulk activation, comments, etc
- Activations in parallel
Werk #4075

Activate pending changes

<table>
<thead>
<tr>
<th>Actions</th>
<th>Site</th>
<th>Status</th>
<th>Version</th>
<th>Changes</th>
<th>Last result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Der Master</td>
<td>online</td>
<td>2017.04.23</td>
<td>1</td>
<td>Has never been activated</td>
</tr>
<tr>
<td></td>
<td>Der Slave 1</td>
<td>online</td>
<td>2017.04.23</td>
<td>0</td>
<td>Has never been activated</td>
</tr>
<tr>
<td></td>
<td>Der Slave 2</td>
<td>online</td>
<td>2017.04.23</td>
<td>2</td>
<td>Has never been activated</td>
</tr>
<tr>
<td></td>
<td>Der Slave 3</td>
<td>online</td>
<td>2017.04.23</td>
<td>0</td>
<td>Has never been activated</td>
</tr>
</tbody>
</table>

Pending changes

<table>
<thead>
<tr>
<th>Object</th>
<th>Time</th>
<th>User</th>
<th>Affected sites</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2017-04-23 13:08:28</td>
<td>omdadmin</td>
<td>heute_slave_2</td>
<td>Created new host heute_slave_2.</td>
</tr>
<tr>
<td></td>
<td>2017-04-23 13:08:03</td>
<td>omdadmin</td>
<td>heute_slave_2</td>
<td>Created new folder Main directory / slave_2</td>
</tr>
</tbody>
</table>
- Activate Changes can now be locked:
Werk #4227

Read only mode

Enabled

- Disabled
- Enabled permanently
- Enabled in time range

Enabled in time range

Until: 2017-05-04

Can still edit

- Users listed here are still allowed to modify things.

- omdadmin - omdadmin

Message

Add user
Service Discovery

#4319
#3472

- Complete Rework of Service Discovery dialog
- Easier to work with discovered services
- Vanished services more prominent on top
### Werks #4319 #3472

#### Services of host heute (might be cached data)

<table>
<thead>
<tr>
<th>State</th>
<th>Service</th>
<th>Status detail</th>
<th>Check plugin</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>File /etc/passwd</td>
<td>Size: 3224 B, Age: 34 min</td>
<td>fileinfo</td>
</tr>
<tr>
<td>OK</td>
<td>Filesystem /</td>
<td>60.4% used (10.62 of 17.59 GB), trend: 0.00 B / 24 hours</td>
<td>df</td>
</tr>
<tr>
<td>OK</td>
<td>Interface 2</td>
<td>[eth0] (up) speed unknown</td>
<td>inx_if</td>
</tr>
</tbody>
</table>

#### Vanished services (monitored, but no longer exist)

<table>
<thead>
<tr>
<th>State</th>
<th>Service</th>
<th>Status detail</th>
<th>Check plugin</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNKN</td>
<td>My_Service</td>
<td>No data found in agent output</td>
<td>local</td>
</tr>
</tbody>
</table>

#### Monitored services

<table>
<thead>
<tr>
<th>State</th>
<th>Service</th>
<th>Status detail</th>
<th>Check plugin</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEND</td>
<td>Apache 127.0.0.1:80 Status</td>
<td>WAITING - Counter based check, cannot be done offline</td>
<td>apache_status</td>
</tr>
<tr>
<td>OK</td>
<td>CPU load</td>
<td>15 min load 0.58 at 4 Cores (0.14 per Core)</td>
<td>cpu.loads</td>
</tr>
<tr>
<td>OK</td>
<td>CPU utilization</td>
<td>user: 5.8%, system: 1.5%, wait: 0.1%, steal: 0.0%, guest: 0.0%, total: 7.4%</td>
<td>kernel.util</td>
</tr>
</tbody>
</table>
| OK    | CUPS Queue HP-Color-LaserJet-4700   | is idle. enabled since Fri 07 Apr 2017 10:59:34 AM CEST - Jobs: 0                                       | cups_queues
Werks #4319  #3472

Services of host heute (might be cached data)

Undecided services (currently not monitored)

<table>
<thead>
<tr>
<th>State</th>
<th>Service</th>
<th>Status detail</th>
<th>Check plugin</th>
</tr>
</thead>
<tbody>
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<tr>
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<td>Inx_if</td>
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</table>

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Monitored services

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<td>OK</td>
<td>CUPS Queue HP-Color-LaserJet-4700</td>
<td>is idle. enabled since Fri 07 Apr 2017 10:59:34 AM CEST - Jobs: 0</td>
<td>cups_queues</td>
</tr>
</tbody>
</table>
Service Discovery
#3130

- More dynamic periodic service discovery
- Activate only matching services
- Negate conditions (item, services) in rulesets
- Type of rule is shown
- Move Rules via Drag&Drop
Werks #3785  #3469  #4217

Filesystem mount options (Linux/Unix)  omdadmin (admin)  13:50

- No changes
- Main Menu
- Back
- Services
- Parameters

Matching: The first matching rule defines the parameter.

▼ Rules in folder Main directory (2)

<table>
<thead>
<tr>
<th>Ma.</th>
<th>Actions</th>
<th>Conditions</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Host name is <strong>heute</strong></td>
<td>ro</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mount point is not / or /var</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="icon-green.png" alt="Green" /></td>
<td><img src="icon-checked.png" alt="Checked" /></td>
<td><img src="icon-edit.png" alt="Edit" /></td>
<td><img src="icon-add.png" alt="Add" /></td>
<td><img src="icon-remove.png" alt="Remove" /></td>
</tr>
</tbody>
</table>

Create Host specific rule for: Host heute
Create rule in folder: Main directory ▼
Host & Service Parameters

#4142
#3687

- Extended search dialog
- Regexes in piggyback translation rule
- Password store in Check_MK
- Retrieve passwords out of a store
- No password visibility in GUI anymore
Werk #3154

Passwords

This password management module stores the passwords you use in your checks and special agents in a central place. Please note that this password store is no kind of password safe. Your passwords will not be encrypted.

All the passwords you store in your monitoring configuration, including this password store, are needed in plain text to contact remote systems for monitoring. So all those passwords have to be stored readable by the monitoring.

<table>
<thead>
<tr>
<th>Actions</th>
<th>Title</th>
<th>Editable by</th>
<th>Shared with</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Email</td>
<td>Administrators (having the permission &quot;Write access to all passwords&quot;)</td>
<td>Not shared</td>
</tr>
<tr>
<td></td>
<td>vSphere 6.0u2</td>
<td>ESXi Administrators</td>
<td>ESXi Administrators</td>
</tr>
</tbody>
</table>

omdadmin (admin) 14:02
Werk #2900
Host bulk import
Werk #2900

Bulk host import

Set field delimiter: ;
Has title line: The first line in the file contains titles.

Preview

<table>
<thead>
<tr>
<th>Hostname</th>
<th>IPv4 Address</th>
<th>Agent type</th>
<th>Networking Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>switch</td>
<td>192.168.2.1</td>
<td>snmp</td>
<td>switch</td>
</tr>
<tr>
<td>centos</td>
<td>192.168.2.115</td>
<td>cmk-agent</td>
<td></td>
</tr>
<tr>
<td>oracle</td>
<td>192.168.2.159</td>
<td>cmk-agent</td>
<td>switch</td>
</tr>
<tr>
<td>windows10</td>
<td>192.168.2.117</td>
<td>cmk-agent</td>
<td>centos</td>
</tr>
</tbody>
</table>
Werk #2902
Host network scan
- Improved host search
- all bulk operations for search results
- Regexes in search
Further Hosts Werks

#2442 Remove host: improved cleanup of obsolete host files
#2897 Move host is now an action icon using a popup menu
#3851 Checkbox hosttags are now checked by default
#2924 Contact groups from hosts can be added to services
#3657 Custom host attributes can now be configured
#2923 SNMP community is now always displayed with *****
#3544 Now able to handle SNMPv3 credentials
- new default user: automation
- Logging of last access time of users
- Bulk deleting of users
Users, Roles & Permissions

- Forbid renaming of hosts
- Reworked layout for roles and permissions
- Now capable of searching, sorting, filtering
Werk #4017
Hide WATO folders
Sorry, you have no permissions to the folder <b>Main directory</b>. The folder is not permitted for any contact group. You may enter the folder as you might have permission on a subfolders, though.
The delay and the period of notifications can be fractions of a minute now.

Display host/service notification delay with d/h/m/s, not with fractions of minute

Notification plugins: now can be hidden by role

Timerange buttons for downtimes can now be configured
Distributed Monitoring

Werk #4320
Global Settings
# Werk #4320

## Distributed Monitoring

<table>
<thead>
<tr>
<th>Actions</th>
<th>ID</th>
<th>Alias</th>
<th>Socket</th>
<th>Status host</th>
<th>Disabled</th>
<th>Timeout</th>
<th>Pers.</th>
<th>Replication</th>
<th>Login</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>heute</td>
<td>Der Master</td>
<td>local site</td>
<td>no</td>
<td>10 sec</td>
<td>no</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>heute_slave_1</td>
<td>Der Slave 1</td>
<td>Use livestatus Proxy-Daemon</td>
<td>no</td>
<td>10 sec</td>
<td>no</td>
<td>Slave, EC</td>
<td></td>
<td>Logout</td>
</tr>
<tr>
<td></td>
<td>heute_slave_2</td>
<td>Der Slave 2</td>
<td>Use livestatus Proxy-Daemon</td>
<td>no</td>
<td>10 sec</td>
<td>no</td>
<td>Slave, EC</td>
<td></td>
<td>Logout</td>
</tr>
<tr>
<td></td>
<td>heute_slave_3</td>
<td>Der Slave 3</td>
<td>Use livestatus Proxy-Daemon</td>
<td>no</td>
<td>10 sec</td>
<td>no</td>
<td>Slave, EC, MKPs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- MKP's now manageable in WATO

<table>
<thead>
<tr>
<th>Actions</th>
<th>Name</th>
<th>Version</th>
<th>Alias</th>
<th>Author</th>
<th>Req. Version</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>werk_3883</td>
<td>1</td>
<td>Kentix LAN devices</td>
<td>omdadmin</td>
<td>1.2.8</td>
<td>Check Plugins: 2</td>
</tr>
<tr>
<td></td>
<td>werk_4619</td>
<td>1</td>
<td>veeam_client: Backup Host information</td>
<td>omdadmin</td>
<td>1.2.8</td>
<td>Agents: 1, Check Plugins: 1</td>
</tr>
<tr>
<td></td>
<td>werk_3612</td>
<td>1.1</td>
<td>Performance data for nfsmounts checkplugin</td>
<td>omdadmin</td>
<td>1.2.8</td>
<td>Check Plugins: 2, GUI Extensions: 1</td>
</tr>
</tbody>
</table>
Distributed Monitoring

#2879
#3658

- Replication of local files and MKPs to slaves
- LDAP can be configured per site
### Werk #8359

#### Extension Packages - Installed Packages

<table>
<thead>
<tr>
<th>Actions</th>
<th>Name</th>
<th>Version</th>
<th>Alias</th>
<th>Author</th>
<th>Req. Version</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="icon" /> <img src="image" alt="icon" /> <img src="image" alt="icon" /></td>
<td>werk_3883</td>
<td>1</td>
<td>Kentix LAN devices</td>
<td>omdadmin</td>
<td>1.2.8</td>
<td>Check Plugins: 2</td>
</tr>
<tr>
<td><img src="image" alt="icon" /> <img src="image" alt="icon" /> <img src="image" alt="icon" /></td>
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<td>omdadmin</td>
<td>1.2.8</td>
<td>Check Plugins: 2, GUI Extensions: 1</td>
</tr>
</tbody>
</table>
New in the Alert Handlers

Mathias Kettner
New Feature-Werks

#8621

#4497 #8611
Werk #8612

Linux Remote

Handlers
Werk #8612
New alert handler for safely executing remote commands on Linux hosts

- Uses SSH with command restriction
- No code injection possible
- Completely bakeable with Agent bakery
- Automatic setup of SSH keys
Werk #8611

Monitoring History
Werk #8611
Alert handlers now log success or failure to monitoring history
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 sec</td>
<td>SERVICE NOTIFICATION</td>
<td>ALERTHANDLER (CRITICAL)</td>
</tr>
<tr>
<td>13 sec</td>
<td>SERVICE ALERT HANDLER STOPPED</td>
<td></td>
</tr>
<tr>
<td>15 sec</td>
<td>SERVICE ALERT HANDLER STARTED</td>
<td></td>
</tr>
<tr>
<td>15 sec</td>
<td>SERVICE NOTIFICATION</td>
<td>CRITICAL</td>
</tr>
<tr>
<td>15 sec</td>
<td>SERVICE ALERT</td>
<td>HARD</td>
</tr>
</tbody>
</table>

**Check output**

Warning: Permanently added '127.0.0.1' (ECDSA) to the list of known hosts.
hosts.$/usr/lib/check_mk_agent/alert_handlers/restart_foo: line 4: /etc/init.d/foo:
No such file or directory
Could not restart FOO.

Warning: Permanently added '127.0.0.1' (ECDSA) to the list of known hosts.$/usr/lib/check_mk_agent/alert_handlers/restart_foo: line 4: /etc/init.d/foo:
No such file or directory
Could not restart FOO.

Manually set to Critical by omdadmin

Manually set to Critical by omdadmin
• Logs start and end of execution
• Makes failures visible
• Allows **notifications** about successfull and / or failed alert handlers!
Werk #4497
Match Conditions
Werk #4497

Added several missing match conditions:

- Exclude list of services
- Check type
- Plugin output
- Contacts
- Contact groups
- Service level
- Matching during timeperiod
New Feature Werks

#9243 #9192 #9191

#9210 #9244 #9285 #9229

#9296 #9218 #9176 #9261 #9295 #9245
#9278 #9277 #9194 #9211 #9195 #9174
#9239 #9259 #9168 #9196 #9197 #9260
#9221 #9181 #9217 #9271 #9281 #9298
#9231 #9240 #9230 #9186 #9246 #9179
#9202 #9262 #9172 #9170 #9263
Update
rail2 Mark I
Check_MK rail2 Mark I

• Modern 64-bit platform
  – Q7 E3845 1.91GHz
  – 4GB RAM
  – 2 x GB LAN
  – SD card as usual

• Monitors 4000 services
Update

rack1 Mark II
Check_MK rack1 Mark II

- Differences to Check_MK rack1 Mark I
  - Intel Xeon E3-1200 v5 (4 Cores)
  - 16GB RAM, ECC
  - 2x 1TB HDD
- Monitors 50,000 services
- Future: Extending HDDs (RAID-10)
More power!

rack4 Mark I
Specs

- 2x E5-2650v4 (24 Cores, Hyper Threading)
- 64 GB RAM, ECC
- 2x 480GB SSD (6GB/s)
- 4x 10GBit LAN
- 2 Rack units
- Redundant PSU
Options

• Option: Bigger SSDs
  → even more services

• Future: Extending HDDs (RAID-10)
Measured: 500GB SSD (Standard setup)

- 5,000 Hosts, 400,000 Services @ 60 sec

CPU load: 15  
Memory: 25% used

Disk write: 80 MB/s  
Disk space: 60 GB free

Check latency: 1 sec

→ Disk space is the limit!
Measured: 1TB SSD setup

- 10,000 Hosts, 800,000 Services @ 60 sec

CPU load: 36
Memory: 31% used
Disk write: 90 MB/s
Disk space: 20 GB free
Check latency: 20 sec

→ Would need Check_MK tuning
Werk #9192
64-bit Platform
64-bit Platform since 1.3

• Transparent update
• From 1.2.1 or newer 1.2
• Install 64 bit Check_MK version
• RRDs are converted
• Manual steps needed for own binaries
Werk #9243
Backup
Appliance Backup

- Backup module in the GUI
- Concept
  - Online backup
  - Multiple backup targets
  - Multiple jobs (Timing, encryption, type)
  - One generation per job
# Backup – Job status

<table>
<thead>
<tr>
<th>State</th>
<th>Finished</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runtime</td>
<td>Started at 2017-04-26 08:51:07, Finished at 2017-04-26 08:51:07 (Duration: 0:00:14)</td>
</tr>
</tbody>
</table>
| Output      | 2017-04-26 08:51:07 --- Starting backup (Check_MK_Appliance-ch-
   2017-04-26 08:51:07 Performing system backup (system.tar)
   2017-04-26 08:51:07 Performing system data backup (system-data)
   2017-04-26 08:51:21 Verifying backup consistency
   2017-04-26 08:51:21 --- Backup completed (Duration: 0:00:14, |

<table>
<thead>
<tr>
<th>Actions</th>
<th>Name</th>
<th>State</th>
<th>Runtime</th>
<th>Next run</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Device backup</td>
<td>Finished</td>
<td>Started at 2017-04-26 08:51:07, Finished at 2017-04-26 08:51:07 (Duration: 0:00:14, Size: 298.22 MB, IO: 34.36 MB/s)</td>
<td>2017-05-01 00:00</td>
</tr>
</tbody>
</table>
Backup – Job details

Unique ID: system
Title: Device backup
Target: Local system backup
Schedule: Schedule execution

Disable:
- Currently disable scheduled execution of this job

Period:
- Every week on... Monday

Time of day to start the backup at:
- 00:00
  - Add new time

Compression:
- Compress the backed up files

Encryption:
- Do not encrypt the backup

Exclude sites:
Werk #9191
Site Migration
Migrate existing sites (#9191)

- Full or partially
- Via SSH
- Opt. site rename
Werk #9229
VLAN support
Interfaces with VLANs (#9229)

- Switch from one IP per Interface via GUI
- Use as many VLANs as you need

![Use tagged VLANs (IEEE 802.1Q)]

- VLAN ID: 1
- IP Configuration:
  - IP-Address: 192.168.1.22
  - Netmask: 255.255.255.0
- Default-Gateway
Further Werks (1)

#9245  Cloning and renaming sites

#9296  System log is reboot persistent (Except Check_MK rail)

#9186  Custom entries in /etc/fstab are now persisted

... and more ...
Thanks for listening!
YOUR FEEDBACK IS WELCOME