

Dohled akademické sítě a serverů

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- NRPE

Munin

- Instalace
- Server
- Node

Observium

- Instalace
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 - Summary
 - Grid
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 - Summary
 - Grid
- Problems
 - Services (Unhandled)
 - Hosts (Unhandled)
 - Network Outages

Quick Search:

Reports

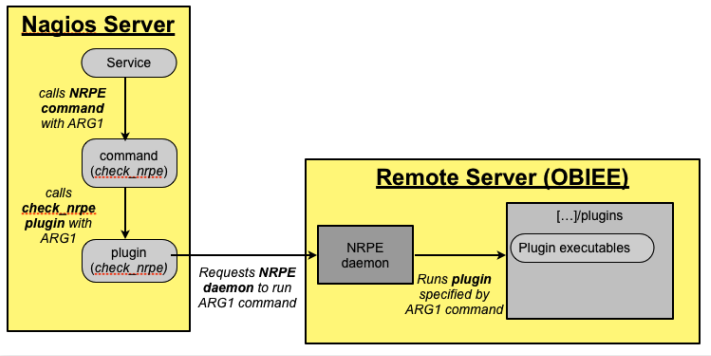
- Availability
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System

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	lead	OK	03-11-2013 11:39:27 434 23h 20m 32s	1/2	OK - load average: 0.85, 0.90, 0.99
	ping	OK	03-11-2013 11:39:25 0d 0h 12m 43s	1/2	PING OK - Packet loss = 0%, RTA = 0.56 ms
	ssh	OK	03-11-2013 11:38:22 434 23h 18m 37s	1/2	SSH OK - OpenSSH_5.9p1-hpn13v11ipk (protocol 2.0)
	swap	OK	03-11-2013 11:38:22 434 23h 20m 32s	1/2	SWAP OK - 100% free (8190 MB out of 8190 MB)
forum.fit.cvut.cz	http	OK	03-11-2013 11:38:23 434 23h 14m 43s	1/2	HTTP OK: HTTP/1.1 200 OK - 34738 bytes in 0.076 second response time
	http	OK	03-11-2013 11:38:24 434 23h 14m 30s	1/2	HTTP OK: HTTP/1.1 200 OK - 34738 bytes in 0.078 second response time
	ping	OK	03-11-2013 11:38:35 124 23h 34m 37s	1/2	PING OK - Packet loss = 0%, RTA = 0.90 ms
	ssh	OK	03-11-2013 11:38:21 434 23h 14m 43s	1/2	SSH OK - OpenSSH_5.9p1-Debian-6-rsruce2k2 (protocol 2.0)
hyper01.fel.cvut.cz	disk	OK	03-11-2013 11:38:22 434 23h 20m 29s	1/2	DISK OK - free space: /devroot 10008 MB (57% inode=88%): devtmpfs 7992 MB (90% inode=90%): tmpfs 8023 MB (90% inode=90%): shm 8024 MB (100% inode=90%): cgroup_root 10 MB (100% inode=90%): /devmd1 25 MB (43% inode=90%): /devsd0 49123 MB (90% inode=): /devsd6 49123 MB (90% inode=): /devsd7 715819 MB (90% inode=): /devsd7 715800 MB (90% inode=):
	load	OK	03-11-2013 11:38:22 434 23h 20m 24s	1/2	OK - load average: 0.13, 0.14, 0.14
	lum.sh	OK	03-11-2013 11:38:31 434 23h 20m 29s	1/2	OK (zbyva 42 %)
	ping	OK	03-11-2013 11:38:35 364 13h 18m 44s	1/2	PING OK - Packet loss = 0%, RTA = 0.65 ms
	raid.sh	OK	03-11-2013 11:38:23 434 23h 20m 29s	1/2	OK - Checked 4 arrays.
	ssh	OK	03-11-2013 11:38:22 434 23h 17m 47s	1/2	SSH OK - OpenSSH_5.9p1-hpn13v11ipk (protocol 2.0)
	swap	OK	03-11-2013 11:38:22 434 23h 20m 41s	1/2	SWAP OK - 95% free (15463 MB out of 16382 MB)
hyper01.fit.cvut.cz	disk	OK	03-11-2013 11:38:23 233d 15h 15m 26s	1/2	DISK OK - free space: /devroot 7381 MB (35% inode=89%): devtmpfs 7991 MB (90% inode=90%): tmpfs 7991 MB (90% inode=90%): shm 7991 MB (100% inode=90%): cgroup_root 10 MB (100% inode=90%): /devmd1 26 738 MB (82% inode=90%): /devmapper/virtual-libvirt-images 72603 MB (75% inode=90%): /devmapper/virtual-provision-tpl-client 7308 MB (77% inode=78%): /dev 7991 MB (90% inode=90%): /usr/portage 7381 MB (35% inode=89%):
	load	OK	03-11-2013 11:38:23 114d 13h 0m 47s	1/2	OK - load average: 1.75, 2.73, 3.12
	lum.sh	OK	03-11-2013 11:38:24 0d 0h 36m 7s	1/2	OK (zbyva 88 %)
	ping	OK	03-11-2013 11:38:35 108d 8h 24m 57s	1/2	PING OK - Packet loss = 0%, RTA = 0.56 ms
	raid.sh	OK	03-11-2013 11:38:23 33d 8h 40m 46s	1/2	OK - Checked 4 arrays.
	ssh	OK	03-11-2013 11:38:22 434 23h 15m 47s	1/2	SSH OK - OpenSSH_5.9p1-hpn13v11ipk (protocol 2.0)
	swap	OK	03-11-2013 11:38:23 233d 15h 15m 23s	1/2	SWAP OK - 92% free (62119 MB out of 67682 MB)
hyper02.fel.cvut.cz	disk	OK	03-11-2013 11:38:22 434 23h 20m 42s	1/2	DISK OK - free space: /devroot 15362 MB (80% inode=85%): devtmpfs 7992 MB (90% inode=90%): tmpfs 8023 MB (90% inode=90%): shm 8024 MB (100% inode=90%): cgroup_root 10 MB (100% inode=90%): /devmd1 42 MB (72% inode=90%): /devsd0 49123 MB (90% inode=): /devsd6 49123 MB (90% inode=): /devsd7 715574 MB (90% inode=): /devsd7 715255 MB (90% inode=): 192.168.8.1/usr/portage 10000 MB (57% inode=86%):
	load	OK	03-11-2013 11:38:27 434 23h 20m 41s	1/2	OK - load average: 0.16, 0.16, 0.18
	lum.sh	OK	03-11-2013 11:38:32 434 23h 20m 30s	1/2	OK (zbyva 40 %)
	ping	OK	03-11-2013 11:38:24 2d 1h 25m 7s	1/2	PING OK - Packet loss = 0%, RTA = 0.70 ms
	raid.sh	OK	03-11-2013 11:38:31 434 23h 20m 41s	1/2	OK - Checked 4 arrays.
	ssh	OK	03-11-2013 11:38:22 434 23h 18m 41s	1/2	SSH OK - OpenSSH_5.9p1-hpn13v11ipk (protocol 2.0)
	swap	OK	03-11-2013 11:38:27 434 23h 20m 41s	1/2	SWAP OK - 04% free (15325 MB out of 16382 MB)
hyper02.fit.cvut.cz	disk	OK	03-11-2013 11:38:31 17d 5h 5m 58s	1/2	DISK OK - free space: /devroot 8809 MB (46% inode=86%): devtmpfs 7991 MB (90% inode=90%): tmpfs 7991 MB (90% inode=90%): shm 7991 MB (100% inode=90%): cgroup_root 10 MB (100% inode=90%): /devmd1 224 22 MB (38% inode=90%):
	load	OK	03-11-2013 11:38:30 2d 11h 31m 57s	1/2	OK - load average: 0.21, 0.20, 0.27
	lum.sh	OK	03-11-2013 11:38:32 434 23h 20m 29s	1/2	OK (zbyva 53 %)
	ping	OK	03-11-2013 11:38:35 434 23h 18m 33s	1/2	PING OK - Packet loss = 0%, RTA = 0.77 ms
	raid.sh	OK	03-11-2013 11:38:31 434 23h 17m 46s	1/2	OK - Checked 4 arrays.
	ssh	OK	03-11-2013 11:38:22 434 23h 15m 46s	1/2	SSH OK - OpenSSH_5.9p1-hpn13v11ipk (protocol 2.0)
	swap	OK	03-11-2013 11:38:23 63d 22h 17m 36s	1/2	SWAP OK - 90% free (14704 MB out of 16382 MB)
hyper03.fit.cvut.cz	disk	OK	03-11-2013 11:38:31 434 23h 20m 30s	1/2	DISK OK - free space: /devroot 14295 MB (66% inode=80%): tmpfs 16055 MB (90% inode=90%): rs-cvdr0 0 MB (80% inode=90%):udev 9 MB (90% inode=90%): shm 16056 MB (100% inode=90%): /devmd1 80 MB (88% inode=90%): /devsd0 49123 MB (90% inode=): /devsd6 49123 MB (90% inode=): /devsd7 715819 MB (90% inode=): /devsd7 715800 MB (90% inode=):

Jak to funguje?



Obrázek: NRPE <http://www.rittmanmead.com/>

Debian

```
aptitude install nagios nagios-nrpe-plugin  
aptitude install nagios-nrpe-server
```

Gentoo

```
[I] net-analyzer/nagios-core  
Available versions: 3.2.3 3.3.1 {{apache2 debug  
lighttpd perl vim-syntax +web}}  
Homepage: http://www.nagios.org/  
Description: Nagios Core - Check daemon, CGIs  
  
emerge -av nagios-core
```

Server - /etc/nagios/nagios.conf

```
nms-dev ~ # cat /etc/nagios/nagios.cfg | wc -l
1331
```

Node NRPE - /etc/nagios/nrpe.cfg

```
server_address=IP_ADRESA
allowed_hosts=147.32.233.30
dont_blame_nrpe=0
CESTA=/usr/lib64/nagios/plugins/
# kontrola disku
command[check_disk]= $CESTA\check_disk -c10% -W30%
command[check_lvm.sh]= $CESTA\lvm.sh 12 5
#command[check_load]= $CESTA\check_load -c $ARG2$
```

Problems

Critical (1)

Warning (2)

Unknown (0)

Groups

SITEL

hyper-01

hyper-01-fit

hyper-02-fit

hyper-03-fit

hyper-04-fit

hyper-05-fit

hyper-06-fit

is-fit

ucebny

web

Categories

apache [d w m y]

disk [d w m y]

munin [d w m y]

mysql [d w m y]

network [d w m y]

nfs [d w m y]

nginx [d w m y]

other [d w m y]

postfix [d w m y]

processes [d w m y]

- SITEL
 - nms2fit [disk munin network processes sendmail system]
- hyper-01
 - hyper-01 [disk network processes sensors system]
- hyper-01-fit :: [day week month year]
 - ict-cups-fit [disk network other processes system]
 - ict-fit [disk munin network other processes system]
 - timetable-fit [disk network processes system]
- hyper-02-fit :: [day week month year]
 - hyper-02-fit [disk network processes sensors system]
 - nms-fit [apache disk munin network other postfix processes system time]
 - pr-fit [disk network nginx processes system]
 - users-fit [apache disk network nfs processes system]
- hyper-03-fit :: [day week month year]
 - av-fit [disk munin network processes system]
 - edux-backup-fit [disk network processes system]
 - edux-dev-fit [disk network processes system]
 - hyper-03-fit [disk network processes sensors system]
- hyper-04-fit :: [day week month year]
 - hudson-project-fit [disk network processes system]
 - hyper-04-fit [disk network processes sensors system]
 - project-fit [disk network processes system]
- hyper-05-fit :: [day week month year]
 - hyper-05-fit [disk network processes sensors system]
 - sam-fit [disk network processes system]
 - testsys-fit [apache disk mysql network processes system tomcat]
- hyper-06-fit

Debian

```
aptitude install munin #server  
aptitude install munin-node #node
```

Gentoo

```
[I] net-analyzer/munin  
Available versions: 2.0.8-r2^t 2.0.11.1  
~2.0.14 **2.1.9999 {{apache asterisk cgi  
dhcpd doc elibc_FreeBSD http ipmi ipv6 irc java  
memcached minimal mysql postgres ssl syslog test}}  
  
emerge -av munin
```


Server /etc/munin/munin.conf

```
html_strategy cron
graph_strategy cron
graph_period minute
graph_data_size huge # vice dat pro history
max_processes 16
max_cgi_graph_jobs 16

[SKUPINA;server]
    address IPADRESA
    use_node_name yes
```

Node /etc/munin/munin-node.conf

```
allow ^IP.ADD.RE.SSA$ #serveru
host IP # pro bind
port 4949
```

Plugins on node

/etc/munin/plugins

```
cpu          exim_mailqueue  if_eth0
cpuspeed    exim_mailstats  if_wlan0
df           forks           interrupts
df_inode    fw_packets      iostat
diskstats   http_loadtime   iostat_ios
entropy     if_err_eth0     ip_eth0
```

/etc/munin/plugin-conf.d/munin-node

```
[df*]
env.exclude none unknown iso9660 squashfs
env.warning 92
env.critical 98
```

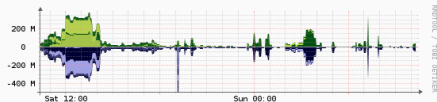
sw-a13-core


- Overview
- Graphs
- Health
- Ports
- VLANs
- Routing
- Inventory
- Logs
- Alerts

Device Information

Cisco IOS Software, s2t54 Software (s2t54-IPSERVICESK9-M), Version 15.0(1)SY3, RELEASE SOFTWARE (fc2) Technical Support: <http://www.cisco.com/techsupport> Copyright (c) 1986-2012 by Cisco Systems, Inc. Compiled Mon 19-Nov-12 19:22 by prod_rel_team

Hardware	cat6509
Operating System	Cisco IOS 15.0(1)SY3 (IPSERVICESK9)
Uptime	61 days, 20h 23m 50s

Ports


110 65 6 39

G1/1, G1/2, G1/3, G1/4, G1/5, G1/6, G1/7, G1/8, G1/9, G1/10, G1/11, G1/12, G1/13, G1/14, G1/15, G1/16, G1/17, G1/18, G1/19, G1/20, G1/21, G1/22, G1/23, G1/24, G1/25, G1/26, G1/27, G1/28, G1/29, G1/30, G1/31, G1/32, G1/33, G1/34, G1/35, G1/36, G1/37, G1/38, G1/39, G1/40, G1/41, G1/42, G1/43, G1/44, G1/45, G1/46, G1/47, G1/48, G1/49, G1/50

Processors

CPU of RP 5	9%
CPU of Module 2	5%
CPU of Module 3	4%
CPU of Module 4	4%
CPU of Module 1	6%

Memory Pools

CPU of RP 5 - Processor	14%
CPU of RP 5 - I/O	41%
CPU of RP 6 - Processor	14%
CPU of RP 6 - I/O	41%
CPU of Module 1 - Processor	19%
CPU of Module 3 - Processor	13%
CPU of Module 3 - I/O	8%
CPU of Module 2 - Processor	13%
CPU of Module 2 - I/O	8%
CPU of Module 4 - Processor	13%

Strahov 10Gb/s



Devices ▾

Ports ▾

Health ▾

Search



gw.sh.cvut.cz :: Total Traffic

Bits ▾

6 Hours



24 Hours



48 Hours



One Week



One Month



One Year



Two Years



Date/Time presets ▾



From 2013-10-27 10:24:36



To 2013-11-01 10:24:36

Update

Options

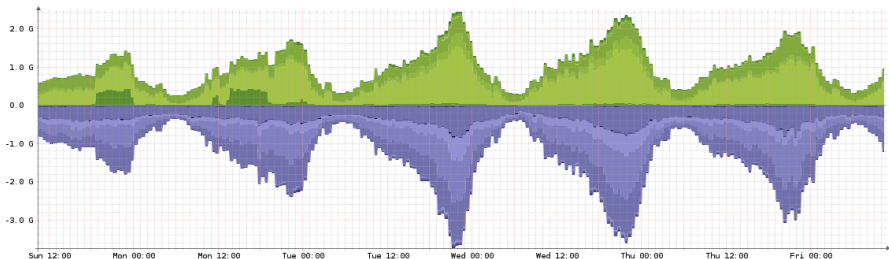
Show Legend

Graph Previous

Graph Trend

Graph Maximum

RRD Command



RRDtool / TOOL OUTPUT

FIT 10Gb/s



Devices ▾

Ports ▾

Health ▾

Apps ▾

Routing ▾

Search



sw-a13-core :: Total Traffic

Bits

6 Hours

24 Hours

48 Hours

One Week

One Month

One Year

Two Years

Date/Time presets ▾



From 2013-10-28 09:22:01



To 2013-11-01 09:22:01

Update

Options

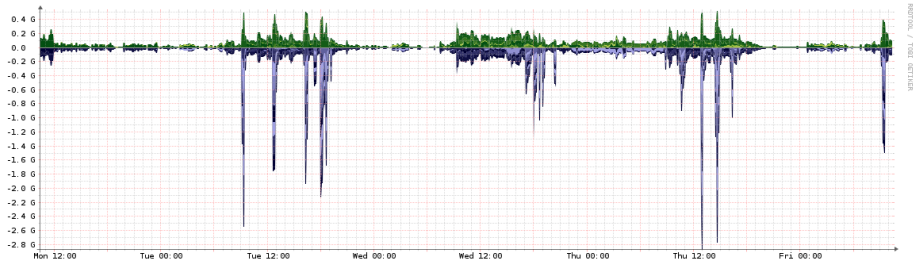
Show Legend

Graph Previous

Graph Trend

Graph Maximum

RRD Command



/opt/observium/config.php

```
$config['db_host'] = "host";  
$config['db_user'] = "user";  
$config['db_pass'] = "pass";  
$config['db_name'] = "observium";  
$config['install_dir'] = "/opt/observium";  
$config['base_url'] = "/observium/";  
$config['snmp']['community'] = array("public");  
$config['enable_printers'] = 1;
```

SW

enable SNMP :)

DNS

!!!DNS ZAZNAMY!!!

/etc/snmp/snmp.conf

```
com2sec local      IP_ADRESA/32      public
group MyROGroup v1          local
group MyROGroup v2c        local
group MyROGroup usm        local
view all      included .1
access MyROGroup "" any noauth exact all none
access MyRWGroup "" any noauth exact all all
view systemview included .1
agentaddress IP_ADRESA:161
syslocation MISTO
syscontact KDO {EMAIL}
mibs +ALL
```

unixAgent

Munin

- Jednoduché
- Spoustu plug.

Nagios

- Všechno
- Standard

Observium

- Všechno
- Funguje

Munin

- Větší instance
- Pomale
- Sítové věci

Nagios

- Trochu složitě
- Staré
- Grafy

Observium

- Není úplně OSS
- PHP
- Neumí vše

```
while true ; do echo -n "mailly" ; done
```


Děkuji za pozornost