



Institut National
Universitaire
Champollion

10 ans de Capitoul

L'outil Munin

23 Juin 2015 - Ludovic Pouzenc

Munin, pourquoi ?

- Supervision = GREEN / YELLOW / RED
- Munin = Recherche des causes
- Maintenu et pas à la mode => fiable
 - N'est pas écrit en NodeJS ni en Java
- Keep It Simple & Stupid (KISS)

Munin, comment ?

- N agents : `apt-get install munin-node`
 - C'est en Perl. Sinon essayer `munin-node-c`
 - `editor /etc/munin/munin-node.conf`
 - `allow ^192\.0\.2\.42$`
- 1 Serveur (cgi web) : `apt-get install munin`
 - `editor /etc/apache2/conf.d/munin`
 - `Require host 172.16.xx.0/24`

Munin, comment ?

- 1 Serveur (suite)
 - editor /etc/munin/munin.conf

```
[node1.fqdn.tld]
    address 192.0.2.11
    use_node_name yes
[node2.fqdn.tld]
    address 192.0.2.12
    use_node_name yes
```



MUNIN

Overview

Problems

[Critical](#) (0)

[Warning](#) (0)

[Unknown](#) (0)

Groups

[univ-jfc.fr](#)

[xenios](#)

Categories

[apache](#) [[d](#) [w](#) [m](#) [y](#)]

[disk](#) [[d](#) [w](#) [m](#) [y](#)]

[exim](#) [[d](#) [w](#) [m](#) [y](#)]

[network](#) [[d](#) [w](#) [m](#) [y](#)]

[processes](#) [[d](#) [w](#) [m](#) [y](#)]

[system](#) [[d](#) [w](#) [m](#) [y](#)]

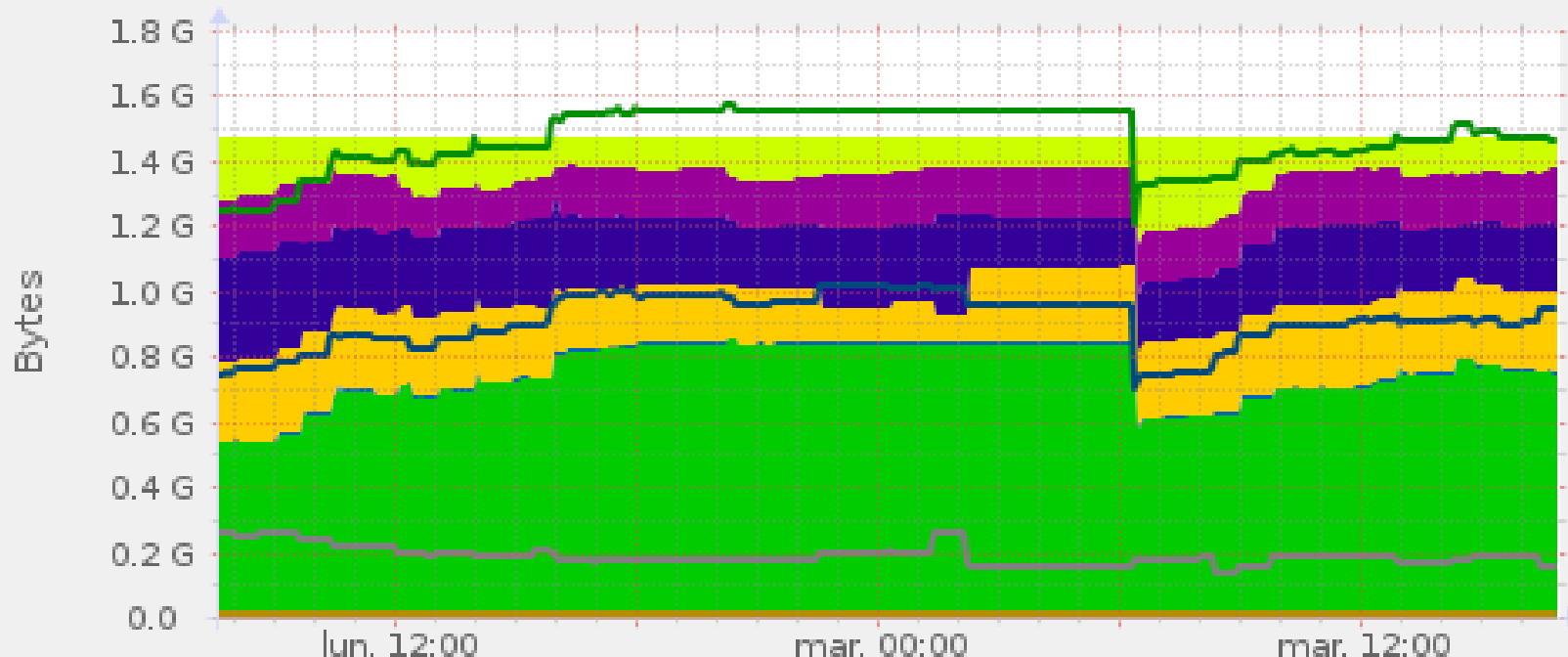
[time](#) [[d](#) [w](#) [m](#) [y](#)]

[virtual machines](#) [[d](#) [w](#) [m](#) [y](#)]

- [univ-jfc.fr](#) :: [[day](#) [week](#) [month](#) [year](#)]
 - [mail-auth.univ-jfc.fr](#) [[apache](#) [disk](#) [exim](#) [network](#) [processes](#) [system](#) [time](#)]
 - [polydegmon.univ-jfc.fr](#) [[disk](#) [exim](#) [network](#) [processes](#) [system](#) [time](#) [virtual machines](#)]
- [xenios](#)
 - [xenios](#) [[disk](#) [network](#) [processes](#) [system](#) [time](#) [virtual machines](#)]

Memory usage - by day

RRDTOOL / TOBI OETIKER



	Cur:	Min:	Avg:	Max:
apps	770.12M	553.13M	769.55M	878.07M
page_tables	7.03M	6.31M	7.05M	8.40M
swap_cache	0.00	0.00	0.00	0.00
slab_cache	246.82M	83.72M	217.74M	262.16M
cache	217.51M	150.86M	228.32M	343.68M
buffers	173.90M	107.04M	158.49M	185.10M
unused	88.95M	78.51M	123.17M	331.10M
swap	0.00	0.00	0.00	0.00
inactive	168.79M	150.54M	201.69M	276.58M
committed	1.48G	1.21G	1.48G	1.58G
active	978.14M	730.71M	939.95M	1.03G
vmalloc_used	3.80M	3.80M	3.80M	3.80M
mapped	20.31M	17.49M	20.61M	25.55M

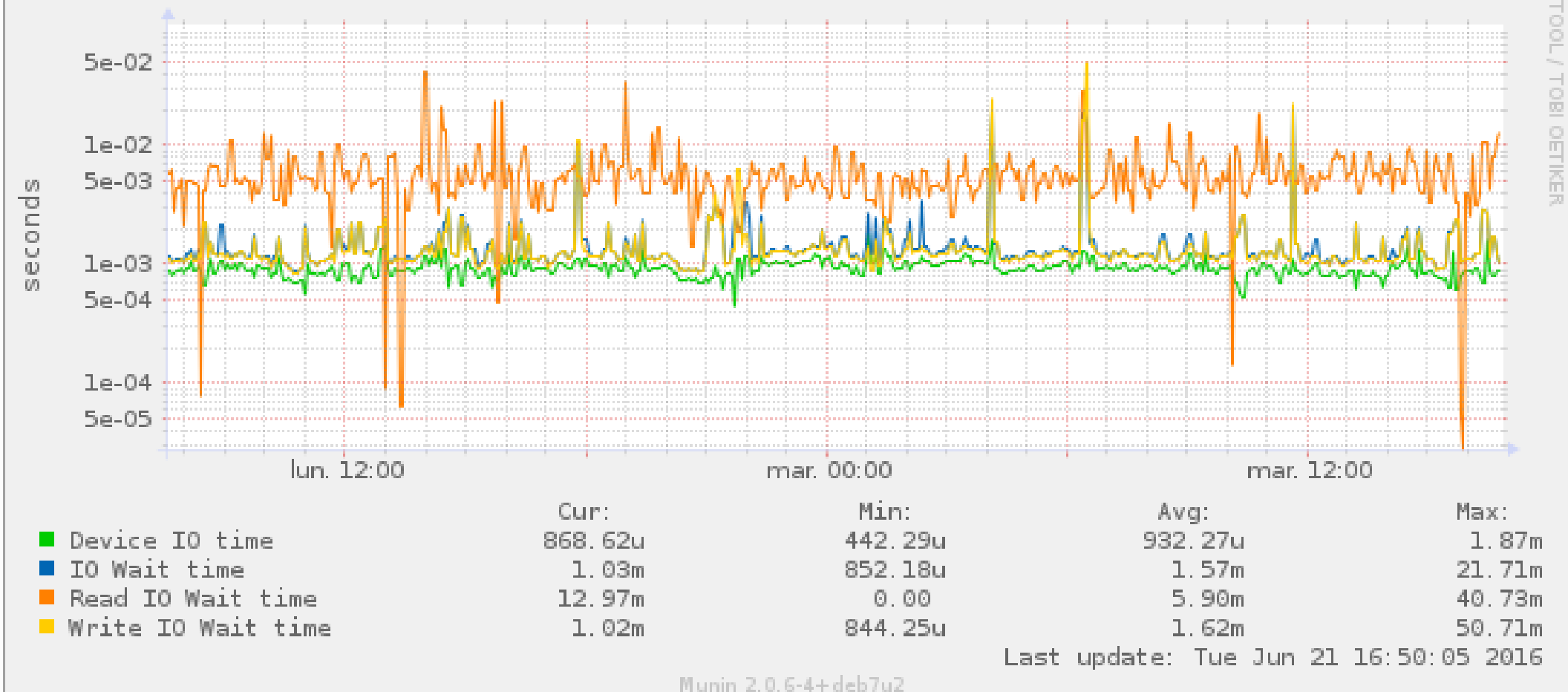
Last update: Tue Jun 21 16:50:04 2016

Munin 2.0.6-4+deb7u2

Average latency for /dev/mapper/iscsi-RG0R5LUN00

:: Average latency for /dev/mapper/iscsi-RG0R5LUN00

Average latency for /dev/mapper/iscsi-RG0R5LUN00 - by day



```
t 37 mars 14 17:02 bonding_err_bond0 -> /usr/share/munin/plugins/bonding_err_
t 28 mars 14 17:02 cpu -> /usr/share/munin/plugins/cpu
t 27 mars 14 17:02 df -> /usr/share/munin/plugins/df
t 33 mars 14 17:02 df_inode -> /usr/share/munin/plugins/df_inode
t 34 mars 14 17:02 diskstats -> /usr/share/munin/plugins/diskstats
t 32 mars 14 17:02 entropy -> /usr/share/munin/plugins/entropy
t 30 mars 14 17:02 forks -> /usr/share/munin/plugins/forks
t 35 mars 14 17:02 fw_packets -> /usr/share/munin/plugins/fw_packets
t 28 mars 14 17:02 if_bond0.7 -> /usr/share/munin/plugins/if_
t 28 mars 14 17:02 if_br_vlan_7 -> /usr/share/munin/plugins/if_
t 32 mars 14 17:02 if_err_bond0 -> /usr/share/munin/plugins/if_err_
t 32 mars 14 17:02 if_err_bond0.7 -> /usr/share/munin/plugins/if_err_
t 32 mars 14 17:02 if_err_br_vlan_7 -> /usr/share/munin/plugins/if_err_
t 32 mars 14 17:02 if_err_eth0 -> /usr/share/munin/plugins/if_err_
t 32 mars 14 17:02 if_err_vnet0 -> /usr/share/munin/plugins/if_err_
t 28 mars 14 17:02 if_eth0 -> /usr/share/munin/plugins/if_
t 28 mars 14 17:02 if_vnet0 -> /usr/share/munin/plugins/if_
t 35 mars 14 17:02 interrupts -> /usr/share/munin/plugins/interrupts
t 33 mars 14 17:02 irqstats -> /usr/share/munin/plugins/irqstats
t 32 mars 17 2010 libvirt -> /usr/share/munin/plugins/libvirt
t 29 mars 14 17:02 load -> /usr/share/munin/plugins/load
t 31 mars 14 17:02 memory -> /usr/share/munin/plugins/memory
t 39 mars 14 17:02 ntp_kernel_err -> /usr/share/munin/plugins/ntp_kernel_err
t 44 mars 14 17:02 ntp_kernel_pll_freq -> /usr/share/munin/plugins/ntp_kernel_pll_freq
t 43 mars 14 17:02 ntp_kernel_pll_off -> /usr/share/munin/plugins/ntp_kernel_pll_off
t 35 mars 14 17:02 ntp_offset -> /usr/share/munin/plugins/ntp_offset
t 35 mars 14 17:02 open_files -> /usr/share/munin/plugins/open_files
t 36 mars 14 17:02 open_inodes -> /usr/share/munin/plugins/open_inodes
t 34 mars 14 17:02 processes -> /usr/share/munin/plugins/processes
t 33 mars 14 17:02 proc_pri -> /usr/share/munin/plugins/proc_pri
t 29 mars 14 17:02 swap -> /usr/share/munin/plugins/swap
t 32 mars 14 17:02 threads -> /usr/share/munin/plugins/threads
t 31 mars 14 17:02 uptime -> /usr/share/munin/plugins/uptime
t 30 mars 14 17:02 users -> /usr/share/munin/plugins/users
t 31 mars 14 17:02 vmstat -> /usr/share/munin/plugins/vmstat
```



```
root@xenios:~# head -n1 /usr/share/munin/plugins/if_  
#!/bin/bash  
root@xenios:~# munin-run if_eth0 autoconf  
yes  
root@xenios:~# munin-run if_eth0 suggest  
eth0  
eth1  
vnet0  
vnet1  
br_vlan_7  
bond0.7  
root@xenios:~# munin-run if_eth0  
down.value 152317825853  
up.value 1265336873255
```

```
root@xenios:~# munin-run if_eth0 config
graph_order down up
graph_title eth0 traffic
graph_args --base 1000
graph_vlabel bits in (-) / out (+) per ${graph_period}
graph_category network
graph_info This graph shows the traffic of the eth0 network interface.
down.label received
down.type DERIVE
down.graph no
down.cdef down,8,*
down.min 0
up.label bps
up.type DERIVE
up.negative down
up.cdef up,8,*
up.min 0
up.max 10000000000
up.info Traffic of the eth0 interface. Maximum speed is 1000 Mb/s.
down.max 10000000000
```

```
root@xenios:~# /usr/share/munin/plugins/irqstats | tail
iIWI.value 0
iRES.value 5496505161
iCAL.value 461305210
iTLB.value 8516807
iTRM.value 0
iTHR.value 0
iMCE.value 0
iMCP.value 254320
iERR.value 0
iMIS.value 0
```

- Nombre variable de métrique
- Adaptation automatique du RRD

Merci