



3rd European perfSONAR user Workshop

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2022.05.24

www.geant.org

What is..



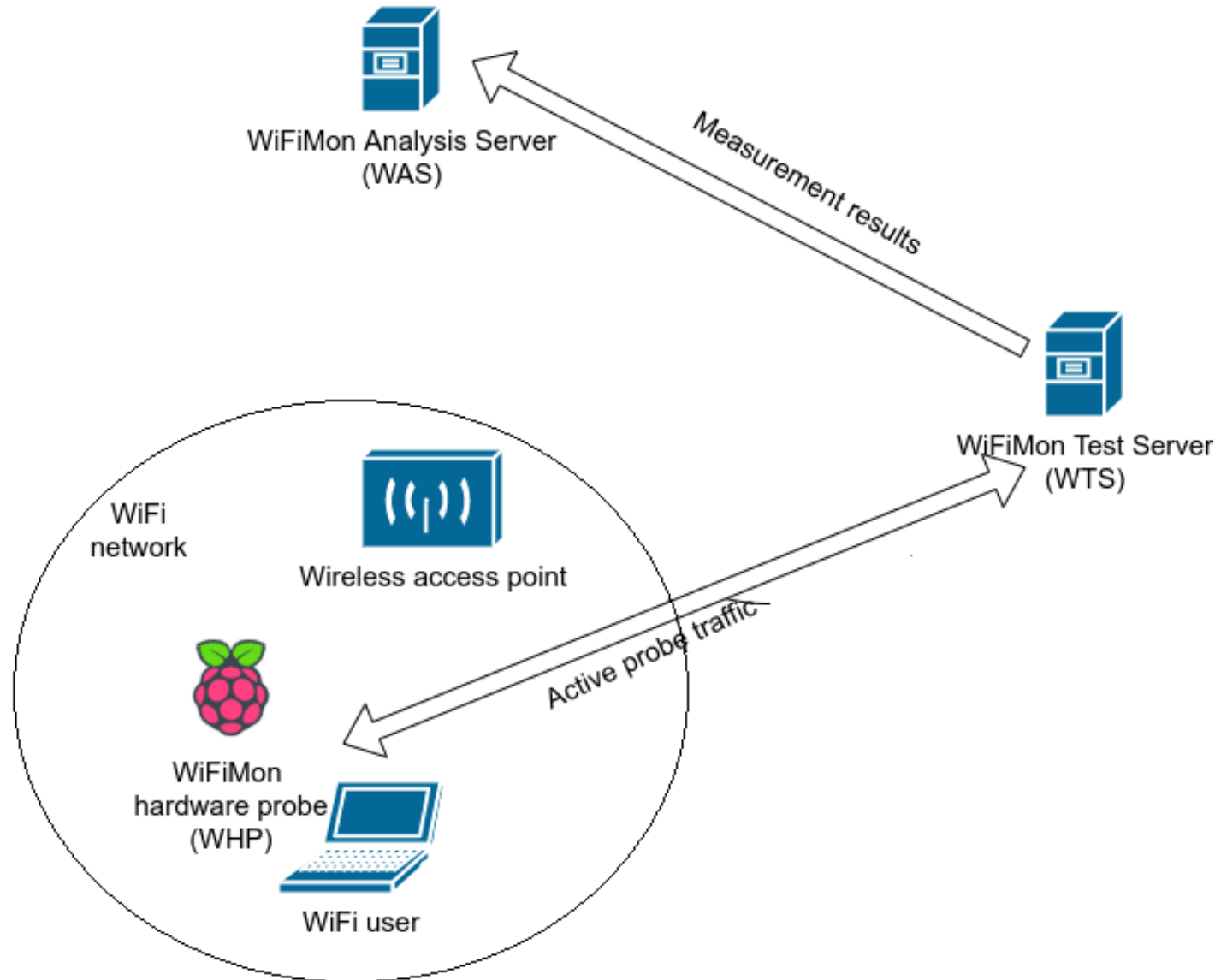
wifi**mon**

The wiki page:

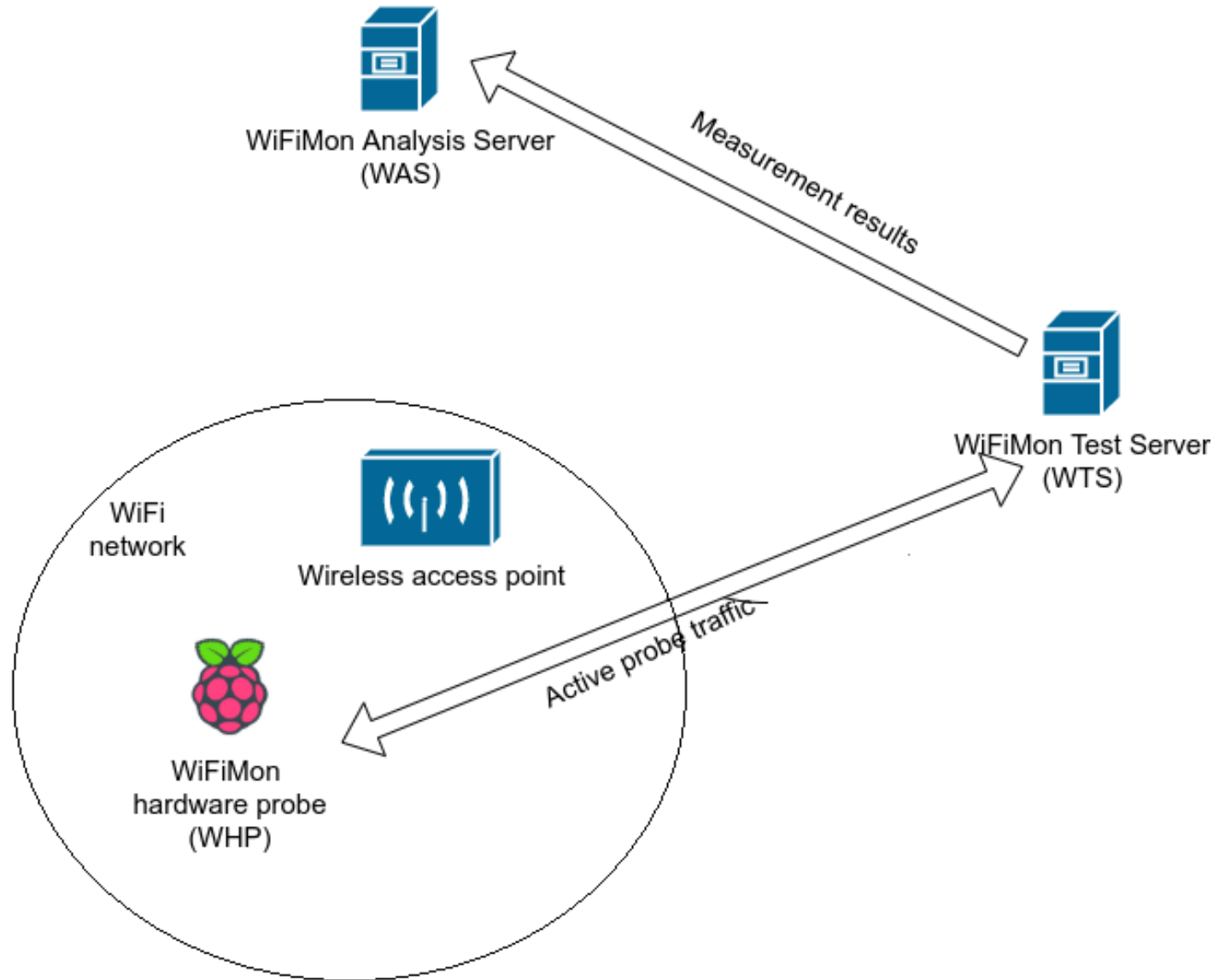
[WiFiMon Home - WiFiMon - GÉANT federated confluence \(geant.org\)](https://www.wiki.geant.org/display/WIF/WiFiMon+Home)

www.wiki.geant.org/display/WIF/WiFiMon+Home

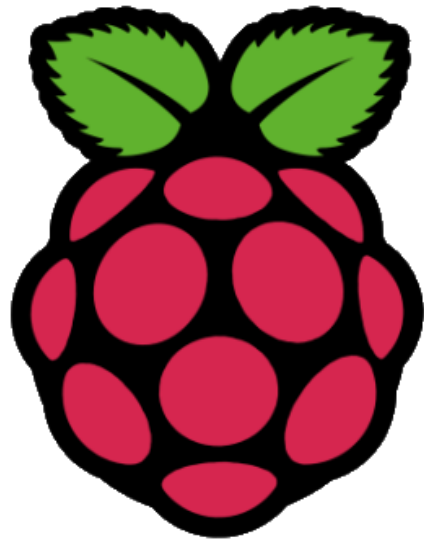
Key WiFiMon components and the information flow between them.



The hardware probe



Raspberry pi 4



Raspberry Pi



perfSONAR and WifiMon, the idea

perfSONAR

+



wifimon

perfSONAR and WifiMon, the idea + Eduroam

perfSONAR

+

eduroam



wifimon

Raspberry pi 4

- The Raspbian OS
- Debian 10 based
- **Lightweight**
- Designed for RPi



Raspberry pi 4, limited resources

- 4 Core CPU
- 8GB of RAM
- **1gb ethernet port**
- Wireless adapter



The architecture in scheduling tasks in

perfSONAR

- The pscheduler service

The architecture in scheduling tasks in WHP

- The crontab service

```
00,10,20,30,40,50 * * * * Xvfb :100 &  
02,12,22,32,42,52 * * * * export DISPLAY=:100 && firefox-esr --new-tab URL_TO_nettest.html >/dev/null 2>&1  
04,14,24,34,44,54 * * * * export DISPLAY=:100 && firefox-esr --new-tab URL_TO_speedworker.html >/dev/null 2>&1  
06,16,26,36,46,56 * * * * export DISPLAY=:100 && firefox-esr --new-tab URL_TO_boomerang.html >/dev/null 2>&1  
08,18,28,38,48,58 * * * * /home/pi/wireless.py >> ~/cron.log 2>&1
```

Resource usage monitoring



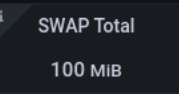
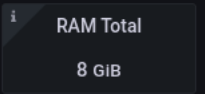
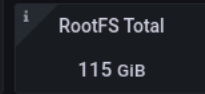
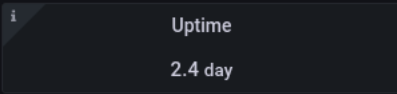
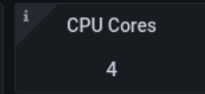
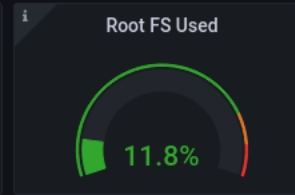
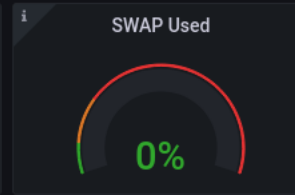
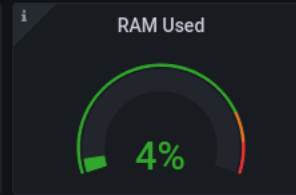
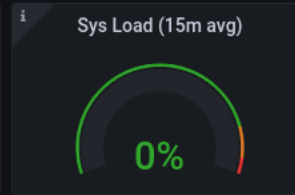
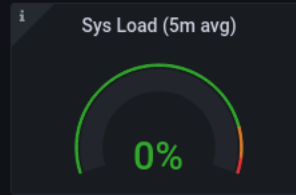
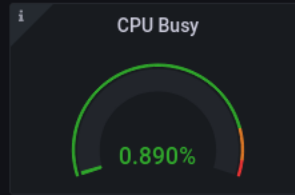
Prometheus



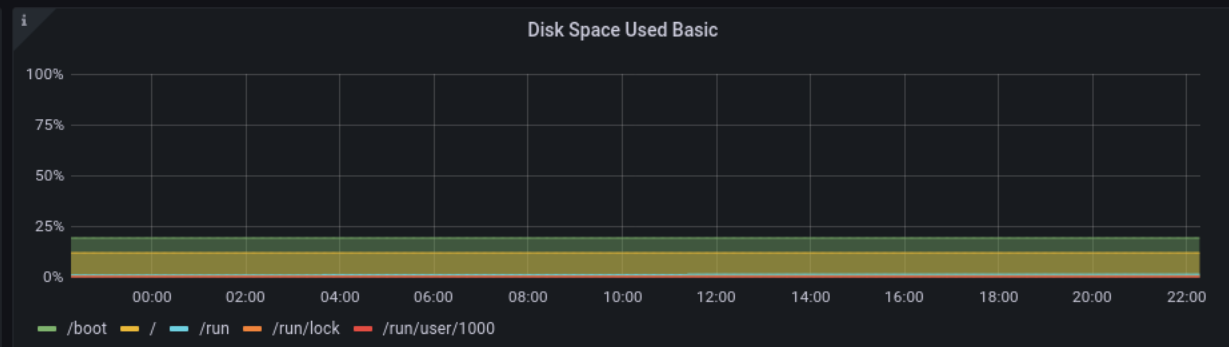
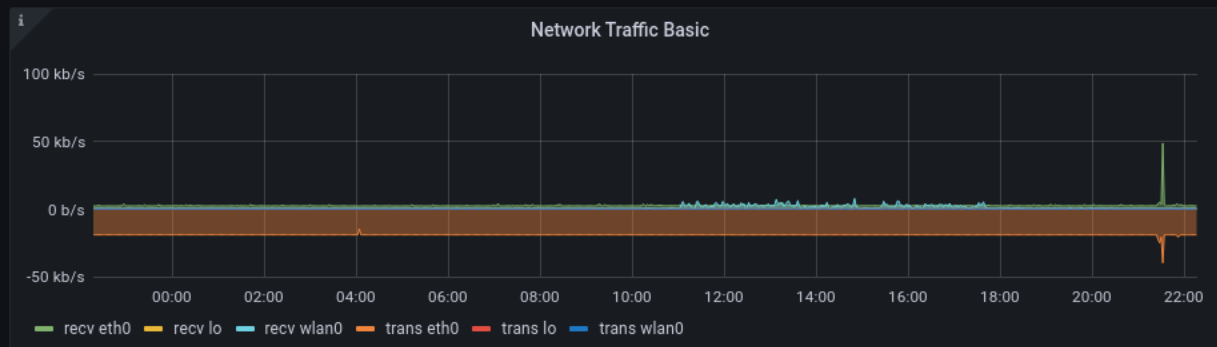
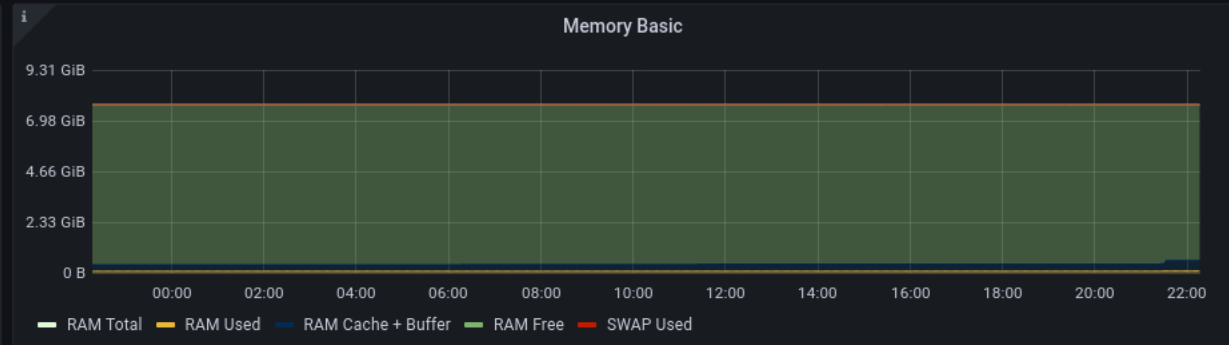
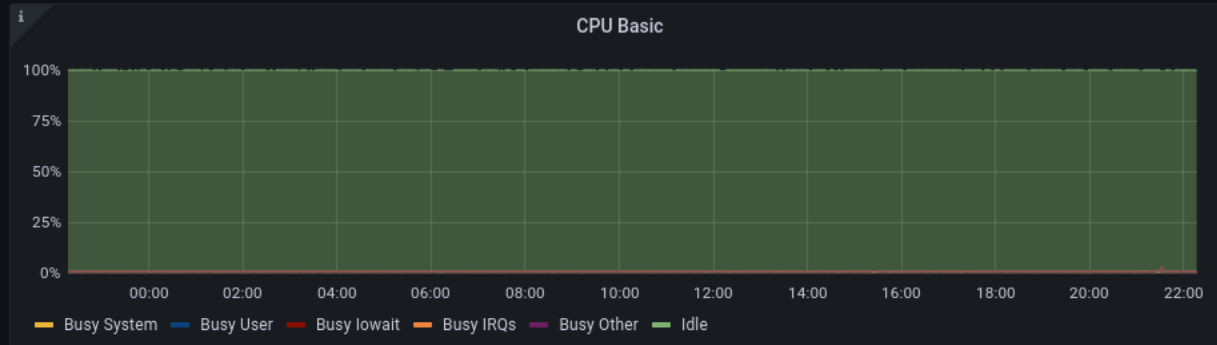
Grafana



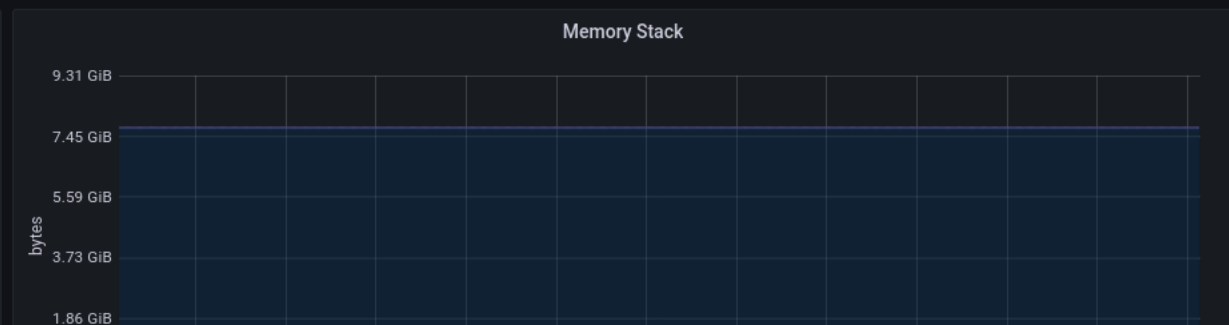
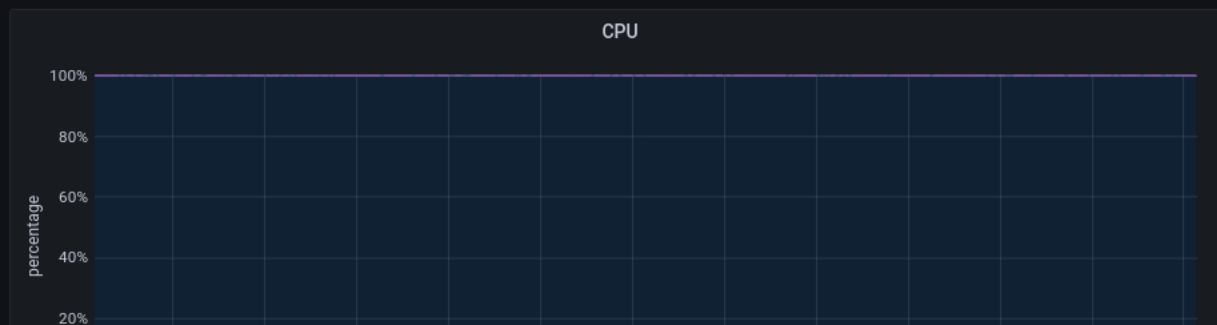
📄 CPU / Mem / Net / Disk



📄 Basic CPU / Mem / Net / Disk



📄 CPU / Memory / Net / Disk



Next steps

- Run Perfsonar tasks and keep the results of resource usage in Prometheus
- Add WifiMon tasks and compare the results of resource usage
- The Wifimon plugin for scheduling the tasks

Easy to install

- Ansible playbook to install the **perfsonar-testpoint**
github.com/perfsonar/ansible-playbook-perfsonar
- Ansible playbook to install the WAS
gitlab.grenn.ge/nugzar/wifimon-ansible

Thank you

Any questions?

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