
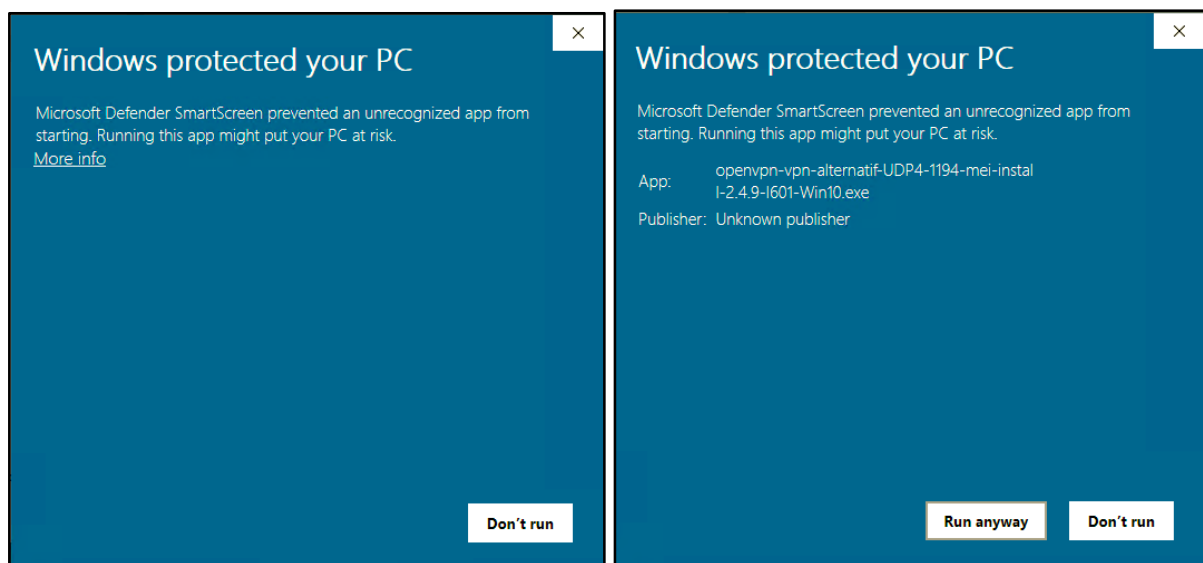


CARA MENJALANKAN PROGRAM

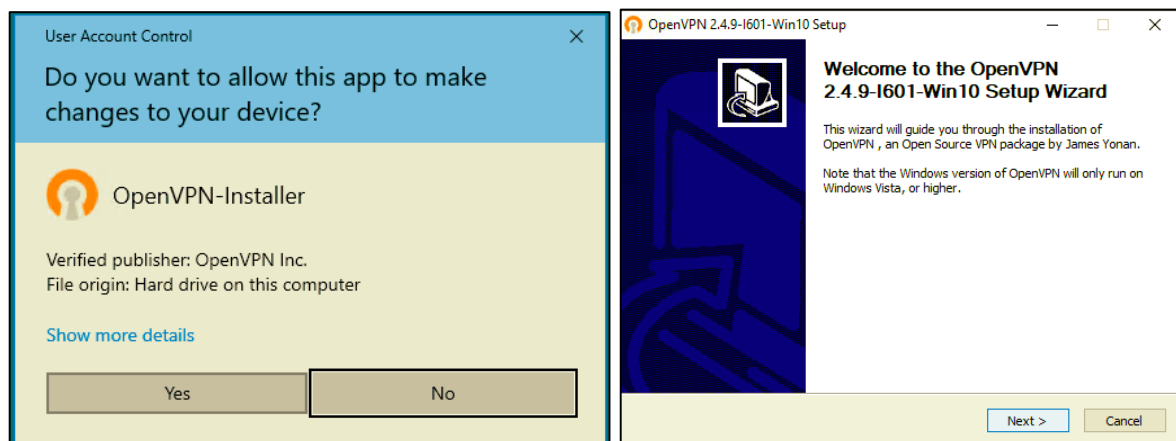
1. Sebelumnya install terlebih dulu OpenVPN GUI di laptop → Download VPN Mahasiswa TA untuk bisa mengakses Prometheus dan Grafana.

Name	Date modified	Type	Size
 openvpn-vpn-alternatif-UDP4-1194-mei-install-2.4.9-l601-Win10.exe	23/01/2021 16.00	Application	4.305 KB

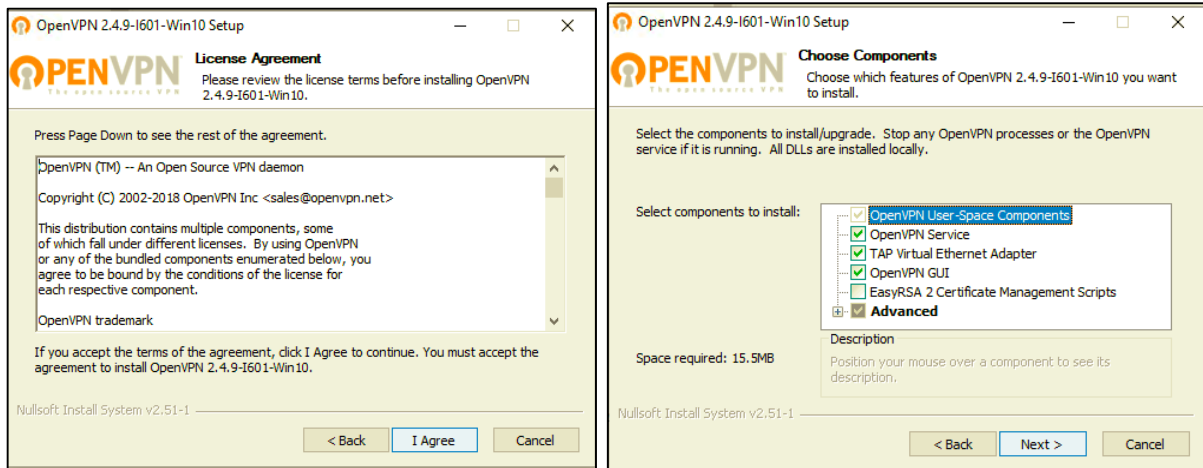
2. Pilih More info → Run Away



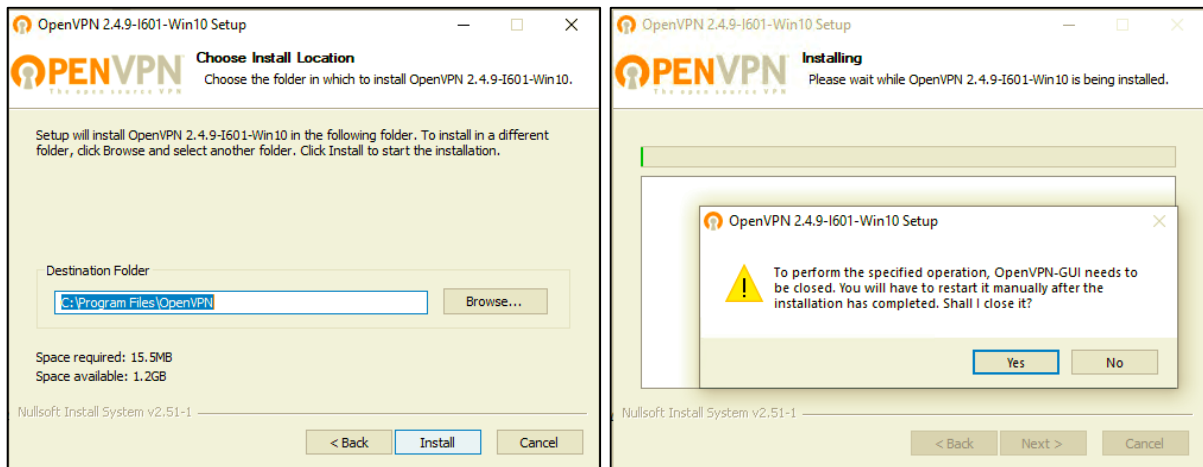
3. Klik Yes → Next untuk memulai instalasi VPN



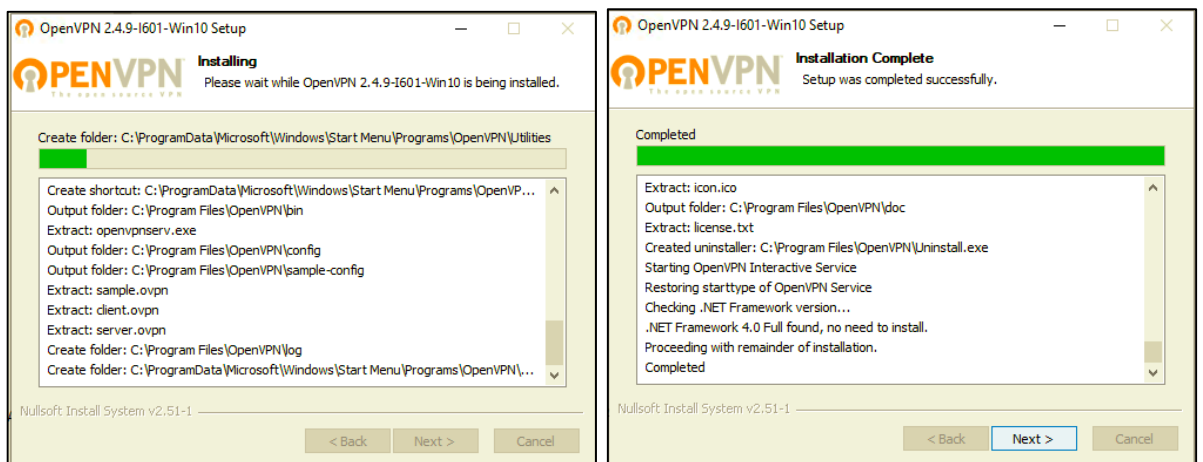
4. Pilih I Agree pada License Agreement → Klik Next



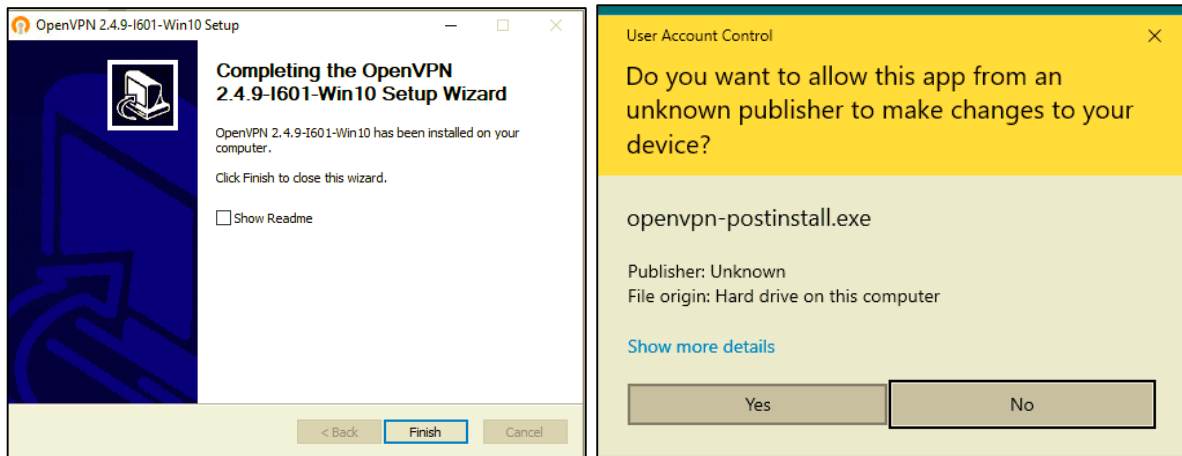
5. Klik Install → Pilih Yes



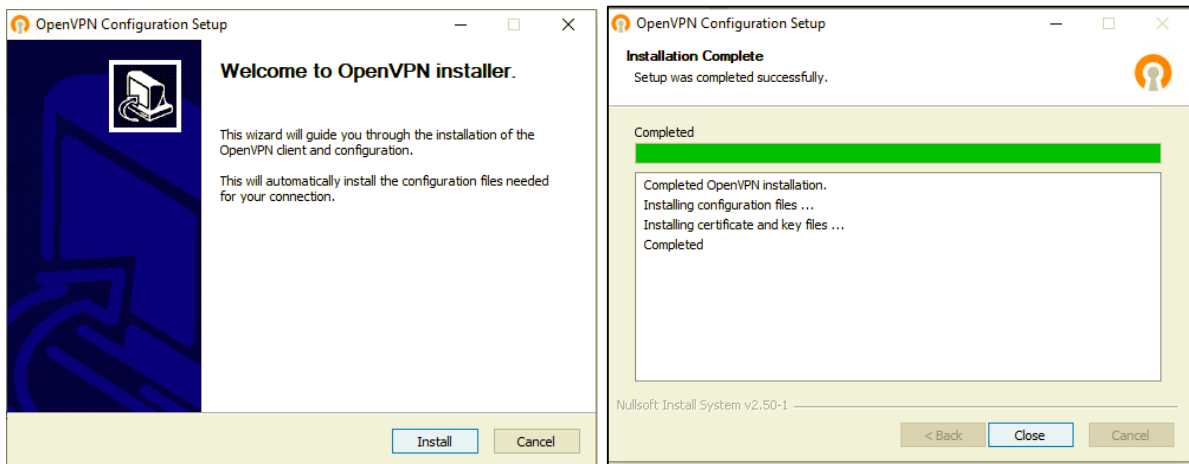
6. Tunggu hingga proses instalasi selesai → Klik Next



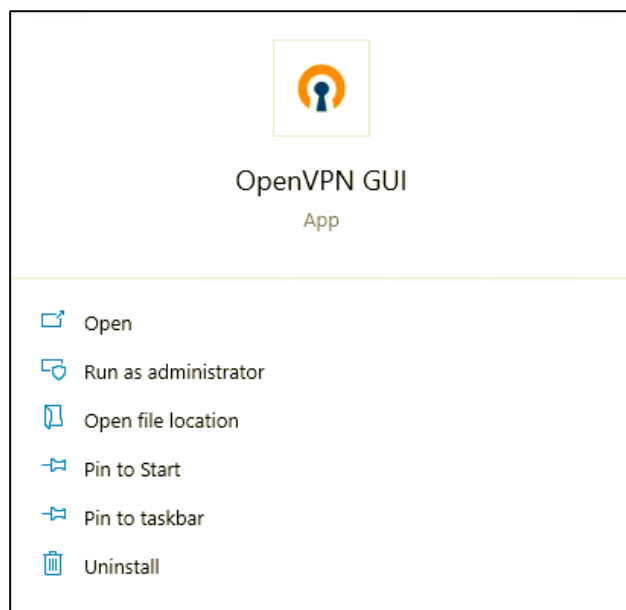
7. Klik Finish → Pilih Yes untuk allow VPN



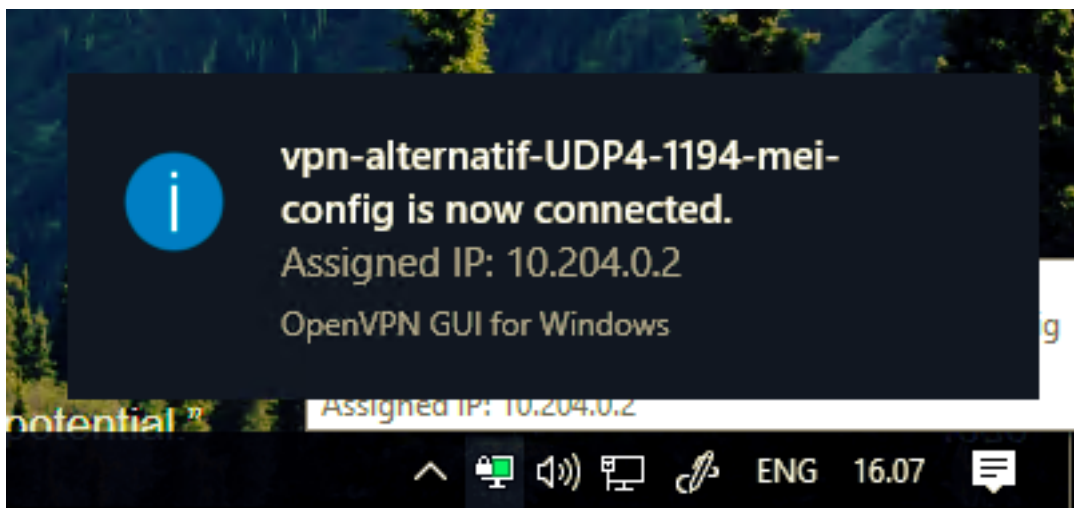
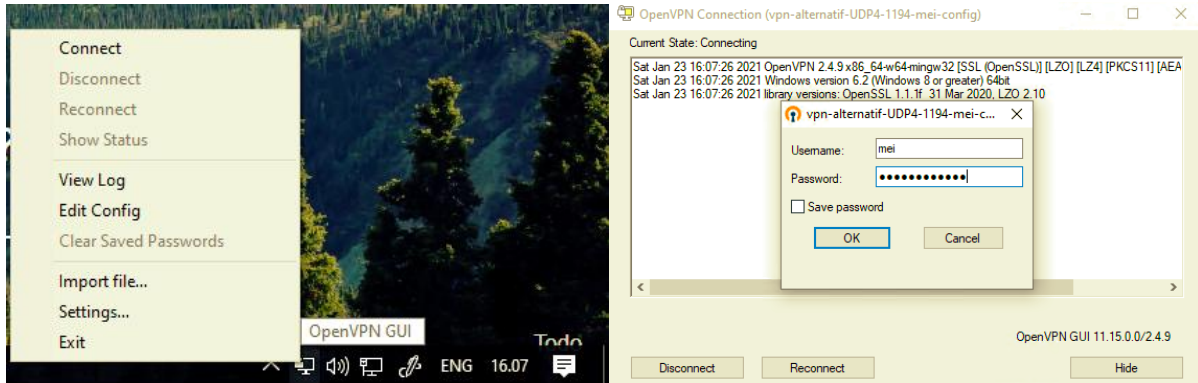
8. Klik Install → Tunggu hingga proses instalasi selesai klik Close.



9. Buka aplikasi OpenVPN GUI yang sebelumnya sudah diinstall.



10. Klik kanan pada icon aplikasin OpenVPN GUI dan pilih Connect → Masukkan username : mei dan password : 175410006Mei untuk connect VPN → Berhasil connect ke VPN Mahasiswa TA.



11. Untuk mengakses server Prometheus dengan cara ssh ke IP 10.10.10.110 dengan user : admin dan password : 175410006Mei

```
root@prometheus-printer:/home/admin
C:\WINDOWS\system32>ssh admin@10.10.10.110
The authenticity of host '10.10.10.110 (10.10.10.110)' can't be established.
ECDSA key fingerprint is SHA256:+1nbK1BxoAGa+fOhNblYwYguQT7r3OLIUfCxzYg/ov4.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.10.10.110' (ECDSA) to the list of known hosts.
admin@10.10.10.110's password:
Welcome to Ubuntu 18.04.1 LTS (GNU/Linux 4.15.0-99-generic x86_64)Welcome to Ubuntu 18.04.1 LTS (GNU/Linux 4.15.0-99-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sat Jan 23 09:25:26 UTC 2021

System load:  0.01          Processes:      118
Usage of /:   7.7% of 97.38GB Users logged in: 1
Memory usage: 34%         IP address for ens192: 10.10.10.110
Swap usage:   5%

 * Introducing self-healing high availability clusters in MicroK8s.
   Simple, hardened, Kubernetes for production, from RaspberryPi to DC.
   https://microk8s.io/high-availability

 * Canonical Livepatch is available for installation.
   - Reduce system reboots and improve kernel security. Activate at:
   https://ubuntu.com/livepatch

133 packages can be updated.
0 updates are security updates.

New release '20.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

*** System restart required ***

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
```

12. Melihat konfigurasi Prometheus dengan cara :

cat /home/mei/prometheus-2.14.0.linux-amd64/prometheus.yml

```
root@prometheus-printer:/home/mei
root@prometheus-printer:/home/admin# cd /home/mei/
root@prometheus-printer:/home/mei# cat prometheus-2.14.0.linux-amd64/prometheus.yml
# my global config
global:
  scrape_interval:     15s # Set the scrape interval to every 15 seconds. Default is every 1 minute.
  evaluation_interval: 15s # Evaluate rules every 15 seconds. The default is every 1 minute.
  # scrape_timeout is set to the global default (10s).

remote_write:
- url: http://10.30.31.3:8480/insert/15/prometheus
  write_relabel_configs:
  - source_labels: [__name__]
    regex: '(probe_success|sysUpTime|prtMarkerSuppliesLevel|prtMarkerSuppliesMaxCapacity|hrPrinterStatus|NumOfPagesPrinted)'
    action: keep

# Alertmanager configuration
alerting:
  alertmanagers:
  - static_configs:
    - targets:
      # - alertmanager:9093

# Load rules once and periodically evaluate them according to the global 'evaluation_interval'.
rule_files:
# - "first_rules.yml"
# - "second_rules.yml"

# A scrape configuration containing exactly one endpoint to scrape:
# Here it's Prometheus itself.
scrape_configs:
# The job name is added as a label `job=<job_name>` to any timeseries scraped from this config.
- job_name: 'prometheus'

  # metrics_path defaults to '/metrics'
  # scheme defaults to 'http'.

  static_configs:
  - targets: ['localhost:9090']

- job_name: 'uiiprint'
  static_configs:
  - targets:
    - 10.10.84.3
    - 10.10.84.4
    - 10.10.84.5
    - 10.10.84.6
```

```
Select root@prometheus-printer:/home/mei
- 10.10.84.7
- 10.10.84.8
- 10.10.84.9
- 10.10.84.10
- 10.10.84.11
- 10.10.84.12
- 10.10.84.13
- 10.10.84.14
- 10.10.84.15
- 10.10.84.16
- 10.10.84.17
- 10.10.84.18
- 10.10.84.19
- 10.74.10.253
- 10.10.84.22
- 10.10.84.23
- 10.10.84.24
- 10.74.10.252
- 10.10.84.27
- 10.10.84.30
- 10.10.84.31
# - 10.10.84.32
- 10.74.10.254
- 10.10.84.34
# - 10.10.84.35
- 10.10.84.36
- 10.10.84.37
  metrics_path: /snmp
  params:
    module: [printer_mib]
  relabel_configs:
  - source_labels: [__address__]
    target_label: __param_target
  - source_labels: [__param_target]
    target_label: instance
  - target_label: __address__
    replacement: 10.10.10.110:9116
```

13. Melihat konfigurasi snmp exporter dengan cara :

```
cat snmp_exporter-0.15.0.linux-amd64/snmp.yml
```

```
root@prometheus-printer:/home/mei# cat snmp_exporter-0.15.0.linux-amd64/snmp.yml
printer_mib:
  walk:
    - 1.3.6.1.2.1.25.3.5.1.2
    - 1.3.6.1.2.1.25.3.5.1.1
    - 1.3.6.1.2.1.43.11.1.1.5
    - 1.3.6.1.2.1.43.11.1.1.6
    - 1.3.6.1.2.1.43.11.1.1.8
    - 1.3.6.1.2.1.43.11.1.1.9
    - 1.3.6.1.2.1.43.5.1.1.13
    - 1.3.6.1.2.1.43.5.1.1.16
    - 1.3.6.1.2.1.43.5.1.1.17
    - 1.3.6.1.2.1.43.5.1.1.18
    - 1.3.6.1.2.1.43.5.1.1.19
    - 1.3.6.1.2.1.43.5.1.1.3
    - 1.3.6.1.2.1.43.6.1.1.3
    - 1.3.6.1.2.1.43.10
  get:
    - 1.3.6.1.2.1.1.3.0
  metrics:
    - name: hrPrinterDetectedErrorState
      oid: 1.3.6.1.2.1.25.3.5.1.2
      type: gauge
      help: low paper
    - name: NumOfPagesPrinted
      oid: 1.3.6.1.2.1.43.10.2.1.5.1.1
      type: gauge
      help: Number of pages printed
    - name: sysUpTime
      oid: 1.3.6.1.2.1.1.3
      type: gauge
      help: The time (in hundredths of a second) since the network management portion
        of the system was last re-initialized. - 1.3.6.1.2.1.1.3
    - name: hrPrinterStatus
      oid: 1.3.6.1.2.1.25.3.5.1.1
      type: gauge
      help: The current status of this printer device. - 1.3.6.1.2.1.25.3.5.1.1
  # indexes:
  # - labelname: hrDeviceIndex
  #   type: gauge
  # enum_values:
  # 1: other
  # 2: unknown
  # 3: idle
  # 4: printing
  # 5: warmup
```

```
root@prometheus-printer:/home/mei
# 4: printing
# 5: warmup
- name: prtMarkerSuppliesType
  oid: 1.3.6.1.2.1.43.11.1.1.5
  type: gauge
  help: The type of this supply. - 1.3.6.1.2.1.43.11.1.1.5
  indexes:
  - labelname: hrDeviceIndex
    type: gauge
  - labelname: prtMarkerSuppliesIndex
    type: gauge
  lookups:
  - labels:
    - hrDeviceIndex
    - prtMarkerSuppliesIndex
    labelname: prtMarkerSuppliesType
    oid: 1.3.6.1.2.1.43.11.1.1.5
    type: gauge
  enum_values:
  1: other
  2: unknown
  3: toner
  4: wasteToner
  5: ink
  6: inkCartridge
  7: inkRibbon
  8: wasteInk
  9: opc
  10: developer
  11: fuserOil
  12: solidWax
  13: ribbonWax
  14: wasteWax
  15: fuser
  16: coronaWire
  17: fuserOilWick
  18: cleanerUnit
  19: fuserCleaningPad
  20: transferUnit
  21: tonerCartridge
  22: fuserOiler
  23: water
  24: wasteWater
  25: glueWaterAdditive
  26: wastePaper
  27: bindingSupply
```

```
root@prometheus-printer:/home/mei
28: bandingSupply
29: stitchingWire
30: shrinkWrap
31: paperWrap
32: staples
33: inserts
34: covers
35: matteToner
36: matteInk
- name: prtMarkerSuppliesDescription
  oid: 1.3.6.1.2.1.43.11.1.1.6
  type: DisplayString
  help: The description of this supply container/receptacle in the localization
  specified by prtGeneralCurrentLocalization. - 1.3.6.1.2.1.43.11.1.1.6
  indexes:
  - labelname: hrDeviceIndex
    type: gauge
  - labelname: prtMarkerSuppliesIndex
    type: gauge
  lookups:
  - labels:
    - hrDeviceIndex
    - prtMarkerSuppliesIndex
    labelname: prtMarkerSuppliesType
    oid: 1.3.6.1.2.1.43.11.1.1.5
    type: gauge
- name: prtMarkerSuppliesMaxCapacity
  oid: 1.3.6.1.2.1.43.11.1.1.8
  type: gauge
  help: The maximum capacity of this supply container/receptacle expressed in prtMarkerSuppliesSupplyUnit
  - 1.3.6.1.2.1.43.11.1.1.8
  indexes:
  - labelname: hrDeviceIndex
    type: gauge
  - labelname: prtMarkerSuppliesIndex
    type: gauge
  lookups:
  - labels:
    - hrDeviceIndex
    - prtMarkerSuppliesIndex
    labelname: prtMarkerSuppliesType
    oid: 1.3.6.1.2.1.43.11.1.1.5
    type: gauge
- name: prtMarkerSuppliesLevel
  oid: 1.3.6.1.2.1.43.11.1.1.9
  type: gauge
```



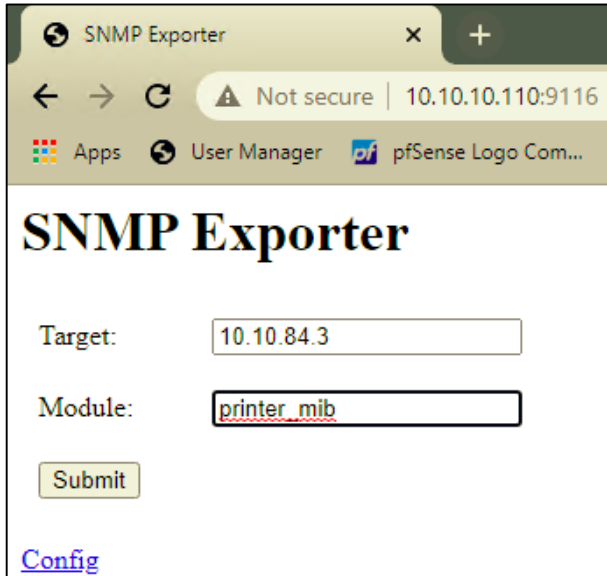
```
root@prometheus-printer: /home/mei
```

```
help: The current level if this supply is a container; the remaining space if
this supply is a receptacle - 1.3.6.1.2.1.43.11.1.1.9
indexes:
- labelname: hrDeviceIndex
  type: gauge
- labelname: prtMarkerSuppliesIndex
  type: gauge
lookups:
- labels:
  - hrDeviceIndex
  - prtMarkerSuppliesIndex
  labelname: prtMarkerSuppliesType
  oid: 1.3.6.1.2.1.43.11.1.1.5
  type: gauge
- name: prtConsoleDisable
  oid: 1.3.6.1.2.1.43.5.1.1.13
  type: EnumAsStateSet
  help: This value indicates how input is (or is not) accepted from the operator
  console - 1.3.6.1.2.1.43.5.1.1.13
indexes:
- labelname: hrDeviceIndex
  type: gauge
enum_values:
  3: enabled
  4: disabled
- name: prtGeneralPrinterName
  oid: 1.3.6.1.2.1.43.5.1.1.16
  type: DisplayString
  help: An administrator-specified name for this printer - 1.3.6.1.2.1.43.5.1.1.16
indexes:
- labelname: hrDeviceIndex
  type: gauge
- name: prtGeneralSerialNumber
  oid: 1.3.6.1.2.1.43.5.1.1.17
  type: DisplayString
  help: A recorded serial number for this device that indexes some type device catalog
  or inventory - 1.3.6.1.2.1.43.5.1.1.17
indexes:
- labelname: hrDeviceIndex
  type: gauge
- name: prtAlertCriticalEvents
  oid: 1.3.6.1.2.1.43.5.1.1.18
  type: counter
  help: A running counter of the number of critical alert events that have been
  recorded in the alert table - 1.3.6.1.2.1.43.5.1.1.18
indexes:
```

```
root@prometheus-printer: /home/mei
    recorded in the alert table - 1.3.6.1.2.1.43.5.1.1.18
    indexes:
    - labelname: hrDeviceIndex
      type: gauge
- name: prtAlertAllEvents
  oid: 1.3.6.1.2.1.43.5.1.1.19
  type: counter
  help: A running counter of the total number of alert event entries (critical and
        non-critical) that have been recorded in the alert table - 1.3.6.1.2.1.43.5.1.1.19
  indexes:
  - labelname: hrDeviceIndex
    type: gauge
- name: prtGeneralReset
  oid: 1.3.6.1.2.1.43.5.1.1.3
  type: EnumAsStateSet
  help: Setting this value to 'powerCycleReset', 'resetToNVRAM', or 'resetToFactoryDefaults'
        will result in the resetting of the printer - 1.3.6.1.2.1.43.5.1.1.3
  indexes:
  - labelname: hrDeviceIndex
    type: gauge
  enum_values:
    3: notResetting
    4: powerCycleReset
    5: resetToNVRAM
    6: resetToFactoryDefaults
- name: prtCoverStatus
  oid: 1.3.6.1.2.1.43.6.1.1.3
  type: EnumAsStateSet
  help: The status of this cover sub-unit. - 1.3.6.1.2.1.43.6.1.1.3
  indexes:
  - labelname: hrDeviceIndex
    type: gauge
  - labelname: prtCoverIndex
    type: gauge
  enum_values:
    1: other
    2: unknown
    3: coverOpen
    4: coverClosed
    5: interlockOpen
    6: interlockClosed

version: 2
auth:
  community: UIIPrint
```

14. Mengetest snmp exporter melalui web dengan url : <http://10.10.10.110:9116/> dengan memasukkan Target : 10.10.84.3 dan Module : printer_mib – target dan nama module seperti yang sudah disetting di dalam Prometheus.yml dan snmp.yml sebelumnya.



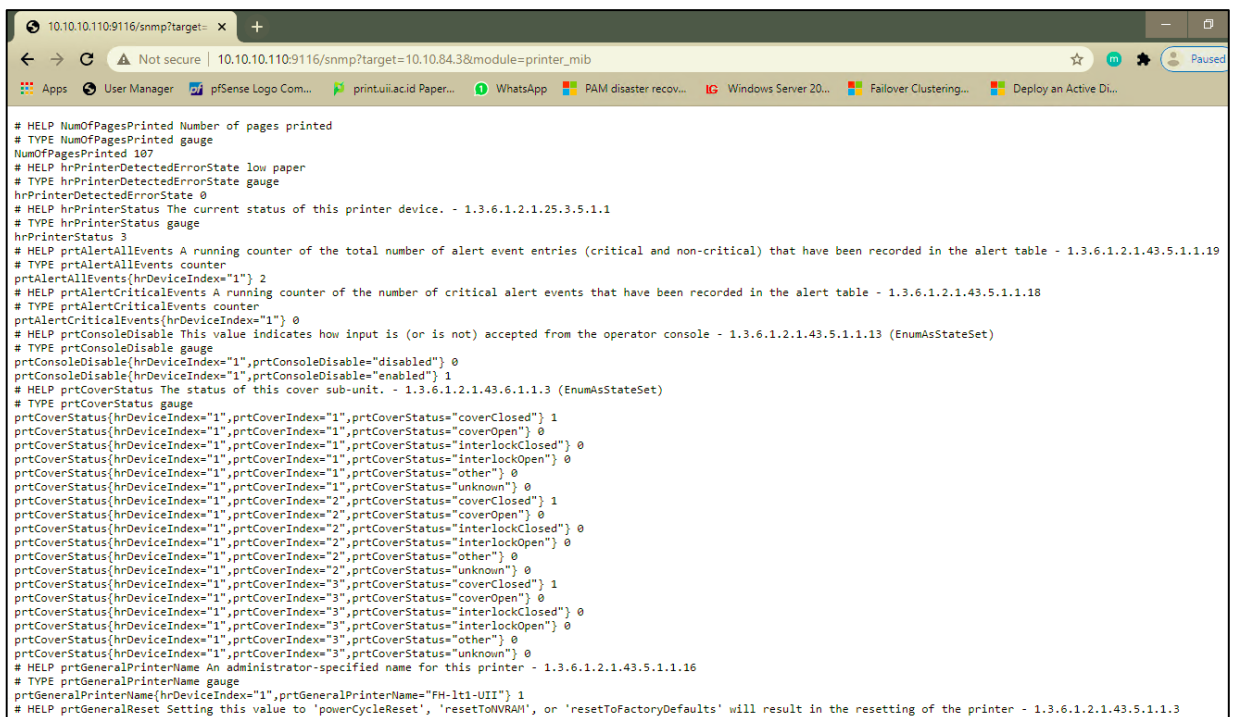
SNMP Exporter

Target:

Module:

[Config](#)

15. Hasil dari test snmp exporter IP Printer 10.10.84.3 (Printer FH Lt 1 Color – MX4300LX)



```
# HELP NumOfPagesPrinted Number of pages printed
# TYPE NumOfPagesPrinted gauge
NumOfPagesPrinted 107
# HELP hrPrinterDetectedErrorState low paper
# TYPE hrPrinterDetectedErrorState gauge
hrPrinterDetectedErrorState 0
# HELP hrPrinterStatus The current status of this printer device. - 1.3.6.1.2.1.25.3.5.1.1
# TYPE hrPrinterStatus gauge
hrPrinterStatus 3
# HELP prtAlertAllEvents A running counter of the total number of alert event entries (critical and non-critical) that have been recorded in the alert table - 1.3.6.1.2.1.43.5.1.1.19
# TYPE prtAlertAllEvents counter
prtAlertAllEvents(hrDeviceIndex="1") 2
# HELP prtAlertCriticalEvents A running counter of the number of critical alert events that have been recorded in the alert table - 1.3.6.1.2.1.43.5.1.1.18
# TYPE prtAlertCriticalEvents counter
prtAlertCriticalEvents(hrDeviceIndex="1") 0
# HELP prtConsoleDisable This value indicates how input is (or is not) accepted from the operator console - 1.3.6.1.2.1.43.5.1.1.13 (EnumAsStateSet)
# TYPE prtConsoleDisable gauge
prtConsoleDisable(hrDeviceIndex="1",prtConsoleDisable="disabled") 0
prtConsoleDisable(hrDeviceIndex="1",prtConsoleDisable="enabled") 1
# HELP prtCoverStatus The status of this cover sub-unit. - 1.3.6.1.2.1.43.6.1.1.3 (EnumAsStateSet)
# TYPE prtCoverStatus gauge
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="1",prtCoverStatus="coverClosed") 1
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="1",prtCoverStatus="coverOpen") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="1",prtCoverStatus="interlockClosed") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="1",prtCoverStatus="interlockOpen") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="1",prtCoverStatus="other") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="1",prtCoverStatus="unknown") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="2",prtCoverStatus="coverClosed") 1
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="2",prtCoverStatus="coverOpen") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="2",prtCoverStatus="interlockClosed") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="2",prtCoverStatus="interlockOpen") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="2",prtCoverStatus="other") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="2",prtCoverStatus="unknown") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="3",prtCoverStatus="coverClosed") 1
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="3",prtCoverStatus="coverOpen") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="3",prtCoverStatus="interlockClosed") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="3",prtCoverStatus="interlockOpen") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="3",prtCoverStatus="other") 0
prtCoverStatus(hrDeviceIndex="1",prtCoverIndex="3",prtCoverStatus="unknown") 0
# HELP prtGeneralPrinterName An administrator-specified name for this printer - 1.3.6.1.2.1.43.5.1.1.16
# TYPE prtGeneralPrinterName gauge
prtGeneralPrinterName(hrDeviceIndex="1",prtGeneralPrinterName="FH-lt1-UI1") 1
# HELP prtGeneralReset Setting this value to 'powerCycleReset', 'resetToNVRAM', or 'resetToFactoryDefaults' will result in the resetting of the printer - 1.3.6.1.2.1.43.5.1.1.3
```

```
10.10.10.110:9116/snmp?target=
Not secure | 10.10.10.9116/snmp?target=10.10.84.3&module=printer_mib
Apps User Manager pfSense Logo Com... print.ii.acid Paper... WhatsApp PAM disaster recov... Windows Server 20... Failover Clustering... Deploy an Active Di...

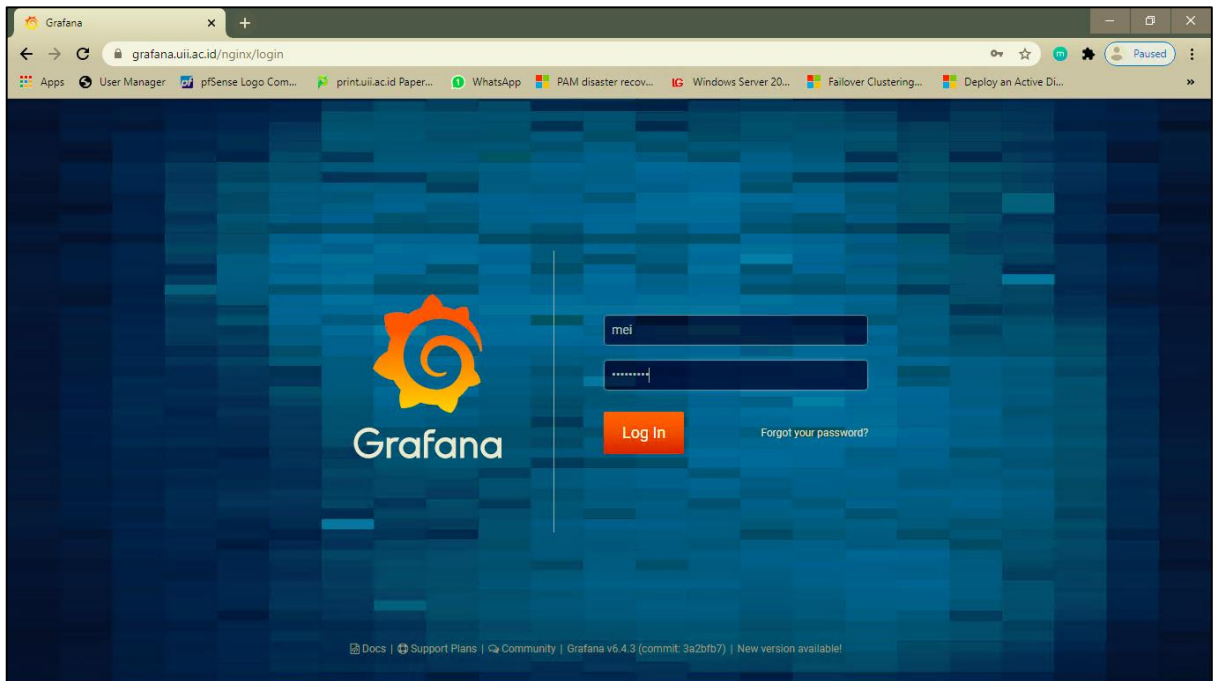
# TYPE prtGeneralPrinterName gauge
prtGeneralPrinterName{hrDeviceIndex="1",prtGeneralPrinterName="FH-1t1-UII"} 1
# HELP prtGeneralReset Setting this value to 'powerCycleReset', 'resetToNVRAM', or 'resetToFactoryDefaults' will result in the resetting of the printer - 1.3.6.1.2.1.43.5.1.1.3
(EnumAsStatesSet)
# TYPE prtGeneralReset gauge
prtGeneralReset{hrDeviceIndex="1",prtGeneralReset="notResetting"} 1
prtGeneralReset{hrDeviceIndex="1",prtGeneralReset="powerCycleReset"} 0
prtGeneralReset{hrDeviceIndex="1",prtGeneralReset="resetToFactoryDefaults"} 0
prtGeneralReset{hrDeviceIndex="1",prtGeneralReset="resetToNVRAM"} 0
# HELP prtGeneralSerialNumber A recorded serial number for this device that indexes some type device catalog or inventory - 1.3.6.1.2.1.43.5.1.1.7
# TYPE prtGeneralSerialNumber gauge
prtGeneralSerialNumber{hrDeviceIndex="1",prtGeneralSerialNumber="07RUB3M080022M"} 1
# HELP prtMarkerSuppliesDescription The description of this supply container/receptacle in the localization specified by prtGeneralCurrentLocalization. - 1.3.6.1.2.1.43.11.1.1.6
# TYPE prtMarkerSuppliesDescription gauge
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="ADF Retard Pad",prtMarkerSuppliesIndex="19",prtMarkerSuppliesType="1"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="ADF Roller",prtMarkerSuppliesIndex="18",prtMarkerSuppliesType="1"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Black Imaging Unit",prtMarkerSuppliesIndex="12",prtMarkerSuppliesType="10"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Black Imaging Unit S/N:CRUM-17112226612",prtMarkerSuppliesIndex="8",prtMarkerSuppliesType="9"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Black Toner Cartridge S/N:CRUM-20042019274",prtMarkerSuppliesIndex="4",prtMarkerSuppliesType="3"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Cyan Imaging Unit",prtMarkerSuppliesIndex="9",prtMarkerSuppliesType="10"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Cyan Imaging Unit S/N:CRUM-17112228125",prtMarkerSuppliesIndex="5",prtMarkerSuppliesType="9"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Cyan Toner Cartridge S/N:CRUM-19121081265",prtMarkerSuppliesIndex="1",prtMarkerSuppliesType="3"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Fuser S/N:1209A660AK30234",prtMarkerSuppliesIndex="15",prtMarkerSuppliesType="15"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="MP Roller",prtMarkerSuppliesIndex="20",prtMarkerSuppliesType="1"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Magenta Imaging Unit",prtMarkerSuppliesIndex="10",prtMarkerSuppliesType="10"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Magenta Imaging Unit S/N:CRUM-17112227701",prtMarkerSuppliesIndex="6",prtMarkerSuppliesType="9"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Magenta Toner Cartridge S/N:CRUM-19112530527",prtMarkerSuppliesIndex="2",prtMarkerSuppliesType="3"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="T2 Roller",prtMarkerSuppliesIndex="16",prtMarkerSuppliesType="1"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Transfer Unit (Belt Cleaner)",prtMarkerSuppliesIndex="14",prtMarkerSuppliesType="20"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Transfer Unit (Belt)",prtMarkerSuppliesIndex="13",prtMarkerSuppliesType="20"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Tray 1 Roller",prtMarkerSuppliesIndex="21",prtMarkerSuppliesType="1"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Tray 2 Roller",prtMarkerSuppliesIndex="22",prtMarkerSuppliesType="1"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Waste Toner Container",prtMarkerSuppliesIndex="17",prtMarkerSuppliesType="4"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Yellow Imaging Unit",prtMarkerSuppliesIndex="11",prtMarkerSuppliesType="10"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Yellow Imaging Unit S/N:CRUM-17112227695",prtMarkerSuppliesIndex="7",prtMarkerSuppliesType="9"} 1
prtMarkerSuppliesDescription{hrDeviceIndex="1",prtMarkerSuppliesDescription="Yellow Toner Cartridge S/N:CRUM-19072640072",prtMarkerSuppliesIndex="3",prtMarkerSuppliesType="3"} 1
# HELP prtMarkerSuppliesLevel The current level if this supply is a container; the remaining space if this supply is a receptacle - 1.3.6.1.2.1.43.11.1.1.9
# TYPE prtMarkerSuppliesLevel gauge
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="1",prtMarkerSuppliesType="3"} 13200
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="10",prtMarkerSuppliesType="10"} 243556
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="11",prtMarkerSuppliesType="10"} 243556
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="12",prtMarkerSuppliesType="10"} 229688
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="13",prtMarkerSuppliesType="20"} 228000
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="14",prtMarkerSuppliesType="20"} 79500
```

```
10.10.10.110:9116/snmp?target=
Not secure | 10.10.10.9116/snmp?target=10.10.84.3&module=printer_mib
Apps User Manager pfSense Logo Com... print.ii.acid Paper... WhatsApp PAM disaster recov... Windows Server 20... Failover Clustering... Deploy an A...

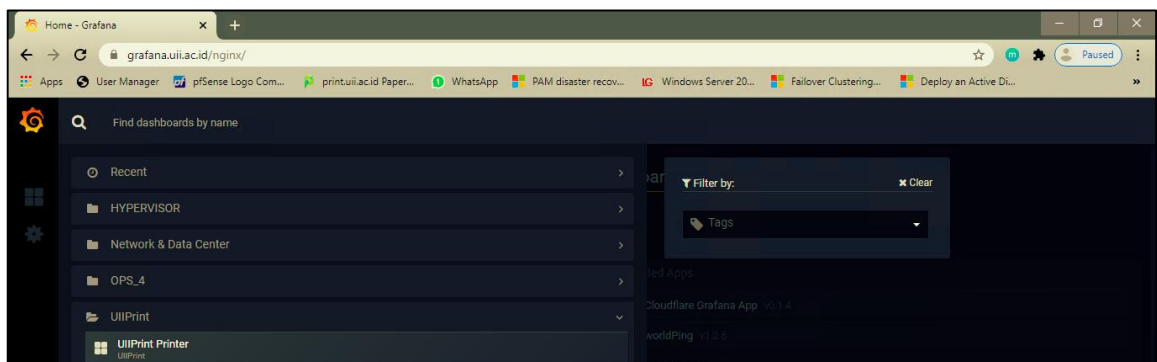
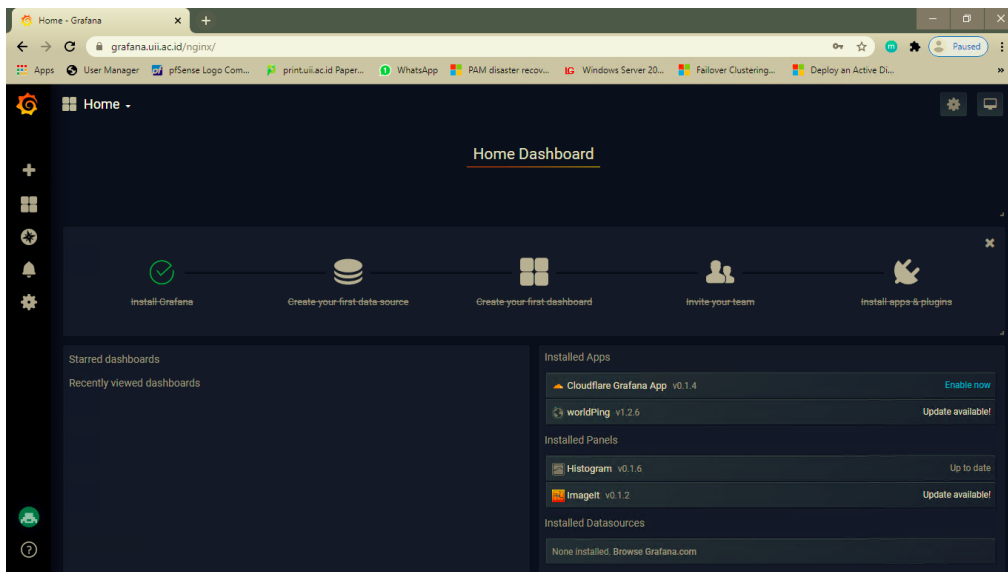
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="13",prtMarkerSuppliesType="20"} 228000
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="14",prtMarkerSuppliesType="20"} 79500
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="15",prtMarkerSuppliesType="15"} 213051
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="16",prtMarkerSuppliesType="1"} 80564
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="17",prtMarkerSuppliesType="4"} 100
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="18",prtMarkerSuppliesType="1"} 190281
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="19",prtMarkerSuppliesType="1"} 90385
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="2",prtMarkerSuppliesType="3"} 15200
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="20",prtMarkerSuppliesType="1"} 195971
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="21",prtMarkerSuppliesType="1"} 147349
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="22",prtMarkerSuppliesType="1"} 189379
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="3",prtMarkerSuppliesType="3"} 10000
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="4",prtMarkerSuppliesType="3"} 22310
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="5",prtMarkerSuppliesType="9"} 42000
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="6",prtMarkerSuppliesType="9"} 42000
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="7",prtMarkerSuppliesType="9"} 42000
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="8",prtMarkerSuppliesType="9"} 30000
prtMarkerSuppliesLevel{hrDeviceIndex="1",prtMarkerSuppliesIndex="9",prtMarkerSuppliesType="10"} 243556
# HELP prtMarkerSuppliesMaxCapacity The maximum capacity of this supply container/receptacle expressed in prtMarkerSuppliesSupplyUnit - 1.3.6.1.2.1.43.11.1.1.8
# TYPE prtMarkerSuppliesMaxCapacity gauge
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="1",prtMarkerSuppliesType="3"} 20000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="10",prtMarkerSuppliesType="10"} 300000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="11",prtMarkerSuppliesType="10"} 300000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="12",prtMarkerSuppliesType="10"} 300000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="13",prtMarkerSuppliesType="20"} 300000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="14",prtMarkerSuppliesType="20"} 150000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="15",prtMarkerSuppliesType="15"} 250000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="16",prtMarkerSuppliesType="1"} 150000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="17",prtMarkerSuppliesType="4"} 100
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="18",prtMarkerSuppliesType="1"} 200000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="19",prtMarkerSuppliesType="1"} 100000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="2",prtMarkerSuppliesType="3"} 20000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="20",prtMarkerSuppliesType="1"} 200000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="21",prtMarkerSuppliesType="1"} 200000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="22",prtMarkerSuppliesType="1"} 200000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="3",prtMarkerSuppliesType="3"} 20000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="4",prtMarkerSuppliesType="3"} 23000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="5",prtMarkerSuppliesType="9"} 100000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="6",prtMarkerSuppliesType="9"} 100000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="7",prtMarkerSuppliesType="9"} 100000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="8",prtMarkerSuppliesType="9"} 100000
prtMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtMarkerSuppliesIndex="9",prtMarkerSuppliesType="10"} 300000
# HELP prtMarkerSuppliesType The type of this supply. - 1.3.6.1.2.1.43.11.1.1.5
# TYPE prtMarkerSuppliesType gauge
```

```
10.10.10.110:9116/snmp?target= x +
← → ↻ Not secure | 10.10.10.110:9116/snmp?target=10.10.84.38&module=printer_mib
Apps User Manager pfSense Logo Com... printuii.acid Paper... WhatsApp PAM disaster recov... Windows Server 20... Failover Clustering... Deploy an...
prtrMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtrMarkerSuppliesIndex="3",prtrMarkerSuppliesType="3"} 20000
prtrMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtrMarkerSuppliesIndex="4",prtrMarkerSuppliesType="3"} 23000
prtrMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtrMarkerSuppliesIndex="5",prtrMarkerSuppliesType="9"} 100000
prtrMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtrMarkerSuppliesIndex="6",prtrMarkerSuppliesType="9"} 100000
prtrMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtrMarkerSuppliesIndex="7",prtrMarkerSuppliesType="9"} 100000
prtrMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtrMarkerSuppliesIndex="8",prtrMarkerSuppliesType="9"} 100000
prtrMarkerSuppliesMaxCapacity{hrDeviceIndex="1",prtrMarkerSuppliesIndex="9",prtrMarkerSuppliesType="10"} 300000
# HELP prtrMarkerSuppliesType The type of this supply. - 1.3.6.1.2.1.43.11.1.5
# TYPE prtrMarkerSuppliesType gauge
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="1",prtrMarkerSuppliesType="3"} 3
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="10",prtrMarkerSuppliesType="10"} 10
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="11",prtrMarkerSuppliesType="10"} 10
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="12",prtrMarkerSuppliesType="10"} 10
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="13",prtrMarkerSuppliesType="20"} 20
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="14",prtrMarkerSuppliesType="20"} 20
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="15",prtrMarkerSuppliesType="15"} 15
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="16",prtrMarkerSuppliesType="1"} 1
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="17",prtrMarkerSuppliesType="4"} 4
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="18",prtrMarkerSuppliesType="1"} 1
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="19",prtrMarkerSuppliesType="1"} 1
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="2",prtrMarkerSuppliesType="3"} 3
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="20",prtrMarkerSuppliesType="1"} 1
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="21",prtrMarkerSuppliesType="1"} 1
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="22",prtrMarkerSuppliesType="1"} 1
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="3",prtrMarkerSuppliesType="3"} 3
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="4",prtrMarkerSuppliesType="3"} 3
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="5",prtrMarkerSuppliesType="9"} 9
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="6",prtrMarkerSuppliesType="9"} 9
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="7",prtrMarkerSuppliesType="9"} 9
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="8",prtrMarkerSuppliesType="9"} 9
prtrMarkerSuppliesType{hrDeviceIndex="1",prtrMarkerSuppliesIndex="9",prtrMarkerSuppliesType="10"} 10
# HELP snmp_scrape_duration_seconds Total SNMP time scrape took (walk and processing).
# TYPE snmp_scrape_duration_seconds gauge
snmp_scrape_duration_seconds 0.363719881
# HELP snmp_scrape_pdus_returned PDUs returned from walk.
# TYPE snmp_scrape_pdus_returned gauge
snmp_scrape_pdus_returned 114
# HELP snmp_scrape_walk_duration_seconds Time SNMP walk/bulkwalk took.
# TYPE snmp_scrape_walk_duration_seconds gauge
snmp_scrape_walk_duration_seconds 0.359691142
# HELP sysUpTime The time (in hundredths of a second) since the network management portion of the system was last re-initialized. - 1.3.6.1.2.1.1.3
# TYPE sysUpTime gauge
sysUpTime 4.191148242e+09
```

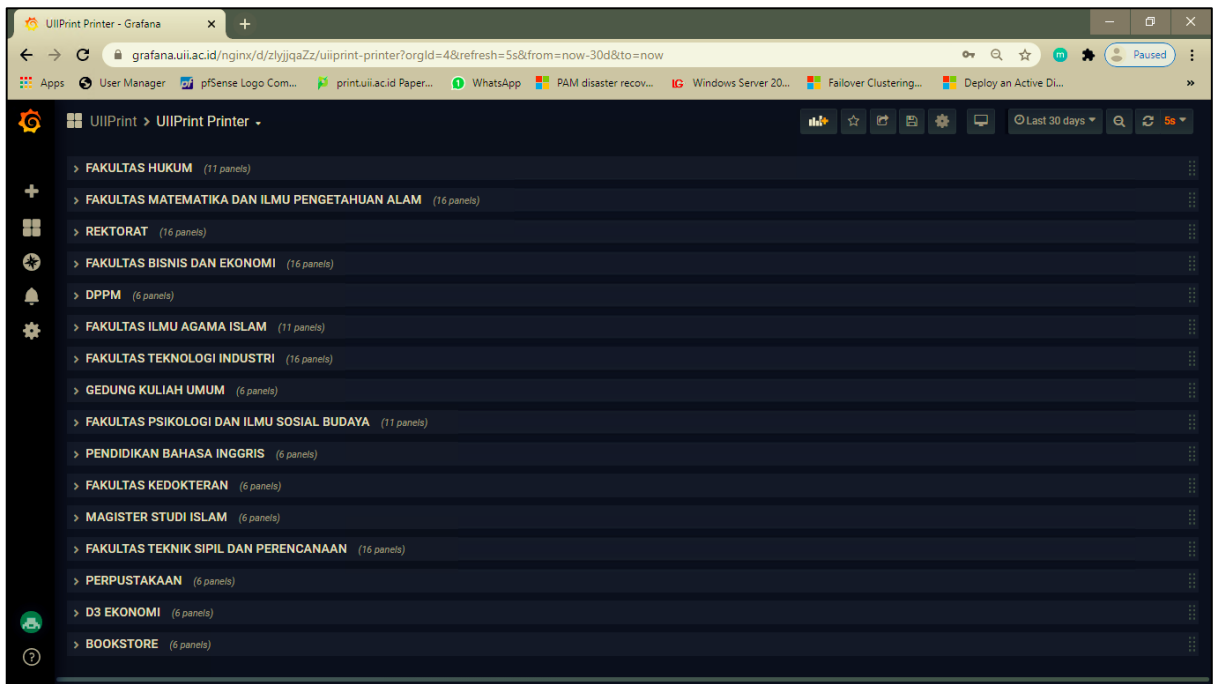
16. Buka url : <https://grafana.uii.ac.id/nginx/> untuk melihat dashboard UIIPrint dengan user : mei dan password : bismillah sebagai admin sebagai editor.



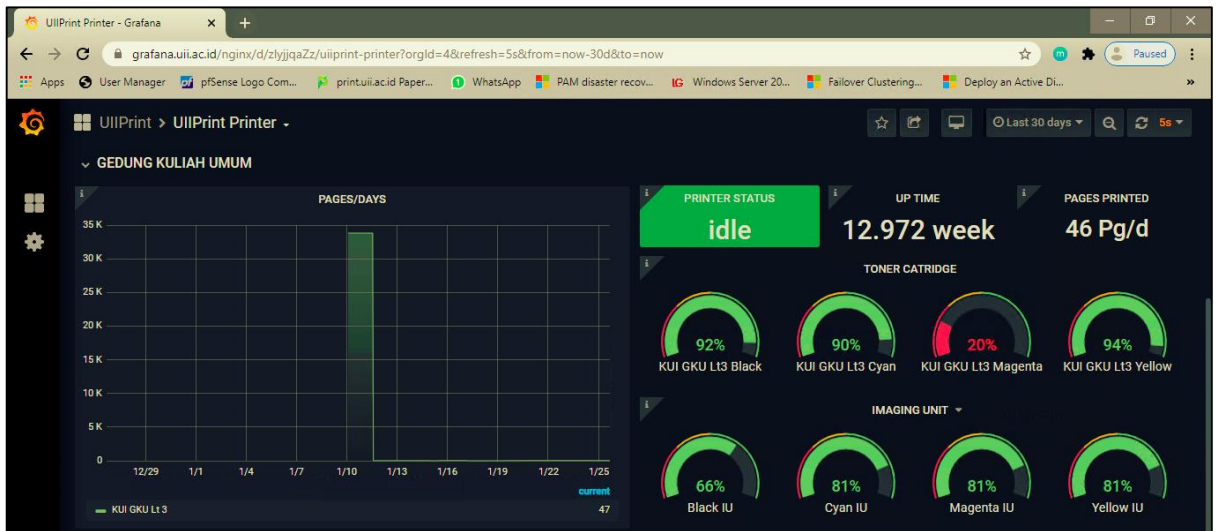
17. Pilih Home → UIIPrint → UIIPrint Printer untuk melihat status device, uptime, pages/day, persentase jumlah toner dan persentase jumlah imaging unit printer.



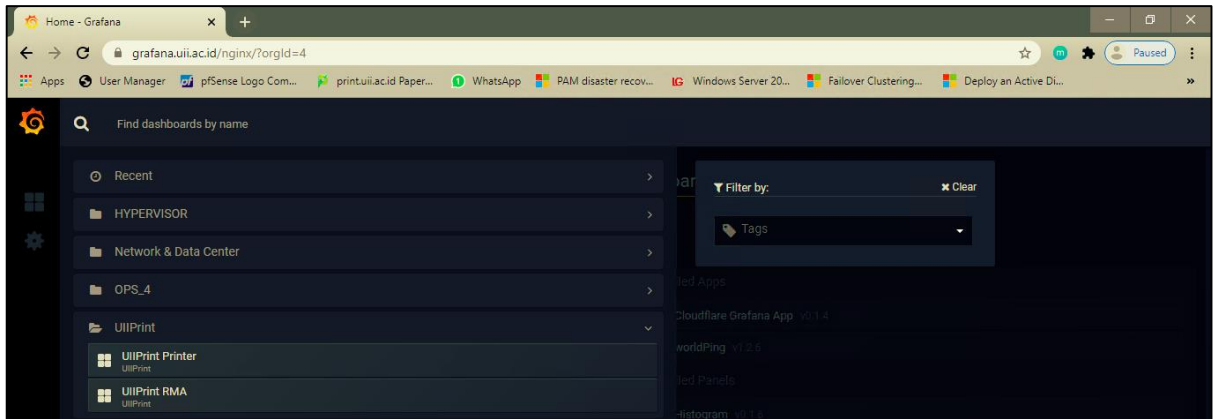
18. Di dalam dashboard UIIPrint Printer terdapat rows printer per gedung



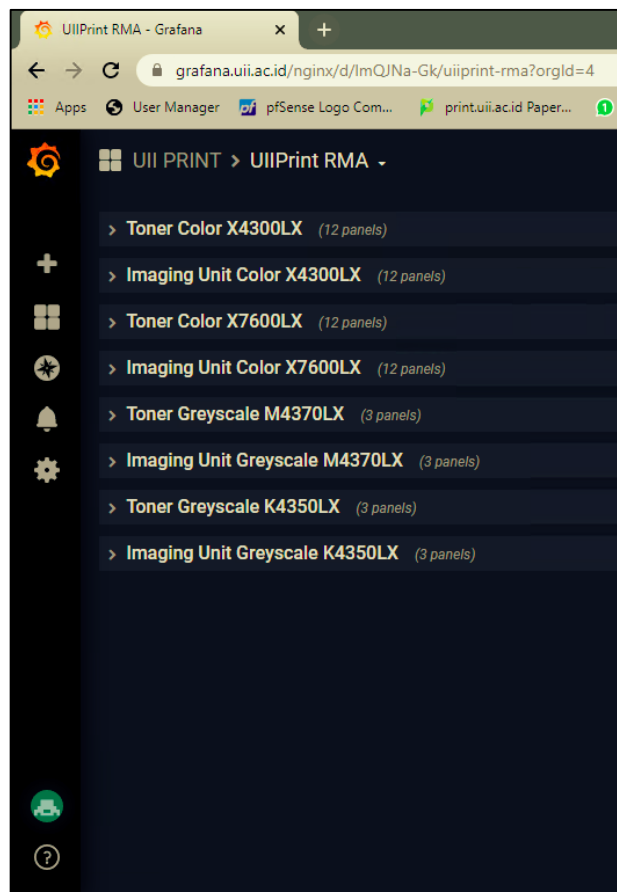
19. Isi dari setiap rows terdapat status device, uptime, pages/day dalam bentuk count dan grafik, persentase jumlah toner dan persentase jumlah imaging unit print.



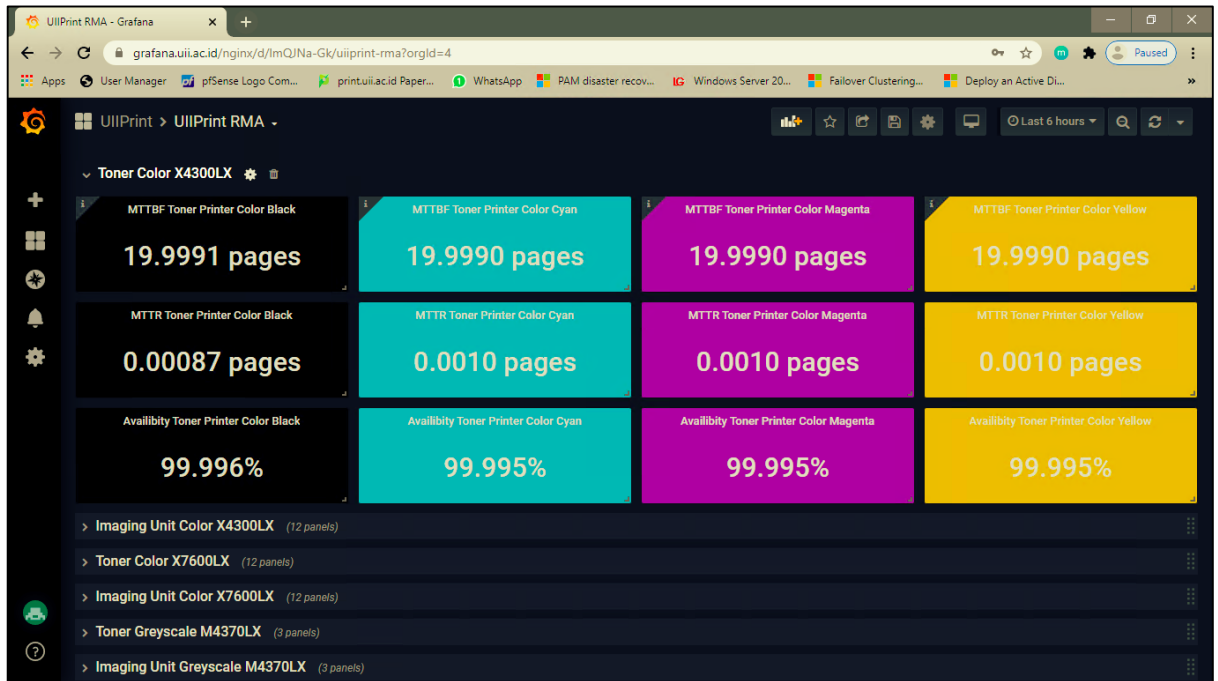
20. Pilih Home → UIIPrint → UIIPrint RMA (Reliability, Maintainability, dan Availability) untuk melihat perhitungan MTBF, MTTR, dan Availability keempat tipe printer yang ada yaitu Color X4300LX, Color X7600LX, Greyscale M4370LX, dan Greyscale K4350LX.



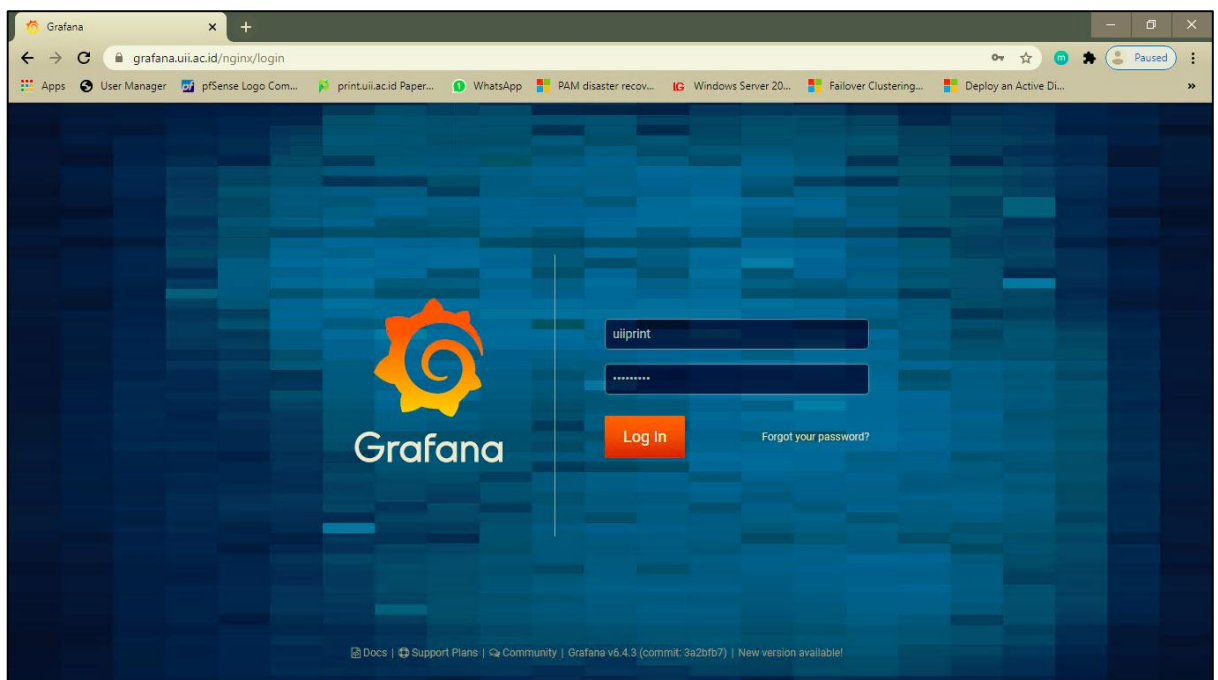
21. Di dalam dashboard UIIPrint UIIPrint RMA terdapat rows toner dan imaging unit dari keempat tipe printer yang ada yaitu Color X4300LX, Color X7600LX, Greyscale M4370LX, dan Greyscale K4350LX.



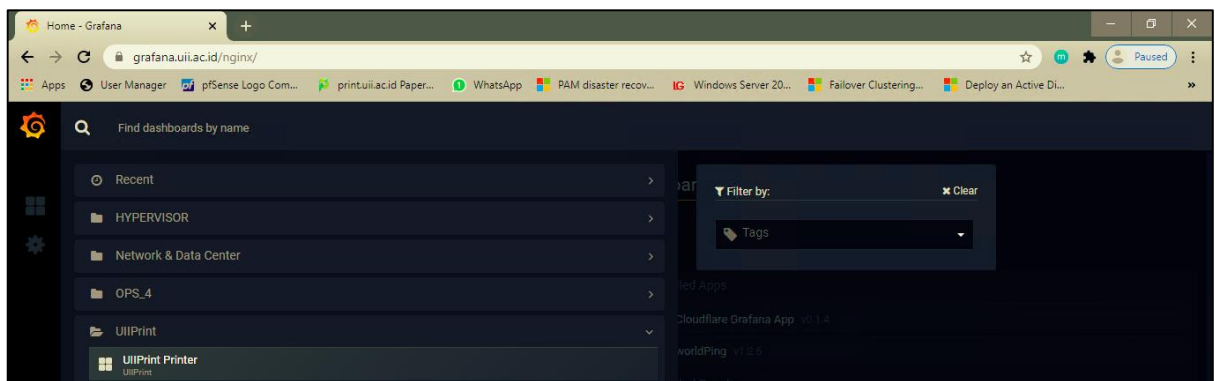
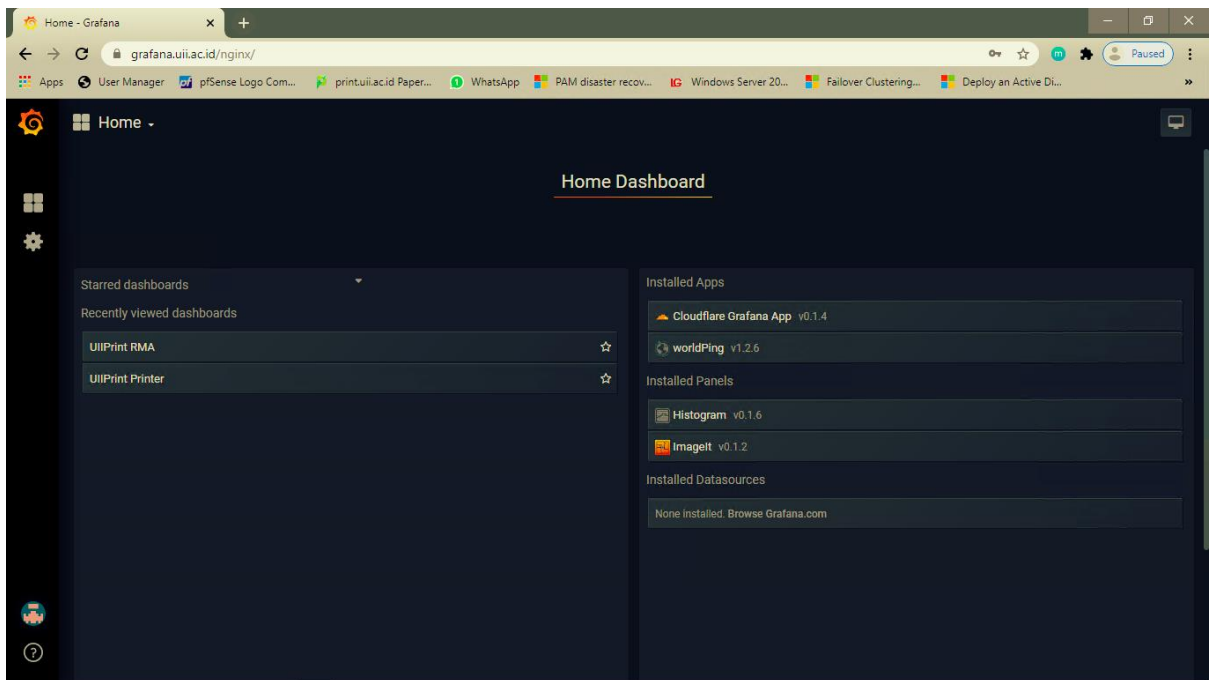
22. Isi dari setiap rows menampilkan perhitungan MTBF, MTTR, dan Availability toner dan imaging unit printer.



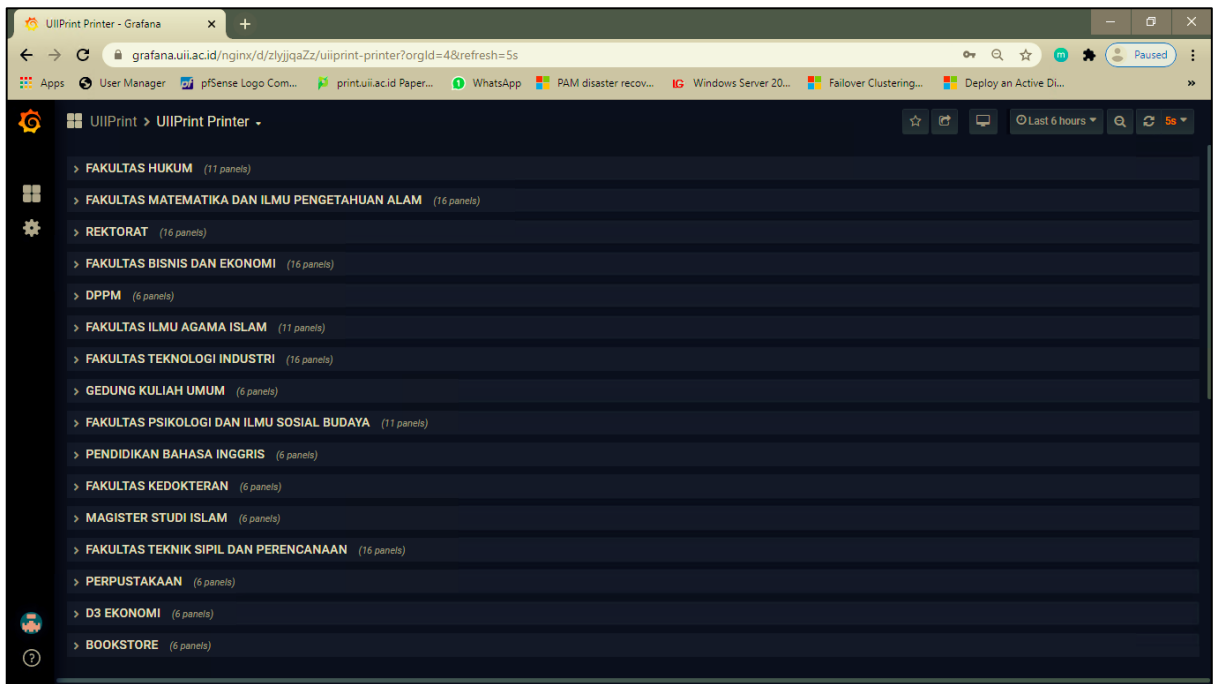
23. Buka url : <https://grafana.uui.ac.id/nginx/> untuk melihat dashboard UIIPrint dengan user : uiiprint dan password : bismillah sebagai user monitoring untuk teknisi dan staff kadiv SIM. Perbedaanya di user monitoring hanya sebagai viewer.



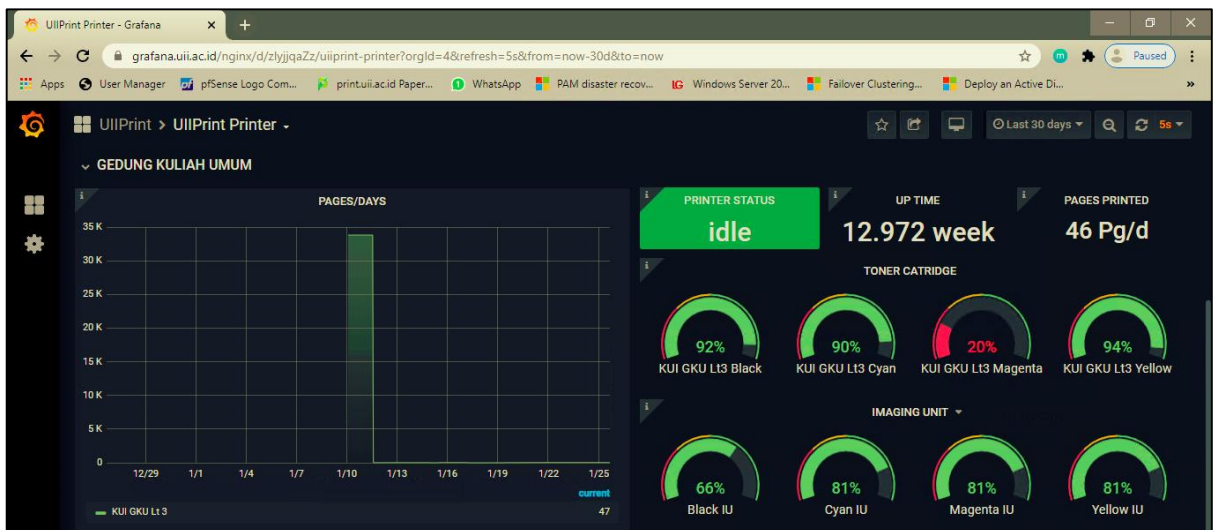
24. Pilih Home → UIIPrint → UIIPrint Printer untuk melihat status device, uptime, pages/day, persentase jumlah toner dan persentase jumlah imaging unit printer.



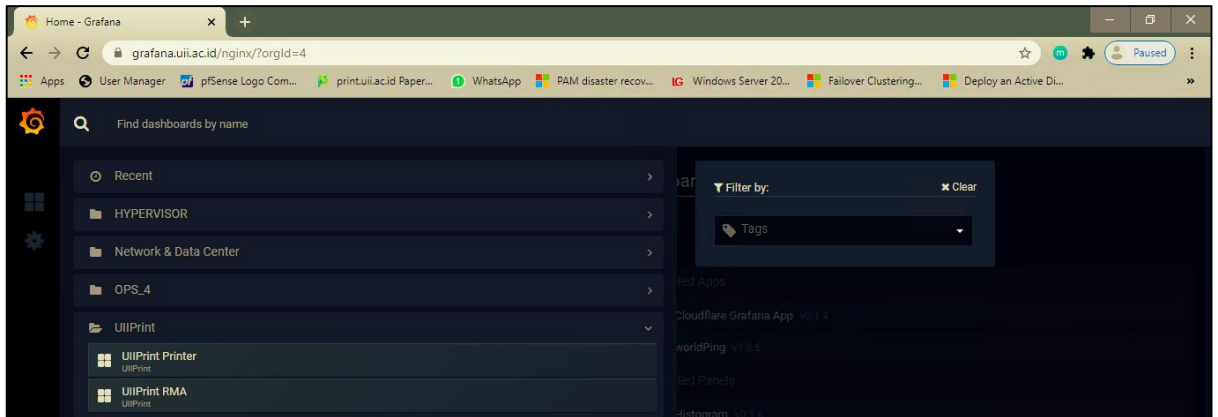
25. Di dalam dashboard UIIPrint Printer terdapat rows printer per gedung



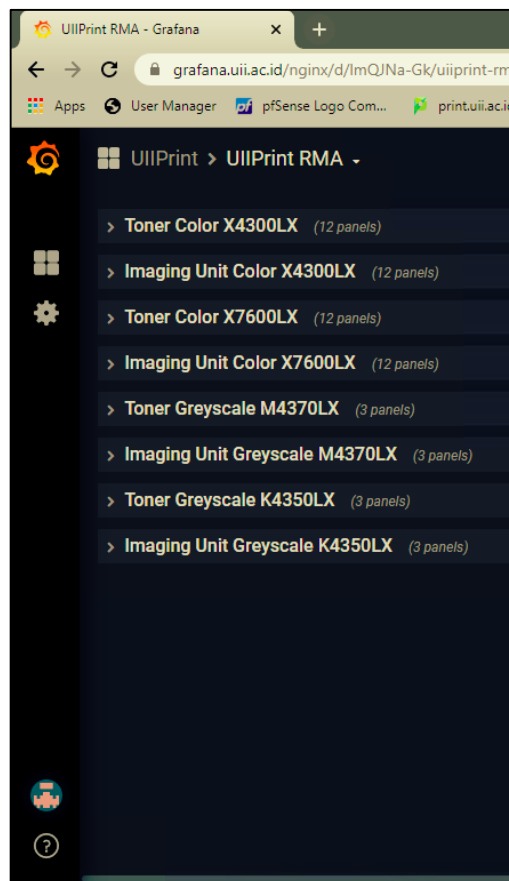
26. Isi dari setiap rows terdapat status device, uptime, pages/day dalam bentuk count dan grafik, persentase jumlah toner dan persentase jumlah imaging unit print.



27. Pilih Home → UIIPrint → UIIPrint RMA (Reliability, Maintainability, dan Availability) untuk melihat perhitungan MTBF, MTTR, dan Availability keempat tipe printer yang ada yaitu Color X4300LX, Color X7600LX, Greyscale M4370LX, dan Greyscale K4350LX.



28. Di dalam dashboard UIIPrint UIIPrint RMA terdapat rows toner dan imaging unit dari keempat tipe printer yang ada yaitu Color X4300LX, Color X7600LX, Greyscale M4370LX, dan Greyscale K4350LX.



29. Isi dari setiap rows menampilkan perhitungan MTBF, MTTR, dan Availability toner dan imaging unit printer.

