



Annexes

Cette rubrique présente les différentes captures, et procédures utilisées pour la réalisation de ce projet, les codes se trouvent dans la rubrique recommandation.

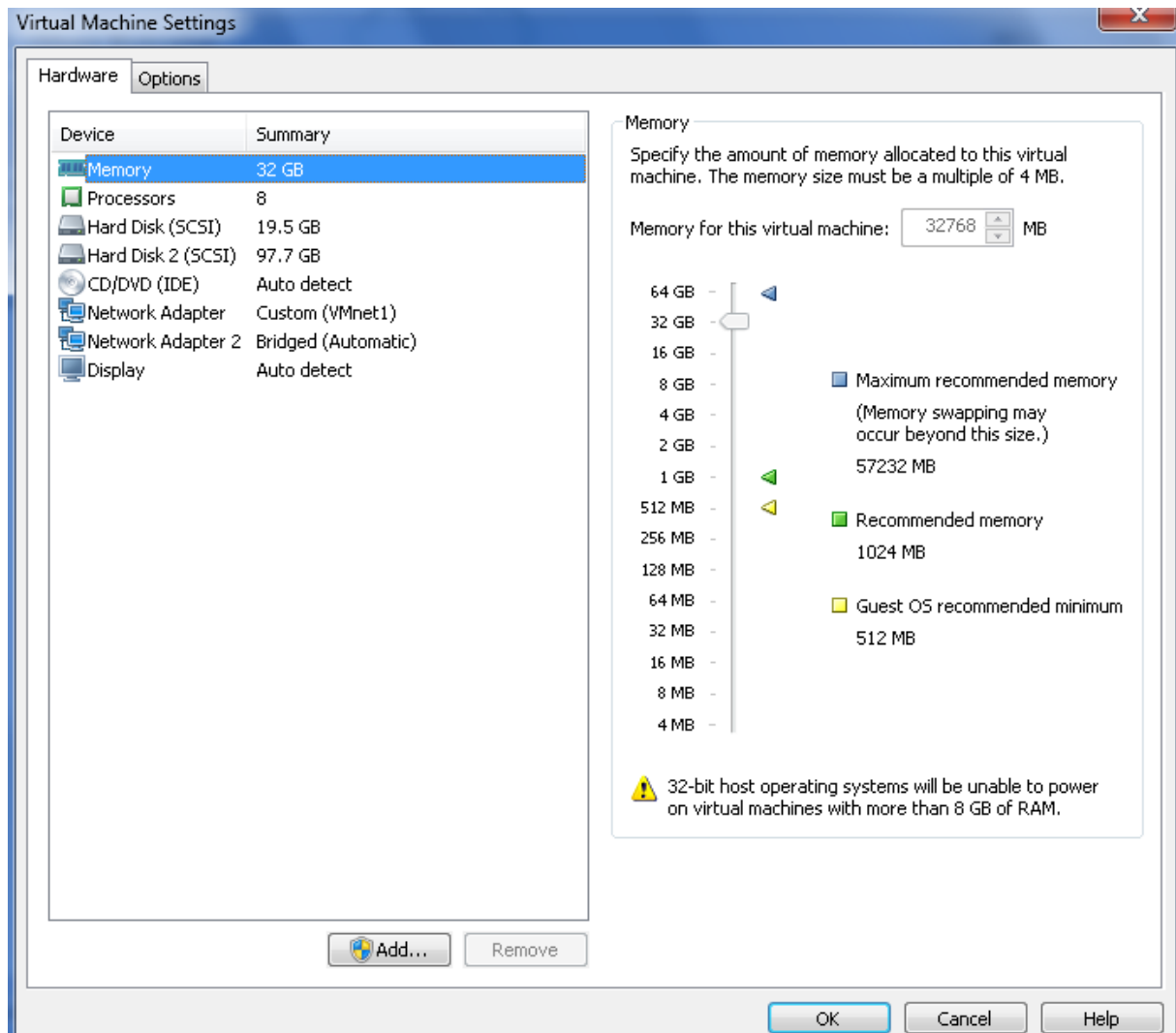
<https://github.com/projet2019/TFE>

Listes des annexes

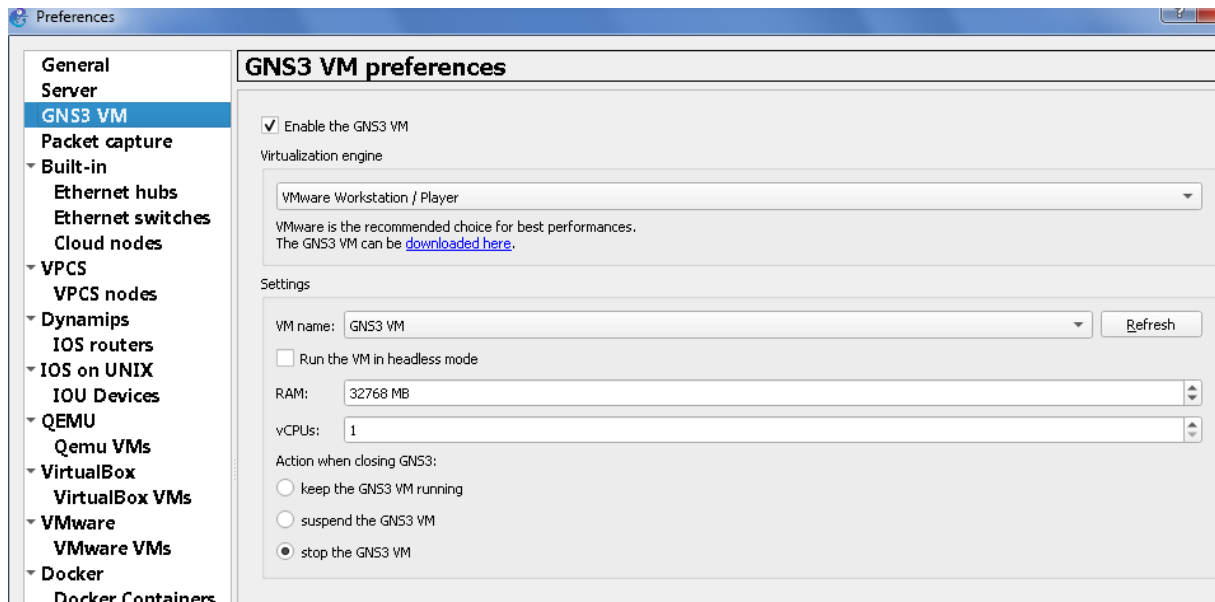
- I. Configuration de GNS3 sur VMWAREWORKSTATION
- II. Intégration d'un hôte sur gns3
- III. Intégration de l'architecture réseau
- IV. Développement du système de contrôle
- V. Systèmes de monitoring

I- Configuration de GNS3 sur VMWAREWORKSTATION

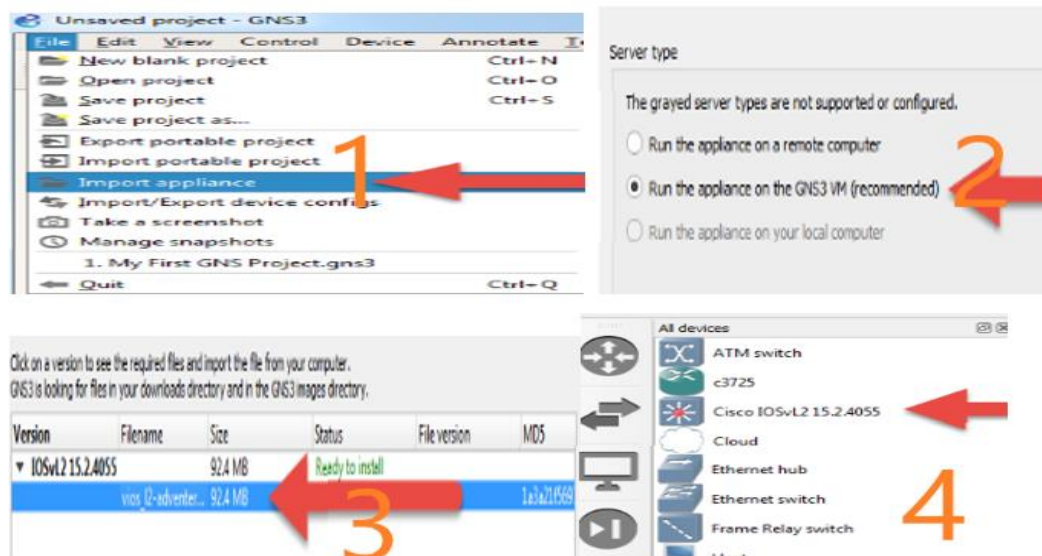
a) Workstation



b) Association de gns3 à Workstation

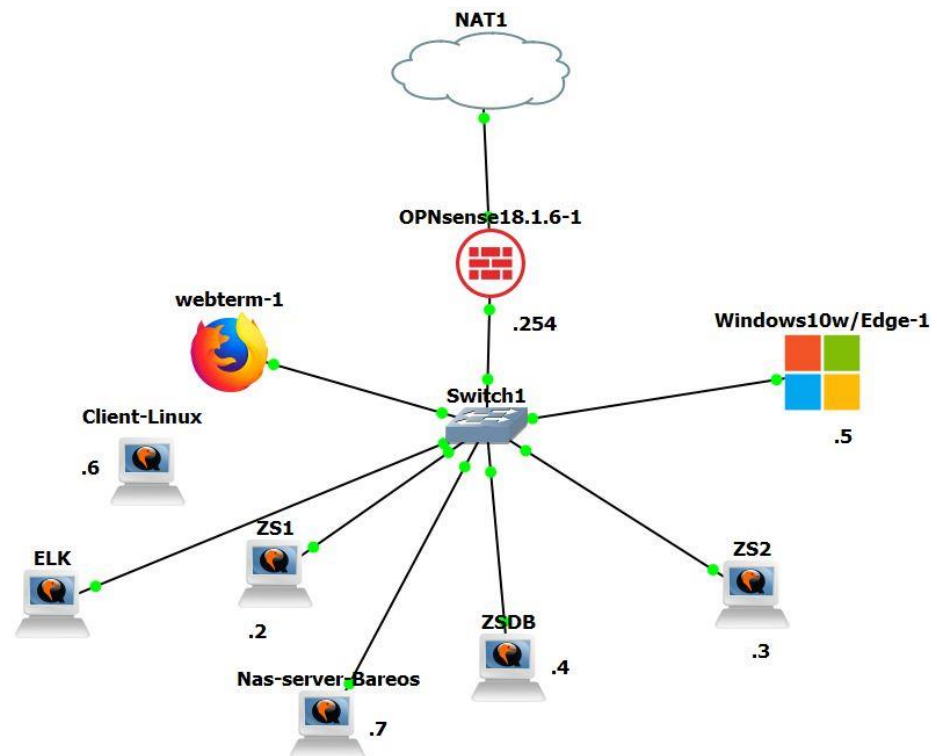


II- Intégration d'un hôte sur gns3



III- intégration de l'architecture réseau

a) schéma réseau



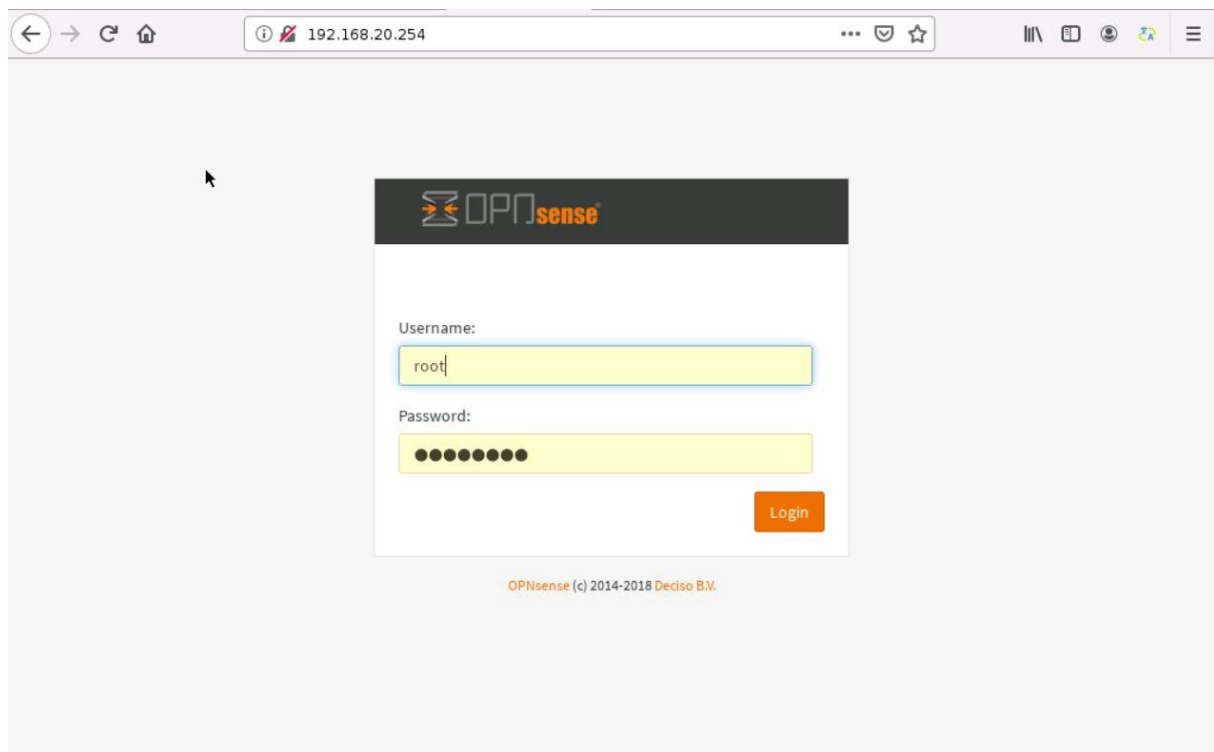
b) état des périphériques

Client-Linux	vnc 192.168.184.129:5905
ELK	vnc 192.168.184.129:5907
Nas-server-Bareos	vnc 192.168.184.129:5906
NAT1	none
OPNsense18.1.6-1	telnet 192.168.184.129:5004
Switch1	none
webterm-1	vnc 192.168.184.129:5901
Windows10w/Edge-1	vnc 192.168.184.129:5902
ZS1	vnc 192.168.184.129:5900
ZS2	vnc 192.168.184.129:5904
ZSDB	vnc 192.168.184.129:5903

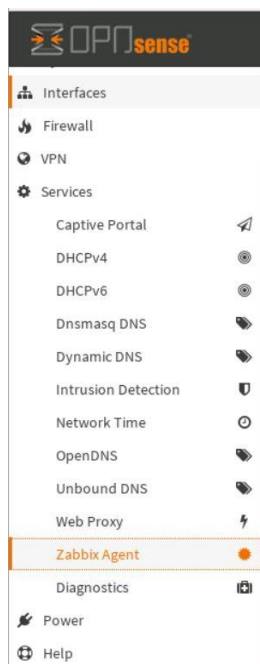
Servers Summary	
DESKTOP-6OVGJCB	CPU 99.3%, RAM 95.9%
GNS3 VM (GNS3 VM)	CPU 69.9%, RAM 79.3%

IV- Développement du système de contrôle

a) Login OpnSense et IPsec



b) Installation Zabbix agent



d) Zabbix

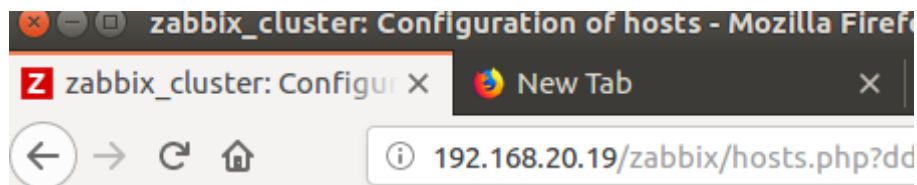
-Zabbix server

```
osboxes@osboxes:~$ sudo su
[sudo] password for osboxes:
root@osboxes:/home/osboxes# systemctl status mysql
● mysql.service - LSB: Start and stop the mysql database server daemon
   Loaded: loaded (/etc/init.d/mysql; bad; vendor preset: enabled)
   Active: active (running) since Mon 2019-08-19 23:24:42 CEST; 1h 21min ago
     Docs: man:systemd-sysv-generator(8)
  Process: 914 ExecStart=/etc/init.d/mysql start (code=exited, status=0/SUCCESS)
    CGroup: /system.slice/mysql.service
            └─1045 /bin/bash /usr/bin/mysqld_safe
              └─1310 /usr/sbin/mysqld --basedir=/usr --datadir=/var/lib/mysql --plu
                └─1311 logger -t mysqld -p daemon error

Aug 19 23:24:41 osboxes mysqld[1311]: Version: '10.0.38-MariaDB-0ubuntu0.16.04.1
Aug 19 23:24:42 osboxes mysql[914]: ...done.
```

```
root@osboxes:/home/osboxes
● zabbix-server.service - Zabbix Server
   Loaded: loaded (/lib/systemd/system/zabbix-server.service; enabled; vendor pr
   Active: active (running) since Mon 2019-08-19 23:24:19 CEST; 1h 24min ago
  Process: 767 ExecStart=/usr/sbin/zabbix_server -c $CONFFILE (code=exited, stat
 Main PID: 787 (zabbix_server)
    CGroup: /system.slice/zabbix-server.service
            └─787 /usr/sbin/zabbix_server -c /etc/zabbix/zabbix_server.conf
              └─1874 /usr/sbin/zabbix_server: configuration syncer [syncd configur
                └─1875 /usr/sbin/zabbix_server: housekeeper [deleted 2923 hist/trends
                  └─1876 /usr/sbin/zabbix_server: timer #1 [updated 0 hosts, suppressed
                    └─1877 /usr/sbin/zabbix_server: http poller #1 [got 0 values in 0.012
                      └─1878 /usr/sbin/zabbix server: discoverer #1 [processed 0 rules in 0
```

-Zabbix frontend



e) configuration du simulateur cardiaque

```
root@ZS1: ~  
File Edit Tabs Help  
GNU nano 2.9.3  
  
192.168.20.2 ZS1 zs1.andersonLabs.local  
192.168.20.3 ZS2 zs2.andersonLabs.local  
  
# The following lines are desirable for IPv6 capable hosts  
::1 ip6-localhost ip6-loopback  
fe00::0 ip6-localnet  
ff00::0 ip6-mcastprefix  
ff02::1 ip6-allnodes  
ff02::2 ip6-allrouters
```

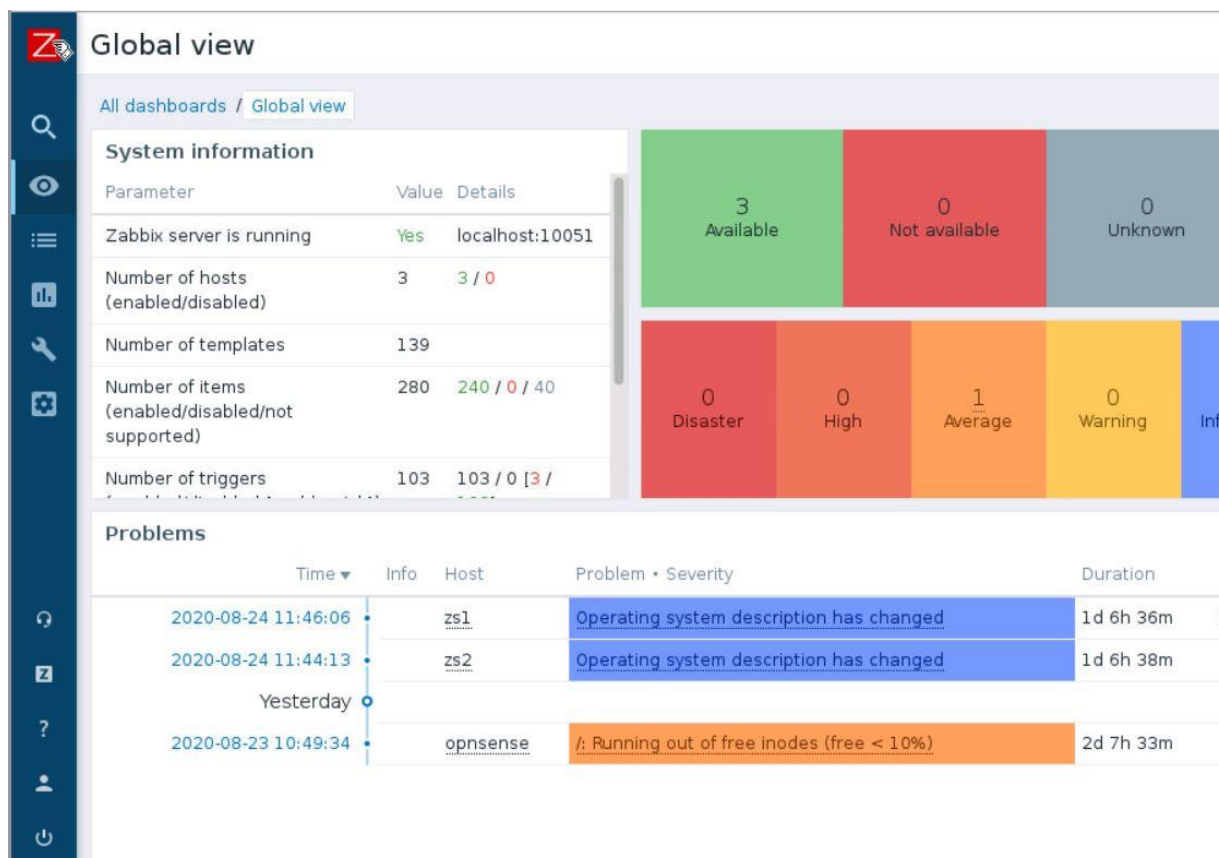
```
root@ZS1: ~  
File Edit Tabs Help  
GNU nano 2.9.3 /etc/zabbix/zabbix_server.conf  
  
# This is a configuration file for Zabbix server daemon  
# To get more information about Zabbix, visit http://www.zabbix.com  
  
##### GENERAL PARAMETERS #####  
  
## Option: ListenPort  
# Listen port for trapper.  
#  
# Mandatory: no  
# Range: 1024-32767  
# Default:  
ListenPort=10051  
  
### Option: SourceIP  
# Source IP address for outgoing connections.  
#  
# Mandatory: no  
# Default:  
SourceIP=192.168.20.1  
  
### Option: LogType  
# Specifies where log messages are written to:  
# system - syslog  
# file - file specified with LogFile parameter  
# console - standard output  
#  
# Mandatory: no  
# Default:  
# LogType=file  
  
### Option: LogFile  
# Log file name for LogType 'file' parameter.  
#  
# Mandatory: yes, if LogType is set to file, otherwise no  
# Default:  
# LogFile=  
LogFile=/var/log/zabbix/zabbix_server.log  
### Option: LogFileSize
```



```
root@ZS1: ~  
File Edit Tabs Help  
Aug 25 14:58:17 ZS1 systemd[1]: Starting Zabbix Server...  
Aug 25 14:58:19 ZS1 systemd[1]: zabbix-server.service: Supervising process 1634 which is not our child. We'll most lik  
Aug 25 14:58:19 ZS1 systemd[1]: Started Zabbix Server.  
Aug 25 14:58:24 ZS1 systemd[1]: Stopping Zabbix Server...  
Aug 25 14:58:35 ZS1 systemd[1]: zabbix-server.service: Main process exited, code=exited, status=1/FAILURE  
Aug 25 14:58:35 ZS1 systemd[1]: zabbix-server.service: Failed with result 'exit-code'.  
Aug 25 14:58:35 ZS1 systemd[1]: Stopped Zabbix Server.  
  
root@ZS1:~# systemctl restart zabbix-server  
root@ZS1:~# systemctl status zabbix-server  
● zabbix-server.service - Zabbix Server  
   Loaded: loaded (/lib/systemd/system/zabbix-server.service; disabled; vendor preset: enabled)  
   Active: active (running) since Tue 2020-08-25 15:43:18 UTC; 3s ago  
     Process: 4505 ExecStart=/usr/sbin/zabbix_server -c $CONFFILE (code=exited, status=0/SUCCESS)  
    Main PID: 4520 (zabbix_server)  
      Tasks: 38 (limit: 2317)  
     CGroup: /system.slice/zabbix-server.service  
            └─0000004520 /usr/sbin/zabbix_server -c /etc/zabbix/zabbix_server.conf  
              0000004523 /usr/sbin/zabbix_server: configuration syncer [syncd configuration in 0.069301 sec, idle 60 sec  
              0000004524 /usr/sbin/zabbix_server: housekeeper [startup idle for 30 minutes]  
              0000004525 /usr/sbin/zabbix_server: timer #1 [updated 0 hosts, suppressed 0 events in 0.019455 sec, idle 40  
              0000004526 /usr/sbin/zabbix_server: http poller #1 [got 0 values in 0.006360 sec, idle 5 sec]  
              0000004527 /usr/sbin/zabbix_server: discoverer #1 [processed 0 rules in 0.003745 sec, idle 60 sec]  
              0000004528 /usr/sbin/zabbix_server: history syncer #1 [processed 0 values, 0 triggers in 0.000049 sec, idle
```

V- Systèmes de monitoring

a) dashboardZabbix



V- Systèmes de Backup

a) login Bareos

192.168.20.7/bareos-webui/auth/login

bareos
open source data protection

localhost-dir

admin

•••••

English

Login

bareos.org build.
bareos.org binaries are UNSUPPORTED by bareos.com.
Get official binaries and vendor support on <https://www.bareos.com>.
Version 19.2.7-2 © 2013 - 2020 Bareos GmbH & Co. KG,

b) saveHost

Running Waiting Successful Warning Failed

0 0 1 1 3

Jobs Files Bytes

42 1308 181.86 MB

Most recent job status per job name

Job name	Status	Job ID	Client	Level	Start	End
backup-zabbix-fd	Failure	42	client-zabbix-fd	Full	2020-08-24 16:42:59	2021-08-24 16:4
backup-zsdb-fd	Success	40	client-zsdb-fd	Full	2020-08-24 16:41:36	2021-08-24 16:4
backup-linux-fd	Success	19	client-linux-fd	Full	2020-08-24 07:23:20	2021-08-24 07:2
backup-bareos-fd	Success	12	bareos-fd	Incremental	2020-08-23 23:07:26	2021-08-23 23:0
RestoreFiles	Success	2	bareos-fd	Full	2020-08-23 14:56:31	2021-08-23 14:5

Running Jobs

There are no jobs running.