

LibreNMS

Configuration de la VM :

```
GNU nano 7.2 /etc/network/interfaces
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
allow-hotplug ens18
iface ens18 inet static
    address 172.21.3.16/16
    gateway 172.21.0.254
    # dns-* options are implemented by the resolvconf package, if installed
    dns-nameservers 172.22.0.1
```

```
GNU nano 7.2 /etc/hosts
127.0.0.1    localhost
172.21.3.16  debian-librenms

# The following lines are desirable for IPv6 capable hosts
::1          localhost ip6-localhost ip6-loopback
ff02::1      ip6-allnodes
ff02::2      ip6-allrouters
```

```
GNU nano 7.2 /etc/hostname
debian-librenms
```

On commence par installer les paquets necessaires :

```
#sudo apt install apt-transport-https lsb-release ca-certificates wget acl curl fping git
graphviz imagemagick mariadb-client mariadb-server mtr-tiny nginx-full nmap php-cli
php-curl php-fpm php-gd php-gmp php-mbstring php-mysql php-snmp php-xml php-zip
python3-dotenv python3-pymysql python3-redis python3-setuptools python3-systemd
python3-pip rrdtool snmp snmpd unzip whois
```

On ajoute ensuite l'utilisateur librenms :

```
#sudo useradd librenms -d /opt/librenms -M -r -s "$(which bash)"
```

Puis on lui change son mot de pass (en root) :

```
#passwd librenms
```

On se connecte avec l'utilisateur librenms :

```
#su - librenms
```

On se rend ensuite sur le dossier "/opt" et on y clone le fichier librenms du site officiel :

```
#cd /opt
```

```
#sudo git clone https://github.com/librenms/librenms.git
```

```
btssio@debian-librenms:/opt$ sudo git clone https://github.com/librenms/librenms.git
Clonage dans 'librenms'...
remote: Enumerating objects: 223074, done.
remote: Counting objects: 100% (34/34), done.
remote: Compressing objects: 100% (29/29), done.
remote: Total 223074 (delta 10), reused 5 (delta 5), pack-reused 223040 (from 2)
Réception d'objets: 100% (223074/223074), 302.30 Mio | 16.83 Mio/s, fait.
Résolution des deltas: 100% (168272/168272), fait.
Mise à jour des fichiers: 100% (15196/15196), fait.
```

Puis on attribut toutes les permissions necessaires :

```
#sudo chown -R librenms:librenms /opt/librenms
```

```
#sudo chmod 771 /opt/librenms
```

```
#sudo setfacl -d -m g::rwx /opt/librenms/rrd /opt/librenms/logs
/opt/librenms/bootstrap/cache/ /opt/librenms/storage/
```

```
#sudo setfacl -R -m g::rwx /opt/librenms/rrd /opt/librenms/logs
/opt/librenms/bootstrap/cache/ /opt/librenms/storage/
```

Ensuite, il faut installer les dependance PHP.

Pour les installer nous allons tout d'abord avoir besoin d'installer "composer" :

```
#sudo apt install composer
```

Puis ensuite, on installe les dépendance :

```
#./scripts/composer_wrapper.php install --no-dev
```


Après, il faut se rendre dans les différents php.ini et modifier les informations comme ci-dessous :

```
GNU nano 7.2 /etc/php/8.2/fpm/php.ini *
; Module Settings ;
;

[CLI Server]
; Whether the CLI web server uses ANSI color coding in its terminal output.
cli_server.color = On

[Date]
; Defines the default timezone used by the date functions
; https://php.net/date.timezone
date.timezone = Europe/Paris

; https://php.net/date.default-latitude
```

```
GNU nano 7.2 /etc/php/8.2/cli/php.ini *
[CLI Server]
; Whether the CLI web server uses ANSI color coding in its terminal output.
cli_server.color = On

[Date]
; Defines the default timezone used by the date functions
; https://php.net/date.timezone
date.timezone = Europe/Paris
```

Cela sert pour mettre l'horloge à jour.

Ensuite on met en place la timezone du système :

```
#sudo timedatectl set-timezone Etc/UTC
```

Puis, on configure les fichiers mysql :

```
#sudo nano /etc/mysql/mariadb.conf.d/50-server.cnf
```

```
GNU nano 7.2 /etc/mysql/mariadb.conf.d/50-server.cnf *
# Use it for options that only the server (but not clients) should see

# this is read by the standalone daemon and embedded servers
[server]

# this is only for the mysqld standalone daemon
[mysqld]

innodb_file_per_table=1
lower_case_table_names=0
```

Puis on active et redemarre le service mariadb :

```
#systemctl enable mariadb
```

```
#systemctl restart mariadb
```

Ensuite on créer les différentes données (database, utilisateur) et on attribue les privileges :

```
#CREATE DATABASE librenms CHARACTER SET utf8mb4 COLLATE  
utf8mb4_unicode_ci;
```

```
#CREATE USER 'librenms'@'localhost' IDENTIFIED BY 'password';
```

```
#GRANT ALL PRIVILEGES ON librenms.* TO 'librenms'@'localhost';
```

```
#flush privileges;
```

On configure PHP-FPM :

```
#sudo cp /etc/php/8.2/fpm/pool.d/www.conf /etc/php/8.2/fpm/pool.d/librenms.conf
```

On se rend sur le fichier "librenms.conf" :

```
#sudo nano /etc/php/8.2/fpm/pool.d/librenms.conf
```

On remplace l'abreviation [www] par [librenms] :

```
GNU nano 7.2 /etc/php/8.2/fpm/pool.d/librenms.conf *  
; Start a new pool named 'www'.  
; the variable $pool can be used in any directive and will be replaced by the  
; pool name ('www' here)  
[librenms]  
; Per pool prefix
```

On renomme l'utilisateur et le groupe en "librenms" :


```

GNU nano 7.2 /etc/php/8.2/fpm/pool.d/librenms.conf *
; process running user is root. It is set after the child process is created.
; The user and group can be specified either by their name or by their numeric
; IDs.
; Note: If the user is root, the executable needs to be started with
; --allow-to-run-as-root option to work.
; Default Values: The user is set to master process running user by default.
; If the group is not set, the user's group is used.
user = librenms
group = librenms

```

Pour le listen :

```

GNU nano 7.2 /etc/php/8.2/fpm/pool.d/librenms.conf *
; 'ip.address:port' - to listen on a TCP socket to a specific IPv4 address o
; a specific port;
; '[ip:6:address]:port' - to listen on a TCP socket to a specific IPv6 address o
; a specific port;
; 'port' - to listen on a TCP socket to all addresses
; (IPv6 and IPv4-mapped) on a specific port;
; '/path/to/unix/socket' - to listen on a unix socket.
; Note: This value is mandatory.
listen = /run/php-fpm-librenms.sock

```

On se rend ensuite sur le fichier nginx et on le configure de la maniere suivante :

```

GNU nano 7.2 /etc/nginx/sites-enabled/librenms.vhost *
server {
    listen 80;
    server_name librenms.example.com;
    root /opt/librenms/html;
    index index.php;

    charset utf-8;
    gzip on;
    gzip_types text/css application/javascript text/javascript application/x-javascript image/svg+xml text/plain text/xsd text/xsl text/xml image/x-icon;
    location / {
        try_files $uri $uri/ /index.php?$query_string;
    }
    location ~ [^/]\.php(/|$) {
        fastcgi_pass unix:/run/php-fpm-librenms.sock;
        fastcgi_split_path_info ^(.+\.php)(/.+)$;
        include fastcgi.conf;
    }
    location ~ /\.(!well-known).* {
        deny all;
    }
}

```

Puis on met en place nginx :

```
#sudo rm /etc/nginx/sites-enabled/default
```

```
#sudo systemctl reload nginx
```

```
#sudo systemctl restart php8.2-fpm
```

Ensuite on active les commande complementaires de librenms :

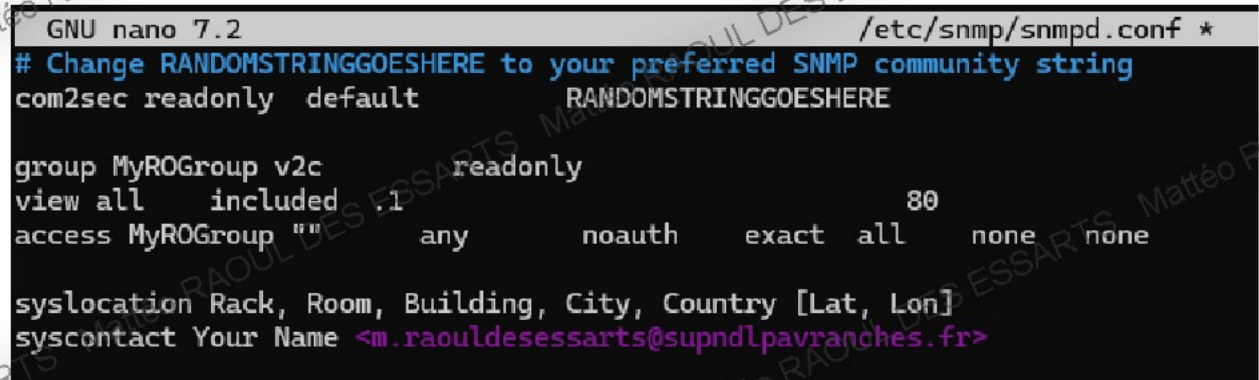
```
#sudo ln -s /opt/librenms/lnms /usr/bin/lnms
```

```
#sudo cp /opt/librenms/misc/lnms-completion.bash/etc/bash_completion.d/
```

On configure SNMP :

```
#sudo cp /opt/librenms/snmpd.conf.example /etc/snmp/snmpd.conf
```

```
#sudo nano /etc/snmp/snmpd.conf
```



```
GNU nano 7.2 /etc/snmp/snmpd.conf *
# Change RANDOMSTRINGGOESHERE to your preferred SNMP community string
com2sec readonly default RANDOMSTRINGGOESHERE

group MyROGroup v2c readonly
view all included .1 80
access MyROGroup "" any noauth exact all none none

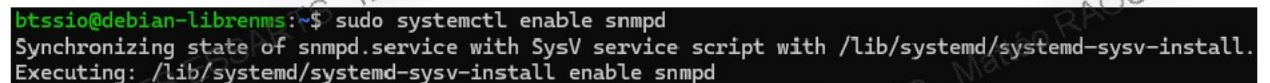
syslocation Rack, Room, Building, City, Country [Lat, Lon]
syscontact Your Name <m.raouldeessarts@supndlpavranches.fr>
```

On installe les fichiers necessaires

```
#sudo curl -o /usr/bin/distro https://raw.githubusercontent.com/librenms/librenms-agent/master/snmp/distro
```

```
#sudo chmod +x /usr/bin/distro
```

```
#sudo systemctl enable snmpd
```



```
btssio@debian-librenms:~$ sudo systemctl enable snmpd
Synchronizing state of snmpd.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable snmpd
```

```
#sudo systemctl restart snmpd
```

Pour cron :

```
#sudo cp /opt/librenms/dist/librenms.cron /etc/cron.d/librenms
```

Pour activer l'horloge :

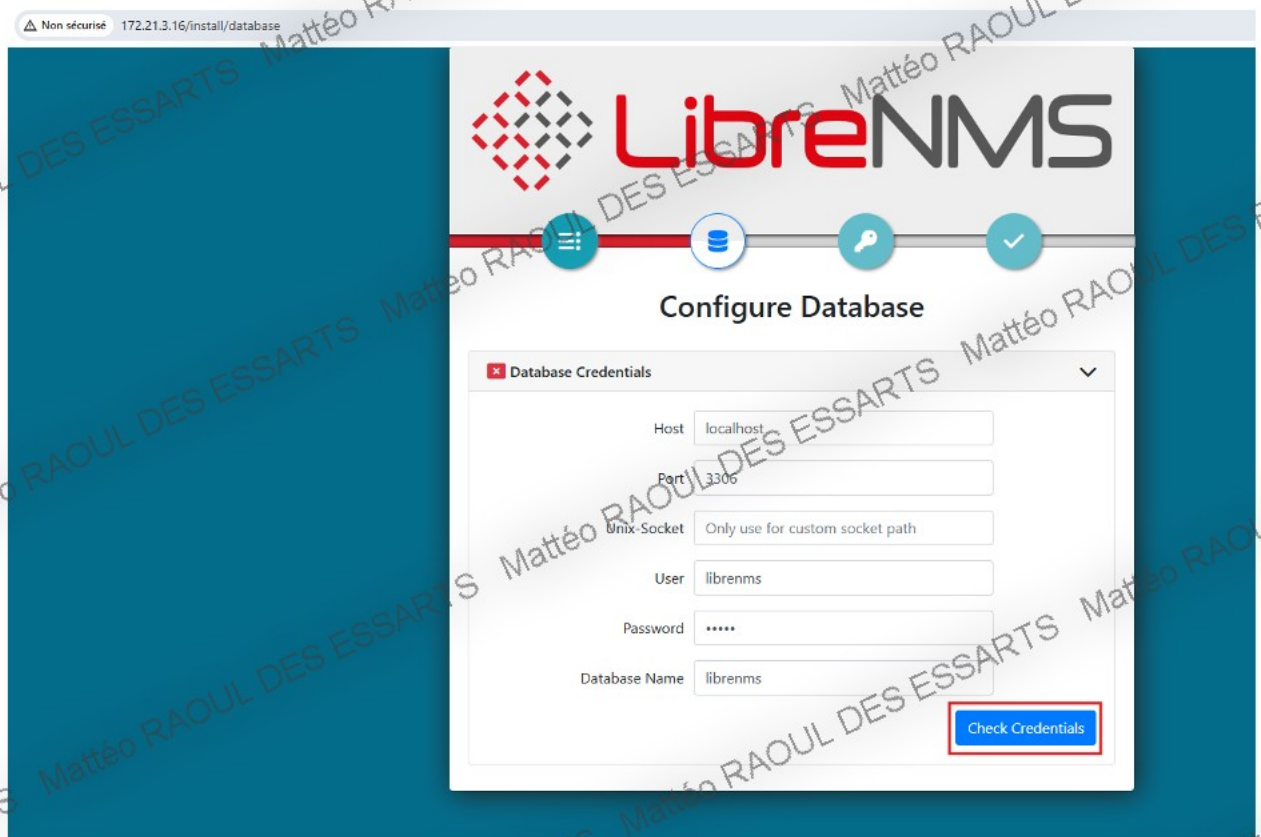

```
#sudo cp /opt/librenms/dist/librenms-scheduler.service /opt/librenms/dist/librenms-scheduler.timer /etc/systemd/system/
```

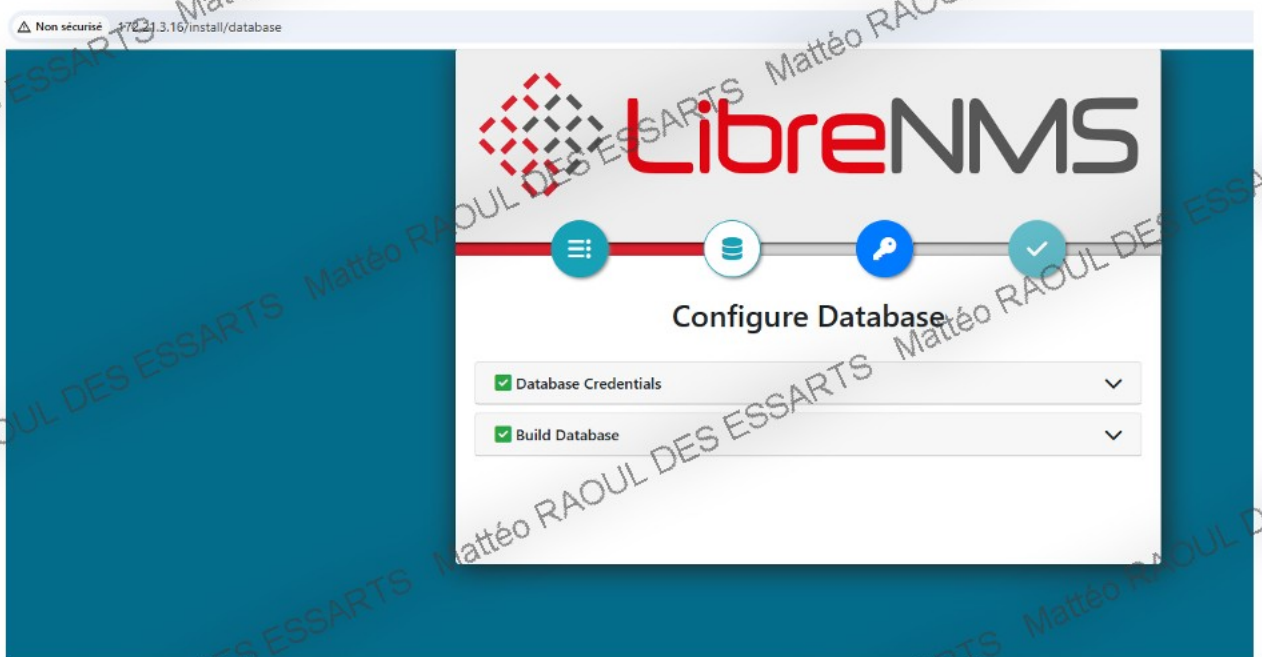
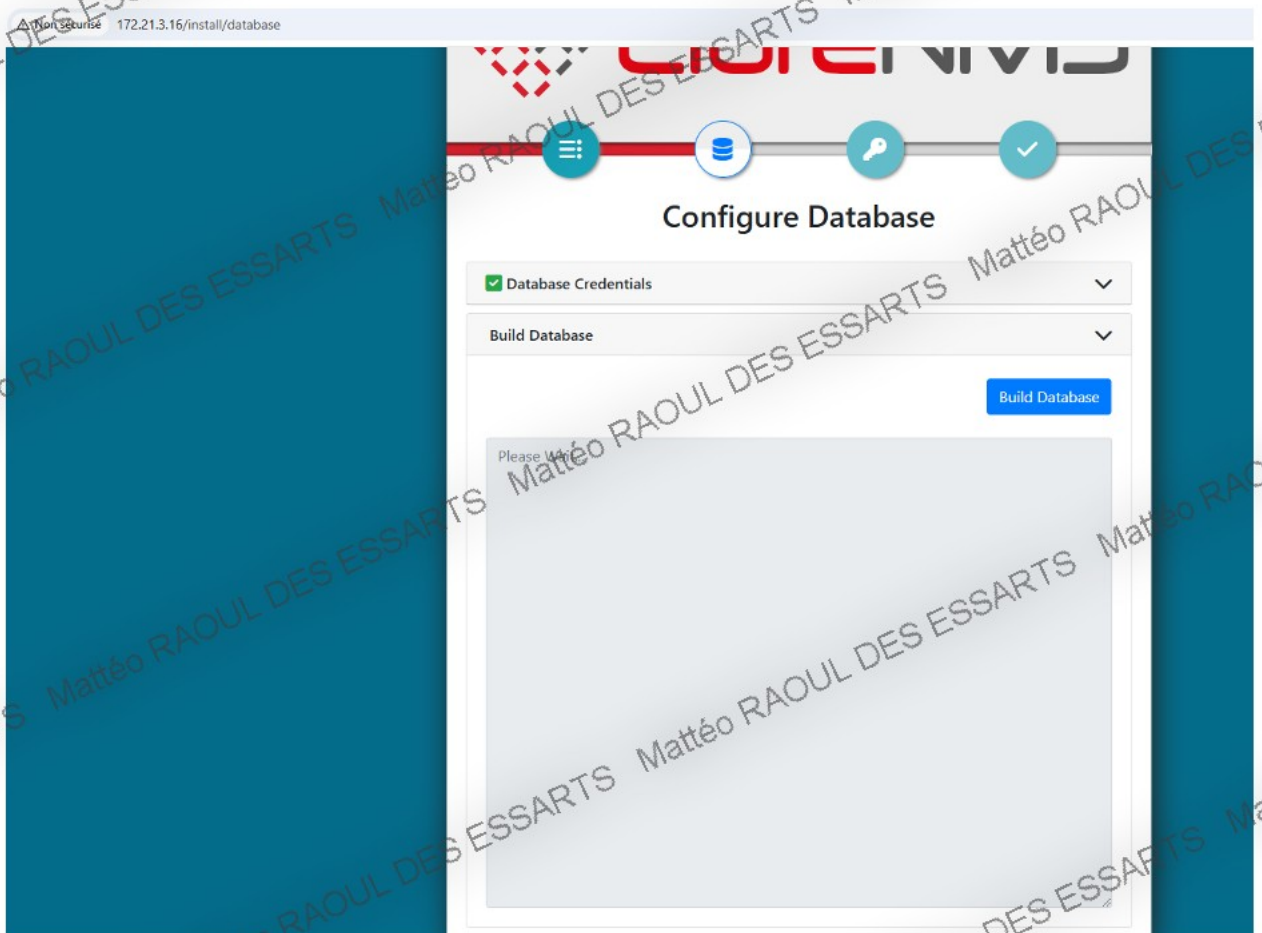
```
#sudo systemctl enable librenms-scheduler.timer
```

```
#sudo systemctl start librenms-scheduler.timer
```

Ensuite en copie la configuration des logs :

```
#sudo cp /opt/librenms/misc/librenms.logrotate /etc/logrotate.d/librenms
```







LibreNMS



Create Admin User

Username librenms

Password

Email matteorde@ik.me

Add User



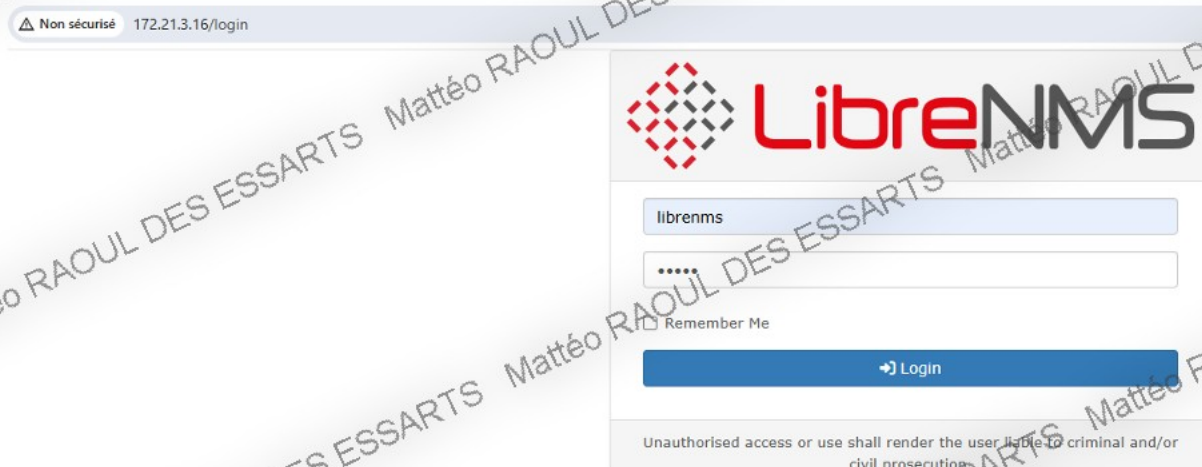
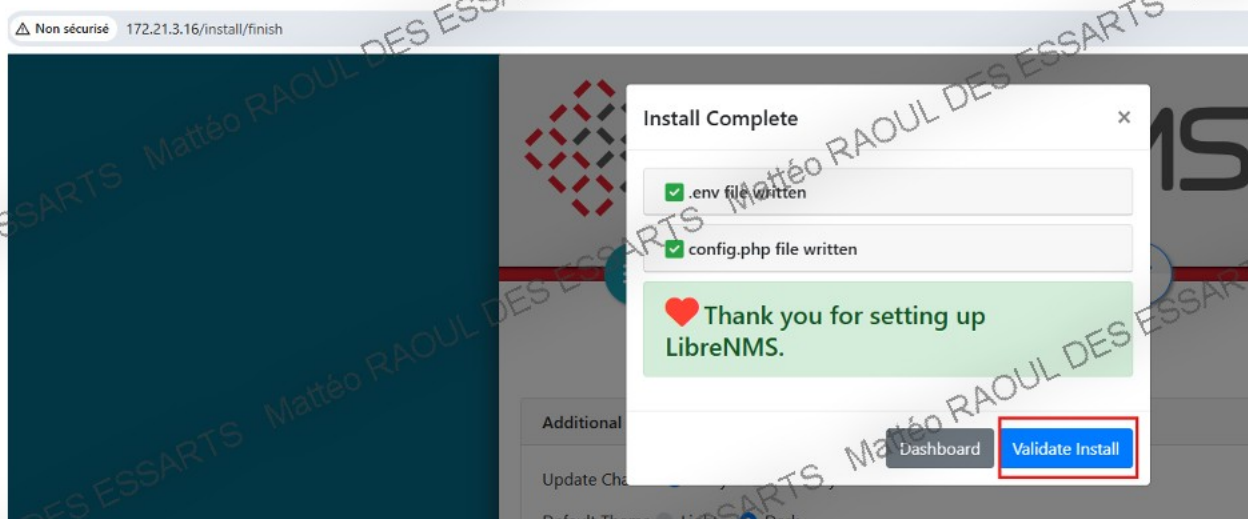
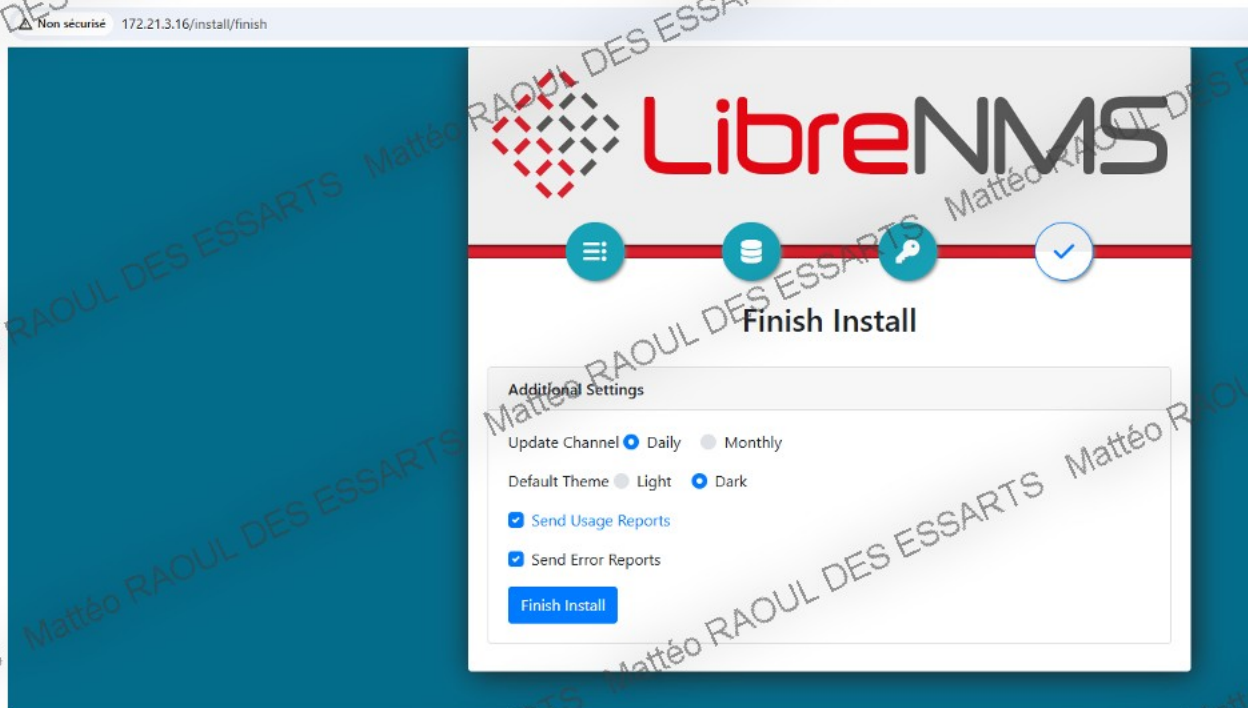
LibreNMS



Create Admin User



librenms



Pour activer le SNMP (sur 3750 et autres) :


```
3750(config)#snmp-server community public ro
```

```
3750(config)#snmp-server host 172.21.3.16 traps SNMPv1/v2c
```

```
Switch#copy ru st  
Destination filename [startup-config]?  
Building configuration...  
[OK]  
Switch#write memory  
Building configuration...  
[OK]
```

```
#show run
```

```
ip classless  
ip http server  
ip http secure-server  
!  
logging 172.21.2.105  
snmp-server community public RO  
snmp-server enable traps license  
snmp-server host 172.21.3.16 SNMPv1/v2c  
!  
control-plane
```