

LibreNMS Installation:

- Install the Ubuntu server
- Updated the system and installed necessary dependencies:

```
sudo apt-get update
sudo apt-get upgrade
sudo apt-get install snmpd fping git unzip curl apache2 mariadb-
server mariadb-client php php-cli php-fpm php-mysql php-pear php-
common php-curl php-json php-gd php-mbstring php-xml php-zip php-
bcmath php-snmp
```

- Downloaded LibreNMS from the official repository:

```
cd /opt
sudo git clone https://github.com/librenms/librenms.git
sudo chown -R librenms:librenms /opt/librenms
sudo chmod -R 775 /opt/librenms
```

- Configured Apache for LibreNMS:

```
sudo cp /opt/librenms/librenms-apache.conf /etc/apache2/sites-
available/librenms.conf
sudo a2ensite librenms.conf
sudo a2dissite 000-default.conf
sudo systemctl reload apache2
```

- Created the database for LibreNMS:

```
sudo mysql -u root -p
CREATE DATABASE librenms CHARACTER SET utf8 COLLATE utf8_unicode_ci;
CREATE USER 'librenms'@'localhost' IDENTIFIED BY 'password';
GRANT ALL PRIVILEGES ON librenms.* TO 'librenms'@'localhost';
FLUSH PRIVILEGES;
EXIT;
```

- Configured LibreNMS:

```
sudo cp /opt/librenms/config.php.default /opt/librenms/config.php
sudo nano /opt/librenms/config.php
```

Update the database settings and other configurations in config.php.

- **Initial Setup:**

- Accessed the LibreNMS web interface to complete the initial setup and configuration:

```
http://<server_ip>/install.php
```

- Followed the web installer prompts to finalize the setup.

Device Integration:

- Configured SNMP on network devices to enable monitoring.

- Added devices to LibreNMS using the web interface.
- Verified that devices were properly being monitored and that data was being collected.