

PowerDNS Server

Install PowerDNS + Recursor + Admin + MariaDB + DNSdist

Розгортаємо високопродуктивний безкоштовний авторитарний DNS-сервер для тримання власних зон доменів



All we do from sudo user!!!

Install MariaDB



Починаючи з версії MariaDB 10.11 її кодова база суттєво відійшла і втратила сумісність з іншими форками MySQL.

Критичні відмінності в роботі з GTID унеможливають реплікацію з іншими форками, а одже і міграцію на них без простою БД.

На мою думку, краще використовувати [Percona MySQL Server 8](#)



Delete!

Цей розділ більше мені не потрібен, тому з часом, його буде видалено

<https://blog.programs74.ru/how-to-install-mariadb-10-5-on-debian-10/>

```
apt-get install -y mariadb-server libmariadbclient-dev libmariadbclient-dev-compat  
systemctl status mariadb
```

```
sudo mysql_secure_installation
```

```
-- It does not ask me for any password  
sudo mysql
```

```
-- Then in MariaDB/MySQL console:  
UPDATE mysql.user SET plugin = 'mysql_native_password' WHERE USER='root';  
FLUSH PRIVILEGES;  
exit;
```



<https://galeracluster.com/library/documentation/galera-manager-monitoring-clusters.html>
<https://galeracluster.com/library/documentation/galera-manager.html>
<https://bogachev.biz/2017/03/28/neskolko-sposobov-vosstanovleniya-mariadb-galera-cluster/>
<https://galeracluster.com/library/documentation/arbitrator.html>

fix [Warning] [MY-013360] [Server] Plugin sha256_password reported

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Install apache2 php phpMyAdmin

Встановлення Apache

```
apt-get install -yq apache2
```

Включаємо потрібні нам модулі для апача:

```
sudo a2enmod ssl  
sudo a2enmod rewrite  
sudo a2enmod suexec
```

```
sudo a2enmod include
```

Застосовуємо зміни

```
systemctl restart apache2  
systemctl status apache2
```

(1) Для включення <https://www.8host.com/blog/sozдание-sertifikata-lets-encrypt-dlya-apache-v-debian-10/>

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<https://computingforgeeks.com/install-phpmyadmin-with-apache-on-debian-10-buster/>

Install phpMyAdmin php

```
sudo apt -y install wget php php-cgi php-pear php-mbstring php8.2-gettext libapache2-mod-php php-common php-  
phpseclib php-mysql
```

```
cd /tmp  
DATA="$(wget https://www.phpmyadmin.net/home_page/latest.txt -q -O-)"  
URL="$(echo $DATA | cut -d ' ' -f 3)"  
VERSION="$(echo $DATA | cut -d ' ' -f 1)"  
wget https://files.phpmyadmin.net/phpMyAdmin/${VERSION}/phpMyAdmin-${VERSION}-all-languages.tar.gz  
tar xvf phpMyAdmin-${VERSION}-all-languages.tar.gz
```

Delete compressed file and move the resulting folder to /usr/share/phpmyadmin folder.

```
rm *.tar.gz  
sudo mv phpMyAdmin-*/ /var/www/phpmyadmin
```

Create directory for phpMyAdmin temp files.

```
sudo mkdir -p /var/lib/phpmyadmin/tmp
sudo chown -R www-data:www-data /var/lib/phpmyadmin
sudo mkdir /etc/phpmyadmin/
sudo cp /var/www/phpmyadmin/config.sample.inc.php /var/www/phpmyadmin/config.inc.php
nano /var/www/phpmyadmin/config.inc.php
```

#Edit the file and set secret passphrase:

```
$cfg['blowfish_secret'] = 'H20xcGXfLSd8JwrwVlh6KW6s2rER63i';
```

//Configure Temp directory by add

```
$cfg['TempDir'] = '/var/lib/phpmyadmin/tmp';
```

```
nano /etc/apache2/conf-available/phpmyadmin.conf
```

phpMyAdmin default Apache configuration

```
Alias /pma /var/www/phpmyadmin
```

```
<Directory /var/www/phpmyadmin>
```

```
Options SymLinksIfOwnerMatch
```

```
DirectoryIndex index.php
```

```
<IfModule mod_php5.c>
```

```
<IfModule mod_mime.c>
```

```
AddType application/x-httpd-php .php
```

```
</IfModule>
```

```
<FilesMatch ".+\.php$">
```

```
SetHandler application/x-httpd-php
```

```
</FilesMatch>
```

```
php_value include_path .
```

```
php_admin_value upload_tmp_dir /var/lib/phpmyadmin/tmp
```

```
php_admin_value open_basedir /var/www/phpmyadmin/:/etc/phpmyadmin/:/var/lib/phpmyadmin/:/var/www/php/php-  
gettext/:/var/www/php/php-p-
```

```
gettext/:/var/www/javascript/:/var/www/php/tcpdf/:/var/www/doc/phpmyadmin/:/var/www/php/phpseclib/
    php_admin_value mbstring.func_overload 0
</IfModule>
<IfModule mod_php.c>
    <IfModule mod_mime.c>
        AddType application/x-httpd-php .php
    </IfModule>
    <FilesMatch ".+\.php$">
        SetHandler application/x-httpd-php
    </FilesMatch>

    php_value include_path .
    php_admin_value upload_tmp_dir /var/lib/phpmyadmin/tmp
    php_admin_value open_basedir
/var/www/phpmyadmin/:/etc/phpmyadmin/:/var/lib/phpmyadmin/:/usr/share/php/php-gettext/:/usr/share/php/php-php-
gettext/:/usr/share/javascript/:/usr/share/php/tcpdf/:/var/www/doc/phpmyadmin/:/usr/share/php/phpseclib/
    php_admin_value mbstring.func_overload 0
</IfModule>

</Directory>

# Authorize for setup
<Directory /var/www/phpmyadmin/setup>
    <IfModule mod_authz_core.c>
        <IfModule mod_authn_file.c>
            AuthType Basic
            AuthName "phpMyAdmin Setup"
            AuthUserFile /etc/phpmyadmin/htpasswd.setup
        </IfModule>
        Require valid-user
    </IfModule>
</Directory>

# Disallow web access to directories that don't need it
```

```
<Directory /var/www/phpmyadmin/templates>
    Require all denied
</Directory>
<Directory /var/www/phpmyadmin/libraries>
    Require all denied
</Directory>
<Directory /var/www/phpmyadmin/setup/lib>
    Require all denied
</Directory>
```

You can restrict access from specific IP by adding line like below

```
Require ip 127.0.0.1 192.168.18.0/24
```

```
a2enconf phpmyadmin.conf
systemctl reload apache2
systemctl restart apache2
```

Visit phpMyAdmin Web interface Open the URL [http://\[ServerIP/Hostname\]/pma](http://[ServerIP/Hostname]/pma) to login into phpMyAdmin dashboard with your Database credentials – username & password.

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<https://repo.powerdns.com/>

Install PowerDNS server

```
apt-get update
apt-get install -y pdns-server pdns-backend-mysql
nano /etc/powerdns/pdns.d/pdns.local.gmysql.conf
```

```
# MySQL Configuration
```

```
# Launch gmysql backend
launch+=gmysql
# gmysql parameters
gmysql-host=localhost
gmysql-port=3306
gmysql-database=powerdns
gmysql-user=powerdns
gmysql-password=strongpassword
gmysql-dnssec=yes
# gmysql-socket=
```

```
nano /etc/powerdns/pdns.conf
```

```
setgid=pdns
setuid=pdns
local-address=127.0.0.1
local-port=53
include-dir=/etc/powerdns/pdns.d
launch=
```

prepeare mysql db

```
mysql -u root -p
```

```
CREATE DATABASE powerdns;
GRANT ALL ON powerdns.* TO 'powerdns'@'localhost' IDENTIFIED BY 'strongpassword';
FLUSH PRIVILEGES;
quit;
```

Якщо це нове встановлення, то створимо структуру бази даних

```
mysql powerdns < /usr/share/pdns-backend-mysql/schema/schema.mysql.sql
```

Інакше, відновимо структуру з вашої резервної копії

```
mysql powerdns < /usr/share/pdns-backend-mysql/schema/schema.mysql.sql
```

Після відновлення з резервної копії, перевіряємо наявність змін структури

```
ls /usr/share/pdns-backend-mysql/schema/ | grep -E -i '^[0-9]'  
"3.4.0_to_4.1.0_schema.mysql.sql  
4.1.0_to_4.2.0_schema.mysql.sql  
4.2.0_to_4.3.0_schema.mysql.sql"
```

Якщо вони є, застосовуємо всі почерзі, починаючи з версії з резервної копії, наприклад з 4.1.0

```
mysql powerdns < /usr/share/pdns-backend-mysql/schema/4.1.0_to_4.2.0_schema.mysql.sql  
mysql powerdns < /usr/share/pdns-backend-mysql/schema/4.2.0_to_4.3.0_schema.mysql.sql
```

```
systemctl start pdns  
netstat -tap | grep pdns
```

```
dig mydomain.local @127.0.0.1 -p 5300  
dig @127.0.0.1
```

Панель адміністрування PowerDNS-Admin

<https://computingforgeeks.com/install-powerdns-and-powerdns-admin-on-debian/>

<https://github.com/PowerDNS-Admin/PowerDNS-Admin/wiki/Running-PowerDNS-Admin-on-Ubuntu-or-Debian>

```
apt-get install -y python3-dev libmysqlclient-dev libsasl2-dev libldap2-dev libssl-dev libxml2-dev libxslt1-dev \  
libxmlsec1-dev libffi-dev pkg-config apt-transport-https virtualenv build-essential  
apt-get install nodejs
```

```
curl -sS https://dl.yarnpkg.com/debian/pubkey.gpg | apt-key add -  
echo "deb https://dl.yarnpkg.com/debian/ stable main" | tee /etc/apt/sources.list.d/yarn.list  
apt-get update -y  
apt-get install -y yarn
```

```
git clone https://github.com/ngoduykhanh/PowerDNS-Admin.git /opt/web/powerdns-admin  
cd /opt/web/powerdns-admin  
cp config_template.py config.py  
mysql -u root -p
```

```
CREATE DATABASE pda;  
GRANT ALL PRIVILEGES ON pda.* TO 'pda'@'127.0.0.1' IDENTIFIED BY 'changeme';  
FLUSH PRIVILEGES;  
quit
```

```
nano /opt/web/powerdns-admin/config.py
```

```
BIND_ADDRESS = '0.0.0.0'
```

```
virtualenv -p python3 flask  
source ./flask/bin/activate  
pip install -r requirements.txt  
pip install python-dotenv  
export FLASK_APP=app/__init__.py  
flask db migrate -m "Init DB"  
flask db upgrade
```

```
yarn install --pure-lockfile  
flask assets build
```

```
/etc/init.d/pdns restart  
/etc/init.d/pdns status
```

```
nano /etc/systemd/system/powerdns-admin.service
```

```
[Unit]
Description=PowerDNS-Admin
After=network.target

[Service]
User=root
Group=root
WorkingDirectory=/opt/web/powerdns-admin
#ExecStart=/opt/web/powerdns-admin/flask/bin/gunicorn --workers 2 --bind unix:/opt/web/powerdns-admin/powerdns-admin.sock app:app
ExecStart=/opt/web/powerdns-admin/flask/bin/gunicorn --workers 2 --bind 0.0.0.0:9191 app:app

[Install]
WantedBy=multi-user.target
```

```
systemctl daemon-reload
systemctl start powerdns-admin
systemctl enable powerdns-admin
```

```
nano /etc/powerdns/pdns.d/api.conf
```

```
api=yes
api-key=changeme
```

```
/etc/init.d/pdns restart
```

Нотатки

History

WSGI

```
apt install apache2-dev
sudo apt-get install uwsgi uwsgi-plugin-python
pip3 install mod-wsgi
mod_wsgi-express install-module > /etc/apache2/mods-available/wsgi.load
a2enmod wsgi
sudo a2enmod wsgi
systemctl restart apache2
nano /etc/apache2/sites-available/powerdns-admin.conf
nano /opt/web/powerdns-admin/powerdnsadmin.wsgi
uwsgi /opt/web/powerdns-admin/powerdnsadmin.wsgi
wsgi /opt/web/powerdns-admin/powerdnsadmin.wsgi
uwsgi powerdnsadmin.wsgi
sudo a2dissite 000-default.conf
sudo a2ensite powerdns-admin.conf
sudo apache2ctl configtest
systemctl restart apache2
systemctl status apache2

nano /etc/systemd/system/powerdns-admin.service
systemctl daemon-reload
systemctl start powerdns-admin
systemctl enable powerdns-admin
sudo ufw allow 9191/tcp
sudo ufw reload
systemctl status powerdns-admin
nano /etc/systemd/system/powerdns-admin.service
/usr/bin/gunicorn-3.6 --workers 4 --log-level info --pid /run/powerdns-admin/pid --bind unix:/run/powerdns-
admin/socket "powerdnsadmin:create_app(config='config.py')"
/opt/web/powerdns-admin/flask/bin/gunicorn --workers 2 --bind 0.0.0.0:9191
"powerdnsadmin:create_app(config='config.py')"
[Unit]
Description=PowerDNS-Admin
Requires=powerdns-admin.socket
```

```
Wants=network.target
After=network.target mysqld.service slapd.service mariadb.service
[Service]
PIDFile=/run/powerdns-admin/pid
User=www-data
Group=www-data
WorkingDirectory=/opt/web/powerdns-admin
#ExecStart=/opt/web/powerdns-admin/flask/bin/gunicorn --workers 4 --log-level info --pid /run/powerdns-admin/pid
--bind unix:/run/powerdns-admin/socket "powerdnsadmin:create_app(config='config.py')"
ExecStart=/opt/web/powerdns-admin/flask/bin/gunicorn --workers 4 --log-level info --pid /run/powerdns-admin/pid -
-bind 0.0.0.0:9191 "powerdnsadmin:create_app(config='config.py')"
ExecReload=/bin/kill -s HUP $MAINPID
ExecStop=/bin/kill -s TERM $MAINPID
PrivateTmp=true
Restart=on-failure
RestartSec=10
StartLimitInterval=0
[Install]

systemctl daemon-reload
systemctl enable powerdns-admin
systemctl restart powerdns-admin
nano /etc/systemd/system/powerdns-admin.socket
systemctl restart powerdns-admin
chmod /run/powerdns-admin 0755 www-data www-data -
chown www-data:www-data /run/powerdns-admin
nano /etc/tmpfiles.d/powerdns-admin.conf
sudo systemctl daemon-reload; sudo systemctl start powerdns-admin.socket; sudo systemctl enable powerdns-
admin.socket

nano /etc/systemd/system/powerdns-admin.socket
nano /etc/systemd/system/powerdns-admin.service
systemctl disable powerdns-admin
systemctl enable powerdns-admin
```

```
systemctl restart powerdns-admin
systemctl status powerdns-admin
systemctl status powerdns-admin
nano /etc/systemd/system/powerdns-admin.service
systemctl disable powerdns-admin
systemctl enable powerdns-admin
systemctl restart powerdns-admin
systemctl status powerdns-admin
nano /etc/systemd/system/powerdns-admin.service
systemctl restart powerdns-admin
systemctl status powerdns-admin
/opt/web/powerdns-admin/flask/bin/gunicorn --workers 4 --log-level info --pid /run/powerdns-admin/pid --bind
0.0.0.0:9191 "powerdnsadmin:create_app(config='config.py')"
nano /etc/systemd/system/powerdns-admin.service
systemctl disable powerdns-admin
sudo systemctl daemon-reload;
systemctl restart powerdns-admin
systemctl enable powerdns-admin
systemctl restart powerdns-admin
systemctl stop powerdns-admin
nano /etc/systemd/system/powerdns-admin.service
systemctl disable powerdns-admin
sudo systemctl daemon-reload;
systemctl enable powerdns-admin
systemctl restart powerdns-admin
systemctl disable powerdns-admin
nano /etc/systemd/system/powerdns-admin.service
nano /etc/systemd/system/powerdns-admin.service
systemctl daemon-reload
systemctl start powerdns-admin
systemctl enable powerdns-admin
systemctl start powerdns-admin
systemctl status powerdns-admin
systemctl stop powerdns-admin
```

```
systemctl stop powerdns-admin.socket
systemctl stop powerdns-admin.socket
systemctl stop powerdns-admin
/opt/web/powerdns-admin/flask/bin/gunicorn --pid /run/powerdns-admin/pid --bind 0.0.0.0:9191
powerdnsadmin:create_app()
/opt/web/powerdns-admin/flask/bin/gunicorn --bind 0.0.0.0:9191 powerdnsadmin:create_app()
/opt/web/powerdns-admin/flask/bin/gunicorn --bind 0.0.0.0:9191 powerdnsadmin:create_app()
/opt/web/powerdns-admin/flask/bin/gunicorn --bind 0.0.0.0:9191 "powerdnsadmin:create_app()"
/opt/web/powerdns-admin/flask/bin/gunicorn --pid /run/powerdns-admin/pid --bind 0.0.0.0:9191
"powerdnsadmin:create_app()"
nano /etc/systemd/system/powerdns-admin.service
systemctl daemon-reload
systemctl stop powerdns-admin.socket
systemctl stop powerdns-admin
systemctl enable powerdns-admin
systemctl start powerdns-admin
systemctl status powerdns-admin
nano /etc/systemd/system/powerdns-admin.service
systemctl daemon-reload
systemctl enable powerdns-admin
systemctl restart powerdns-admin
systemctl status powerdns-admin
nano /etc/apache2/sites-available/powerdns-admin.conf
sudo apache2ctl configtest
mod_proxy
sudo a2enmod proxy
systemctl restart apache2
sudo apache2ctl configtest
nano /etc/apache2/sites-available/powerdns-admin.conf
sudo apache2ctl configtest
systemctl restart apache2
nano /etc/apache2/sites-available/powerdns-admin.conf
sudo apache2ctl configtest
systemctl restart apache2
```

history

Установка DNSCrypt-сервера

<https://dnslookup.online/ptr.html>

new version <https://kifarunix.com/easily-install-and-setup-powerdns-admin-on-ubuntu-20-04/>

<https://github.com/ngoduykhanh/PowerDNS-Admin/wiki>

<https://repo.powerdns.com/>

<https://fossies.org/linux/pdns-dnsdist/pdns/dnsdistdist/docs/advanced/snmp.rst>

```
sh -c 'echo "deb [arch=amd64] http://repo.powerdns.com/debian buster-rec-master main" >
/etc/apt/sources.list.d/pdns.list'
```

```
nano /etc/apt/preferences.d/pdns
```

```
Package: pdns-*
Pin: origin repo.powerdns.com
Pin-Priority: 600
```

```
curl https://repo.powerdns.com/CBC8B383-pub.asc | sudo apt-key add - &&
sudo apt-get update &&
sudo apt-get install pdns-recursor
```

```
pdnsutil create-zone example.com ns1.example.com
```

```
/etc/init.d/pdns-recursor restart
rec_control wipe-cache
/etc/init.d/pdns-recursor status
```

From:
<https://ndp.pp.ua/> - **my NoDeny Wiki**

Permanent link:
https://ndp.pp.ua/doku.php/debian/pdns_server?rev=1665304852

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