

# NGINX / PHP / MARIADB INSTALL

This will just be a quick write up of the steps that can be used to setup a Nginx web server using the nginx repo, along with PHP from the Remi repo, and mariadb from the MariaDB repo. By using the Nginx and MariaDB repositories, I can have a bit of comfort knowing that the applications are clean, maintained, and patched. There are other methods out there to get PHP loaded in, but I find that the Remi repo does a pretty good job at maintaining the packages, and they also have a great collection of already built modules that just slip right in and work. So let me get started.

**ROCKY LINUX:** <https://rockylinux.org>

**NGINX:** <https://nginx.org>

**REMI PHP:** <https://rpms.remirepo.net>

**MARIADB:** <https://mariadb.com>

**EPEL:** <https://docs.stg.fedoraproject.org/en-US/epel/>

```
# ----- FIND A NICE PLACE TO WORK -----

cd /opt

# ----- SWAP CENTOS LOGOS, ADD EPEL AND PHP REPOS -----

dnf -y swap centos-logos-httpd rocky-logos-httpd
dnf -y install https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm
dnf -y config-manager --set-enabled powertools
dnf -y install https://rpms.remirepo.net/enterprise/remi-release-8.rpm
dnf config-manager --enable remi

# ----- RESET DNF MODULES AND ENABLE REMI PHP-----

dnf -y module reset php
dnf -y module reset nginx
dnf -y module reset httpd
dnf -y module disable php*
dnf -y module disable composer*
dnf -y module enable php:remi-8.2
```

```
dnf -y module enable composer

# ----- ADD MARIADB REPO -----

wget https://downloads.mariadb.com/MariaDB/mariadb_repo_setup
chmod +x mariadb_repo_setup
./mariadb_repo_setup --mariadb-server-version="mariadb-11.4"
rm -f mariadb_repo_setup

# ----- ADD NGINX REPO FILE -----

cat > /etc/yum.repos.d/nginx.repo << "EOF"
[nginx-stable]
name=nginx stable repo
baseurl=http://nginx.org/packages/centos/$releasever/$basearch/
gpgcheck=1
enabled=0
gpgkey=https://nginx.org/keys/nginx_signing.key
module_hotfixes=true

[nginx-mainline]
name=nginx mainline repo
baseurl=http://nginx.org/packages/mainline/centos/$releasever/$basearch/
gpgcheck=1
enabled=1
gpgkey=https://nginx.org/keys/nginx_signing.key
module_hotfixes=true

EOF

# ----- ENABLE MAINLINE REPO -----

dnf config-manager --enable nginx-mainline

# ----- UPDATE THE SYSTEM AND INSTALL DEVELOPMENT TOOLS -----

dnf -y update --refresh
dnf -y group install "Development Tools"
```

```
# ----- INSTALL NGINX, MARIADB, AND A COUPLE PHP MODULES -----

dnf -y install \
nginx \
php-mysqlnd php-pecl-mysql \
MariaDB-server MariaDB-client mariadb-tools

# ----- ENABLE AND START MARIADB AND RUN THE SECURE SCRIPT -----

systemctl enable mariadb
systemctl start mariadb

source mariadb-secure-installation

### I ANSWER THE QUESTIONS INITIALLY LIKE SO...
Enter current password for root (enter for none): 'enter'
Switch to unix_socket authentication [Y/n] 'n'
Change the root password? [Y/n] 'n'
Remove anonymous users? [Y/n] 'y'
Disallow root login remotely? [Y/n] 'n'
Remove test database and access to it? [Y/n] 'y'
Reload privilege tables now? [Y/n] 'y'

### RUN THE FOLLOWING TO ENABLE REMOTE ROOT ACCESS
### WARNING: CHANGE THE PASSWRD FROM 'PASSWORD'
#
# mariadb
# CREATE USER 'root'@'%' IDENTIFIED BY 'PASSWORD';
# GRANT ALL PRIVILEGES ON *.* TO 'root'@'%' WITH GRANT OPTION;
# FLUSH PRIVILEGES;
# exit
#

# ----- FIX UP SOME PERMISSIONS AND ENABLE SERVICES-----

chown -R nginx.nginx /usr/share/nginx/html
chown -R nginx:nginx /var/lib/php/session/
chown -R root:nginx /var/lib/php/{opcache,wsdlcache}
chown -R nginx.nginx /var/log/{nginx,php-fpm}
systemctl enable nginx
```

```
systemctl enable php-fpm

# ----- QUICK CONFIG FOR PHP-FPM -----

mv /etc/php-fpm.d/www.conf /etc/php-fpm.d/www.bak
cat > /etc/php-fpm.d/www.conf << "EOF"
[www]

user = nginx
group = nginx

listen.owner = nginx
listen.group = nginx
listen.mode = 0660

listen = /var/run/php-fpm/www.sock
listen.allowed_clients = 127.0.0.1

pm = dynamic
pm.max_children = 25
pm.start_servers = 6
pm.min_spare_servers = 6
pm.max_spare_servers = 18
pm.process_idle_timeout = 10s
pm.max_requests = 250
pm.status_path = /status

slowlog = /var/log/php-fpm/www-slow.log

php_admin_value[error_log] = /var/log/php-fpm/www-error.log
php_admin_flag[log_errors] = on
php_value[session.save_handler] = files
php_value[session.save_path] = /var/lib/php/session
php_value[soap.wsdl_cache_dir] = /var/lib/php/wsdlcache

; Default Value: clean env
clear_env = no
;env[HOSTNAME] = $HOSTNAME
;env[PATH] = /usr/local/bin:/usr/bin:/bin
;env[TMP] = /tmp
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;env[TMPDIR] = /tmp
;env[TEMP] = /tmp

EOF

# ----- QUICK DEFAULT SITE CONFIG WITH PHP ENABLED -----
mv /etc/nginx/conf.d/default.conf /etc/nginx/conf.d/default.bak
cp /etc/nginx/nginx.conf /etc/nginx/nginx.bak
cat > /etc/nginx/nginx.conf << "EOF"
# CUSTOM CONF

user nginx;
worker_processes auto;
error_log /var/log/nginx/error.log;
pid /run/nginx.pid;

events {
    worker_connections 1024;
}

http {
    log_format main '$remote_addr - $remote_user [$time_local] "$request" '
        '$status $body_bytes_sent "$http_referer" '
        '"$http_user_agent" "$http_x_forwarded_for"';

    access_log /var/log/nginx/access.log;

    sendfile on;
    tcp_nopush on;
    tcp_nodelay on;
    keepalive_timeout 65;
    types_hash_max_size 2048;

    include /etc/nginx/mime.types;
    default_type application/octet-stream;

    include /etc/nginx/conf.d/*.conf;

    server {
        listen 80 default_server;
```

```

server_name _;

root        /usr/share/nginx/html;

include     /etc/nginx/default.d/*.conf;

location    / {
}

error_page 404 /404.html;
            location = /40x.html {
}

error_page 500 502 503 504 /50x.html;
            location = /50x.html {
}
}
EOF

# ----- DROP IN A PHPINFO FILE -----
cat > /usr/share/nginx/html/phpinfo.php << "EOF"
<?php
    phpinfo();
?>
EOF

# ----- START NGINX AND PHP-FPM -----

systemctl start nginx
systemctl start php-fpm

```

You should be able to hit the default nginx welcome page and phpinfo.php to validate php is working.

http://<ip / hostname>/  
http://<ip / hostname>/phpinfo.php

Hope this was helpful! :)

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