Pandora FMS Installation Guide on Rocky Linux

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We are working on the translation of the Pandora FMS documentation. Sorry for any inconvenience.

Prerequisites

- Rocky Linux 8 with root user rights
- Internet connection.

Repository Settings

```
dnf install -y \
 epel-release \
 tar \
 dnf-utils \
 http://rpms.remirepo.net/enterprise/remi-release-8.rpm
```

```
dnf module reset php

dnf module install -y php:remi-8.0

dnf config-manager --set-enabled powertools
```

Percona Database Installation

```
dnf install -y https://repo.percona.com/yum/percona-release-latest.noarch.rpm

dnf module disable -y mysql

rm -rf /etc/my.cnf

percona-release setup ps80 -y

dnf install -y percona-server-server percona-xtrabackup-80
```

Installing Web Console dependencies

```
dnf install -y \
```

```
php \
postfix \
php-mcrypt \
php-cli \
php-gd \
php-curl \
php-session \
php-mysqlnd \
php-ldap \
php-zip \
php-zlib \
php-fileinfo \
php-gettext \
php-snmp \
php-mbstring \
php-pecl-zip \
php-xmlrpc \
php-fpm \
php-xml \
php-yaml \
libxslt \
wget \
httpd \
mod_php \
atk \
avahi-libs \
cairo \
cups-libs \
fribidi \
gd \
gdk-pixbuf2 \
ghostscript \
graphite2 \
graphviz \
gtk2 \
harfbuzz \
hicolor-icon-theme \
hwdata \
jasper-libs \
lcms2 \
libICE \
libSM \
libXaw \
libXcomposite \
libXcursor \
libXdamage \
libXext \
libXfixes \
libXft \
libXi \
libXinerama \
libXmu \
```

```
    libXrandr \
    libXrender \
    libXt \
    libXxf86vm \
    libcroco \
    libdrm \
    libfontenc \
    libglvnd \
    libglvnd-egl \
    libglvnd-glx \
    libpciaccess \
    librsvg2 \
    libthai \
    libtool-ltdl \
    libwayland-client \
    libwayland-server \
    libxshmfence \
    mesa-libEGL \
    mesa-libGL \
    mesa-libgbm \
    mesa-libglapi \
    pango \
    pixman \
    xorg-x11-fonts-75dpi \
    xorg-x11-fonts-misc \
    poppler-data \
    mod_ssl \
    libzstd \
    openldap-clients \
http://firefly.pandorafms.com/centos8/chromium-110.0.5481.177-1.el7.x86_64.rpm \
    http://firefly.pandorafms.com/centos8/chromium-
common-110.0.5481.177-1.el7.x86_64.rpm \
    http://firefly.pandorafms.com/centos8/perl-Net-Telnet-3.04-1.el8.noarch.rpm
\
    http://firefly.pandorafms.com/centos7/wmic-1.4-1.el7.x86_64.rpm
```

Installation of PFMS server dependencies

```
dnf install -y \
    perl \
    vim \
    fping \
    perl-IO-Compress \
    nmap \
    sudo \
    perl-Time-HiRes \
    nfdump \
    net-snmp-utils \
    'perl(NetAddr::IP)' \
    'perl(Sys::Syslog)' \
```

```
    'perl(DBI)' \
    'perl(XML::Simple)' \
    'perl(Geo::IP)' \
    'perl(IO::Socket::INET6)' \
    'perl(XML::Twig)' \
    expect \
    openssh-clients \
    java \
    bind-utils \
    whois \
    libnsl \
    http://firefly.pandorafms.com/centos7/xprobe2-0.3-12.2.x86_64.rpm \
    http://firefly.pandorafms.com/centos7/wmic-1.4-1.el7.x86_64.rpm \
    https://firefly.pandorafms.com/centos8/pandorawmic-1.0.0-1.x86_64.rpm
```

Perl and VMware Dependencies

```
dnf install -y \
    perl-Net-HTTP \
    perl-libwww-perl \
    openssl-devel \
    perl-Crypt-CBC \
    perl-Bytes-Random-Secure \
    perl-Crypt-Random-Seed \
    perl-Math-Random-ISAAC \
    perl-JSON \
    perl-Crypt-SSLeay \
http://firefly.pandorafms.com/centos8/perl-Crypt-OpenSSL-AES-0.02-1.el8.x86_64.r
pm \
http://firefly.pandorafms.com/centos8/VMware-vSphere-Perl-SDK-6.5.0-4566394.x86_
64.rpm
```

Oracle Client Installation

```
dnf install -y \
https://download.oracle.com/otn_software/linux/instantclient/19800/oracle-instan
tclient19.8-basic-19.8.0.0.0-1.x86_64.rpm \
https://download.oracle.com/otn_software/linux/instantclient/19800/oracle-instan
tclient19.8-sqlplus-19.8.0.0.0-1.x86_64.rpm
```

Installing dependencies for Discovery PFMS

```
curl https://packages.microsoft.com/config/rhel/8/prod.repo -o
/etc/yum.repos.d/mssql-release.repo

dnf remove unixODBC-utf16 unixODBC-utf16-devel
```

```
env ACCEPT_EULA=Y dnf install -y msodbcsql17
```

Operating system settings and database creation

```
setenforce 0

sed -i -e "s/^SELINUX=.*/SELINUX=disabled/g" /etc/selinux/config

systemctl disable firewalld --now
```

```
cat> /etc/my.cnf <<EO_CONFIG_TMP
[mysqld]
datadir=/var/lib/mysql
socket=/var/lib/mysql/mysql.sock
symbolic-links=0
log-error=/var/log/mysqld.log
pid-file=/var/run/mysqld/mysqld.pid
EO_CONFIG_TMP
```

```
systemctl start mysqld

grep "temporary password" /var/log/mysqld.log | rev | cut -d' ' -f1 | rev
mysql -uroot -p"contraseña";

SET PASSWORD FOR 'root'@'localhost' = 'Pandor4!';

UNINSTALL COMPONENT 'file://component_validate_password';

SET PASSWORD FOR 'root'@'localhost' = 'pandora';

CREATE DATABASE pandora;

CREATE USER 'pandora'@'%' IDENTIFIED BY 'pandora';

ALTER USER 'pandora'@'%' IDENTIFIED WITH mysql_native_password BY 'pandora';
GRANT ALL PRIVILEGES ON pandora.* TO 'pandora'@'%';

exit
```

```
POOL_SIZE=$(grep -i total /proc/meminfo | head -1 | awk '{printf "%.2f \n",
$(NF-1)*0.4/1024}' | sed "s/\\..*$/M/g")
```

```
cat> /etc/my.cnf <<EO_CONFIG_F
[mysqld]
datadir=/var/lib/mysql
socket=/var/lib/mysql/mysql.sock
user=mysql
character-set-server=utf8mb4
skip-character-set-client-handshake
# Disabling symbolic-links is recommended to prevent assorted security risks
symbolic-links=0
# Mysql optimizations for Pandora FMS
# Please check the documentation in http://pandorafms.com for better results

max_allowed_packet = 64M
innodb_buffer_pool_size = $POOL_SIZE
innodb_lock_wait_timeout = 90
innodb_file_per_table
innodb_flush_log_at_trx_commit = 0
innodb_flush_method = O_DIRECT
innodb_log_file_size = 64M
innodb_log_buffer_size = 16M
innodb_io_capacity = 300
thread_cache_size = 8
thread_stack    = 256K
max_connections = 100

key_buffer_size=4M
read_buffer_size=128K
read_rnd_buffer_size=128K
sort_buffer_size=128K
join_buffer_size=4M

skip-log-bin

sql_mode=""

[mysqld_safe]
log-error=/var/log/mysqld.log
pid-file=/var/run/mysqld/mysqld.pid

EO_CONFIG_F
```

```
systemctl restart mysqld

systemctl enable mysqld --now
```

Installation of the Console and Pandora FMS server

```
wget
https://firefly.pandorafms.com/pandorafms/latest/RHEL_CentOS/pandorafms_agent_li
nux-7.0NG.noarch.rpm

wget
https://firefly.pandorafms.com/pandorafms/latest/RHEL_CentOS/pandorafms_console-
7.0NG.noarch.rpm

wget
https://firefly.pandorafms.com/pandorafms/latest/RHEL_CentOS/pandorafms_server-7
.0NG.noarch.rpm
```

```
dnf install -y ./pandorafms*.rpm
```

```
wget https://firefly.pandorafms.com/pandorafms/utils/gotty_linux_amd64.tar.gz

tar xvzf gotty_linux_amd64.tar.gz

mv gotty /usr/bin/
```

```
systemctl enable mysqld --now

systemctl enable httpd --now
```

```
mysql -upandora -ppandora

use pandora;

source /var/www/html/pandora_console/pandoradb.sql;

source /var/www/html/pandora_console/pandoradb_data.sql;

exit;
```

```
cat> /var/www/html/pandora_console/include/config.php <<EO_CONFIG_F
<?php
\$config["dbtype"] = "mysql";
\$config["dbname"]="pandora";
\$config["dbuser"]="pandora";
```

```
\$config["dbpass"]="pandora";
\$config["dbhost"]="127.0.0.1";
\$config["homedir"]="/var/www/html/pandora_console";
\$config["homeurl"]="/pandora_console";
error_reporting(0);
\$ownDir = dirname(__FILE__) . '/';
include (\$ownDir . "config_process.php");
EO_CONFIG_F
```

```
cat> /etc/httpd/conf.d/pandora.conf <<EO_CONFIG_F
ServerTokens Prod
<Directory "/var/www/html">
    Options FollowSymLinks
    AllowOverride All
    Require all granted
</Directory>
EO_CONFIG_F
```

```
sed -i -e "s/php_flag engine off//g"
/var/www/html/pandora_console/images/.htaccess

sed -i -e "s/php_flag engine off//g"
/var/www/html/pandora_console/attachment/.htaccess
```

```
chmod 600 /var/www/html/pandora_console/include/config.php

chown apache. /var/www/html/pandora_console/include/config.php

mv /var/www/html/pandora_console/install.php
/var/www/html/pandora_console/install.done
```

```
sed -i -e "s/^max_input_time.*/max_input_time = -1/g" /etc/php.ini

sed -i -e "s/^max_execution_time.*/max_execution_time = 0/g" /etc/php.ini

sed -i -e "s/^upload_max_filesize.*/upload_max_filesize = 800M/g" /etc/php.ini

sed -i -e "s/^memory_limit.*/memory_limit = 800M/g" /etc/php.ini

sed -i -e "s/.*post_max_size =.*/post_max_size = 800M/" /etc/php.ini
```

```
echo 'TimeOut 900'> /etc/httpd/conf.d/timeout.conf
```

```
cat> /var/www/html/index.html <<EOF_INDEX
<meta HTTP-EQUIV="REFRESH" content="0; url=/pandora_console/">
EOF_INDEX
```

```
systemctl restart httpd

systemctl restart php-fpm
```

```
cat> /etc/snmp/snmptrapd.conf <<EOF
authCommunity log public
disableAuthorization yes
EOF
```

```
sed -i -e "s/^dbhost.*/dbhost 127.0.0.1/g" /etc/pandora/pandora_server.conf

sed -i -e "s/^dbname.*/dbname pandora/g" /etc/pandora/pandora_server.conf

sed -i -e "s/^dbuser.*/dbuser pandora/g" /etc/pandora/pandora_server.conf

sed -i -e "s|^dbpass.*|dbpass pandora|g" /etc/pandora/pandora_server.conf

sed -i -e "s/^dbport.*/dbport 3306/g" /etc/pandora/pandora_server.conf

sed -i -e "s/^#.mssql_driver.*/mssql_driver ODBC Driver 17 for SQL Server/g"
/etc/pandora/pandora_server.conf
```

```
sed -i -e "s|^fping.*|fping /usr/sbin/fping|g" /etc/pandora/pandora_server.conf
```

```
sed -i "s/^remote_config.*$/remote_config 1/g" /etc/pandora/pandora_server.conf
```

```
cat> /etc/pandora/pandora_server.env <<'EOF_ENV'
#!/bin/bash
VERSION=19.8
export PATH=$PATH:$HOME/bin:/usr/lib/oracle/$VERSION/client64/bin
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/lib/oracle/$VERSION/client64/lib
export ORACLE_HOME=/usr/lib/oracle/$VERSION/client64
EOF_ENV
```

```
cat>> /etc/sysctl.conf <<EO_KO
# Pandora FMS Optimization

# default=5
net.ipv4.tcp_syn_retries = 3

# default=5
net.ipv4.tcp_synack_retries = 3

# default=1024
net.ipv4.tcp_max_syn_backlog = 65536

# default=124928
net.core.wmem_max = 8388608

# default=131071
net.core.rmem_max = 8388608

# default = 128
net.core.somaxconn = 1024

# default = 20480
net.core.optmem_max = 81920

EO_KO
```

```
sysctl --system

chown pandora:apache /var/log/pandora

chmod g+s /var/log/pandora
```

```
cat> /etc/logrotate.d/pandora_server <<EO_LR
/var/log/pandora/pandora_server.log
/var/log/pandora/web_socket.log
/var/log/pandora/pandora_server.error {
        su root apache
        weekly
        missingok
        size 300000
        rotate 3
        maxage 90
        compress
        notifempty
        copytruncate
        create 660 pandora apache
}
```

```
/var/log/pandora/pandora_snmptrap.log {
        su root apache
        weekly
        missingok
        size 500000
        rotate 1
        maxage 30
        notifempty
        copytruncate
        create 660 pandora apache
}

EO_LR

cat> /etc/logrotate.d/pandora_agent <<EO_LRA
/var/log/pandora/pandora_agent.log {
        su root apache
        weekly
        missingok
        size 300000
        rotate 3
        maxage 90
        compress
        notifempty
        copytruncate
}

EO_LRA
```

```
chmod 0644 /etc/logrotate.d/pandora_server

chmod 0644 /etc/logrotate.d/pandora_agent
```

```
systemctl enable pandora_server --now

/etc/init.d/pandora_server start

systemctl enable tentacle_serverd

service tentacle_serverd start
```

```
echo \"* * * * * root wget -q -O - --no-check-certificate --load-cookies
/tmp/cron-session-cookies --save-cookies /tmp/cron-session-cookies --keep
session-cookies http://127.0.0.1/pandora_console/enterprise/cron.php>>
/var/www/html/pandora_console/log/cron.log\">> /etc/crontab
```

```
systemctl enable pandora_agent_daemon

systemctl start pandora_agent_daemon
```

Login to PFMS

To access the Web Console, type the IP address (or URL) of the device followed by
/pandora_console/ .

The default login credentials are:

- user: admin
- password: pandora

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