

6 RHEL/CentOS 7 frontend installation

Overview

Starting from version 5.0 Zabbix frontend requires PHP version 7.2 or higher. Unfortunately, RHEL/CentOS 7 only provides PHP 5.4. This page describes the proposed method of installing Zabbix frontend 5.0 on RHEL/CentOS 7.

Using PHP and Nginx from Red Hat Software Collections

If you do a clean installation of Zabbix 5.0 using official packages from repo.zabbix.com, you may notice that frontend packages are missing when searching for Zabbix with yum.

```
zabbix-agent.x86_64 : Old Zabbix Agent
zabbix-get.x86_64 : Zabbix Get
zabbix-java-gateway.x86_64 : Zabbix java gateway
zabbix-js.x86_64 : Zabbix JS
zabbix-proxy-mysql.x86_64 : Zabbix proxy for MySQL or MariaDB database
zabbix-proxy-pgsql.x86_64 : Zabbix proxy for PostgreSQL database
zabbix-proxy-sqlite3.x86_64 : Zabbix proxy for SQLite3 database
zabbix-release.noarch : Zabbix repository configuration
zabbix-sender.x86_64 : Zabbix Sender
zabbix-server-mysql.x86_64 : Zabbix server for MySQL or MariaDB database
zabbix-server-pgsql.x86_64 : Zabbix server for PostgreSQL database
```

This is due to the fact that frontend packages were moved to a deprecated repository. However, they can still be installed, if PHP 7.2 dependencies are provided.

For your convenience, any direct dependency on PHP has been removed from the main `zabbix-web` package. This gives more flexibility in choosing the way to resolve PHP 7.2 dependency.

It is recommended to use PHP packages from [Red Hat Software Collections](https://www.redhat.com/en/software-collections). To enable them:

On RHEL

```
# yum-config-manager --enable rhel-server-rhsc1-7-rpms
```

On CentOS

```
# sudo yum install centos-release-scl
```

On Oracle Linux

```
# yum install scl-utils
# yum install oraclelinux-release-el7
# /usr/bin/ol_yum_configure.sh
# yum-config-manager --enable software_collections
# yum-config-manager --enable ol7_latest ol7_optional_latest
```

At this point

```
# yum list rh-php7\*
```

Should return list of new rh-php7* packages.

Next, edit `/etc/yum.repos.d/zabbix.repo` file (if there is no such file, install [zabbix-release](#) first). Enable `zabbix-deprecated` repository.

```
[zabbix-deprecated]
...
enabled=1
...
```

Replace `enabled=0` with `enabled=1`.

At this stage searching for Zabbix with `yum` shall return `zabbix-web` package together with four new packages. These are:

```
zabbix-nginx-conf-scl.noarch : Zabbix frontend configuration for Nginx (scl
version)
zabbix-web-deps-scl.noarch : Convenience package for installing PHP
dependencies of zabbix-web package from redhat software collections
zabbix-web-mysql-scl.noarch : Zabbix web frontend for MySQL (scl version)
zabbix-web-pgsql-scl.noarch : Zabbix web frontend for PostgreSQL (scl
version)
```

Install either `zabbix-web-mysql-scl` for MySQL or `zabbix-web-pgsql-scl` package for PostgreSQL. If using Nginx, install also `zabbix-nginx-conf-scl`.

In Zabbix 4.4 support for Nginx was added, but the web server was not available in the official RHEL/CentOS 7 repositories. Thus, it had to be provided by the user via third-party repositories, in particular `epel`. With Zabbix 5.0, if you choose to use Red Hat Software Collections, there is no need to use any third-party repositories, since Nginx is available in SCL. Simply install `zabbix-nginx-conf-scl` package.

Technical details of new packages

zabbix-web-deps-scl

This package pulls common PHP dependencies of Zabbix frontend from Red Hat Software Collections.

```
# repoquery --requires zabbix-web-deps-scl
rh-php72
rh-php72-php-bcmath
rh-php72-php-fpm
rh-php72-php-gd
rh-php72-php-ldap
```

```
rh-php72-php-mbstring
rh-php72-php-xml
```

It also contains php-fpm pool for Zabbix, since in this configuration frontend works through fastcgi with both Apache and Nginx.

Configuration file is located at `/etc/opt/rh/rh-php72/php-fpm.d/zabbix.conf`.

zabbix-web-mysql-scl

Meta package that pulls zabbix-web package and MySQL module for PHP, together with common PHP dependencies.

```
# repoquery --requires zabbix-web-mysql-scl
rh-php72-php-mysqldb
zabbix-web
zabbix-web-deps-scl
```

zabbix-web-pgsql-scl

Meta package that pulls zabbix-web package and PostgreSQL module for PHP, together with common PHP dependencies.

```
# repoquery --requires zabbix-web-pgsql-scl
rh-php72-php-pgsql
zabbix-web
zabbix-web-deps-scl
```

zabbix-nginx-conf-scl

This package pulls Nginx from Red Hat Software Collections.

```
# repoquery --requires zabbix-nginx-conf-scl
rh-nginx116-nginx
zabbix-web
```

It also contains Zabbix configuration file for Nginx server at `/etc/opt/rh/rh-nginx116/nginx/conf.d/zabbix.conf`.

Using third party PHP repositories

If for some reasons Red Hat Software Collections can not be used, these alternative methods are available:

- Using any third-party repository that provides PHP.
- Building PHP from source.

PHP modules needed for Zabbix frontend are `php-gd`, `php-bcmath`, `php-mbstring`, `php-xml`, `php-ldap` and `php-json`.

Upgrading to Zabbix 5.0 from older versions

Special care must be taken during upgrade to Zabbix 5.0 from previous versions.

Packages from Red Hat Software Collections are designed to avoid conflicts with files from the main repositories.

Every such package is installed into a separate environment dedicated to its group.

For example, packages from `rh-php72-php*` group have their configuration installed under `/etc/opt/rh/rh-php72/` directory, logs are under `/var/opt/rh/rh-php72/log/` directory, etc. Services provided by these packages have unusual names such as `rh-php72-php-fpm` or `rh-nginx116-nginx`.

Official Zabbix 5.0 frontend packages use `php-fpm` with both Apache and Nginx.

Upgrade process with Apache

This section provides Apache-specific instructions for upgrading Zabbix frontend and server from version 4.0 or 4.4 to 5.0. For Nginx-specific instructions see [Upgrade process with Nginx](#).

Instructions below are for installing Zabbix with MySQL support. Substitute 'mysql' in the commands with 'pgsql' to use PostgreSQL

It is assumed that both frontend and server run on the same box. If you have different setuo, make adjustments accordingly.

Remove old frontend

Existing Zabbix frontend must be removed before starting an upgrade. Old configuration file will be moved to `/etc/httpd/conf.d/zabbix.conf.rpmsave` by rpm.

```
yum remove zabbix-web-*
```

Install SCL repository

On RHEL run

```
yum-config-manager --enable rhel-server-rhsc1-7-rpms
```

On CentOS run

```
yum install centos-release-scl
```

On Oracle Linux run

```
yum install scl-utils
yum install oraclelinux-release-el7
/usr/bin/ol_yum_configure.sh
yum-config-manager --enable software_collections
yum-config-manager --enable ol7_latest ol7_optional_latest
```

Install Zabbix 5.0 release package and enable Zabbix-deprecated repository

Install zabbix-release-5.0 package.

```
rpm -Uvh
https://repo.zabbix.com/zabbix/4.5/rhel/7/x86_64/zabbix-release-4.5-2.el7.no
arch.rpm
yum clean all
```

Edit /etc/yum.repos.d/zabbix.repo file. Replace enabled=0 with enabled=1.

```
[zabbix-deprecated]
...
enabled=1
...
```

Install new frontend packages

```
yum install zabbix-web-mysql-scl
```

Official Zabbix 5.0 frontend packages use php-fpm. Update timezone in /etc/opt/rh/rh-php72/php-fpm.d/zabbix.conf file.

Update remaining packages and restart Zabbix server

```
yum update zabbix-*
```

Restarting Zabbix server will upgrade the database. Make sure the database is backed up.

```
systemctl restart zabbix-server
```

Update remaining services

Start and enable php-fpm service.

```
systemctl start rh-php72-php-fpm
systemctl enable rh-php72-php-fpm
```

Restart Apache.

```
systemctl restart httpd
```

Upgrade process with Nginx

Upgrading to Zabbix 5.0 with Nginx requires few more steps to be performed.

Make sure to stop and disable old Nginx and php-fpm before upgrading. To do this, run:

```
systemctl stop nginx php-fpm
systemctl disable nginx php-fpm
```

When editing `zabbix.conf` file for php-fpm, add user `apache` to `listen.acl_users` directive

```
listen.acl_users = apache,nginx
```

Install `zabbix-nginx-conf-scl` package.

```
yum install zabbix-nginx-conf-scl
```

Edit `/opt/rh/rh-nginx116/nginx/conf.d/zabbix.conf` file.
Configure `listen` and `server_name` directives.

```
#      listen      80;
#      server_name  example.com;
```

Start and enable Nginx and php-fpm

```
systemctl start rh-nginx116-nginx rh-php72-php-fpm
systemctl enable rh-nginx116-nginx rh-php72-php-fpm
```

From: <https://www.zabbix.com/documentation/5.2/> - **Zabbix Documentation 5.2**

Permanent link: https://www.zabbix.com/documentation/5.2/manual/installation/install_from_packages/frontend_on_rhel7?rev=1581951841

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