

## 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](https://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 dedicated frontend sub-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 run:

On RHEL

```
# yum-config-manager --enable rhel-server-rhsc-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-frontend` repository.

```
[zabbix-frontend]
...
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-mysqld
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.

[See general upgrade instructions.](#)

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 setup, 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-frontend repository

Install zabbix-release-5.0 package.

```
rpm -Uvh
https://repo.zabbix.com/zabbix/5.0/rhel/8/x86_64/zabbix-release-5.0-1.el8.no
arch.rpm
yum clean all
```

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

```
[zabbix-frontend]
...
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 `nginx` 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/current/> - **Zabbix Documentation 5.0**

Permanent link: [https://www.zabbix.com/documentation/current/manual/installation/install\\_from\\_packages/frontend\\_on\\_rhel7](https://www.zabbix.com/documentation/current/manual/installation/install_from_packages/frontend_on_rhel7)

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