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A GUIDE TO MIGRATING TO ZABBIX 6.0 LTS

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CHECKLIST BEFORE UPGRADE



SUPPORTED DATABASES

- ✓ MySQL/Percona 8.0.X
- ✓ MariaDB 10.5.00-10.6.X
- ✓ PostgreSQL 13.X
- ✓ Oracle 19c - 21c

- ✓ TimescaleDB 2.0.1-2.3
- ✓ SQLite 3.3.5-3.34.X

SUPPORTED OS

- ✓ RHEL/CentOS/Oracle Linux 8
- ✓ Ubuntu 18.04+
- ✓ Debian 10+
- ✓ SLES 12+

OTHER INSTALLATION OPTIONS

- ✓ Docker – all dependencies included
- ✓ Cloud images
- ✓ Zabbix appliance

ENVIRONMENT REVIEW

- ④ Apply any required OS or DB upgrades before upgrading Zabbix.
- ④ Check for any customizations in your installation – Are there any DB schema changes?
Custom modules or applied patches?
- ④ Are packages available for all central Zabbix components? Are all proxies installed on supported OS's?
- ④ Check for any known issues in 6.0 – it might contain something relevant to your setup.

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IMPORTANT CHANGES THAT
AFFECT UPGRADE



API CHANGES

- ✓ https://www.zabbix.com/documentation/6.0/manual/api/changes_5.4_-_6.0
- ✓ https://www.zabbix.com/documentation/current/manual/api/changes_5.2_-_5.4
- ✓ https://www.zabbix.com/documentation/5.2/manual/api/changes_5.0_-_5.2

- ✓ Trigger and calculated/aggregated item syntax change: ZBXNEXT-6451
- ✓ ZBX-17955 user.create, user.update: renamed parameter user_medias to medias. user_medias parameter is now deprecated.
- ✓ ZBXNEXT-6148 user.create, user.update, user.get: dropped support of type property.
- ✓ ZBXNEXT-2976 dropped support of whole Application API. - Use item tags
- ✓ ZBXNEXT-5868 valuemap.create, valuemap.get: added required field hostid.

OTHER IMPORTANT CHANGES

- ⊗ Existing audit log records will be deleted
- ⊗ Unused value maps might be lost
- ⊗ User passwords – spaces no longer trimmed

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UPGRADE STEPS



UPGRADE STEPS

- ✓ Backup DB, customizations and configurations
- ✓ Update application (server, frontend)
- ✓ Update proxies
- ✓ Check if everything works correctly

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BACKUP



BACKUP

- ✓ Backup the database – methods depend on DB type
- ✓ Backup configuration files of Zabbix
- ✓ Optionally copy any custom alertscripts, externalscripts etc.

Example of backup without history tables on mysql:

```
mysqldump -uroot -p --single-transaction --ignore-table=zabbix.history --ignore-table=zabbix.history_uint --ignore-table=zabbix.history_text --ignore-table=zabbix.history_log --ignore-table=zabbix.history_str --ignore-table=zabbix.trends --ignore-table=zabbix.trends_uint zabbix | gzip > zabbix_backup.sql.gz
```

BACKUP CONFIGURATION

- ✓ Backup configuration files from:
- ✓ `/etc/zabbix/*`
- ✓ Possibly externalscripts from `/usr/lib/zabbix/externalscripts/`
- ✓ Possibly alertscripts from `/usr/lib/zabbix/alertscripts/`
- ✓ `/etc/httpd/conf.d/zabbix.conf`
- ✓ `/etc/php-fpm.d/zabbix.conf`

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UPGRADE PROCESS WITH DOCKER



UPGRADING ZABBIX IN DOCKER

- ❑ `docker stop my-zabbix-server`
- ❑ `docker stop my-zabbix-frontend`
- ❑ `docker run --name my-zabbix-server-6.0 -e DB_SERVER_HOST="some-mysql-server" -e MYSQL_USER="some-user" -e MYSQL_PASSWORD="some-password" -d zabbix/zabbix-server-mysql:6.0-latest`
- ❑ `docker run --name my-zabbix-web-apache-6.0 -e DB_SERVER_HOST="some-mysql-server" -e MYSQL_USER="some-user" -e MYSQL_PASSWORD="some-password" -e ZBX_SERVER_HOST="my-zabbix-server-6.0" -d zabbix/zabbix-web-apache-mysql:6.0-latest`

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UPGRADE PROCESS WITH PACKAGES



UPGRADE PROCESS

```
rpm -Uvh https://repo.zabbix.com/zabbix/6.0/rhel/8/x86\_64/zabbix-release-6.0-1.el8.noarch.rpm
```

```
dnf clean all
```

```
dnf install zabbix-server-mysql zabbix-web zabbix-web-mysql zabbix-web-deps  
zabbix-apache-conf zabbix-selinux-policy
```

WATCH THE LOG

```
17602:20210921:131334.301 completed 88% of database upgrade
17602:20210921:131334.422 completed 89% of database upgrade
17602:20210921:131334.611 completed 90% of database upgrade
17602:20210921:131334.734 completed 91% of database upgrade
17602:20210921:131334.988 completed 92% of database upgrade
17602:20210921:131335.175 completed 93% of database upgrade
17602:20210921:131335.287 completed 94% of database upgrade
17602:20210921:131335.306 completed 95% of database upgrade
17602:20210921:131335.333 completed 96% of database upgrade
17602:20210921:131335.355 completed 97% of database upgrade
17602:20210921:131335.379 completed 98% of database upgrade
17602:20210921:131335.606 completed 99% of database upgrade
17602:20210921:131335.711 completed 100% of database upgrade
17602:20210921:131335.711 database upgrade fully completed
17602:20210921:131335.804 server #0 started [main process]
17700:20210921:131335.808 server #2 started [configuration syncer #1]
17699:20210921:131335.810 server #1 started [service manager #1]
17714:20210921:131336.162 server #16 started [http poller #1]
17709:20210921:131336.163 server #11 started [lld manager #1]
17716:20210921:131336.165 server #18 started [history syncer #1]
17702:20210921:131336.166 server #4 started [alerter #1]
17703:20210921:131336.167 server #5 started [alerter #2]
17704:20210921:131336.168 server #6 started [alerter #3]
```

UPGRADE PROXIES

```
rpm -Uvh https://repo.zabbix.com/zabbix/6.0/rhel/8/x86\_64/zabbix-release-6.0-1.el8.noarch.rpm
```

```
dnf clean all
```

```
dnf update zabbix-proxy-mysql(pgsql, sqlite3)
```

For mysql, postgresql and oracle proxy updates the DB schema automatically

UPGRADE PROXIES

- ⊗ For sqlite3 no automatic db schema upgrade

```
rpm -Uvh https://repo.zabbix.com/zabbix/6.0/rhel/8/x86\_64/zabbix-release-6.0-1.el8.noarch.rpm
```

```
dnf clean all
```

```
dnf update zabbix-proxy-sqlite3
```

```
rm -rf /tmp/proxy.sqlite
```

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POST-UPGRADE



HISTORY TABLE PRIMARY KEY

- ✓ All history tables now have primary keys
- ✓ Decreases storage size
- ✓ Increases performance
- ✓ Not recommended if upgrading with existing history

CHECK **NEW** PROCESSES

- ✔ StartHistoryPollers = 5
- ✔ process for handling calculated, aggregated and internal checks requiring a database connection

- ✔ If coming from 4.0
- ✔ StartLLDProcessors = 2
- ✔ worker process of low-level discovery tasks

UPDATED TEMPLATES

- ⊗ Templates not upgraded within package upgrades
- ⊗ Download from:
- ⊗ <https://git.zabbix.com/projects/ZBX/repos/zabbix/browse/templates?at=refs%2Fheads%2Frelease%2F6.0>

UPGRADE AGENTS

- ✓ Agents are backwards compatible

```
#yum install zabbix-agent
```

```
#yum install zabbix-agent2
```

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POST-UPGRADE – NEW PACKAGES

NEW PACKAGES

zabbix-selinux-policy – basic selinux policy

zabbix-sql-scripts – all .sql db scripts

zabbix-web-service – scheduled reports generation



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Thank you!

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