A GUIDE TO MIGRATING TO ZABBIX 6.0 LTS

EDGARS MELVERIS
Technical Support Engineer, Zabbix, Latvia
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

- Apply any required OS or DB upgrades before upgrading Zabbix.
- Check for any customizations in your installation – Are there any DB schema changes? Custom modules or applied patches?
- Are packages available for all central Zabbix components? Are all proxies installed on supported OS's?
- Check for any known issues in 6.0 – it might contain something relevant to your setup.
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/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/current/manual/api/changes_5.2 - 5.4)
- [https://www.zabbix.com/documentation/5.2/manual/api/changes_5.0 - 5.2](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
03

UPGRADE STEPS
UPGRADE STEPS

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

```bash
```
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
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
UPGRADE PROCESS WITH PACKAGES
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 [lid 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

```bash
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
```
07

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:

UPGRADE AGENTS

- Agents are backwards compatible

#yum install zabbix-agent
#yum install zabbix-agent2
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
Thank you!

www.zabbix.com