



**ZABBIX**  
PREMIUM PARTNER

**ZABBIX**  
CERTIFIED TRAINER

Webinar

# Upgrade to Zabbix 7.2

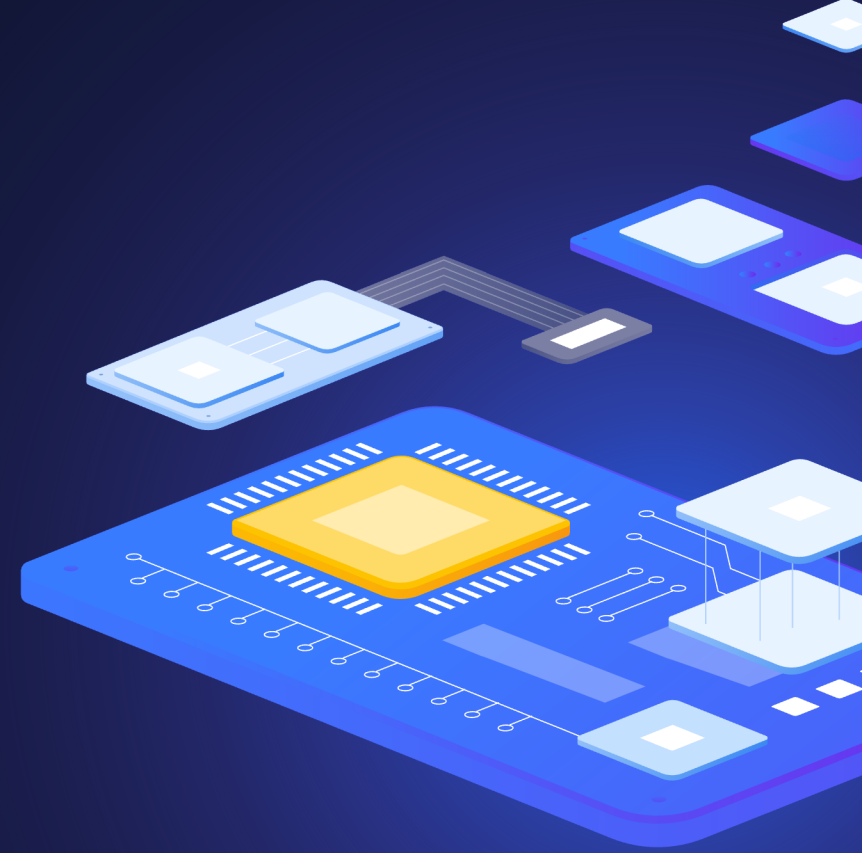
all our microphones are muted

ask your questions in Q&A, not in the Chat

use Chat for discussion, networking or applause

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WHY UPGRADE



## Zabbix 7.2

# New feature support

- › Zabbix 7.0: Zabbix Proxy in high-availability mode
- › Zabbix 7.0: Synthetic end-user web monitoring
- › Zabbix 7.0: Proxy memory buffer
- › Zabbix 7.0: New widgets
- › Zabbix 7.0: Software update check
- › Zabbix 7.0: Sending data to Zabbix server via Zabbix API
- › **Zabbix 7.2: New widgets Host card and Top items + Sparkline graph**
- › **Zabbix 7.2: Increasing limits for dependent items in LLD**
- › **Zabbix 7.2: NVIDIA GPU monitoring (7.2.1)**
- › **Zabbix 7.2: New and improved built-in macros and macro functions**

## Zabbix 7.2

# Improved stability and performance

- › Zabbix 7.0: Asynchronous pollers
- › Zabbix 7.0: Concurrent network discovery
- › Zabbix 7.0: Centralized control of data collection timeouts
- › Zabbix 7.0: Faster reaction to host maintenance period update
- › Zabbix 7.0: Automatic disabling of lost resources
- › Zabbix 7.0: Faster permission checks
- › **Zabbix 7.2: Internal improvements and bug fixes**
- › **Zabbix 7.2: Enhanced Environment Variable Support for Simplified Configuration and Deployment**
- › **Zabbix 7.2: Improved VMware event collection by adding memory pagination**

## Zabbix 7.2

# Improved security

- › Zabbix 7.0: Native two-factor authentication (MFA or 2FA)
- › Zabbix 7.0: JIT user provisioning
- › Zabbix 7.0: Logging of duplicate SNMPv3 Engine IDs
- › **Zabbix 7.2: SSH item changes**
- › **Zabbix 7.2: API - Removed support for deprecated property auth**

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Life Cycle



# Release schedule

## ▶ Release policy:

- **LTS** (Long Term Support) release: **5.0, 6.0, 7.0** – for large environments, long term support, more thoroughly tested release.
- **Standard** release: **7.2, 7.4** – Earlier access to new features.

## ▶ Major and minor releases:

- **6.0, 6.2, 6.4, 7.0, 7.2** - Major releases
- **6.0.37, 6.2.9, 6.4.20, 7.0.6, 7.2.0** - Minor releases

## Zabbix 7.2

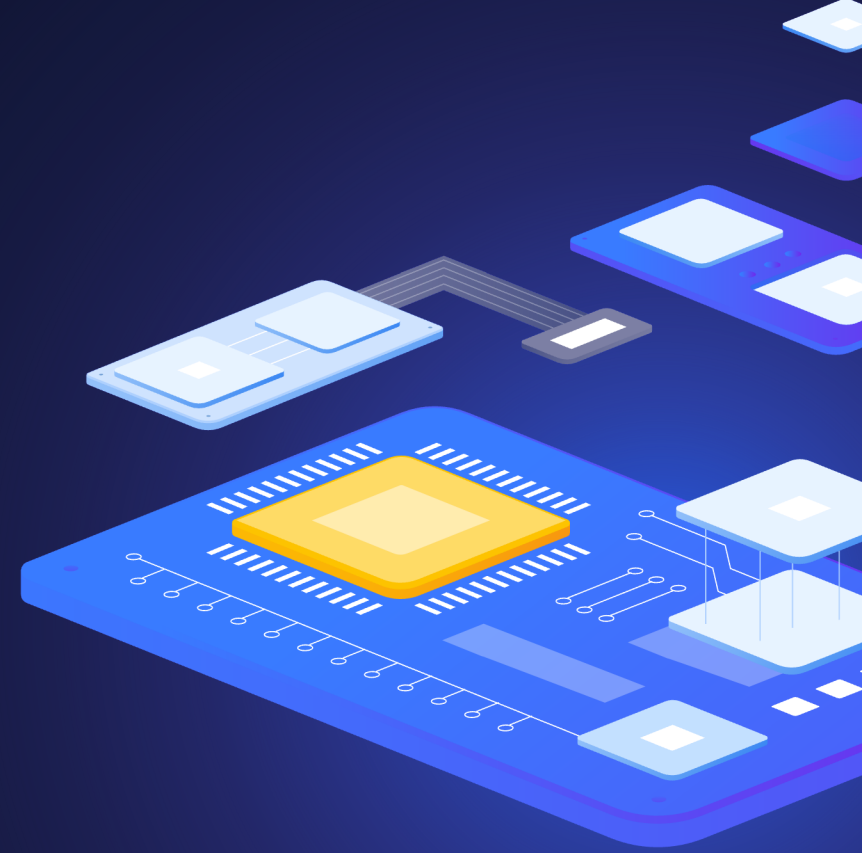
# Life cycle

- ▶ Stable and unstable releases:
  - Even numbers: [6.4](#), [7.0](#), [7.2](#) – Stable releases
  - Odd numbers: [6.5](#), [7.3](#) - Unstable (alpha and beta)
- ▶ All the components contained within a single major release of Zabbix are 100% backwards compatible.
- ▶ Web frontend [7.2.0](#) + Server [7.2.0](#) + Proxy [7.0.6](#) + Agent [3.4.5](#) – OK (Minimum version of Agent 6.4 is recommended for active checks)
- ▶ Best practice is to have the **same version** on Frontend, Server and Proxy.
- ▶ No database changes within a single major release.
- ▶ **Agents are backwards compatible:** [1.4](#) – [7.2](#) agents compatible with [7.2.0](#) server.
- ▶ **Forward compatibility is not guaranteed:** [7.2](#) – [7.4](#) agents might not be compatible with [7.0](#) server.



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Upgrade types



Zabbix 7.2

# Upgrade types

► Upgrade between **minor** versions:

3.4.7 → 3.4.15

4.0.0 → 4.0.5

► Upgrade between **major** versions:

4.0 → 7.0

4.4 → 7.0

## Zabbix 7.2

# Which components to upgrade?

- ▶ The Zabbix [minor](#) upgrade procedure is very simple.
- ▶ You can upgrade a single or multiple components of Zabbix (for example, web frontend, proxy, Zabbix server).
- ▶ Zabbix agent upgrade is not mandatory.

# Which components to upgrade?

- ▶ Zabbix **major** upgrade procedure is more complicated and requires prior preparation.
- ▶ Upgrade of **all** Zabbix components is required (Zabbix server, database, web frontend, proxy, Java Gateway, Web Service).
- ▶ Zabbix agent upgrade is not mandatory. (Minimum version of Agent 6.4 is recommended for active checks)

Zabbix 7.2

# Minor upgrade procedure

**Read the release notes!**

**Minor** version upgrade:

- ▶ Make a backup copy (just in case)
- ▶ Upgrade the binary files and the web frontend files, restart the daemons

```
$ dnf upgrade 'zabbix-*
```

**No changes in the database?! (7.0.0 → 7.0.x) - not true from 6.0.11** when is backported some functionality from 6.2

Zabbix 7.2

# Minor upgrade procedure

Fix the performance issues (if you have any).

Otherwise the upgrade could take a considerable amount of time.

**Read the release notes!**

Zabbix 7.2

# Major upgrade procedure

## Major version upgrade:

- › Make a backup copy
- › Stop the Zabbix server
- › Upgrade the binary files and the web frontend
- › Start the Zabbix server

Automatic database upgrade (2.2.0)

Cumulative updates (2.2 → 7.2)

**Update rollback is not supported**

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## Upgrade Notes





# Upgrade notes 7.0 > 7.2

- › Check minimal DB version
- › Check minimal PHP version
- › It is recommended to use latest version of PHP
- › It is recommended to use latest version of DB
- › Zabbix agent minimum version 6.4 – Active check
- › **Upgrade on TimescaleDB 17.x is problematic** (<https://github.com/timescale/timescaledb/issues/7410>)
  - › Workaround [ZBX-25609](#)
- › **Frontend file directory changed during package installation**
  - › The frontend file directory has been moved from /usr/share/zabbix to **/usr/share/zabbix/ui**
- › **API - Removed support for deprecated property auth in request “data”**
  - › Send an authentication bearer token in request header

# Major upgrade: how NOT to perform an upgrade

- ▶ DO NOT read the release notes.
- ▶ DO NOT test the new version.
- ▶ DO NOT make a backup copy.

```
$ dnf upgrade 'zabbix-*
```

# How to plan the upgrade?

- ▶ Type of upgrade (minor – major).
- ▶ Changes in the structure of large tables (history, trends, events).
- ▶ Zabbix database size and performance.
- ▶ Complexity of the infrastructure (partitioning, High Availability cluster, replication).
- ▶ Customization (DB schema, custom PHP pages, patches, integrations, scripts, modules).

# What causes errors?

## Changes in the DB schema:

- ▶ Removed or additional indexes (for example, with the goal to increase the performance).
- ▶ Partitioning misconfiguration.
- ▶ DB config misconfiguration.

## Zabbix 7.2

# What affects the upgrade duration?

- ▶ Zabbix DB size and performance.
- ▶ Changes in the structure of large tables (history\*, trends\*, events).

# How to accelerate the upgrade in case of a large DB?

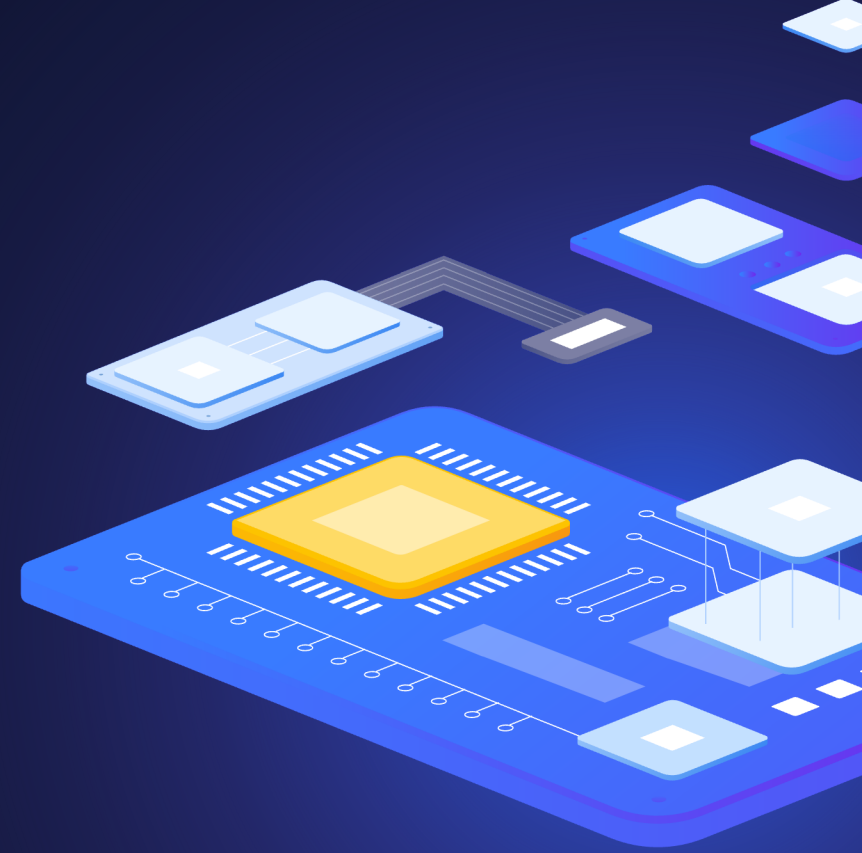
## **Deletion of indexes for large tables can take hours (*history\_text/log*).**

To accelerate Zabbix upgrade from hours to minutes - use temporary tables. Example for *history\_text*:

- ▶ Create a temporary table (for example, *history\_text\_tmp*).
- ▶ Rename the existing table to *history\_text\_old*.
- ▶ Rename the new table *history\_text\_tmp* to *history\_text*.
- ▶ Upgrade Zabbix (All the changes will be applied to empty table).
- ▶ Copy the data from the old table *history\_text\_old* to the new table *history\_text*.
- ▶ Delete the old table *history\_text\_old*.

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DEMO



# Demonstration

- › `php-fpm -v`
- › `psql -V`
  
- › `systemctl stop zabbix-server zabbix-agent2 zabbix-web-service`
- › `systemctl stop nginx php-fpm`
  
- › `dnf list --installed | grep timescale`
- › `dnf upgrade timescaledb-2* -x`
- › `sudo -u postgres psql -X -c "ALTER EXTENSION TIMESCALEDB UPDATE;" zabbix`
  
- › `systemctl stop postgresql-16`
- › `dnf install -y postgresql17-server timescaledb-2-postgresql-17 timescaledb-2-loader-postgresql-17`
  
- › `su - postgres`
- › `/usr/pgsql-17/bin/initdb -D /var/lib/pgsql/17/data/ -E UTF8`
- › `cat /var/lib/pgsql/16/data/pg_hba.conf > /var/lib/pgsql/17/data/pg_hba.conf`
- › `cat /var/lib/pgsql/16/data/postgresql.conf > /var/lib/pgsql/17/data/postgresql.conf`



# Demonstration

- ▶ `/usr/pgsql-17/bin/pg_upgrade --check -b /usr/pgsql-16/bin -B /usr/pgsql-17/bin -d /var/lib/pgsql/16/data -D /var/lib/pgsql/17/data`
- ▶ `/usr/pgsql-17/bin/pg_upgrade -b /usr/pgsql-16/bin -B /usr/pgsql-17/bin -d /var/lib/pgsql/16/data -D /var/lib/pgsql/17/data -k`
- ▶ `exit`
  
- ▶ `systemctl disable postgresql-16.service`
- ▶ `systemctl enable postgresql-17.service`
- ▶ `systemctl start postgresql-17.service`
- ▶ `su - postgres`
  
- ▶ `/usr/pgsql-17/bin/vacuumdb --all --analyze-in-stages`
- ▶ `reindexdb`
  
- ▶ `./delete_old_cluster.sh`
- ▶ `rm -rf 16 delete_old_cluster.sh`
- ▶ `exit`

## Zabbix 7.2

# Demonstration

- ▶ `dnf remove postgresql16-* -y`
- ▶ `rm -rf /usr/pgsql-16/`
- ▶ `rpm -Uvh https://repo.zabbix.com/zabbix/7.2/release/rocky/9/noarch/zabbix-release-latest-7.2.el9.noarch.rpm`
- ▶ `dnf clean all`
- ▶ `dnf update zabbix-* -y`
- ▶ `cp /etc/nginx/conf.d/zabbix.conf.rpmnew /etc/nginx/conf.d/zabbix.conf`
- ▶ `systemctl start zabbix-server zabbix-agent2 zabbix-web-service`
- ▶ `systemctl start nginx php-fpm`
- ▶ `tail -f /var/log/zabbix/zabbix_server.log`

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WIKI



## Zabbix 7.2

# Wiki

### Latest how-to for upgrading to Zabbix 7.2

- › All necessary steps can be found in a separate guide on our wiki.  
<https://www.initmax.com/wiki/zabbix-upgrade-to-the-latest-version-7-2/> EN  
<https://www.initmax.cz/wiki/zabbix-aktualizace-na-posledni-verzi-7-2/> CZ

### How-to for upgrading to Zabbix 7.0

- › All necessary steps can be found in a separate guide on our wiki.  
<https://www.initmax.com/wiki/zabbix-update-to-the-latest-version-7-0-lts/> EN  
<https://www.initmax.cz/wiki/zabbix-aktualizace-na-posledni-verzi-7-0-lts/> CZ

### Zabbix Rebranding

- › All necessary steps can be found in a separate guide on our wiki.  
<https://www.initmax.com/wiki/zabbix-rebranding/> EN  
<https://www.initmax.cz/wiki/rebranding-zabbixu/> CZ

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Questions?



# Contact us:

Phone:



+420 800 244 442

Web:



<https://www.initmax.cz>

Email:



[tomas.hermanek@initmax.cz](mailto:tomas.hermanek@initmax.cz)

LinkedIn:



<https://www.linkedin.com/company/initmax>

Twitter:



<https://twitter.com/initmax>

Tomáš Heřmánek:



+420 732 447 184