

ENGLISH

**ZABBIX** **7.2**

WEBINAR '24

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What's new in  
Zabbix 7.2

CPU utilization

0% 80.77

Monitoring

Inventory

Type

OS

Serial number

MAC address

# Zabbix 7.2

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Zabbix 7.2 introduces new visualization features, enables new use cases and improves on existing core features of Zabbix

- ▶ 2 new widgets and new Sparkline visualization feature
- ▶ New macros and improvements to existing macro behavior
- ▶ Various VMware monitoring improvements
- ▶ Extending existing monitoring features to enable new use cases
- ▶ Internal improvements and bug fixes
- ▶ New templates

# ZABBIX 7.2

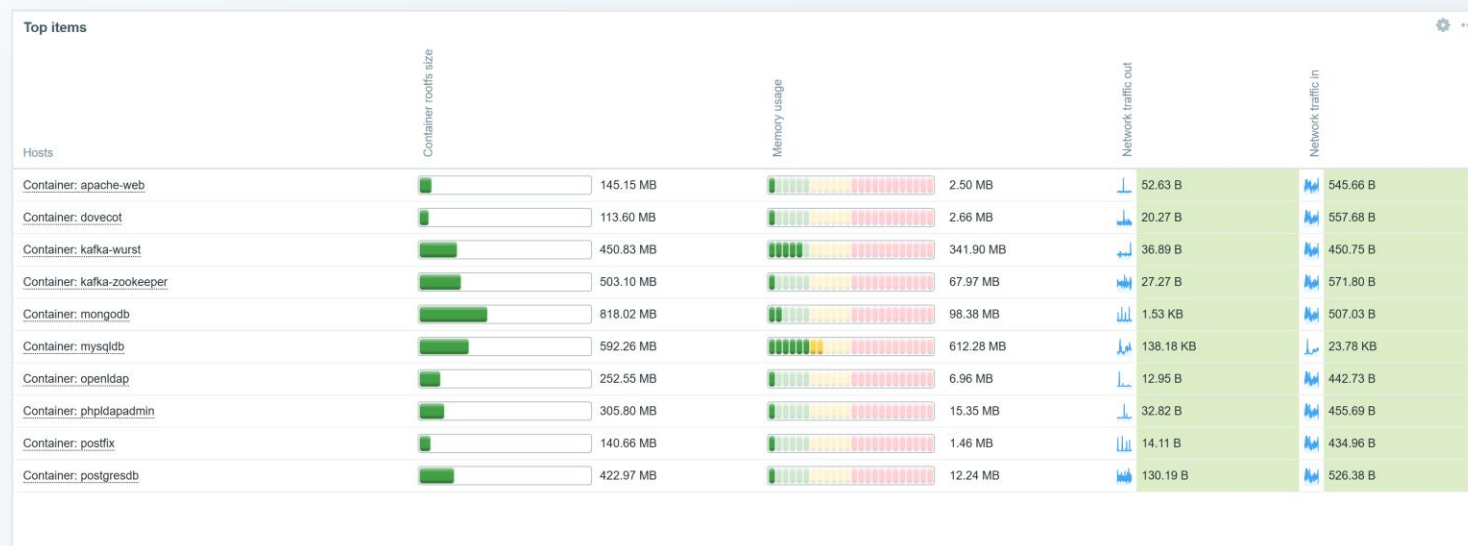
## Top items widget



# Top items

Data overview widget has been converted to Top items widget

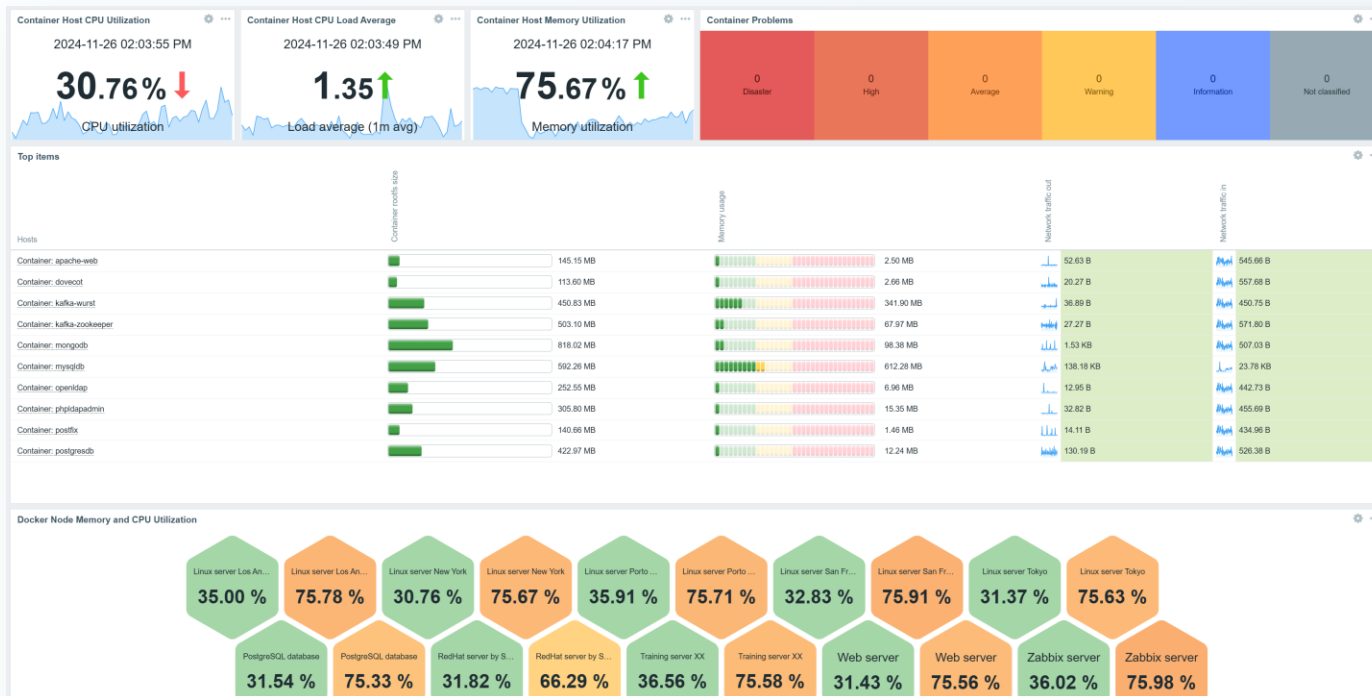
- ▶ Display item values in a table by using host and item filtering
- ▶ Top items widget allows for a fine-grained item selection using item patterns
- ▶ Configurable host and item ordering logic
- ▶ Configurable item ordering logic



# Top items

Various ways of displaying values in the widget:

- ▶ As is, bar, indicator and sparkline value display
- ▶ Value thresholds and highlighting





# ZABBIX 7.2

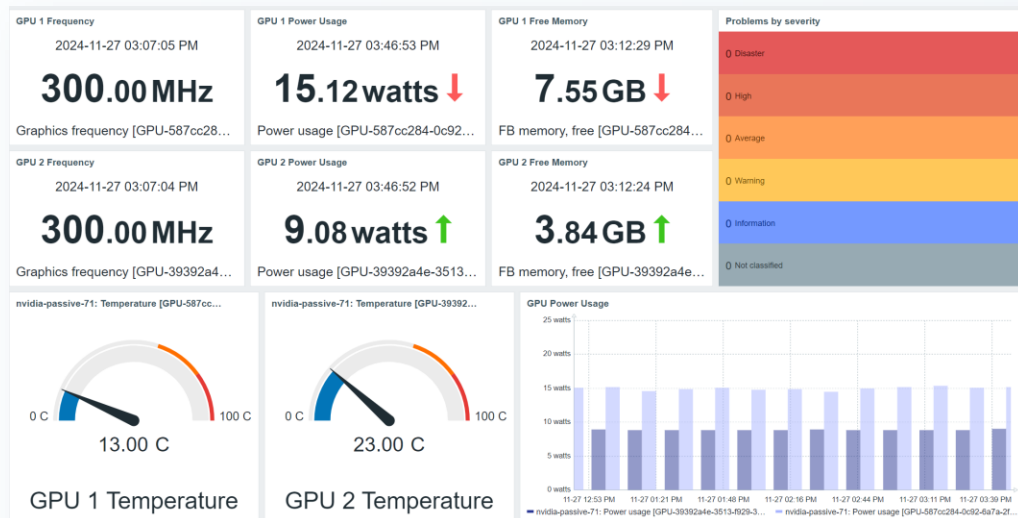
## Nvidia GPU monitoring



# NVIDIA GPU monitoring

Introducing the official NVIDIA GPU monitoring Zabbix agent2 plugin and template

- ▶ Supported on Linux and Windows environments
- ▶ Automatically discover Nvidia GPUs
- ▶ Monitor metrics like GPU utilization, power usage, temperature and more







# SSH item subsystem support

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*ssh.run* items now support a new subsystem parameter

- ▶ `ssh.run[unique short description,<ip>,<port>,<encoding>,<ssh options>,<subsystem>]`
- ▶ Collect data using various subsystems such as SFTP or NETCONF
- ▶ Enables monitoring of network devices limited to NETCONF monitoring
- ▶ May require using a specific script syntax in the SSH item

# ZABBIX 7.2

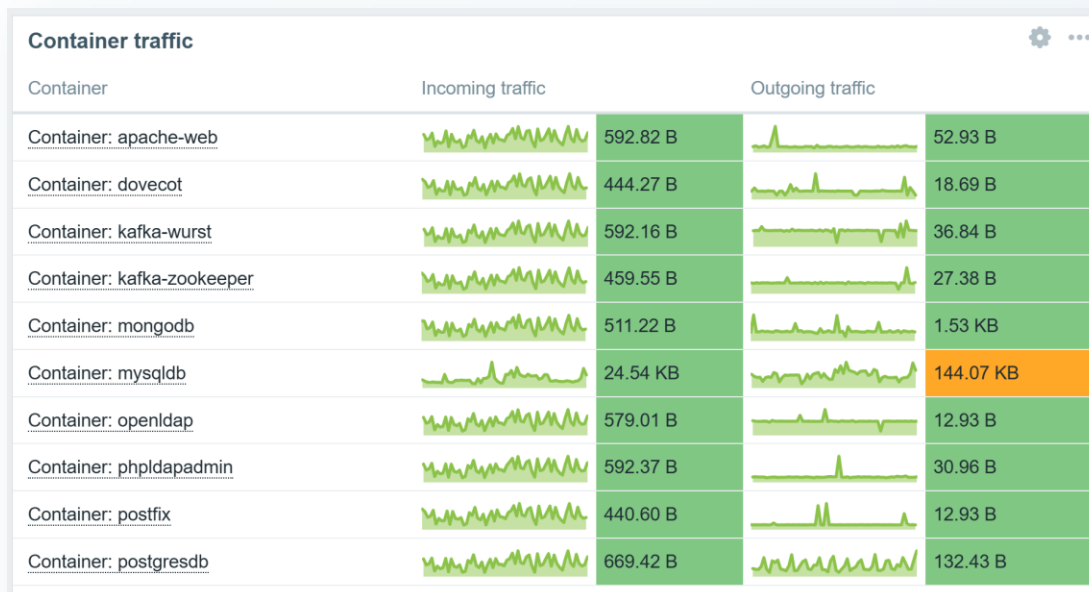
## Sparkline chart



# Sparkline chart

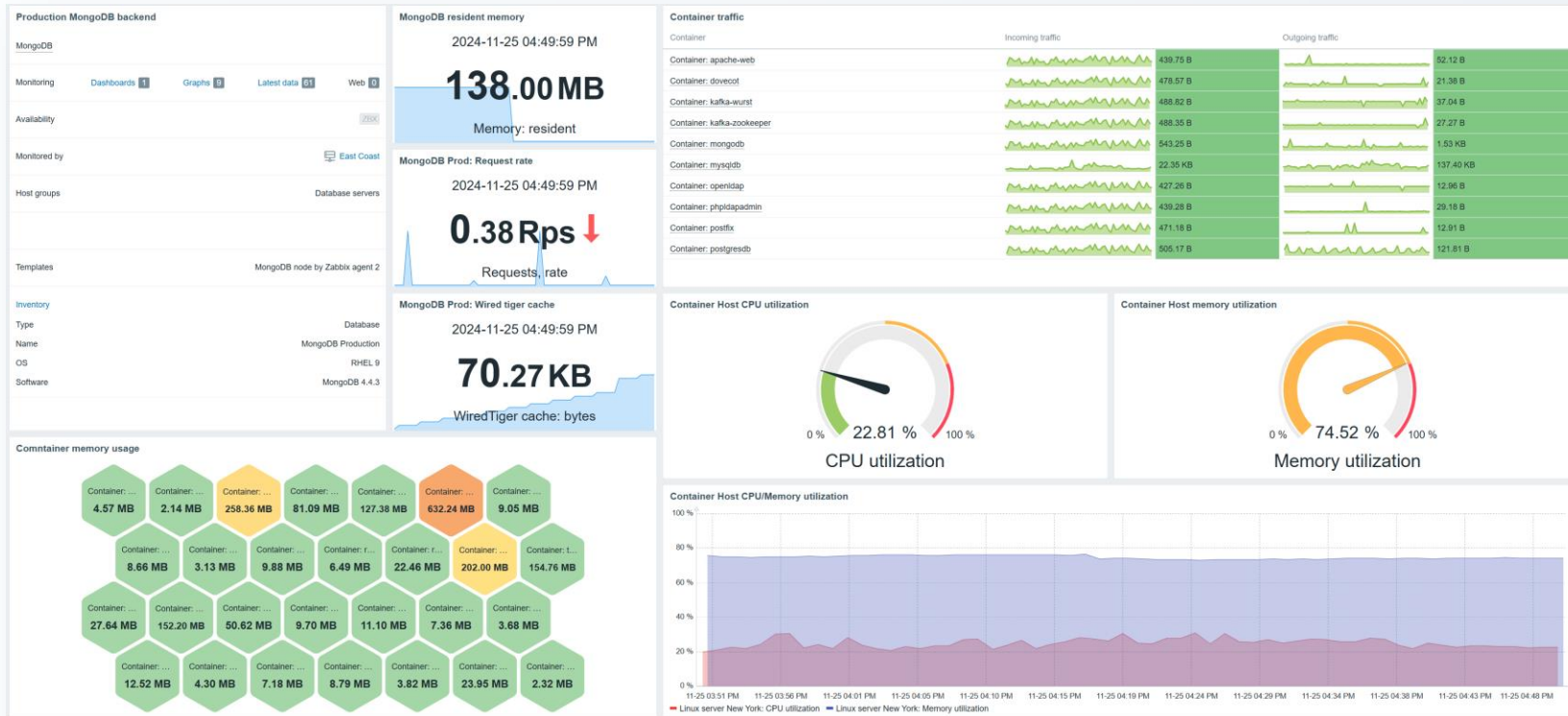
Sparkline charts – quick and simple way to visualize your data

- ▶ Displayed in existing widgets
- ▶ Provides additional context for your data
- ▶ Not a full-fledged analytical solution



# Sparkline chart

Sparkline charts can be enabled in **Item value**, **Top hosts** and **Top items** widgets



# ZABBIX 7.2

## Host card widget





# Host card widget

With Host card widget you can display information about a particular host

- ▶ Displays information about a host, such as host description, host group list, interface information, inventory data and more
- ▶ Can be linked to a Host navigator widget to dynamically select a host

The screenshot displays three Zabbix Host Card Widgets, each showing detailed monitoring information for a specific host. Each widget includes a title, a description, monitoring statistics (Dashboards, Graphs, Latest data, Web), availability status, monitored by information, templates, and a class/target list.

Host Name	Description	Dashboards	Graphs	Latest data	Web	Availability	Monitored by	Templates	Class/Target
Production Database	PostgreSQL database	4	23	209	0	ZBX	East Coast	Linux by Zabbix agent, PostgreSQL by Zabbix agent 2	class: database, class: os, target: linux, target: postgresql
3rd Floor Switch 2	Office switch 3rd floor_2	0	0	12	0	ZBX, SNMP	Zabbix server	Generic by SNMP	class: network, target: snmp
Web Server	Container: apache-web	0	0	18	0		Zabbix server	Podman Container	class: container

# Host card widget

▶ Widget column visibility and order can be customized

The screenshot displays a Zabbix dashboard with several widgets:

- 3rd Floor Switch 2:** Host details for 'Office switch 3rd floor\_2', including monitoring status, templates, and inventory information like 'Cisco Catalyst 3750V2'.
- Production Database:** Details for a 'PostgreSQL database' on a 'Web Server'.
- Container memory usage:** A hexagonal grid showing memory usage for various containers such as 'Container: kafka...', 'Container: mongo...', and 'Container: mysqldb'.
- Container traffic:** A table showing incoming and outgoing traffic for containers like 'Container: apache-web', 'Container: dovecot', and 'Container: kafka-wurst'.
- Host navigator:** A tree view of monitored hosts categorized by location and type, such as 'Database servers', 'Linux servers', and 'Podman containers'.
- Host CPU utilization:** A gauge chart showing CPU usage at 24.87%.
- Host memory utilization:** A gauge chart showing memory usage at 73.58%.

ZABBIX 7.2

# Specifying configuration parameters with environment variables

uplink: outgoing

2.12 Kbps



# Passing environment variables

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Zabbix configuration file parameters can now be specified via environment variables

- ▶ Configuration file parameters now accept environment variables
- ▶ E.g.: Hostname=**`${ZBX_HOSTNAME}`**
- ▶ Can also be used in container deployments

```
Hostname=${ZBX_HOSTNAME}  
BufferSize=${BUFSZ}  
ListenPort=${LISTENPORT}  
UserParameter=${_UsrPar01}  
UserParameter=${_UsrPar02}
```

```
docker run --name some-zabbix-agent -e ZBX_HOSTNAME="some-hostname" -e  
BUFSZ=1000 -e LISTENPORT=20050 -e _UsrPar01="key1,ls" -e _UsrPar02="key2,pwd" --  
init -d zabbix/zabbix-agent:trunk-ubuntu
```

# ZABBIX 7.2

New and improved built-in macros





# New and improved macros

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Zabbix 7.2 introduces new built-in macros and updates support of existing macros

- ▶ `{TIMESTAMP}`, `{EVENT.TIMESTAMP}`, `{EVENT.RECOVERY.TIMESTAMP}`, `{EVENT.UPDATE.TIMESTAMP}`, `{EVENT.CAUSE.TIMESTAMP}`, `{ITEM.LOG.TIMESTAMP}` resolve to the current time in Unix timestamp format
- ▶ `{EVENT.UPDATE.ACTIONJSON}` resolves to a JSON array containing details of the action(s) performed during a problem update
- ▶ `{SERVICE.ID}` resolves to the numeric ID of the service that triggered the action
- ▶ `{HOST.PORT}` is now supported in the same locations as `{HOST.CONN}`
- ▶ Added support for `{FUNCTION.VALUE<1-9>}` and `{FUNCTION.RECOVERY.VALUE<1-9>}` macros to expression macros

# New and improved macros

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These macro changes can be utilized in various scenarios:

- ▶ Populating alert messages
- ▶ Item and trigger configuration
- ▶ Map elements and graph names
- ▶ And more

## Problem: Application down

### Host

Application host - PROD  
[AppNode1.zabbix.com]

### Severity

High

### Event tags

None

### Trigger description

### Event time

2024.11.28 14:13:27

### Opdata

0

### UNIXTIME

1732796007

[Open in Zabbix](#)

# New macro functions

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## New macro functions:

- ▶ `regrepl` replaces all occurrences, starting with the first one
- ▶ `tr` for complete string transliteration of all occurrences
- ▶ `btoa` PHP method `base64_encode()` is used
- ▶ `urlencode` PHP method `rawurlencode()` is used
- ▶ `htmlencode` PHP method `htmlspecialchars()` is used
- ▶ `urldecode` PHP method `urldecode()` is used
- ▶ `htmldecode` converts HTML entities back to their characters
- ▶ `lowercase` all letters are converted to lowercase
- ▶ `uppercase` all letters are converted to uppercase.

# ZABBIX 7.2

## VMware monitoring improvements



# VMware monitoring improvements

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Various improvements related to VMware data collection and templates

- ▶ Improved VMware event collection by adding memory pagination
- ▶ VMware hypervisor template can now be used as a stand-alone template
- ▶ Added 'Virtual machine hypervisor maintenance status' item to the VMware Guest template



# ZABBIX 7.2

## New templates



# New templates

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## New templates:

- ▶ Various templates for LAMP stack monitoring by Zabbix agent active
- ▶ NVIDIA GPU
- ▶ Juniper MX series
- ▶ Huawei OceanStor V6 Dorado
- ▶ Nutanix Prism Element

# Template updates

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Various templates now support Zabbix agent 2 active mode

Updated existing templates:

- ▶ Dell iDrac and PowerEdge updated to use SNMP walk items
- ▶ Proxmox VE by HTTP – new disk space usage items/triggers
- ▶ MSSQL by ODBC performance counter query fixes
- ▶ Linux and Nextcloud – removed unnecessary discard unchanged preprocessing from LLD rules
- ▶ Microsoft 365 reports by HTTP description fixes

# ZABBIX 7.2

## Dependent items



# Dependent items

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Dependent item limits are completely removed:

- ▶ Previous limit: 29,000 dependent items per master item
- ▶ Supported levels: Only 4 levels of dependent items

Zabbix 7.2 now supports:

- ▶ Unlimited dependent items per master item
- ▶ Unlimited levels of dependency



# ZABBIX 7.2

Additional changes and improvements



# Additional changes and improvements

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- ▶ Added support for CP\_SPIN cpu state on OpenBSD
- ▶ Implemented new column configuration options in Top hosts widget and support for binary item display
- ▶ Added support for LLD Macro `{#UNIT.SERVICETYPE}` in `systemd.unit.discovery` for Zabbix agent 2
- ▶ Updated maximum supported TimescaleDB version to 2.17
- ▶ Updated maximum supported PostgreSQL version to 17
- ▶ Added `PubkeyAcceptedKeyTypes` SSH public key algorithm configuration option
- ▶ Made items become unsupported when there are no pollers
- ▶ Removed support of Oracle DB

# Additional changes and improvements

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- ▶ Added support of logarithmic Y-axis scaling in graphs
- ▶ Increase max number of rows for some widgets, such as Top hosts
- ▶ Enabled usage of the mediatype.get method for users with the User role with a limited field scope
- ▶ Ability to assign override host (Widget, Dashboard) for graph widget data sets
- ▶ Implemented automatic selection of the first element of a broadcast-capable widget
- ▶ Implemented a new filter in media type list view to filter out media types by their usage in action

# Direct web links to modal forms

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Modal forms now have their own link:

- ▶ Implemented for host, item, trigger and other modal forms
- ▶ Makes possible to link directly to the item or trigger in problem-related notification messages or share a link
- ▶ If opened in a new tab, the form is opened on a gray background

A modal form link example:

- ▶ `/zabbix.php?action=popup&popup=item.edit&context=host&itemid=42243`

# ZABBIX 7.2

# Questions?

