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CONFERENCE
GERMANY

# GETTING CLOSER TO ZABBIX 8.0

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Founder, CEO

# We help businesses deliver flawless services for a better world and happier people

# Zabbix Cloud

Enterprise SaaS  7 tiers  5 regions

ZABBIX

# 7 tiers for various needs

From SMBs to large enterprises

**Nano**: 50 NVPS, **Micro**: 100 NVPS, **Small**: 250 NVSP
**Medium**: 1K NVPS
**Large**: 2.5K NVPS, **xLarge**: 5K NVPS, **2xLarge**: 10K NVPS

Also extra hourly budget for performance spikes is included

zabbix.com/cloud

ZABBIX

# Starts with **50$** per month

No per metric, host, users, whatever fees!

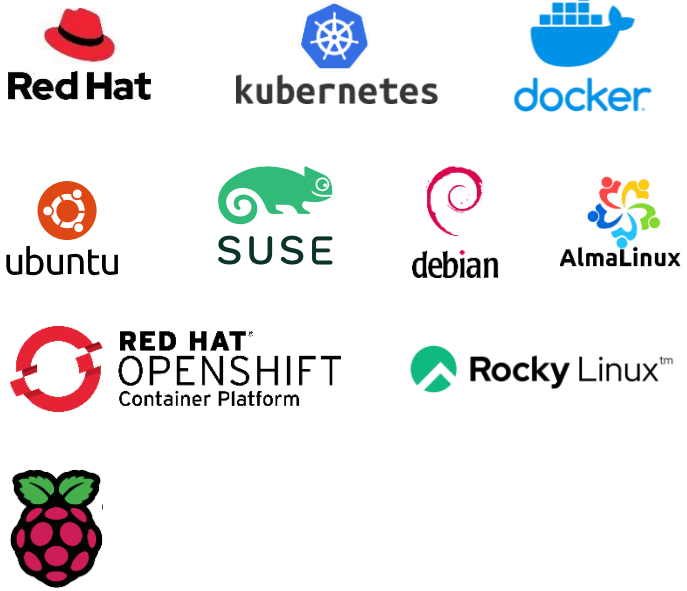
zabbix.com/cloud

# 10GB are free forever

0.3$ per extra GB per month

zabbix.com/cloud

## ON-PREMISES




## IN THE CLOUD

## Zabbix Cloud (SaaS)

# Advantages

Secure by design: separation of resources

Automatic upgrades and security patches

Automatic and on-request backups

Scale as you grow

Low TCO, no hidden cost

Fixed pricing for different levels of performance (NVPS) and storage requirements

# Perfect for hybrid use

## A combination with Zabbix Proxies

zabbix.com/cloud

# How to start?

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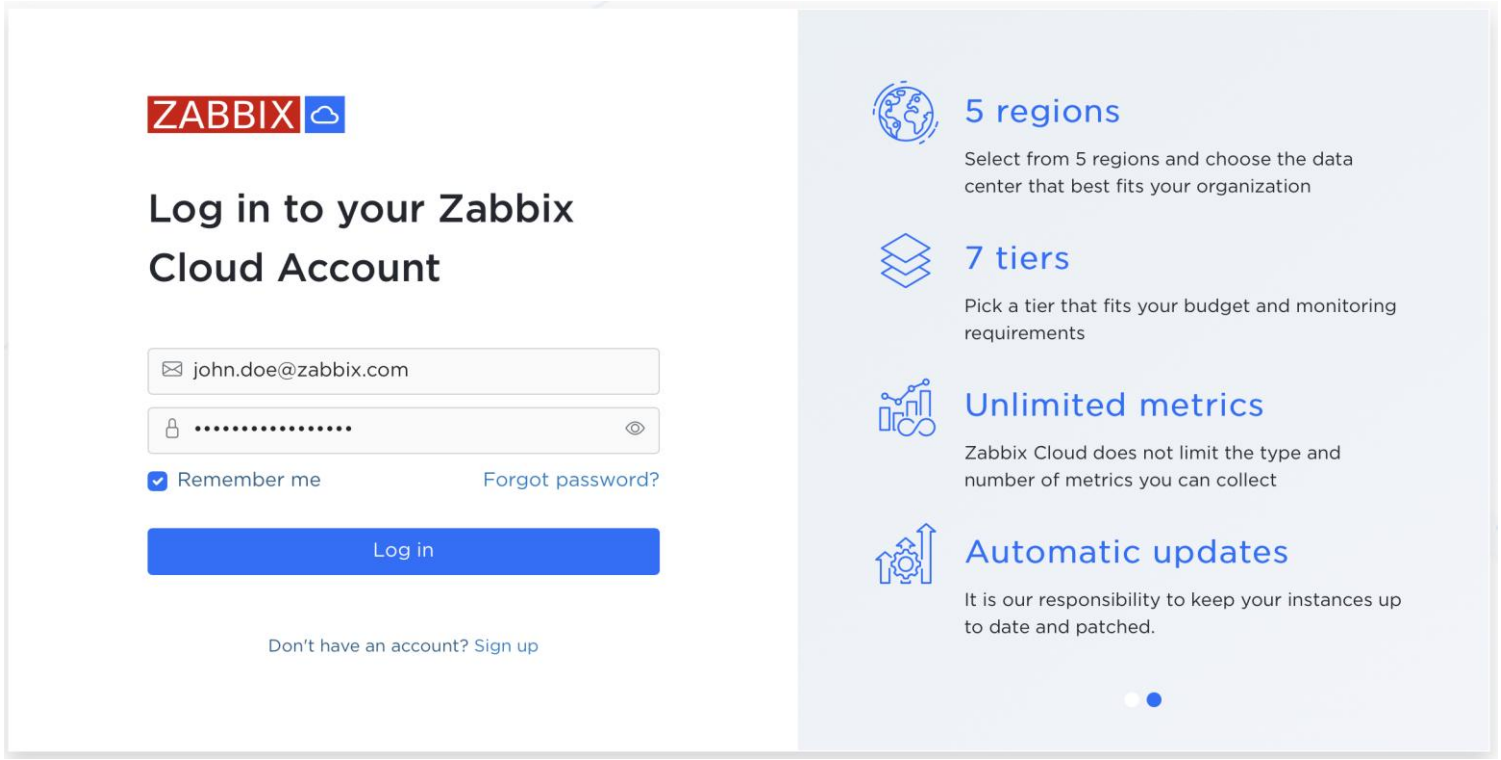
Go to:

zabbix.com/cloud



# What's coming next?

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## 2025 Q1/Q2

Pre-paid option

Support of organizations with user roles

Support of SSO

Proxies!

## 2025 Q4 / 2026 Q1

Auditlog

NIS2 compliance &  SOC2 type 2 certification

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# Closer to Zabbix 8.0 LTS

## Now in-between two LTS releases

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# Staying free and open-source

## An inclusive solution

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# An all-in-one solution

One product to cover it all

# Collect ⇢ Analyze ⇢ React and Visualize

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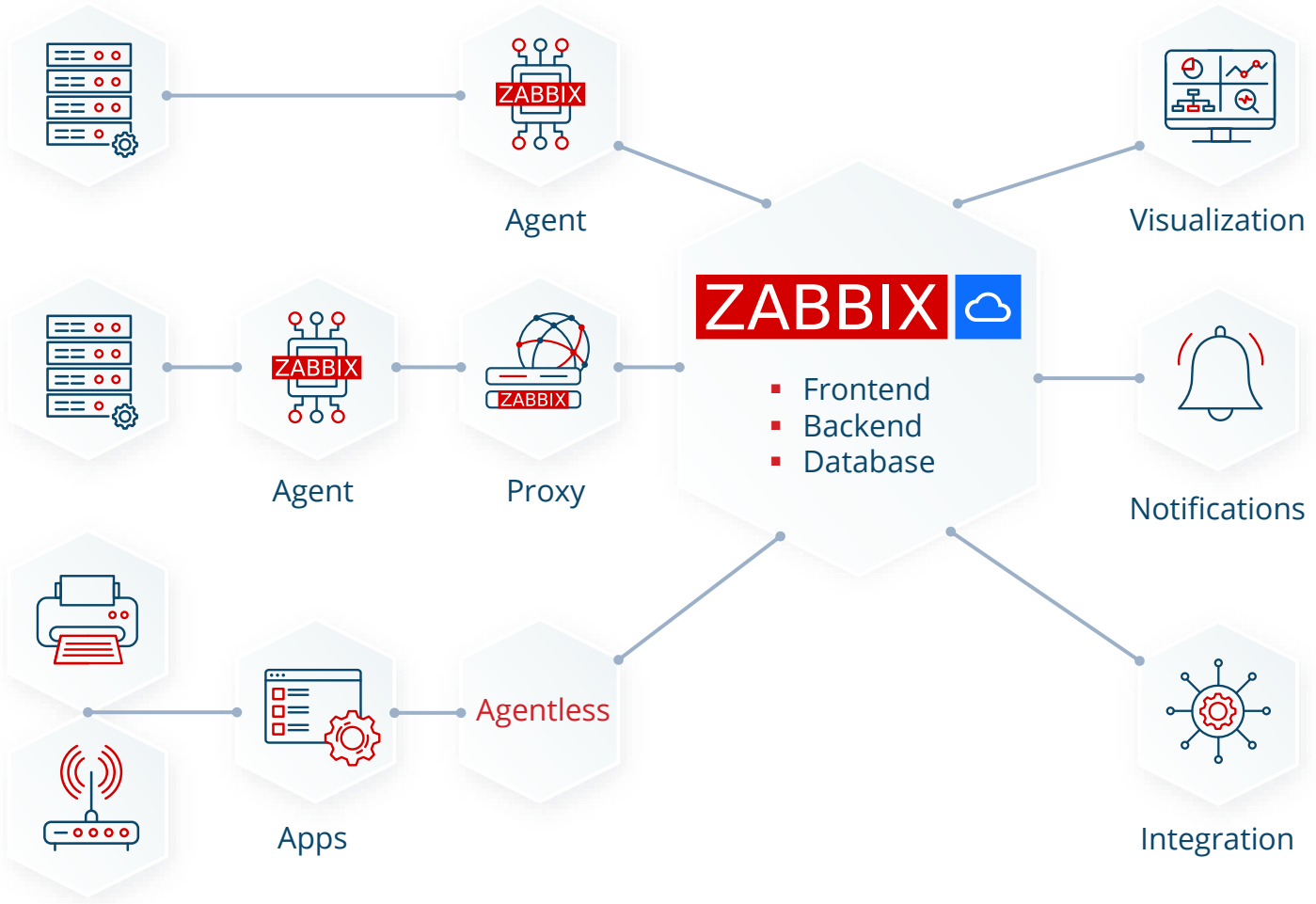


High-quality data for AIOps

Proxies for DM and Edge computing

API for automation and integrations

Auto-remediation

Anomaly detection

# All levels: from infrastructure to business

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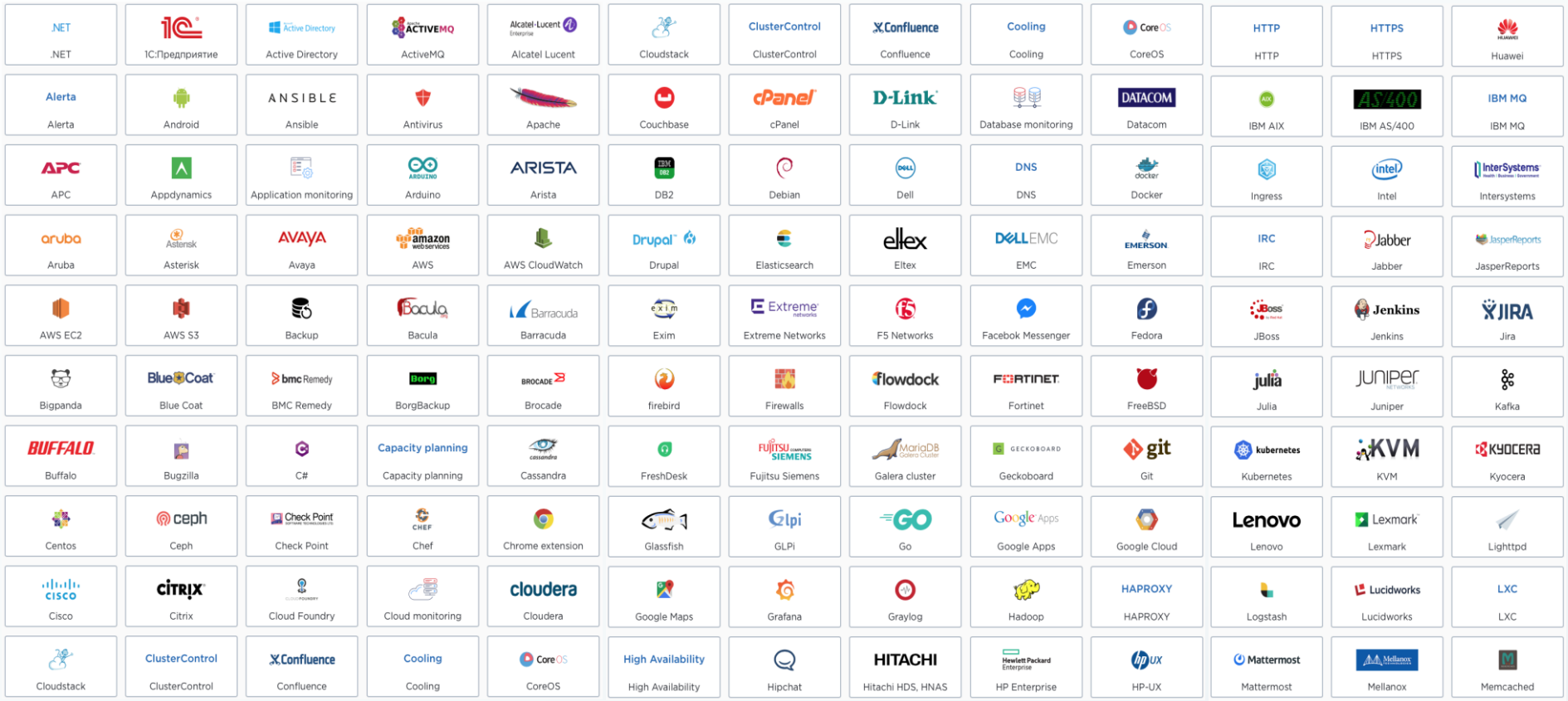
**IT & OT**
Business services
SLA/SLI
Synthetic
Cloud
K8S
OpenShift
Containers
APIs
WEB
User experience
Applications
Processes
OS
Environment
Hardware
Industrial
Network devices
IoT and sensor data




zabbix.com/integrations

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# A single pane of glass

## Total visibility and transparency

# Visualization and reporting

## Major improvements

All widgets for host and global dashboards and reporting

Stable framework for widget devs

A new set of advanced widgets

Dynamic dashboards for drill-down and specific use cases

# Widgets for real-time viewing and reporting

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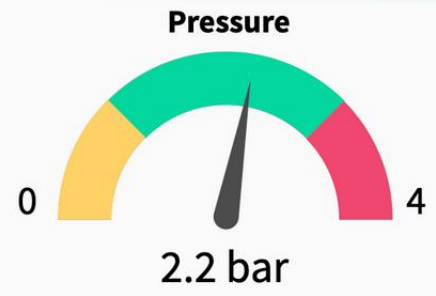
## Core widgets

Pie & donut charts

Gauge charts

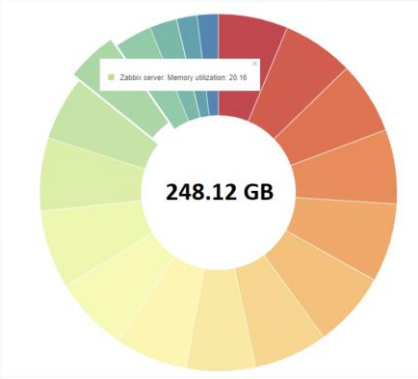
Item history




## Reporting

Capacity reports

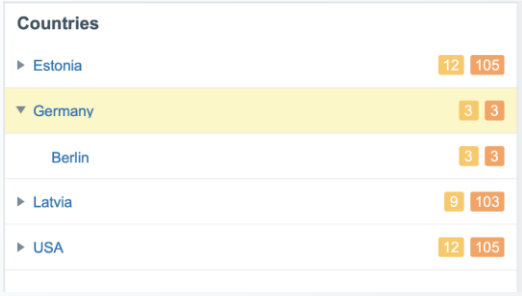
Management reports




## Widgets navigators

Host navigator

Item navigator




## Advanced visualization

Honeycombs

Service trees

Topology

# Infrastructure overview

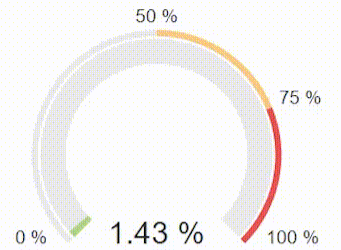
All dashboards / Infrastructure overview

Zoom o

## Resource utilization

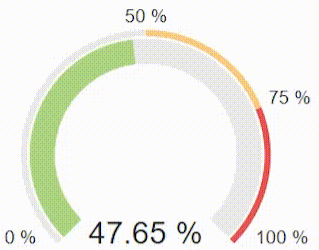
| | | | | | | |
|---|---|---|---|---|---|---|
| Docker node 1 Linux: CPU utiliz... 3.09 % | Docker node 1 Linux: Memory ... 60.83 % | Docker node 2 Linux: CPU utiliz... 3.09 % | Docker node 2 Linux: Memory ... 70.98 % | Docker node 3 Linux: CPU utiliz... 2.77 % | Docker node 3 Linux: Memory uti... 72.33 % | MySQL Node 1 Linux: CPU utiliz... 1.43 % |
| MySQL Node 1 Linux: Memory ... 47.65 % | MySQL Node 2 Linux: CPU utiliz... 1.48 % | MySQL Node 2 Linux: Memory ... 65.38 % | MySQL Node 3 Linux: CPU utiliz... 1.18 % | MySQL Node 3 Linux: Memory ... 37.18 % | Primary applicati... Linux: CPU utiliz... 1.88 % | Primary applicat... Linux: Memory ... 44.50 % |
| RabbitMQ cluster Linux: CPU utiliz... 1.42 % | RabbitMQ cluster Linux: Memory ... 39.81 % | Secondary appli... Linux: CPU utiliz... 1.10 % | Secondary appli... Linux: Memory ... 53.00 % | Web Apache no... Linux: CPU utiliz... 1.93 % | Web Apache no... Linux: Memory ... 57.73 % | Web Apache no... Linux: CPU utiliz... 1.85 % |
| Web Apache no... Linux: Memory ... 63.23 % | Web Nginx node 1 Linux: CPU utiliz... 2.04 % | Web Nginx node 1 Linux: Memory ... 78.84 % | Web Nginx node 2 Linux: CPU utiliz... 1.93 % | Web Nginx node 2 Linux: Memory ... 47.55 % | Zabbix server Linux: CPU utiliz... 1.23 % | Zabbix server Linux: Memory ... 39.59 % |

## MySQL Node 1: Linux: CPU utilization



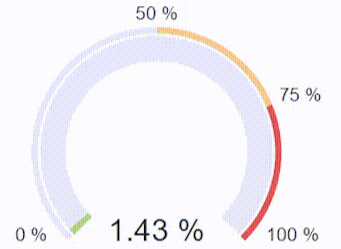

Linux: CPU utilization

## MySQL Node 1: Linux: Memory utilization



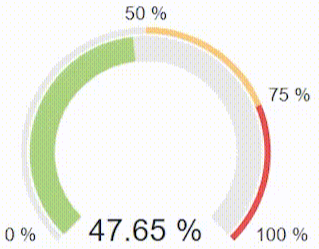

Linux: Memory utilization

## MySQL Node 1: Linux: CPU utilization



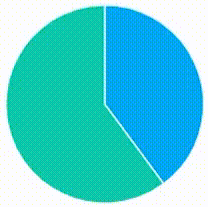

Linux: CPU utilization

## MySQL Node 1: Linux: Memory utilization



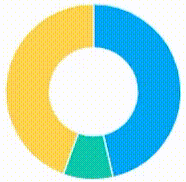

Linux: Memory utilization

## App Node memory usage



| | Value |
|---|---|
| Primary application node: Linux: Total memory | 3.56 GB |
| Primary application node: Linux: Available memory | 2.14 GB |

## App Node CPU time



| | Value |
|---|---|
| Primary application node: Linux: CPU user time | 0.4958 % |
| Primary application node: Linux: CPU iowait time | 0.09843 % |
| Primary application node: Linux: CPU system time | 0.4745 % |

## Top hosts

| Host | CPU Utilization | | Memory Utilization | |
|---|---|---|---|---|
| Docker node 2 | | 3.09 % | | 70.98 % |
| Docker node 1 | | 3.09 % | | 60.83 % |
| Docker node 3 | | 2.77 % | | 72.33 % |
| Web Nginx node 1 | | 2.04 % | | 78.84 % |
| Web Apache node 1 | | 1.93 % | | 57.73 % |
| Web Nginx node 2 | | 1.93 % | | 47.55 % |
| Primary application node | | 1.88 % | | 44.50 % |
| Web Apache node 2 | | 1.85 % | | 63.23 % |
| MySQL Node 2 | | 1.48 % | | 65.38 % |
| MySQL Node 1 | | 1.43 % | | 47.65 % |

MONZPHERE
UNLIMITED VISION

## Filters

Filter by Severity
All Severities

Filter by Tags
Enter tags

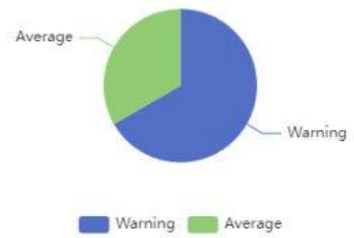
Filter by Date
Select date range

Filter by User
Enter user name

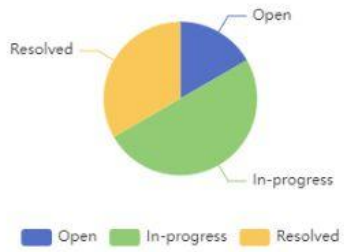
Filter by Hosts
Enter host name

## Analytic

### Incidents by Severity




### Incidents by Status




## Open

Warning

**Incidente:** SSL certificate expires soon (less than 7 days)
**Host:** www.facebook.com
**Data de Abertura:** 23/10/2024, 14:09:58
**Duração:** 5h 22m 40s
**Tags e Valores:** class: software | component: cert | scope: notice | target: certificate

Show Less

## In Progress

Warning

**Incidente:** SSL certificate expires soon (less than 7 days)
**Host:** instagram.com
**Data de Abertura:** 23/10/2024, 11:00:16
**Duração:** 8h 32m 22s
**Tags e Valores:** class: software | component: cert | scope: notice | target: certificate
***Último Ack:*** *Zabbix*
Add Comments

Average

**Incidente:** Zabbix agent is not available (for 3m)
**Host:** APP
**Data de Abertura:** 23/10/2024, 11:03:26
**Duração:** 8h 29m 12s
**Tags e Valores:** Aplicativo: Google | class: os | component: system | scope: availability | target: linux
***Último Ack:*** *Zabbix*
Add Comments

Average

**Incidente:** Zabbix agent is not available (for 3m)
**Host:** Banco de dados
**Data de Abertura:** 23/10/2024, 11:03:29
**Duração:** 8h 29m 9s
**Tags e Valores:** Aplicativo: Google | class: os | component: system | scope: availability | target: linux
***Último Ack:*** *Zabbix*
Add Comments

Show Less

## Resolved

Warning

**Incidente:** SSL certificate expires soon (less than 7 days)
**Host:** www.facebook.com
**Data de Abertura:** 23/10/2024, 11:00:58
**Data de Recuperação:** 23/10/2024, 14:09:55
***Último Ack:*** *usr*

Warning

**Incidente:** SSL certificate expires soon (less than 7 days)
**Host:** www.facebook.com
**Data de Abertura:** 23/10/2024, 10:59:58
**Data de Recuperação:** 23/10/2024, 11:00:35
***Último Ack:*** *Zabbix*

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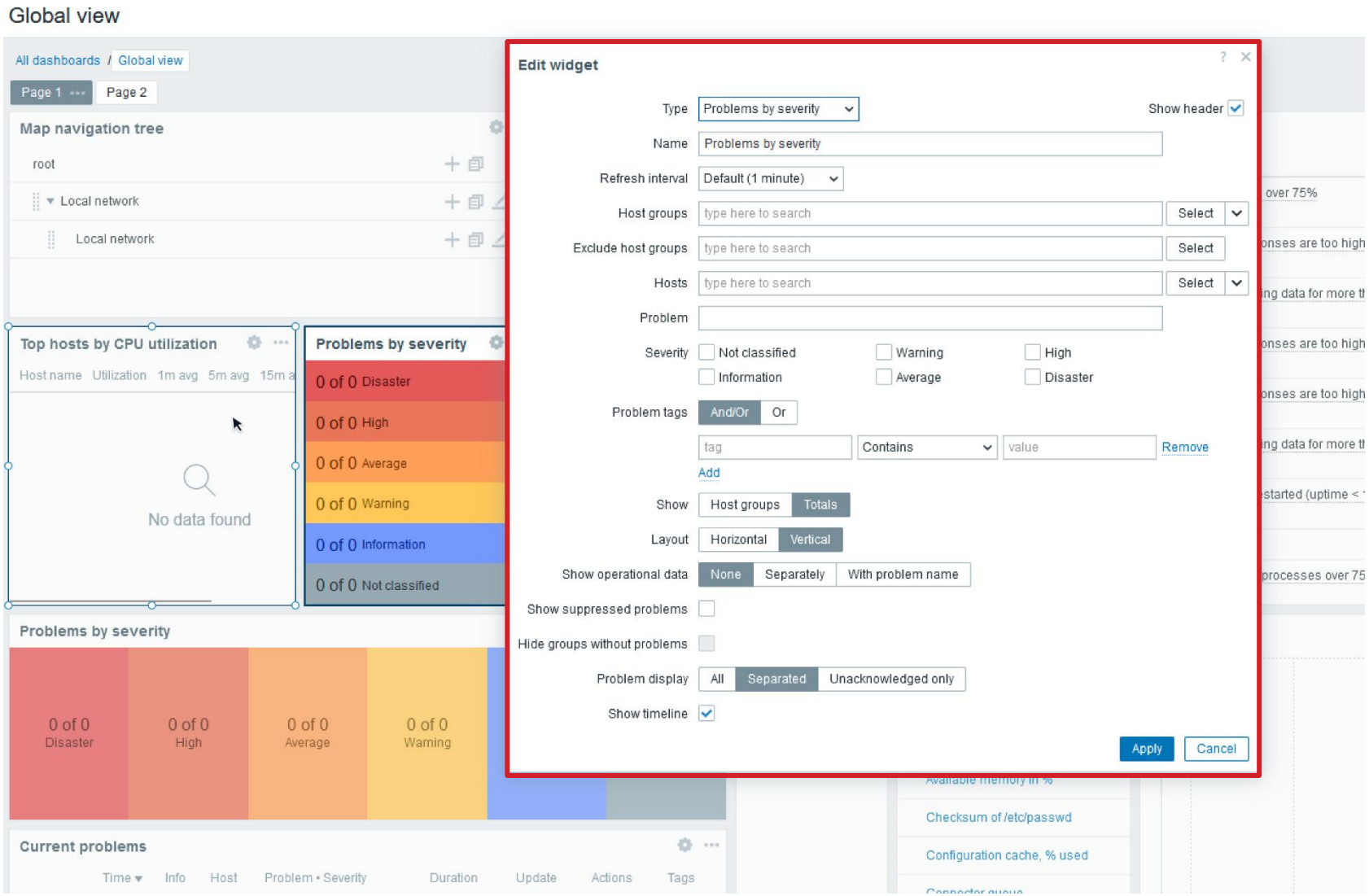
Zabbix 7.0.6. © 2001–2024, Zabbix SIA

# 7.4: Dashboard editing improvements





# 7.4: Item card widget

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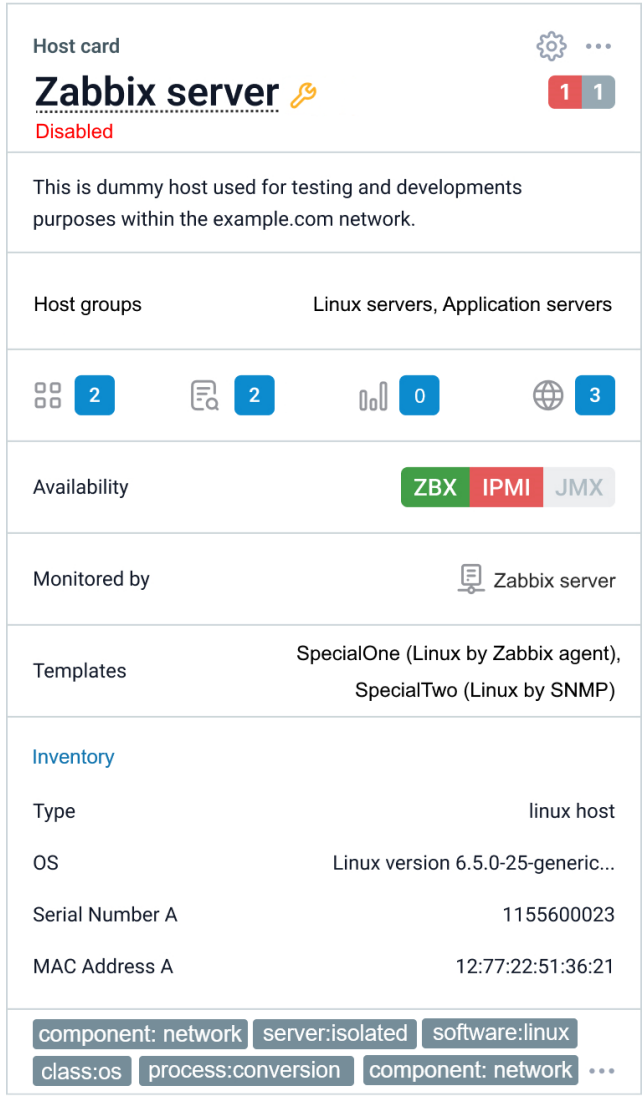
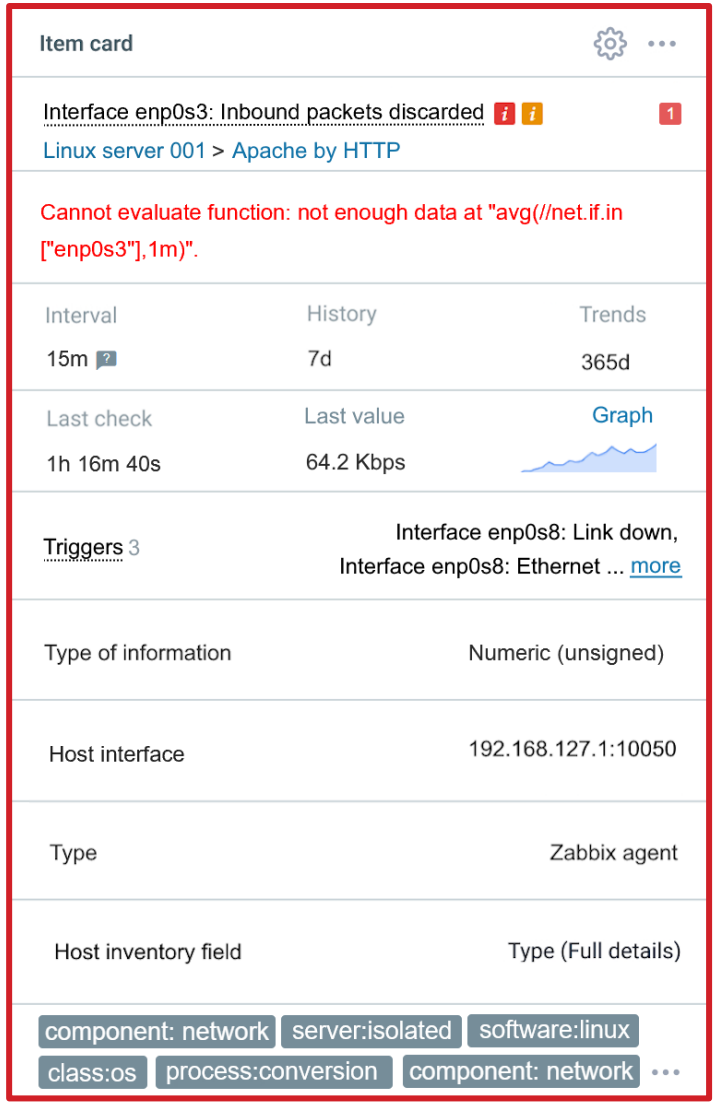
- Item details
- Latest data
- Links to graphs
- Tags



# 7.4: Palette colors for graph widget

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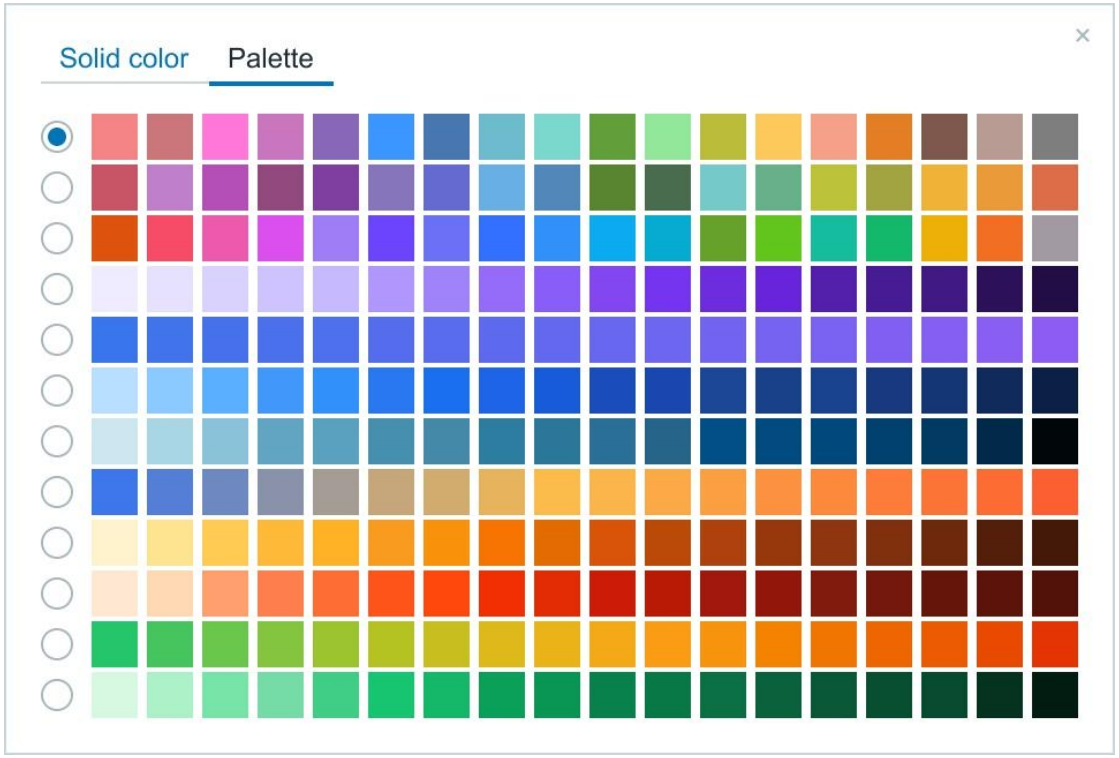
Pre-defined colors for a set of metrics

No need to manage colors for each metric

Nice looking result with zero-configuration!



# 7.4: Expose template and host tags on item level

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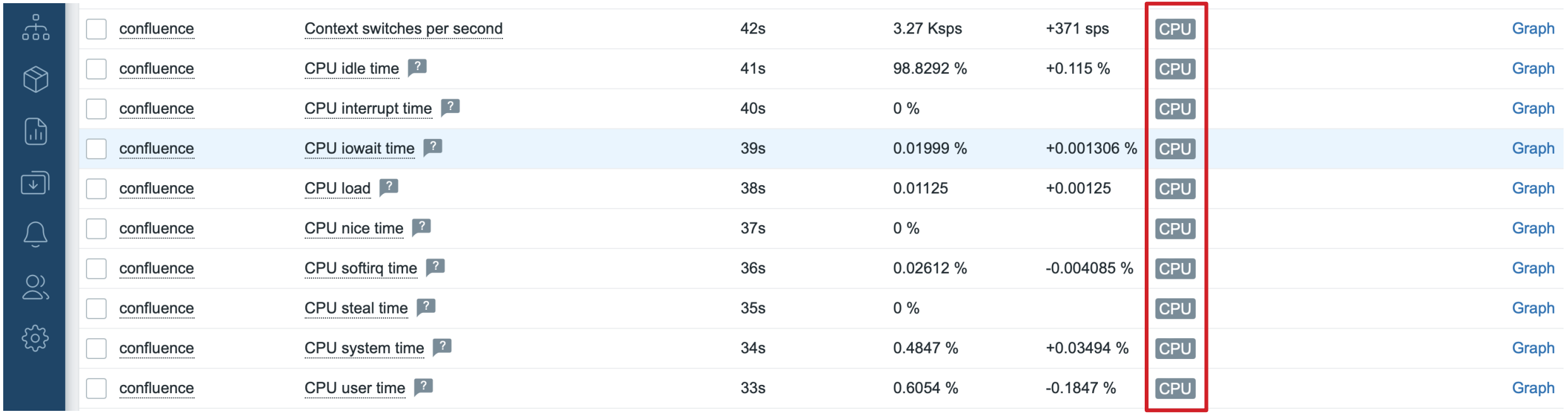

| | | | | | | |
|---|---|---|---|---|---|---|
| confluence | Context switches per second | 42s | 3.27 Ksps | +371 sps | CPU | Graph |
| confluence | CPU idle time | 41s | 98.8292 % | +0.115 % | CPU | Graph |
| confluence | CPU interrupt time | 40s | 0 % | | CPU | Graph |
| confluence | CPU iowait time | 39s | 0.01999 % | +0.001306 % | CPU | Graph |
| confluence | CPU load | 38s | 0.01125 | +0.00125 | CPU | Graph |
| confluence | CPU nice time | 37s | 0 % | | CPU | Graph |
| confluence | CPU softirq time | 36s | 0.02612 % | -0.004085 % | CPU | Graph |
| confluence | CPU steal time | 35s | 0 % | | CPU | Graph |
| confluence | CPU system time | 34s | 0.4847 % | +0.03494 % | CPU | Graph |
| confluence | CPU user time | 33s | 0.6054 % | -0.1847 % | CPU | Graph |

Filter and display also host and template tags

Show templates tags also for hosts

# 7.4: Widgets using host and template tags

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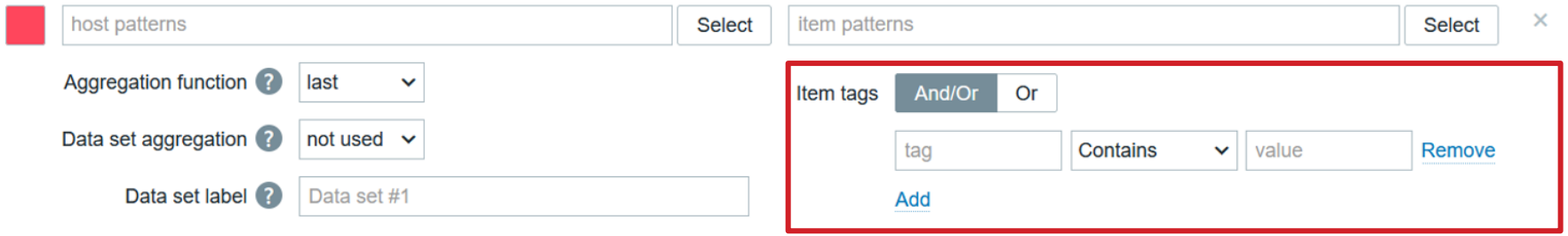
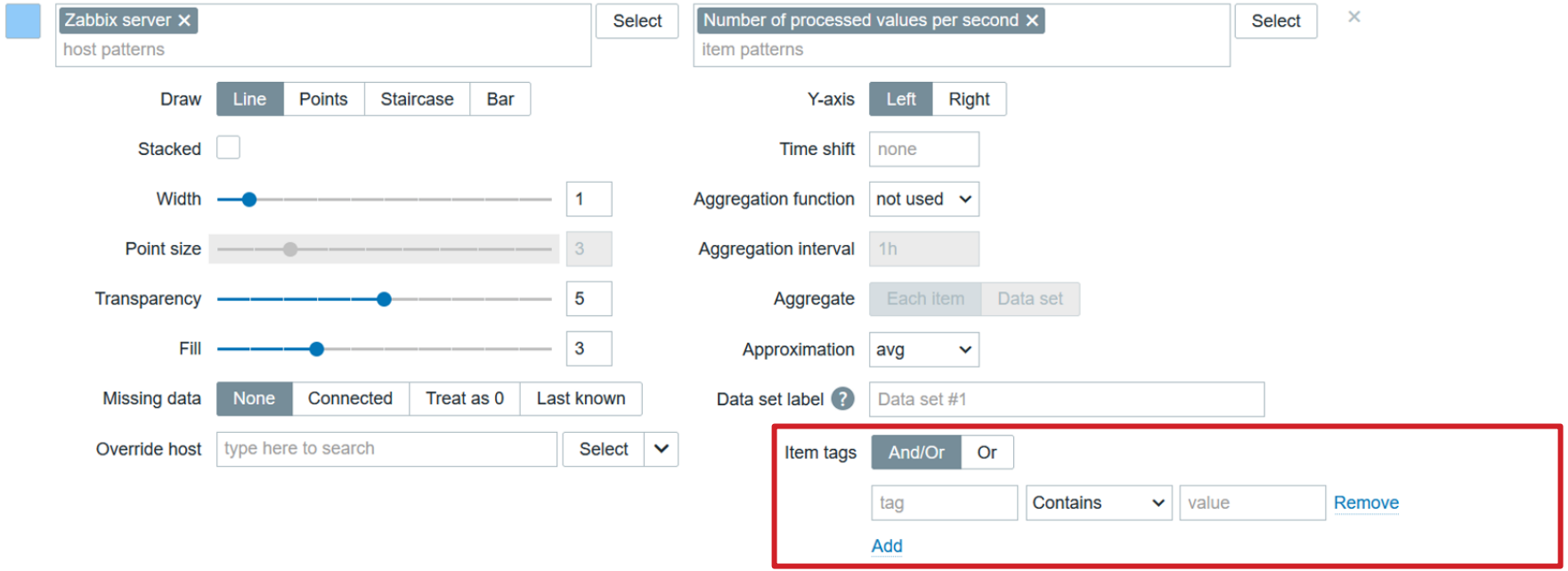
## Pie chart




## Graph widget

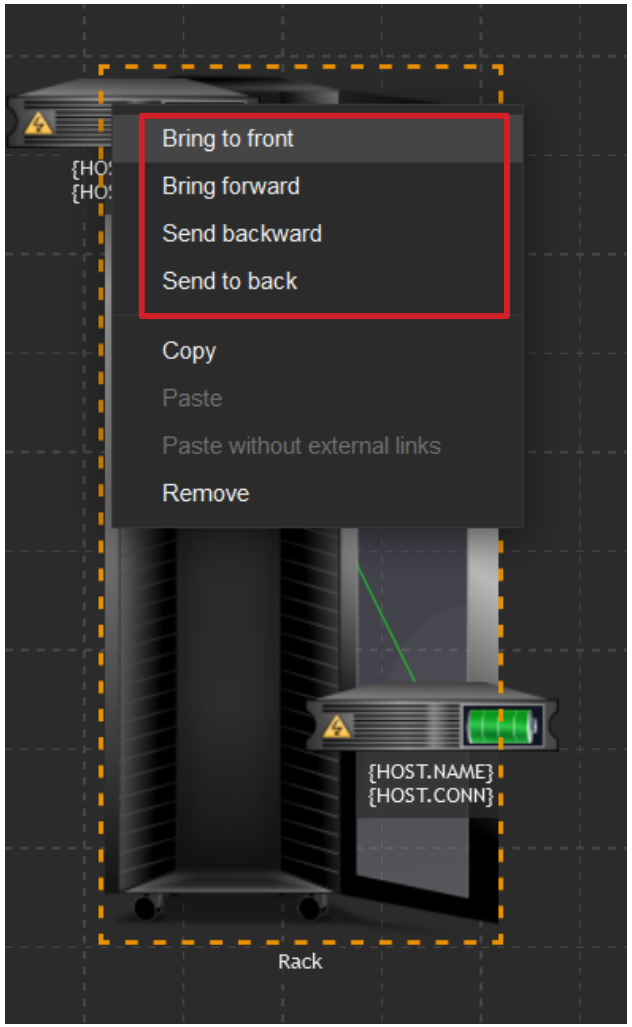


# 7.4: Map object re-ordering



Ability to re-order map elements:

- bring to front
- bring forward
- send backward
- send to back



# 7.4: New attributes for Maps

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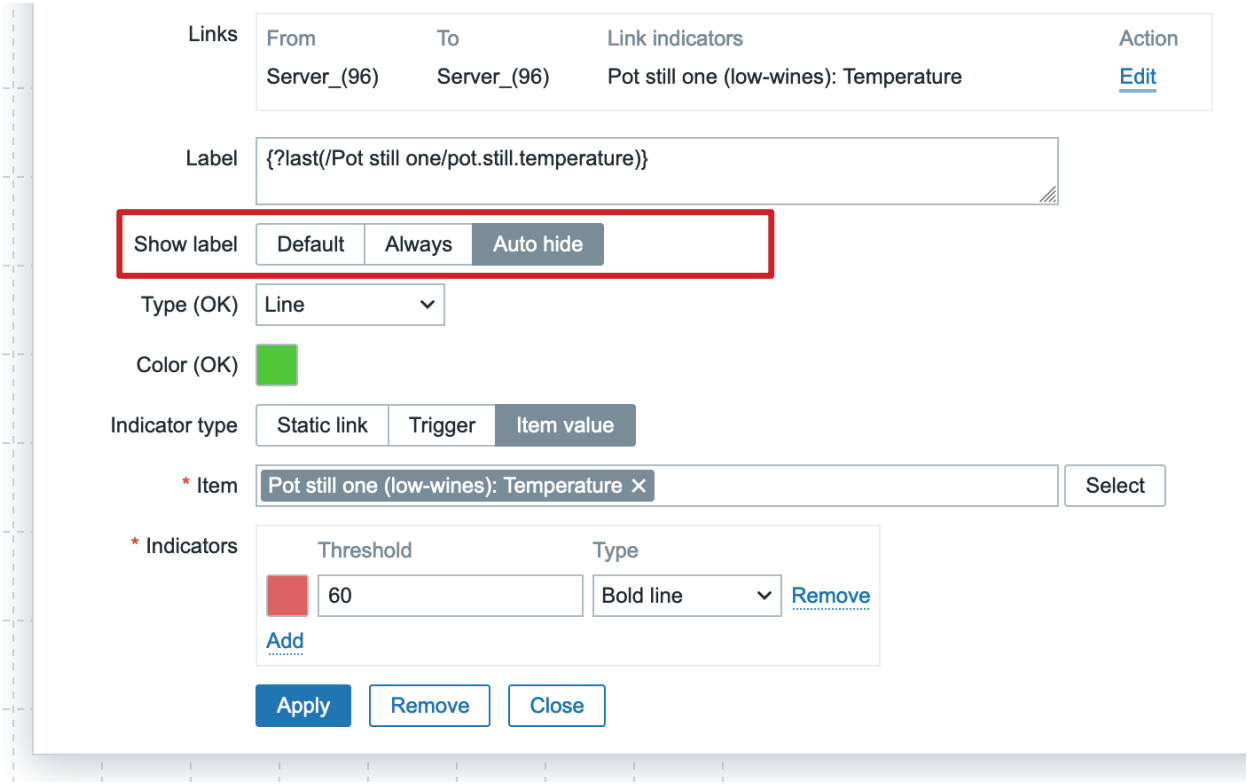
Auto hide option for labels

Background image to fit map size



# 8.0: Daily heatmap widget

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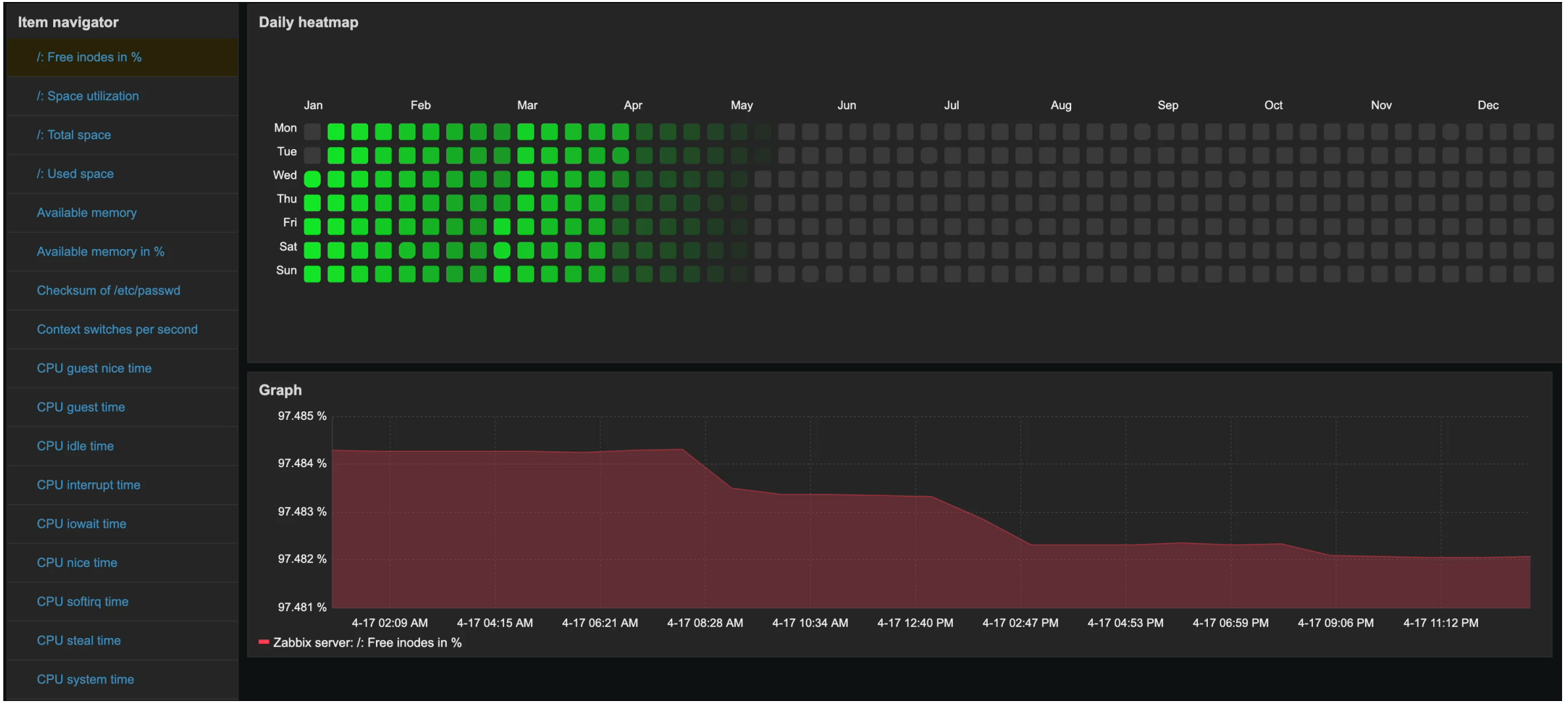

# 7.4: Scatterplot

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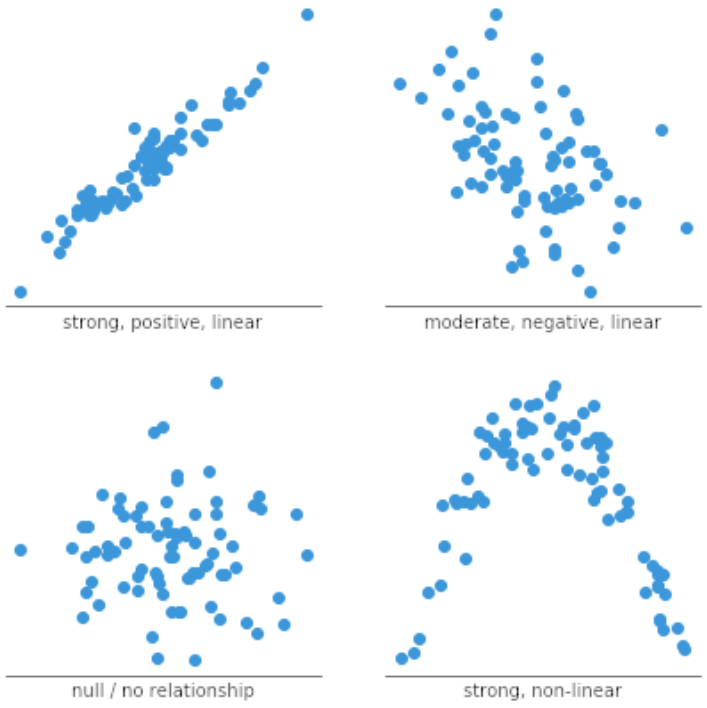
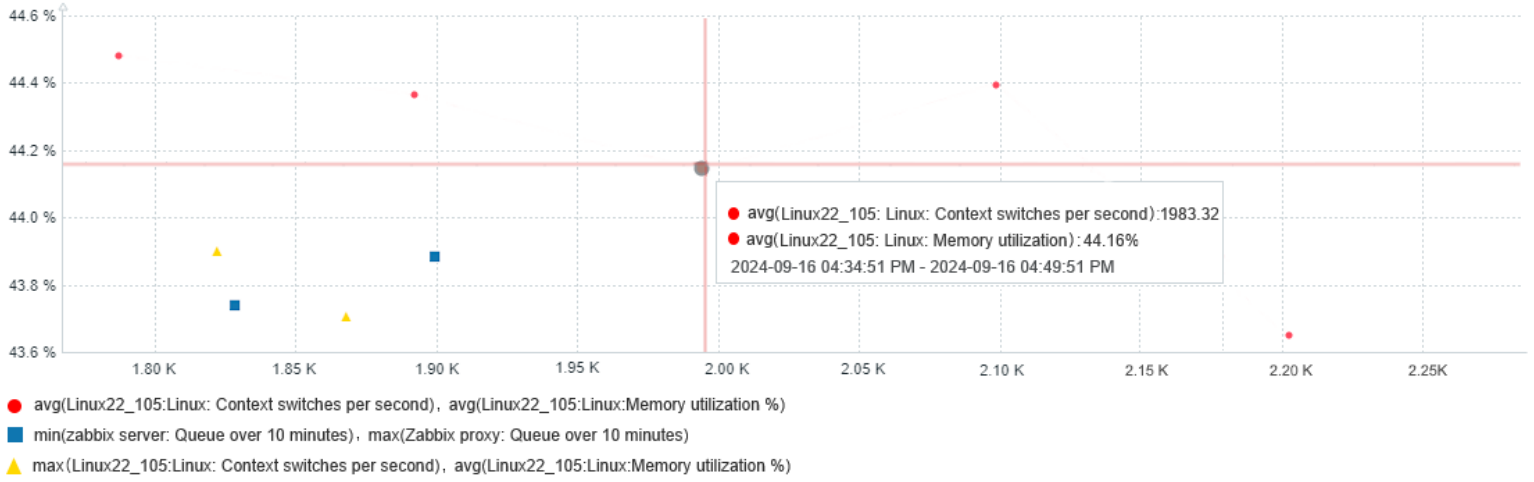
Correlation between metrics

Distribution of values



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# Quality and security

## Our top priority

# 7.2: The highest security standards

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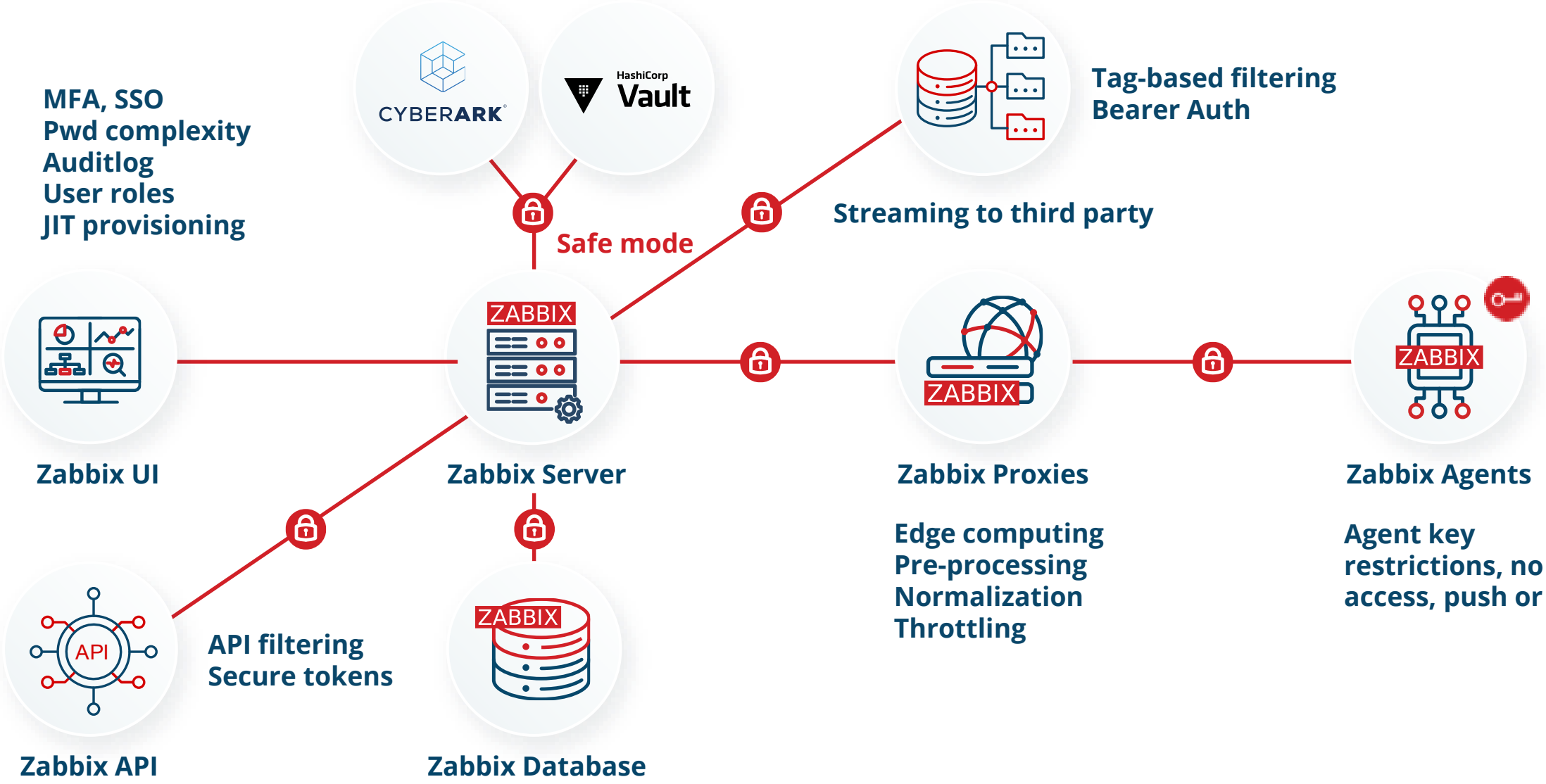

# 7.4: Encryption between Server and UI

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Encryption between Zabbix UI and Server

Enables encrypt all option, no unencrypted connections are accepted

# 7.4: Import of SSO certificates from UI

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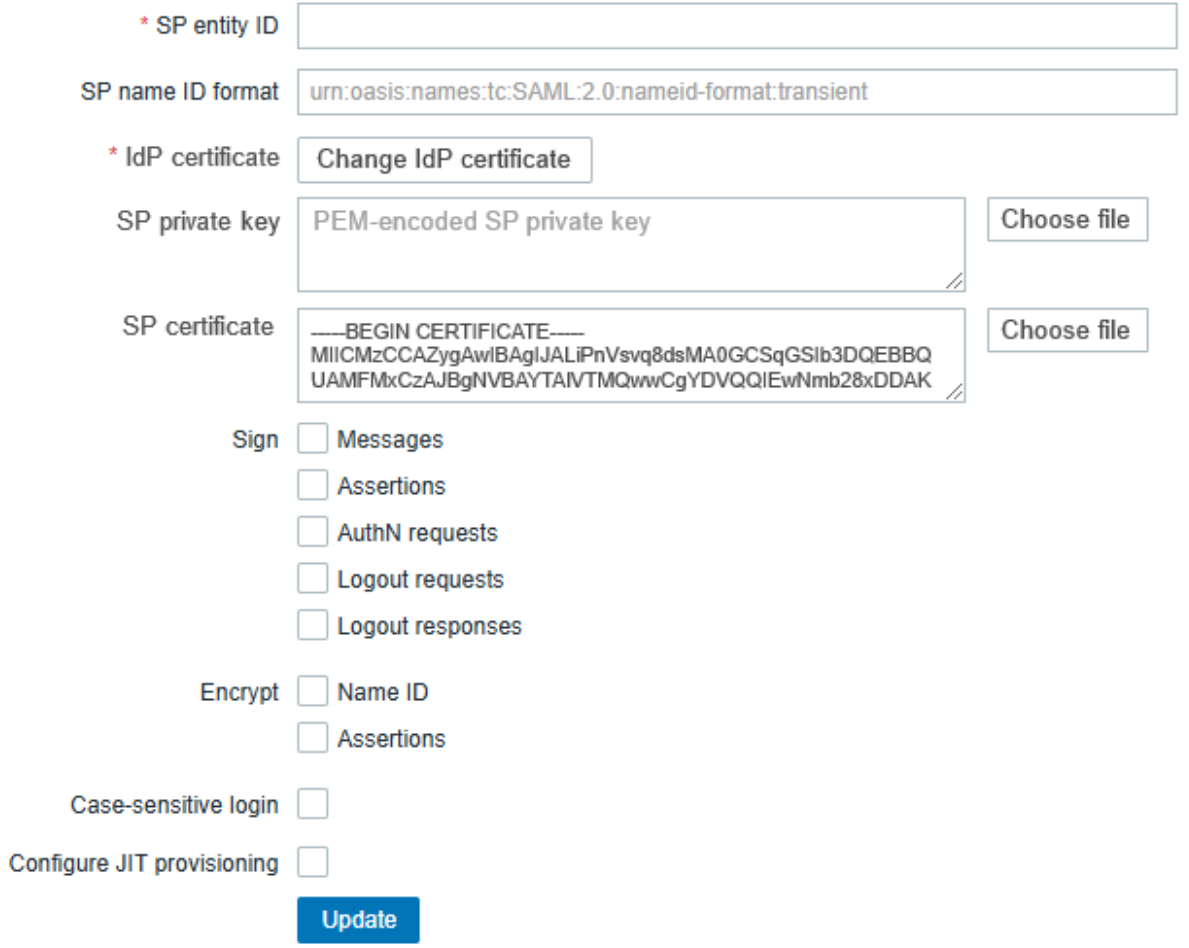
No access to filesystem is required

Cloud friendly solution



# 7.4: Support of OAuth 2.0

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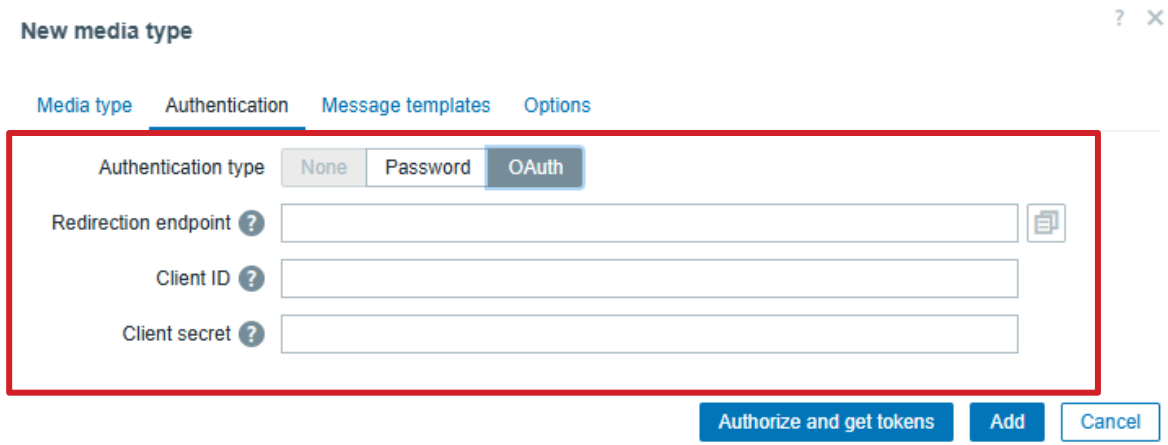
## No basic authentication anymore

Office 365

## Support of OAuth for SMTP



# 7.4: Secret macro resolution on proxies

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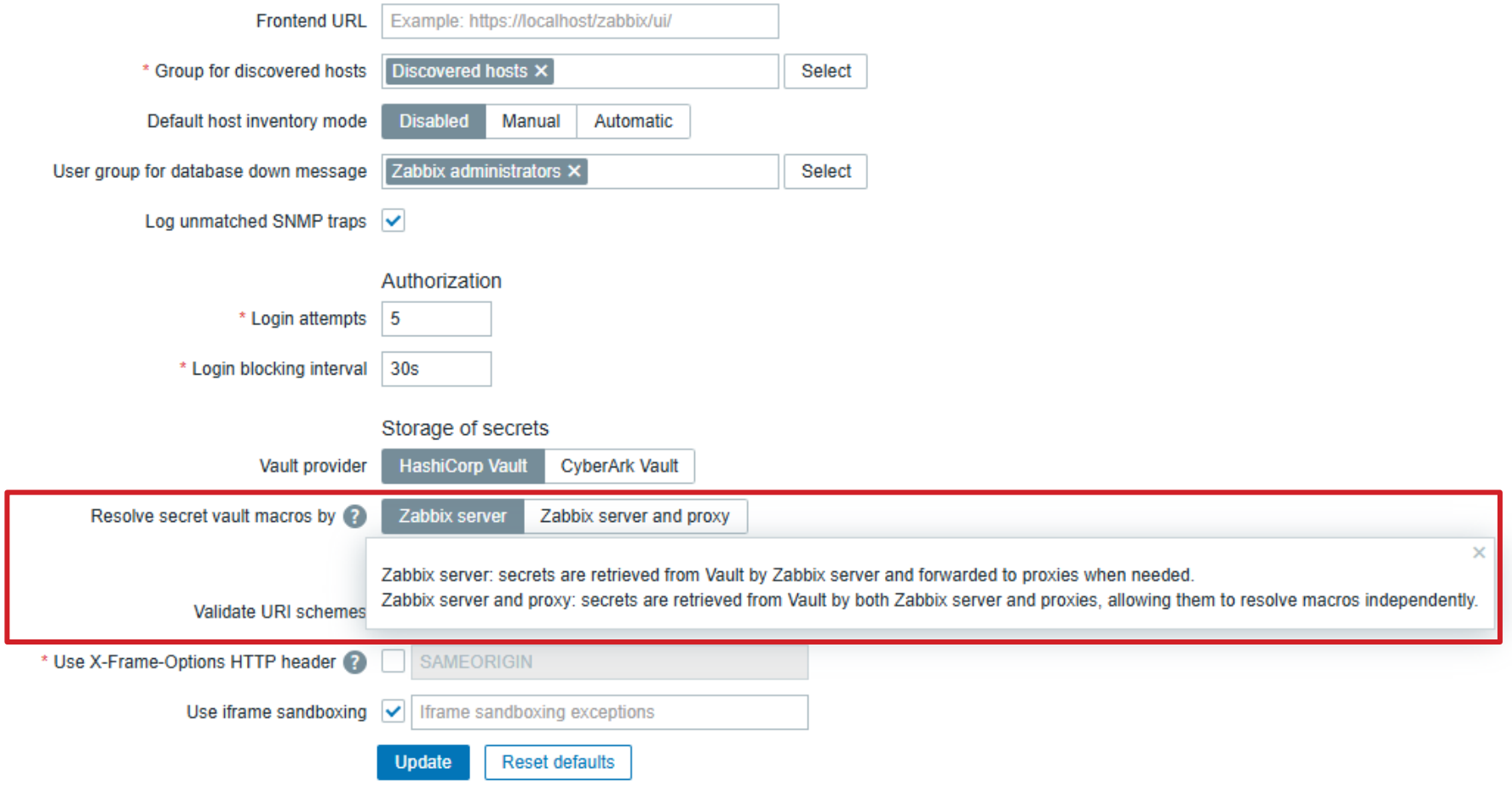
Can be more secure



# 7.4: Even more secure

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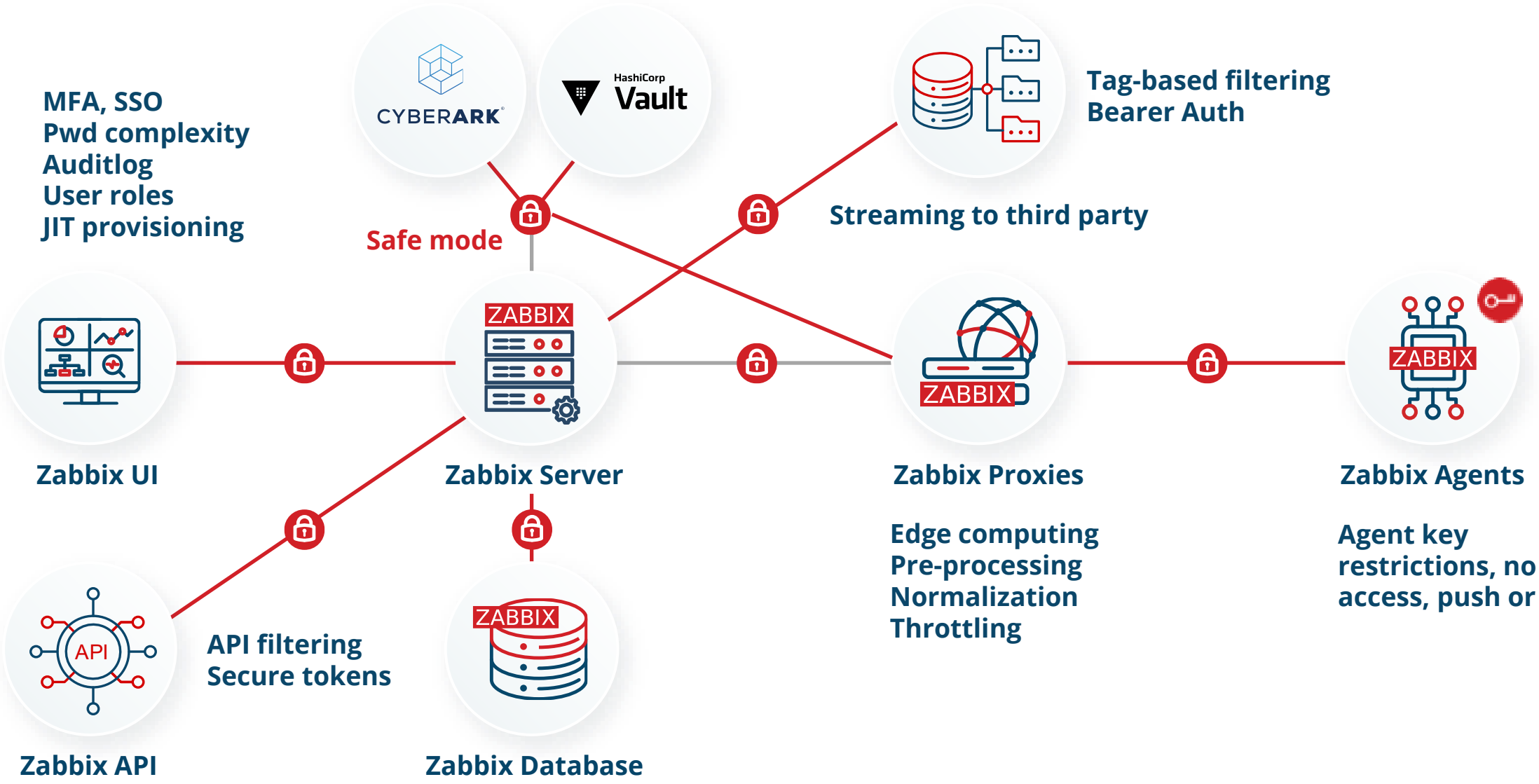

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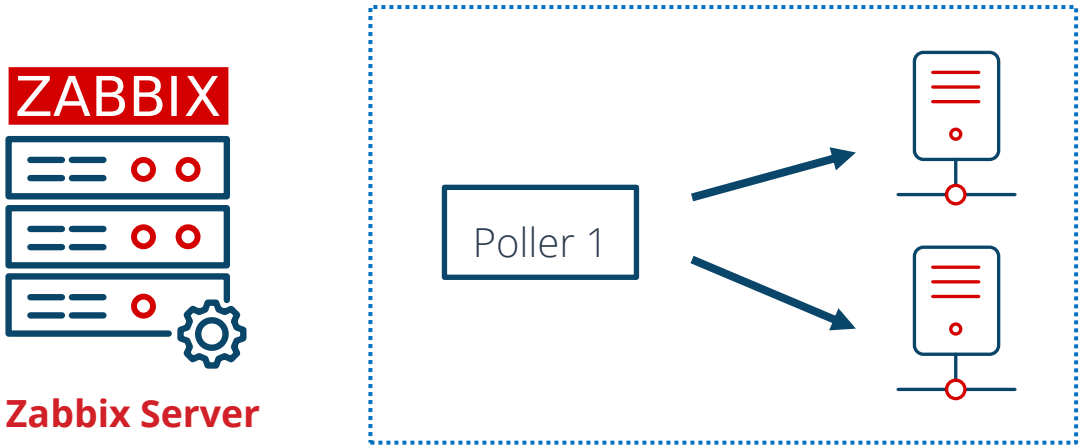
# Scalability and performance

## Lower TCO

# Performance: transition to async & threads

## 7.0 LTS



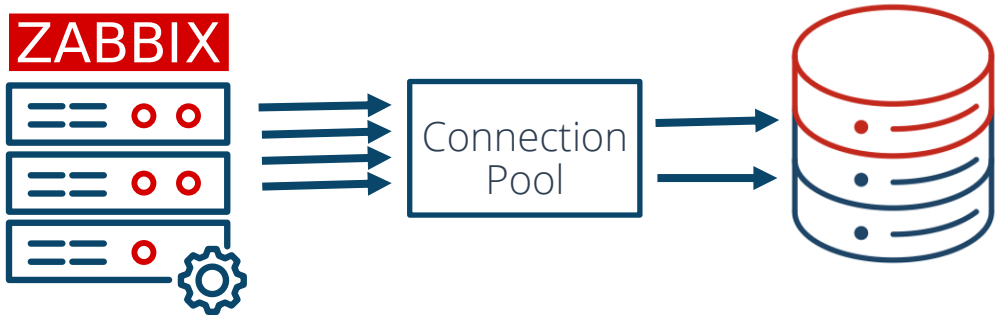

**Thousands of** connections per poller

One poller/discoverer to handle thousands of connections

Much lower resource usage = lower costs and energy use

Enables auto-scaling in the future

## ~~7.4~~ 8.0




Enables full transition to threads in the future

# Other improvements

## Preparing for bigger changes

# 7.4: Nested/cascaded LLD

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ZABBIX FEATURE REQUESTS / ZBXNEXT-1527

**cascaded/nested lld**

## One of the most top voted requests

Sam Potekhin added a comment - 2024 Aug 06 09:32 - edited

Yet another case:

How to monitor RAID controller:

1. Discover controllers (in case of HP - `ssacli ctrl all show`, storcli - `storcli show`) - we got controllers names with its numbers.
2. On every controller discover following things: logical disks, physical disks (not used or hotspares), arrays.
3. On every logical/physical disk retrieve info about it and place them into items.
4. Every thing from p.1, p.2 and p.3 have it's own items.

Why not make possible create discovery rule depended on another discovery rule? Currently only dependency on regular item is available.

Edit · Delete · Pin

## Enables:

Multi-level discovery based on structured data

Next generation ”smarter” templates for discovery and data collection

Simplifies integration with Configuration and Asset Management systems

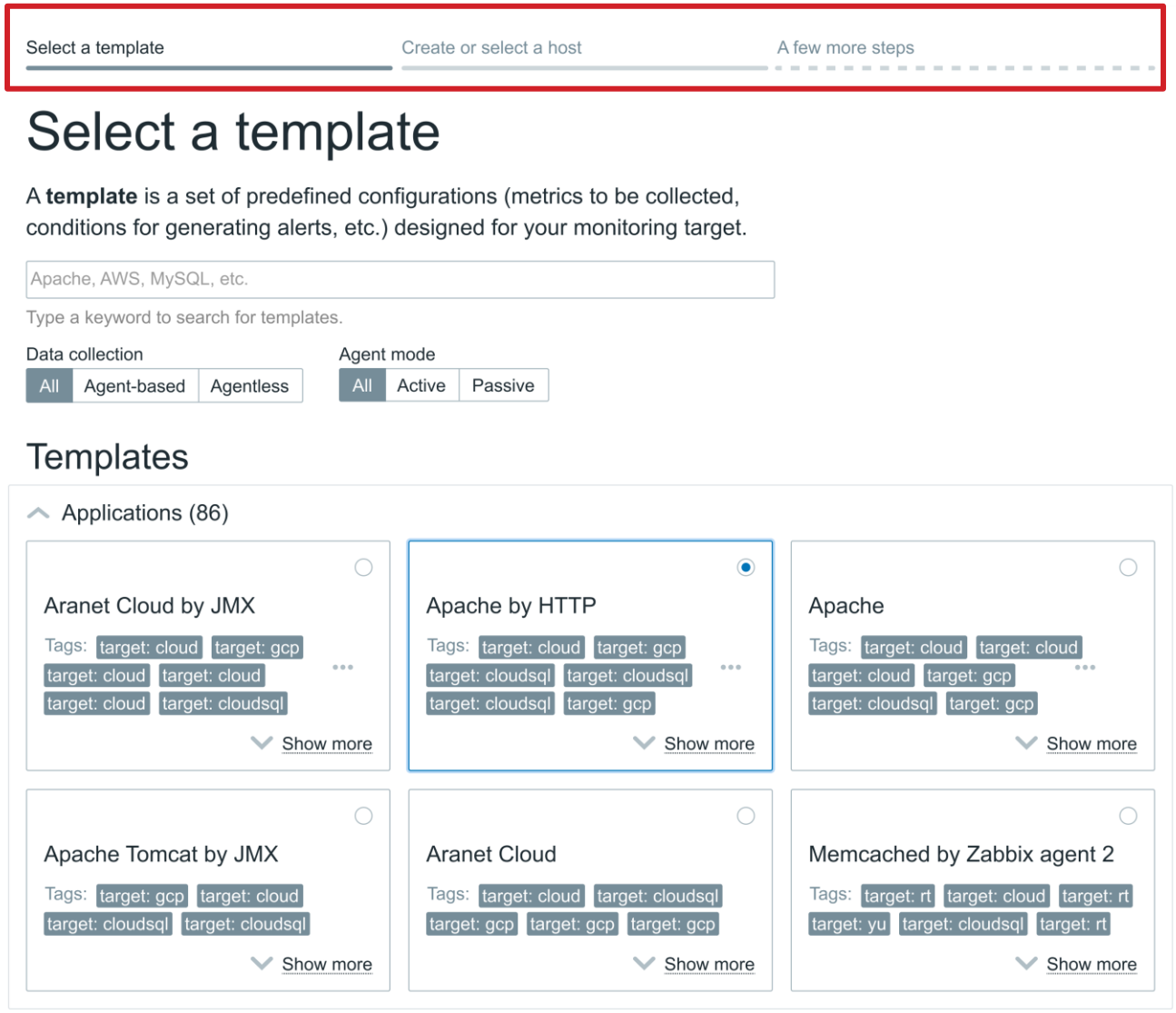
# 7.4: Host wizard



Step by step guidance

Clear instructions

Integrated with templates



# 7.4: New macros and functions

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## Macros

{ITEM.VALUE.DATE}

{ITEM.VALUE.TIME}

{ITEM.VALUE.TIMESTAMP}

{ITEM.VALUE.AGE}

{ITEM.LASTVALUE.DATE}

{ITEM.LASTVALUE.TIME}

{ITEM.LASTVALUE.TIMESTAMP}

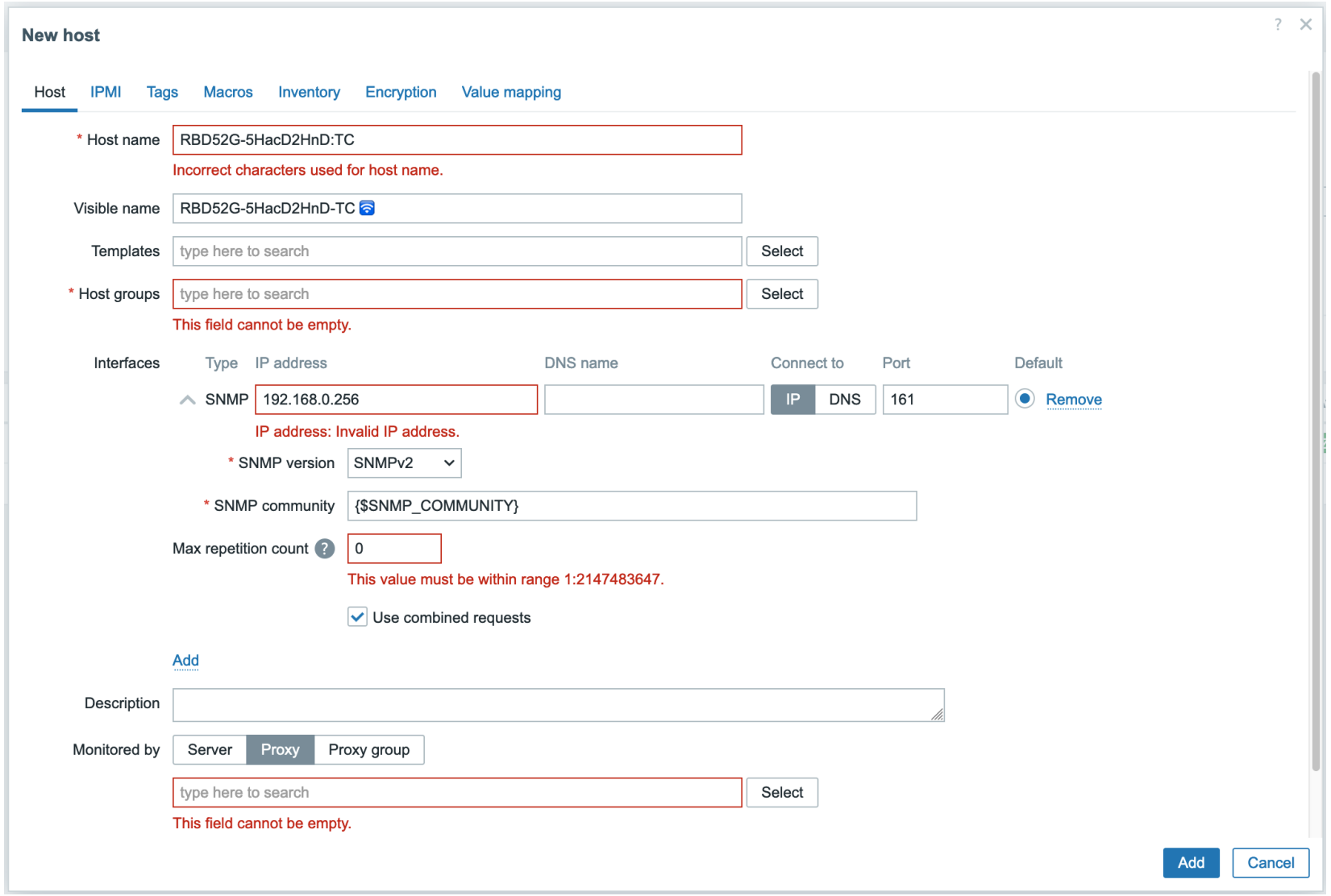
{ITEM.LASTVALUE.AGE}

## Functions

lastclock(/host/key, <#num<:time shift>>)

firstclock(/host/key, sec<:time shift>)

# 7.4: Inline form validation




## Benefits

Validation

Much better user experience

7.4

Selected forms only

8.0

All UI

# Release date: July 2025

# R&D works on Zabbix 8.0 LTS

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R&D

**APM**

Event correlation engine

Management functions

Enhanced network monitoring

**Massive usability improvements**

Data processing

APM and tracing functionality

**OpenTelemetry**

Topology data

**Processing of structured and streaming data**

Tracing, events, logs, binary

Visualization and reporting

**Visualization of complex data: tracing, flows**

**Widgets for advanced visualization**

Custom UI for any use case

Framework for widget development

Zabbix 7.4

Zabbix 8.0 LTS

# Event correlation

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## Phase I (work in progress)

Event pre-processing

Single event processing:

- event filtering and normalization
- tag and severity manipulation
- suppressing and closing events

## Phase II (Zabbix 8.0)

Complex event processing

Pre-processing for single events

Multiple events correlation

Time-windows

Complex event matching rules

Complex correlation rules

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# THANK YOU!

**Alexei Vladishev**
**Founder, CEO**