

**ZABBIX** '25  
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



# 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](https://zabbix.com/cloud)



Starts with **50\$** per month  
No per metric, host, users, whatever fees!

[zabbix.com/cloud](https://zabbix.com/cloud)

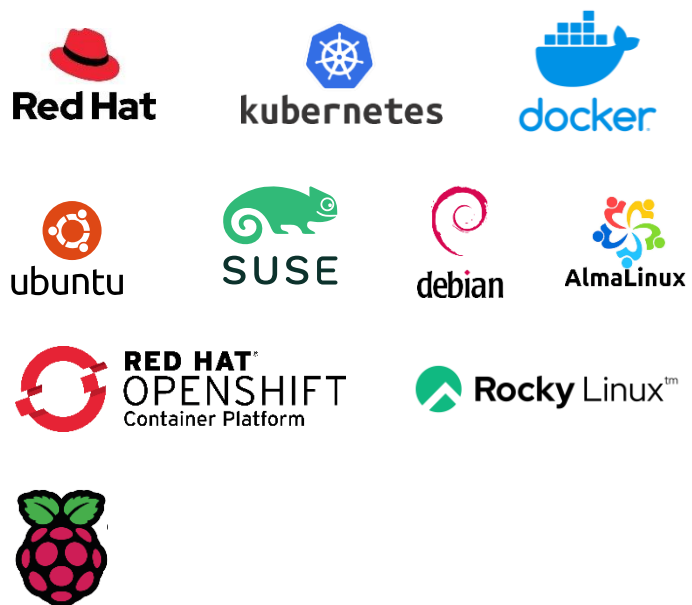


# 10GB are free forever

0.3\$ per extra GB per month

[zabbix.com/cloud](https://zabbix.com/cloud)

## ON-PREMISES



## IN THE CLOUD



## Zabbix Cloud (SaaS)



## Advantages



## 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](https://zabbix.com/cloud)

# How to start?

Go to:  
[zabbix.com/cloud](https://zabbix.com/cloud)




## Log in to your Zabbix Cloud Account

☒ Remember me [Forgot password?](#)


Log in

[Don't have an account? Sign up](#)




### 5 regions

Select from 5 regions and choose the data center that best fits your organization




### 7 tiers

Pick a tier that fits your budget and monitoring requirements



### Unlimited metrics

Zabbix Cloud does not limit the type and number of metrics you can collect



### Automatic updates

It is our responsibility to keep your instances up to date and patched.

# What's coming next?



## 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

# Closer to Zabbix 8.0 LTS

Now in-between two LTS releases



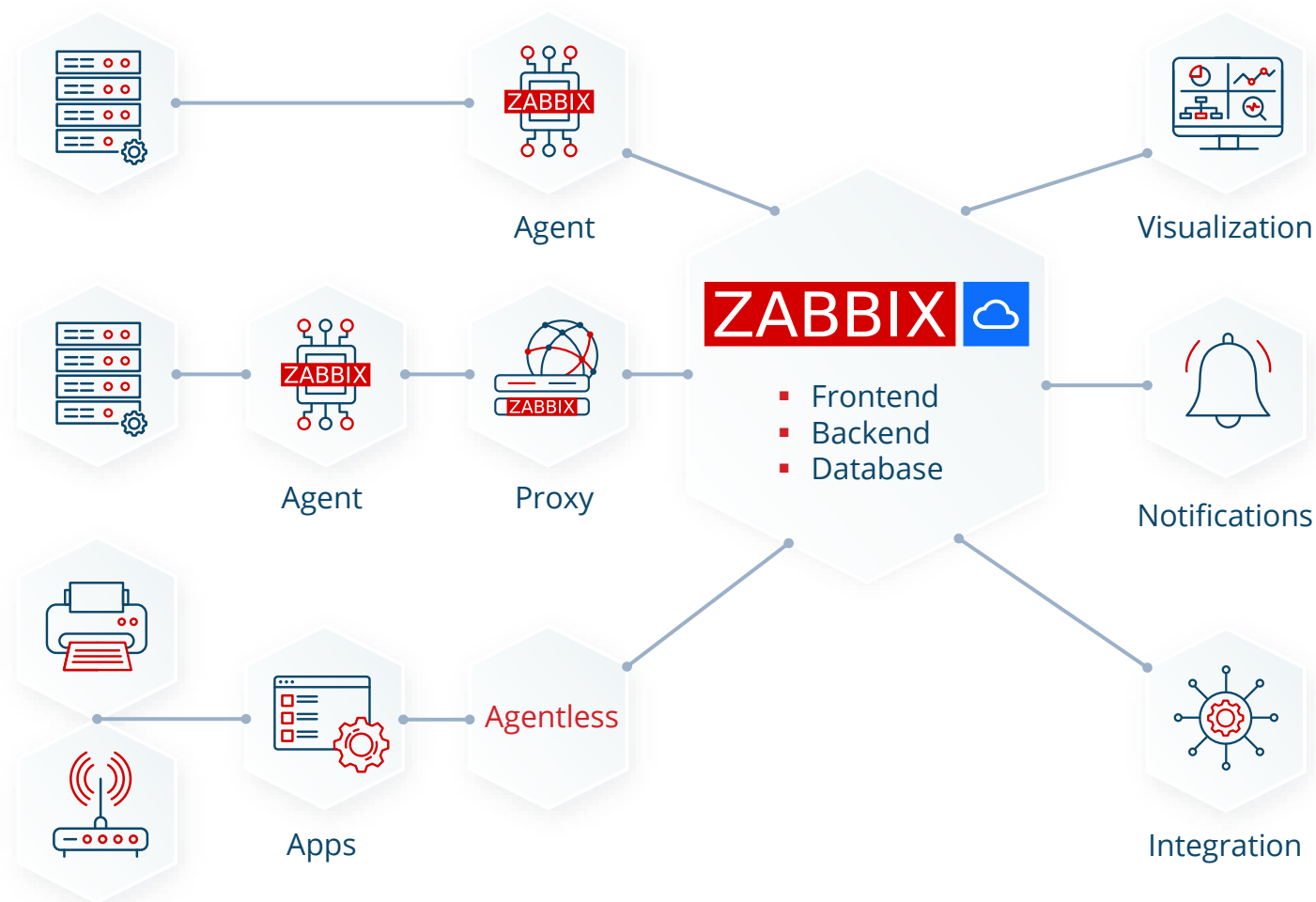
# Staying free and open-source

An inclusive solution

# An all-in-one solution

One product to cover it all

# Collect → Analyze → React and Visualize



High-quality data for **AIOps**

Proxies for **DM** and **Edge computing**

API for automation and integrations

























































































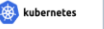






































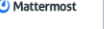


Auto-remediation

**Anomaly detection**

# All levels: from infrastructure to business

## 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

 .NET	 ICПредприятие	 Active Directory	 ActiveMQ	 Alcatel Lucent	 Cloudstack	 ClusterControl	 Confluence	 Cooling	 CoreOS	 HTTP	 HTTPS	 Huawei
 Alerta	 Android	 Ansible	 Antivirus	 Apache	 Couchbase	 cPanel	 D-Link	 Database monitoring	 Datacom	 IBM AIX	 IBM AS/400	 IBM MQ
 APC	 Appdynamics	 Application monitoring	 Arduino	 Arista	 DB2	 Debian	 Dell	 DNS	 Docker	 Ingress	 Intel	 InterSystems
 Aruba	 Asterisk	 Avaya	 AWS	 AWS CloudWatch	 Drupal	 Elasticsearch	 Elitex	 EMC	 Emerson	 IRC	 Jabber	 JasperReports
 AWS EC2	 AWS S3	 Backup	 Bacula	 Barracuda	 Exim	 Extreme Networks	 F5 Networks	 Facebook Messenger	 Fedora	 JBoss	 Jenkins	 Jira
 Bigpanda	 Blue Coat	 BMC Remedy	 BorgBackup	 Brocade	 firebird	 Firewalls	 Flowdock	 Fortinet	 FreeBSD	 Julia	 Juniper	 Kafka
 Buffalo	 Bugzilla	 C#	 Capacity planning	 Cassandra	 FreshDesk	 Fujitsu Siemens	 Galera cluster	 Geckoboard	 Git	 Kubernetes	 KVM	 Kyocera
 Centos	 Ceph	 Check Point	 Chef	 Chrome extension	 Glassfish	 GLPI	 Go	 Google Apps	 Google Cloud	 Lenovo	 Lexmark	 Lighttpd
 Cisco	 Citrix	 Cloud Foundry	 Cloud monitoring	 Cloudera	 Google Maps	 Grafana	 Graylog	 Hadoop	 HAProxy	 Logstash	 Lucidworks	 LXC
 Cloudstack	 ClusterControl	 Confluence	 Cooling	 CoreOS	 High Availability	 Hipchat	 Hitachi HDS, HNAs	 HP Enterprise	 HP-UX	 Mattermost	 Mellanox	 Memcached

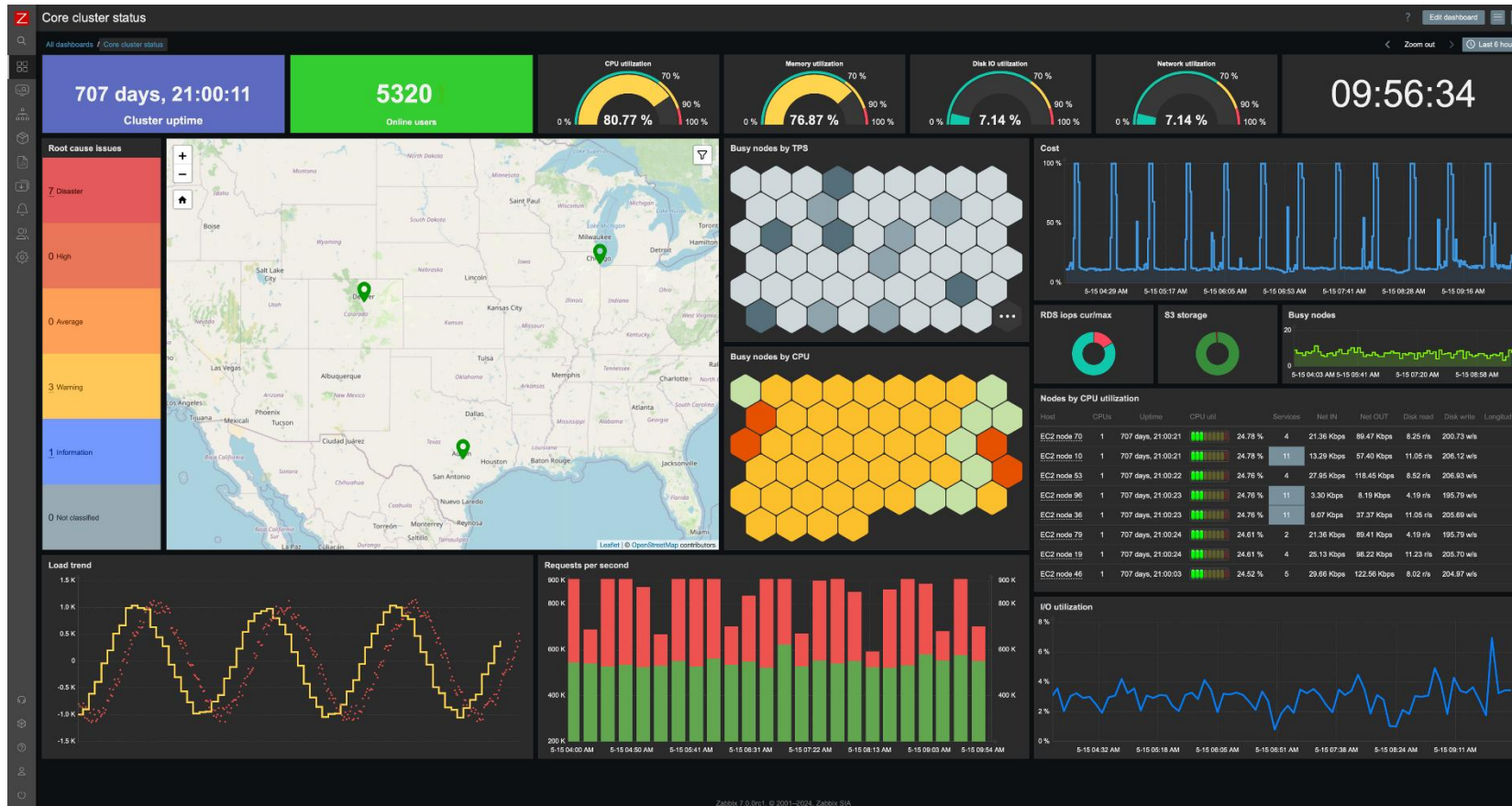
[zabbix.com/integrations](https://zabbix.com/integrations)



# 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

## Core widgets

Pie & donut charts

Gauge charts

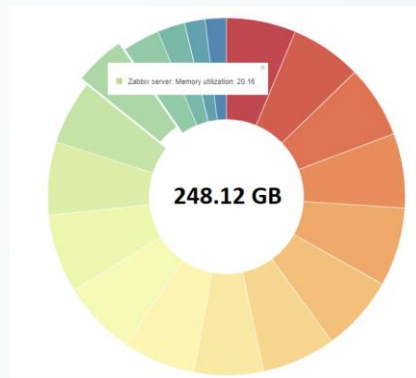
Item history



## Reporting

Capacity reports

Management reports



## Widgets navigators

Host navigator

Item navigator

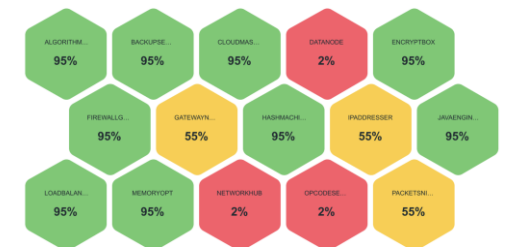
Countries	
▶ Estonia	12 105
▼ Germany	3 3
Berlin	3 3
▶ Latvia	9 103
▶ USA	12 105

## Advanced visualization

Honeycombs

Service trees

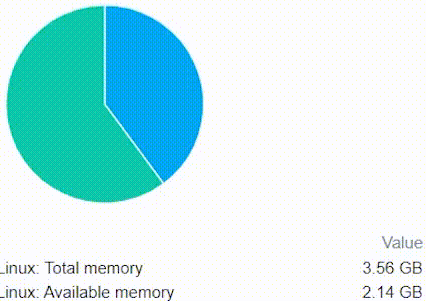
Topology



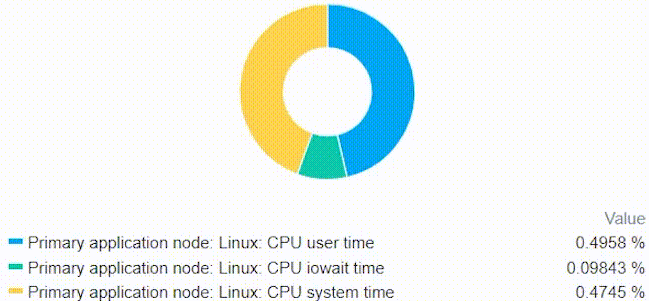
Resource utilization



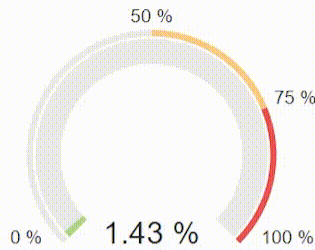
App Node memory usage



App Node CPU time

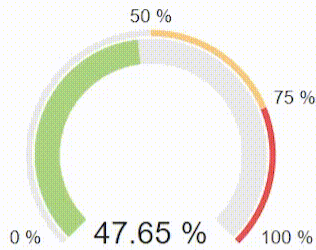


MySQL Node 1: Linux: CPU utilization



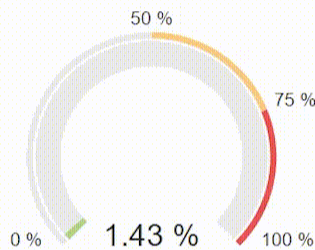
Linux: CPU utilization

MySQL Node 1: Linux: Memory utilization



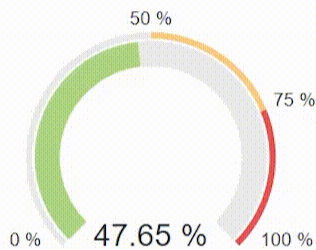
Linux: Memory utilization

MySQL Node 1: Linux: CPU utilization



Linux: CPU utilization

MySQL Node 1: Linux: Memory utilization



Linux: Memory utilization

Top hosts

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



## Filters



Filter by Severity

All Severities



Filter by Tags

Enter tags

Filter by Date

Select date range

Filter by User

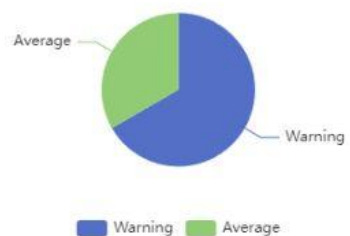
Enter user name

Filter by Hosts

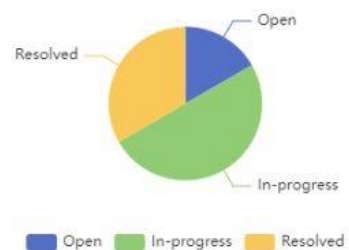
Enter host name

## 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

Show Less



# 7.4: Dashboard editing improvements

Global view

The screenshot shows the Zabbix Global view dashboard. On the left, there's a 'Map navigation tree' with 'root' and 'Local network' items. Below it, a widget titled 'Top hosts by CPU utilization' shows 'No data found'. To its right, a 'Problems by severity' widget displays a stacked bar chart with categories: Disaster (0 of 0), High (0 of 0), Average (0 of 0), Warning (0 of 0), Information (0 of 0), and Not classified (0 of 0). Below this is another 'Problems by severity' widget with a similar bar chart. At the bottom, a 'Current problems' table is visible with columns: Time, Info, Host, Problem + Severity, Duration, Update, Actions, and Tags.

The 'Edit widget' modal is open, showing configuration options for the 'Problems by severity' widget. The modal includes the following fields and options:

- Type: Problems by severity (dropdown)
- Show header: ☒
- Name: Problems by severity (text input)
- Refresh interval: Default (1 minute) (dropdown)
- Host groups: type here to search (text input) with a Select dropdown
- Exclude host groups: type here to search (text input) with a Select dropdown
- Hosts: type here to search (text input) with a Select dropdown
- Problem: (text input)
- Severity: ☐ Not classified, ☐ Warning, ☐ High, ☐ Information, ☐ Average, ☐ Disaster
- Problem tags: And/Or Or (radio buttons)
- tag (text input), Contains (dropdown), value (text input), Remove (button)
- Add (button)
- Show: Host groups Totals (radio buttons)
- Layout: Horizontal Vertical (radio buttons)
- Show operational data: None Separately With problem name (radio buttons)
- Show suppressed problems: ☐
- Hide groups without problems: ☐
- Problem display: All Separated Unacknowledged only (radio buttons)
- Show timeline: ☒
- Apply (button), Cancel (button)

# 7.4: Item card widget

Item details

Latest data

Links to graphs

Tags

Host card

Zabbix server

Disabled

1

1

This is dummy host used for testing and developments purposes within the example.com network.

Host groups

Linux servers, Application servers

2

2

0

3

Availability

ZBX IPMI JMX

Monitored by

Zabbix server

Templates

SpecialOne (Linux by Zabbix agent), SpecialTwo (Linux by SNMP)

Inventory

Type

linux host

OS

Linux version 6.5.0-25-generic...

Serial Number A

1155600023

MAC Address A

12:77:22:51:36:21

component: network server:isolated software:linux

class:os process:conversion component: network

Item card

Interface enp0s3: Inbound packets discarded

Linux server 001 > Apache by HTTP

Cannot evaluate function: not enough data at "avg(/net.if.in ["enp0s3"],1m)".

Interval

History

Trends

15m

7d

365d

Last check

Last value

Graph

1h 16m 40s

64.2 Kbps

Triggers 3

Interface enp0s8: Link down, Interface enp0s8: Ethernet ...

Type of information

Numeric (unsigned)

Host interface

192.168.127.1:10050

Type

Zabbix agent

Host inventory field

Type (Full details)

component: network server:isolated software:linux

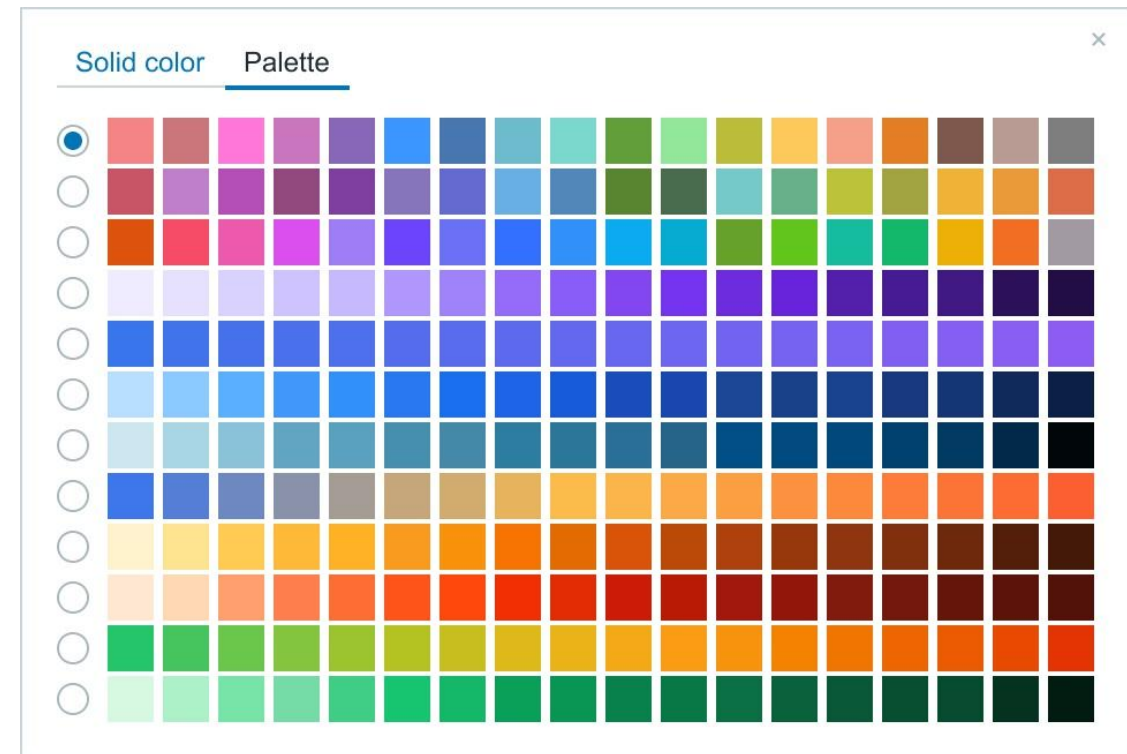
class:os process:conversion component: network

## 7.4: Palette colors for graph widget

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

	<input type="checkbox"/>	confluence	Context switches per second	42s	3.27 Ksps	+371 sps	CPU	Graph
	<input type="checkbox"/>	confluence	CPU idle time ?	41s	98.8292 %	+0.115 %	CPU	Graph
	<input type="checkbox"/>	confluence	CPU interrupt time ?	40s	0 %		CPU	Graph
	<input type="checkbox"/>	confluence	CPU iowait time ?	39s	0.01999 %	+0.001306 %	CPU	Graph
	<input type="checkbox"/>	confluence	CPU load ?	38s	0.01125	+0.00125	CPU	Graph
	<input type="checkbox"/>	confluence	CPU nice time ?	37s	0 %		CPU	Graph
	<input type="checkbox"/>	confluence	CPU softirq time ?	36s	0.02612 %	-0.004085 %	CPU	Graph
	<input type="checkbox"/>	confluence	CPU steal time ?	35s	0 %		CPU	Graph
	<input type="checkbox"/>	confluence	CPU system time ?	34s	0.4847 %	+0.03494 %	CPU	Graph
	<input type="checkbox"/>	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

## Pie chart

host patterns

Select

item patterns

Select

×

Aggregation function ? last

Data set aggregation ? not used

Data set label ? Data set #1

Item tags

And/Or Or

tag

Contains

value

Remove

Add

## Graph widget

Zabbix server ×

host patterns

Select

Number of processed values per second ×

item patterns

Select

×

Draw 

Line

Points

Staircase

Bar

Stacked ☐

Width  1

Point size  3

Transparency  5

Fill  3

Missing data 

None

Connected

Treat as 0

Last known

Override host 

type here to search

Select

▼

Y-axis 

Left

Right

Time shift 

none

Aggregation function 

not used

Aggregation interval 

1h

Aggregate 

Each item

Data set

Approximation 

avg

Data set label ? Data set #1

Item tags

And/Or Or

tag

Contains

value

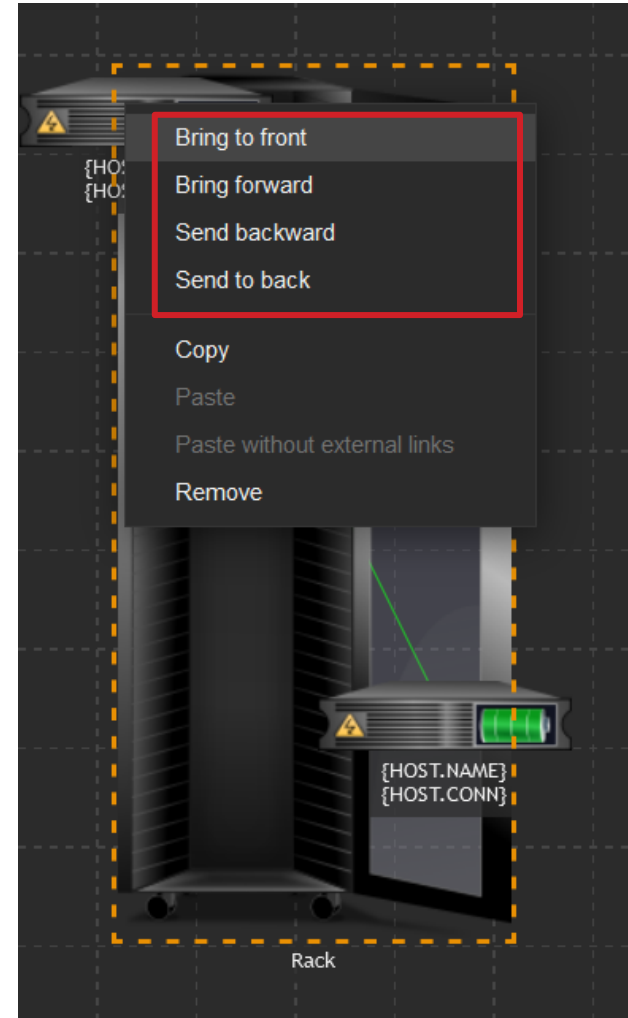
Remove

Add

## 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

Auto hide option for labels

Background image to fit map size

Links	From	To	Link indicators	Action
	Server_(96)	Server_(96)	Pot still one (low-wines): Temperature	<a href="#">Edit</a>

Label	<input type="text" value="{?last(/Pot still one/pot.still.temperature)}"/>
-------	--

Show label	<input type="radio"/> Default	<input type="radio"/> Always	<input checked="" type="radio"/> Auto hide
------------	-------------------------------	------------------------------	--

Type (OK)	<input type="text" value="Line"/>
-----------	-----------------------------------

Color (OK)	<input type="color" value="#00FF00"/>
------------	---------------------------------------

Indicator type	<input type="radio"/> Static link	<input type="radio"/> Trigger	<input checked="" type="radio"/> Item value
----------------	-----------------------------------	-------------------------------	---

* Item	<input type="text" value="Pot still one (low-wines): Temperature"/>	<input type="button" value="Select"/>
--------	---	---------------------------------------

* Indicators	<table><tr><td>Threshold</td><td><input type="text" value="60"/></td></tr><tr><td>Type</td><td><input type="text" value="Bold line"/></td></tr></table>	Threshold	<input type="text" value="60"/>	Type	<input type="text" value="Bold line"/>	<input type="button" value="Remove"/>
Threshold	<input type="text" value="60"/>					
Type	<input type="text" value="Bold line"/>					

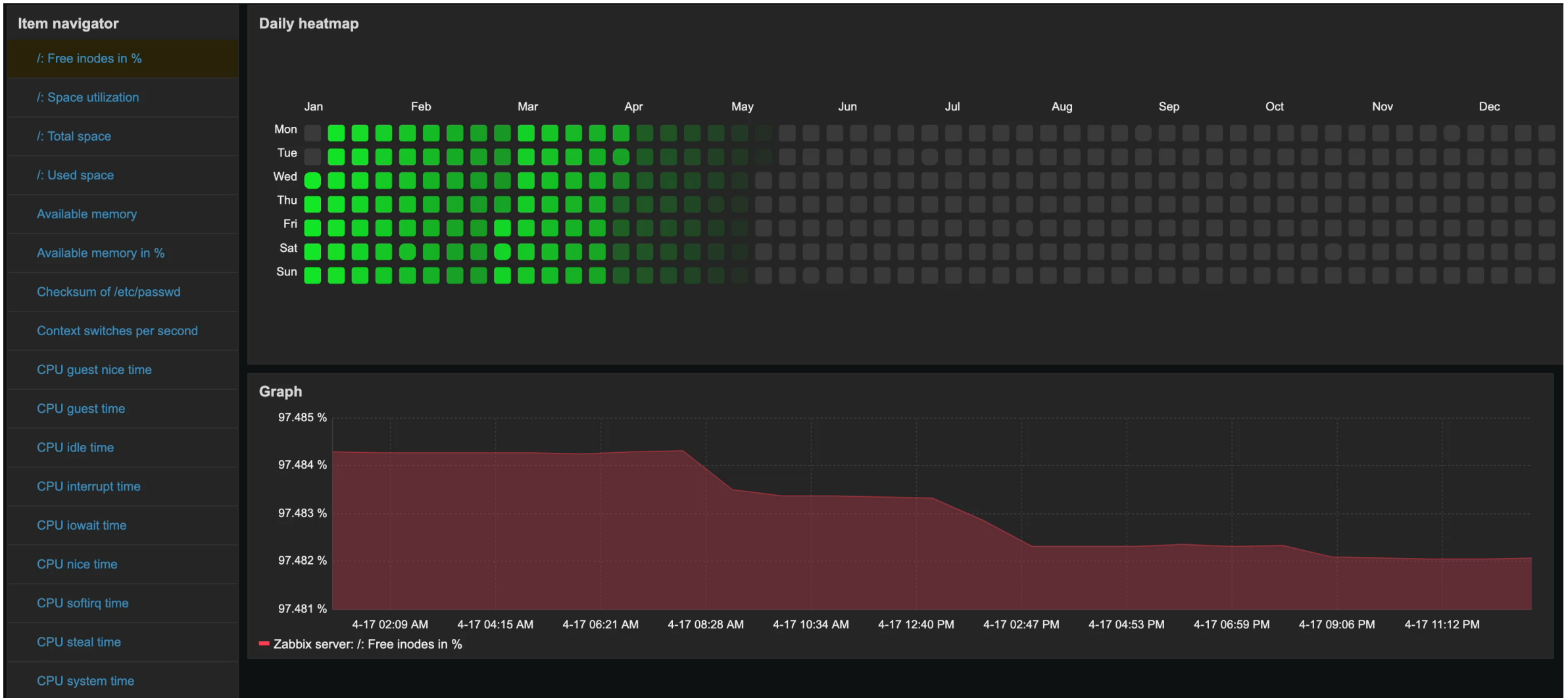
  

<input type="button" value="Add"/>
------------------------------------

<input type="button" value="Apply"/>	<input type="button" value="Remove"/>	<input type="button" value="Close"/>
--------------------------------------	---------------------------------------	--------------------------------------

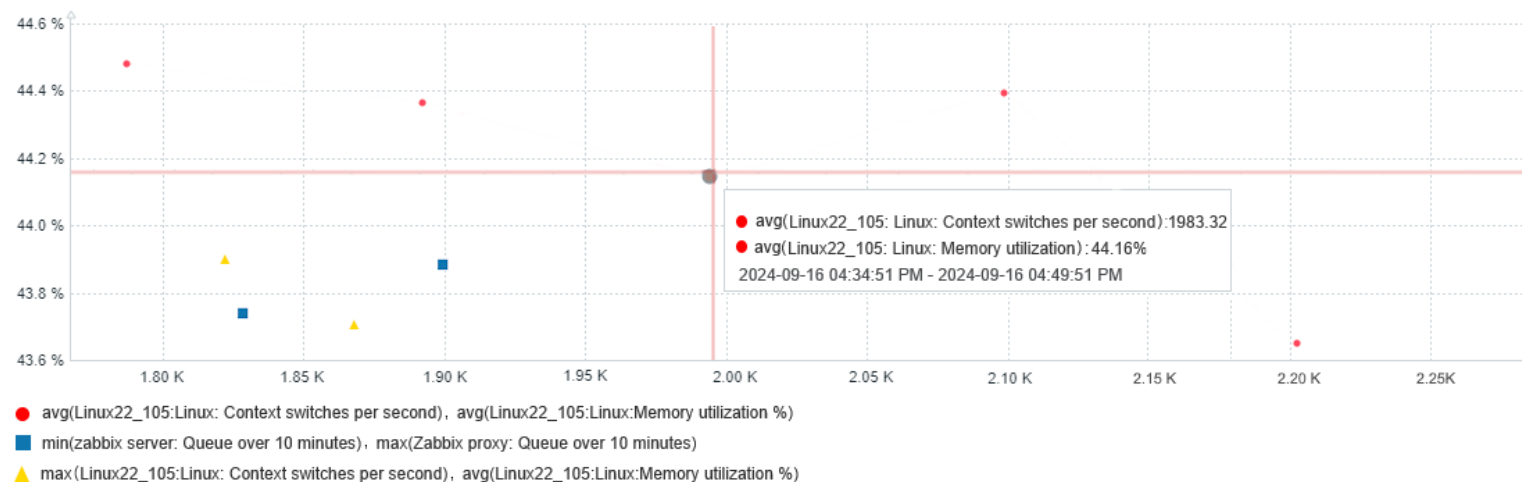
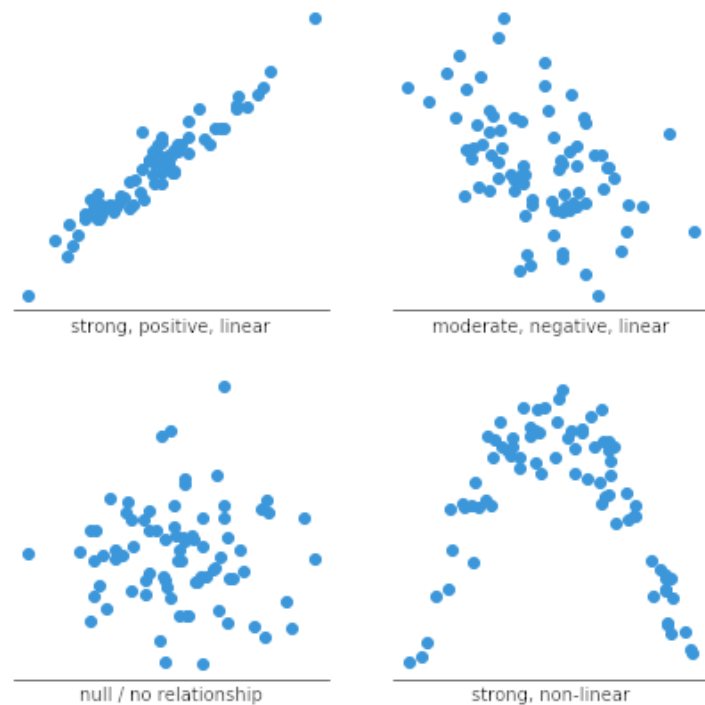
# 8.0: Daily heatmap widget



# 7.4: Scatterplot

Correlation between metrics

Distribution of values

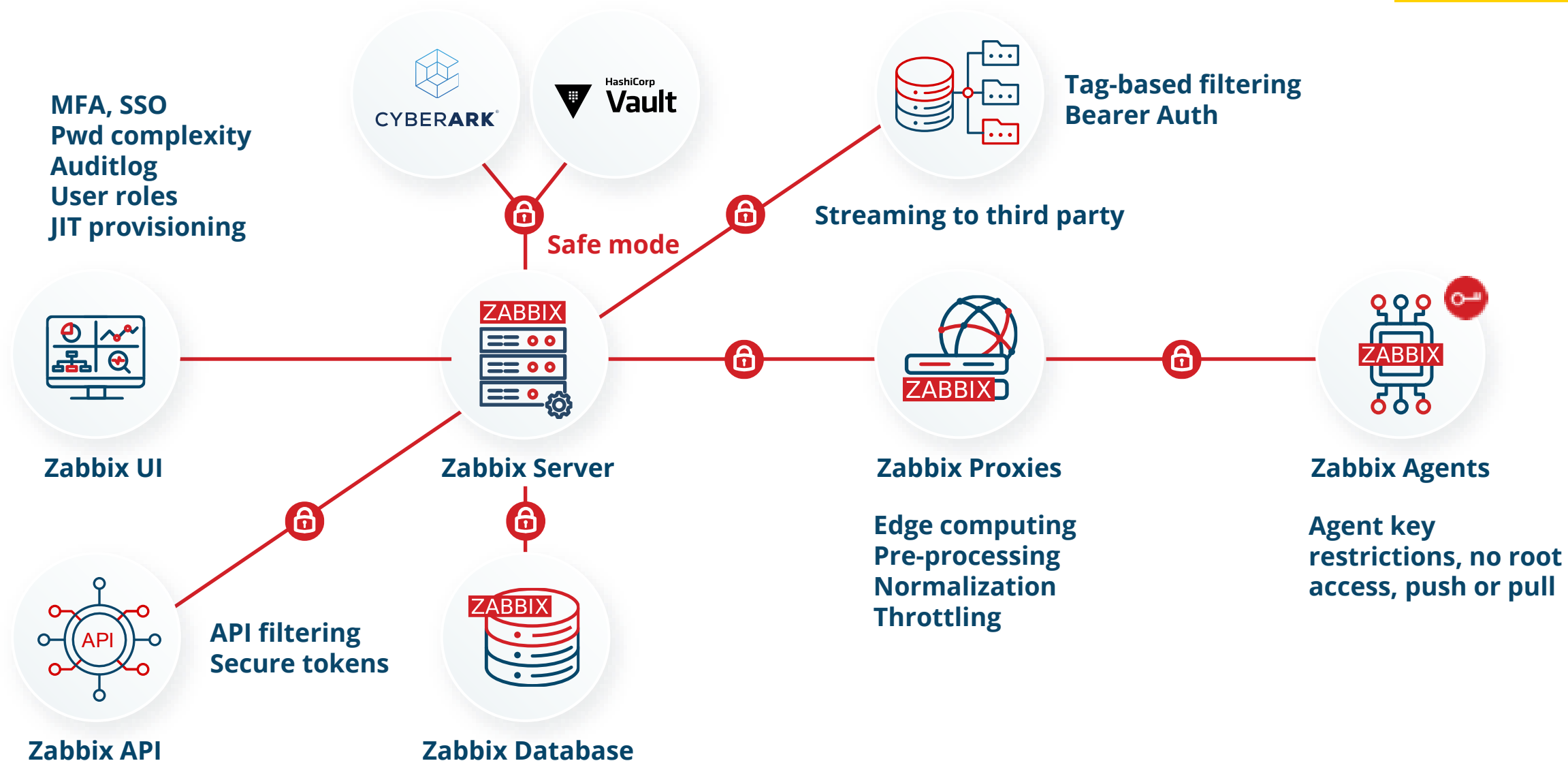




# Quality and security

Our top priority

# 7.2: The highest security standards





## 7.4: Encryption between Server and UI

Encryption between Zabbix UI and Server

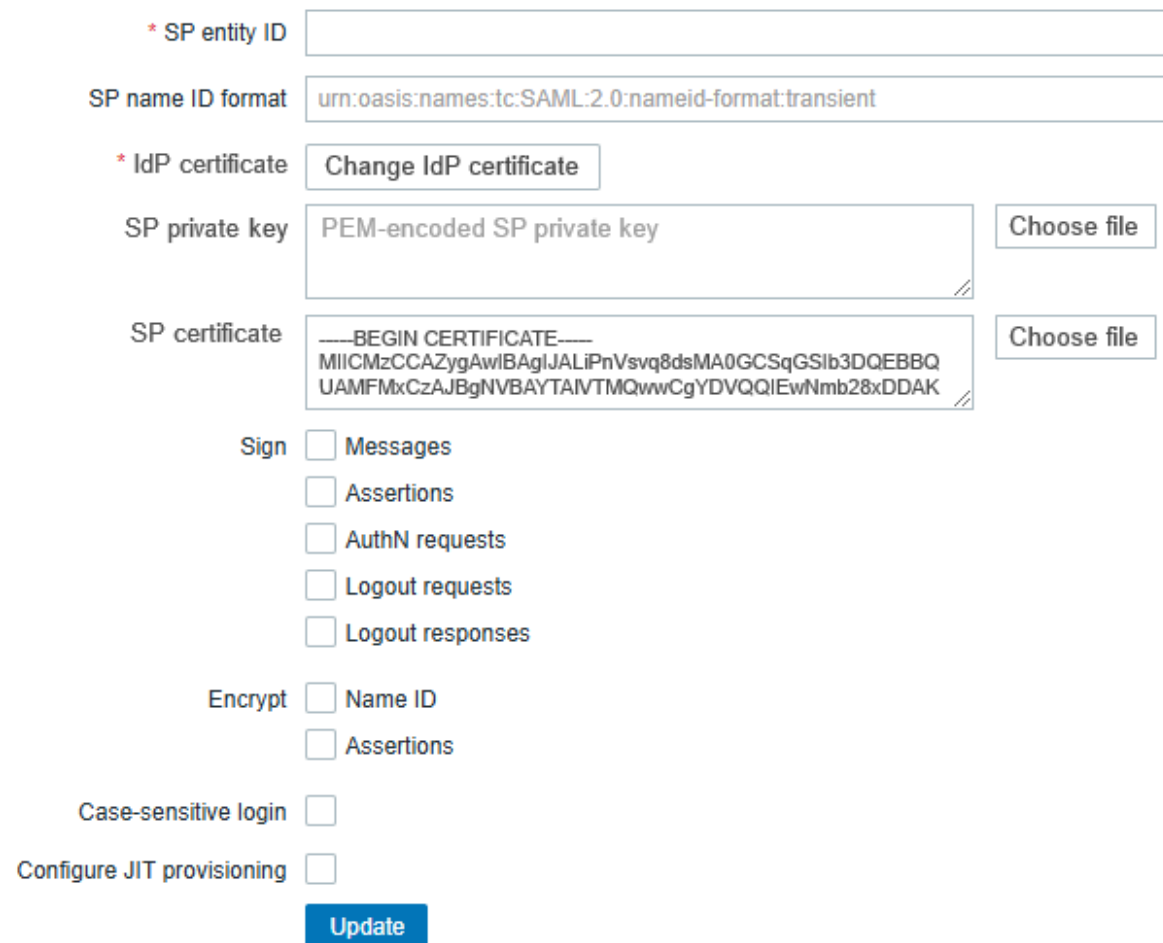
Enables **encrypt all** option, no unencrypted connections are accepted



## 7.4: Import of SSO certificates from UI

No access to filesystem is required

Cloud friendly solution



The screenshot shows the SSO configuration interface. It includes fields for 'SP entity ID', 'SP name ID format' (set to 'urn:oasis:names:tc:SAML:2.0:nameid-format:transient'), and 'IdP certificate' (with a 'Change IdP certificate' button). There are also text areas for 'SP private key' (containing 'PEM-encoded SP private key') and 'SP certificate' (containing a sample certificate). To the right of these text areas are 'Choose file' buttons. Below these are checkboxes for 'Sign' (Messages, Assertions, AuthN requests, Logout requests, Logout responses) and 'Encrypt' (Name ID, Assertions). At the bottom are checkboxes for 'Case-sensitive login' and 'Configure JIT provisioning', followed by an 'Update' button.

\* SP entity ID

SP name ID format

\* IdP certificate

SP private key

SP certificate   
-----END CERTIFICATE-----"/>

Sign ☐ Messages  
☐ Assertions  
☐ AuthN requests  
☐ Logout requests  
☐ Logout responses

Encrypt ☐ Name ID  
☐ Assertions

Case-sensitive login ☐

Configure JIT provisioning ☐

## 7.4: Support of OAuth 2.0

No basic authentication anymore




## Support of OAuth for SMTP

**New media type** ? x

Media type Authentication Message templates Options

Authentication type ☐ None ☐ Password ☒ OAuth

Redirection endpoint ?  

Client ID ?

Client secret ?

## 7.4: Secret macro resolution on proxies

Can be more secure

Frontend URL

\* Group for discovered hosts

Default host inventory mode

User group for database down message

Log unmatched SNMP traps ☒

Authorization

\* Login attempts

\* Login blocking interval

Storage of secrets

Vault provider

Resolve secret vault macros by ?

Validate URI schemes

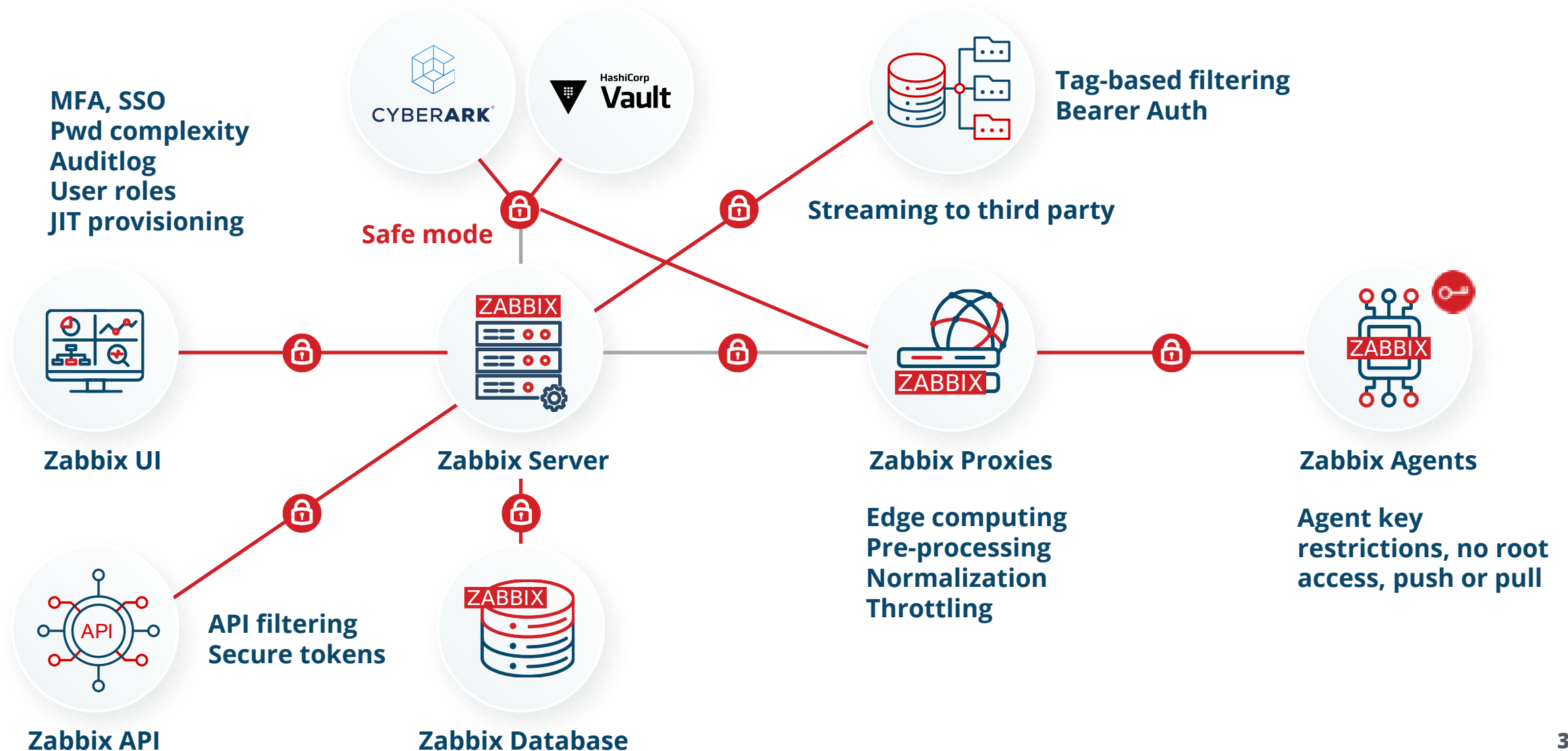
\* Use X-Frame-Options HTTP header ? ☐

Use iframe sandboxing ☒

**Tooltip:**

Zabbix server: secrets are retrieved from Vault by Zabbix server and forwarded to proxies when needed.  
Zabbix server and proxy: secrets are retrieved from Vault by both Zabbix server and proxies, allowing them to resolve macros independently.

## 7.4: Even more secure

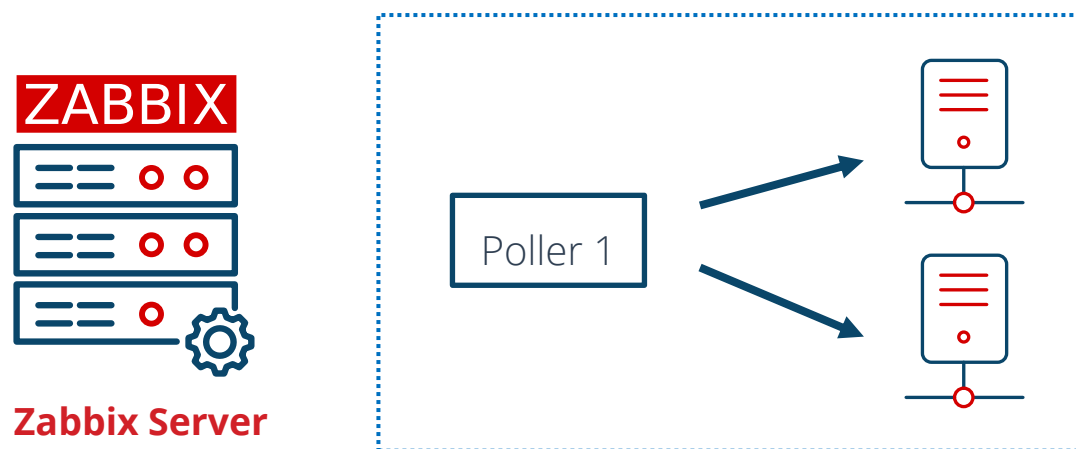


# Scalability and performance

Lower TCO

# Performance: transition to async & threads

## 7.0 LTS



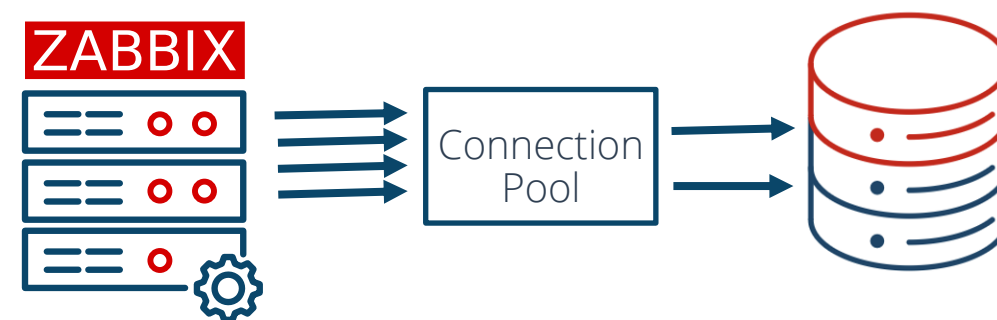
**Thousands of** connections per poller

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



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

Select a template

Create or select a host

A few more steps

## Select a template

A **template** is a set of predefined configurations (metrics to be collected, conditions for generating alerts, etc.) designed for your monitoring target.

Apache, AWS, MySQL, etc.

Type a keyword to search for templates.

Data collection

AllAgent-basedAgentless

Agent mode

AllActivePassive

### Templates

Applications (86)

Aranet Cloud by JMX

Tags: target: cloud target: gcp target: cloud target: cloud target: cloud target: cloudsql

Show more

Apache by HTTP

Tags: target: cloud target: gcp target: cloudsql target: cloudsql target: cloudsql target: gcp

Show more

Apache

Tags: target: cloud target: cloud target: cloud target: gcp target: cloudsql target: gcp

Show more

Apache Tomcat by JMX

Tags: target: gcp target: cloud target: cloudsql target: cloudsql

Show more

Aranet Cloud

Tags: target: cloud target: cloudsql target: gcp target: gcp target: gcp

Show more

Memcached by Zabbix agent 2

Tags: target: rt target: cloud target: rt target: yu target: cloudsql target: rt

Show more

## 7.4: New macros and functions

### 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

**New host** ? x

Host IPMI Tags Macros Inventory Encryption Value mapping

\* Host name   
Incorrect characters used for host name.

Visible name

Templates

\* Host groups    
This field cannot be empty.

Interfaces	Type	IP address	DNS name	Connect to	Port	Default
SNMP		<input type="text" value="192.168.0.256"/> IP address: Invalid IP address.	<input type="text"/>	<input checked="" type="radio"/> IP <input type="radio"/> DNS	<input type="text" value="161"/>	<input checked="" type="radio"/> <input type="button" value="Remove"/>
* SNMP version		<input type="text" value="SNMPv2"/>				
* SNMP community		<input type="text" value="{ \$SNMP_COMMUNITY }"/>				
Max repetition count ?		<input type="text" value="0"/> This value must be within range 1:2147483647.				
		<input checked="" type="checkbox"/> Use combined requests				

Description

Monitored by

This field cannot be empty.

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

## 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

## 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

**ZABBIX** '25  
CONFERENCE  
GERMANY

THANK YOU!

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Alexei Vladishev  
Founder, CEO

