

What's new in

ZABBIX 6.2

all our microphones are muted ask your questions in Q&A, not in the Chat use Chat for discussion, networking or applause







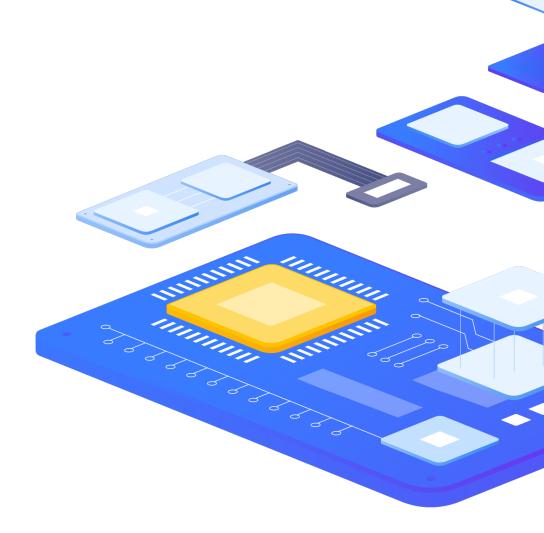
Zabbix 6.2

Zabbix 6.2 provides features that can greatly improve configuration management and performance on large Zabbix instances.

In addition, Zabbix 6.2 improves the flexibility of multiple existing features, thus supporting many new use cases.

Zabbix 6.2 focuses on:

- Improving configuration management and performance
- Improving UX and ease of use of Zabbix features
- Providing additional security and authentication features
- Greatly improving the flexibility for hosts discovered from prototypes
- Delivering new highly requested templates and integrations





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Suppress problems indefinitely or until a specific point in time

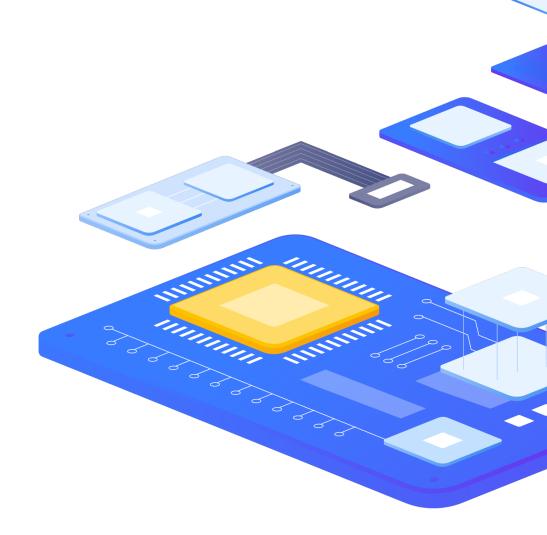




Suppress unwanted problems

Zabbix users can now manually suppress unwanted or expected problems:

- Suppress problems until a specific point in time
- Suppress problems indefinitely, until the suppression is removed
- Suppress a single problem or together with the related problems
- The action operations related to the suppressed problems will be paused until the problems are unsuppressed
- Choose to hide or display suppressed problems in the Problems section



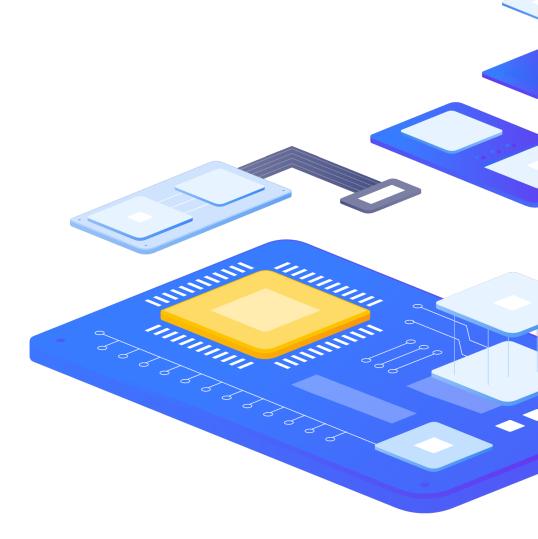




Suppress unwanted problems

Problem suppression can be configured until a specific date or by using the relative time format:

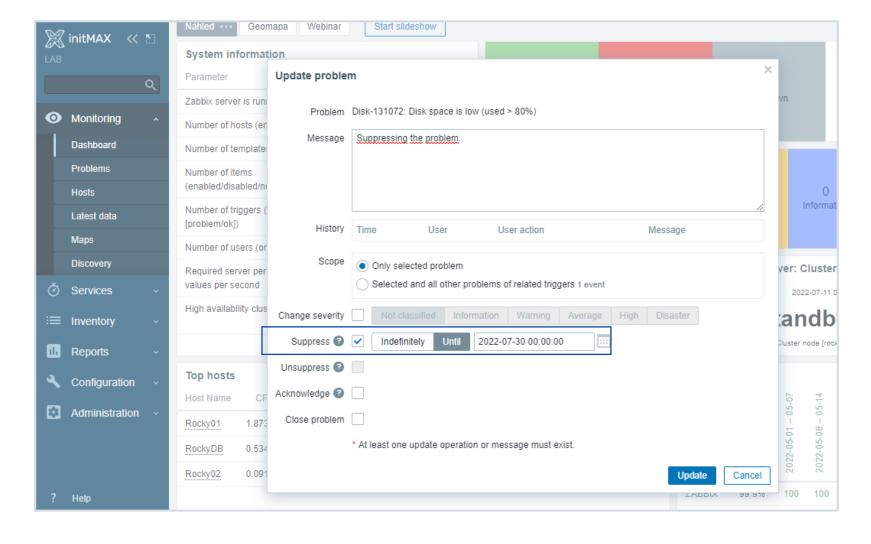
- Suppress problem until a specific date
- Suppress problem until some time from now has passed
- Suppress problem until the end of the current time period (day/week/month)







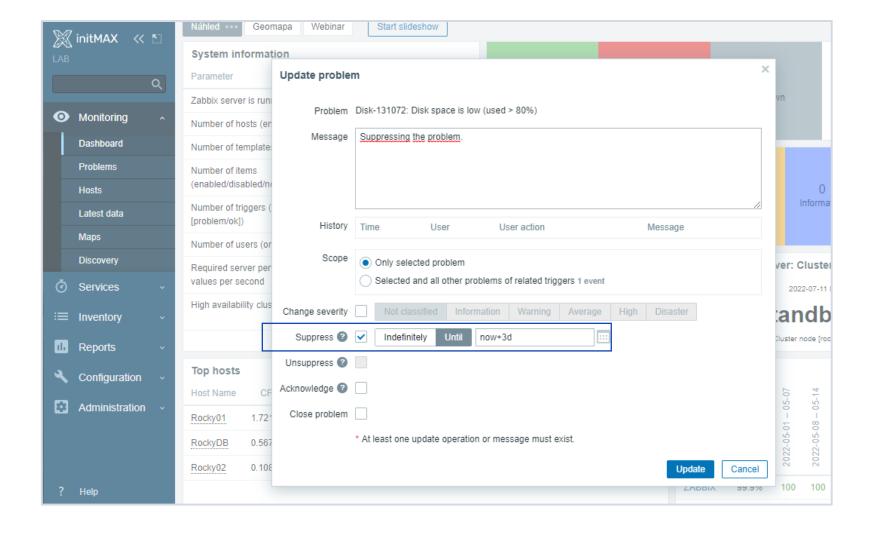
Suppress until a specific date







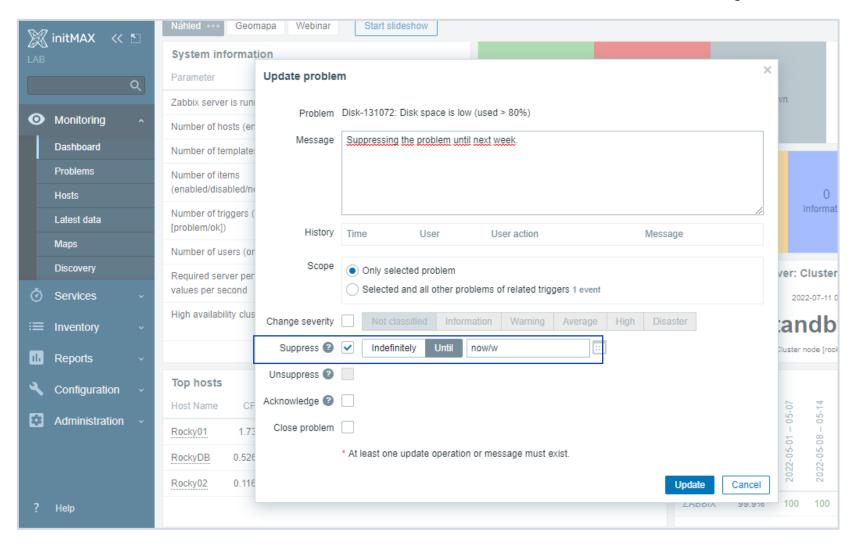
Suppress until some time from now







Suppress until the end of the current period





Security improvements



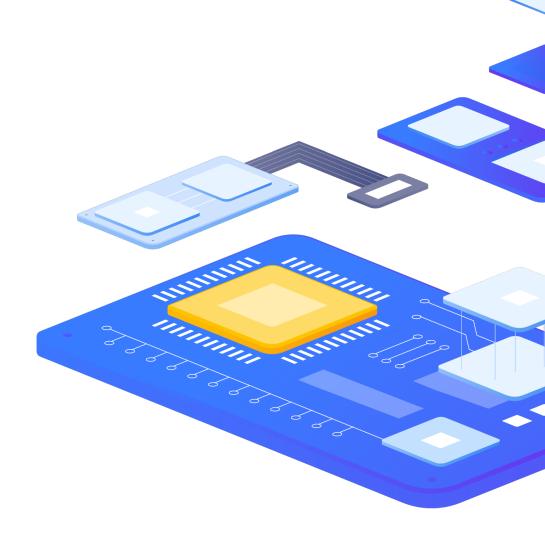




Cyberark vault Support

In addition to the previously supported HashiCorp vault, Zabbix 6.2 adds official support for secret storage in the CyberArk vault:

- Select between CyberArk and HashiCorp vaults
- Encrypt connections to the CyberArk vault with vault certificates
- Secure your database credentials and user macros
- It is possible to configure and retrieve the Zabbix vault provider via Zabbix API
- Configurable in the Zabbix server or Zabbix proxy configuration file



Zabbix 6.2



Openssl 3.0 support

OpenSSL 3.0.x support has been added to Zabbix 6.2 and Zabbix 6.0.4:

- Supported by Zabbix server, Zabbix proxy, Zabbix agent and Zabbix agent2
- > The change does not affect the frontend encryption, which uses its own openssl-php package
- > The change does not affect Zabbix Java gateway JMX encrypted connections

Zabbix 6.2



MD5 cryptography has been dropped

Support of MD5 cryptography has been dropped completely

- Zabbix 5.0 was using bcrypt, but still supporting old md5 passwords
- > Passwords were converted upon the first user login
- If you're upgrading from Zabbix versions before 5.0, users with passwords hashed by MD5 won't be able to log in



AWS EC2 monitoring



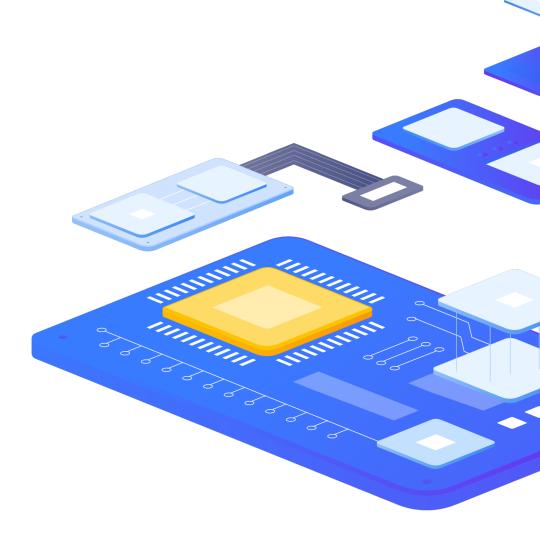




Official AWS EC2 Template

Monitor your AWS EC2 instance and the attached AWS EBS volumes with the official Zabbix AWS EC2 template:

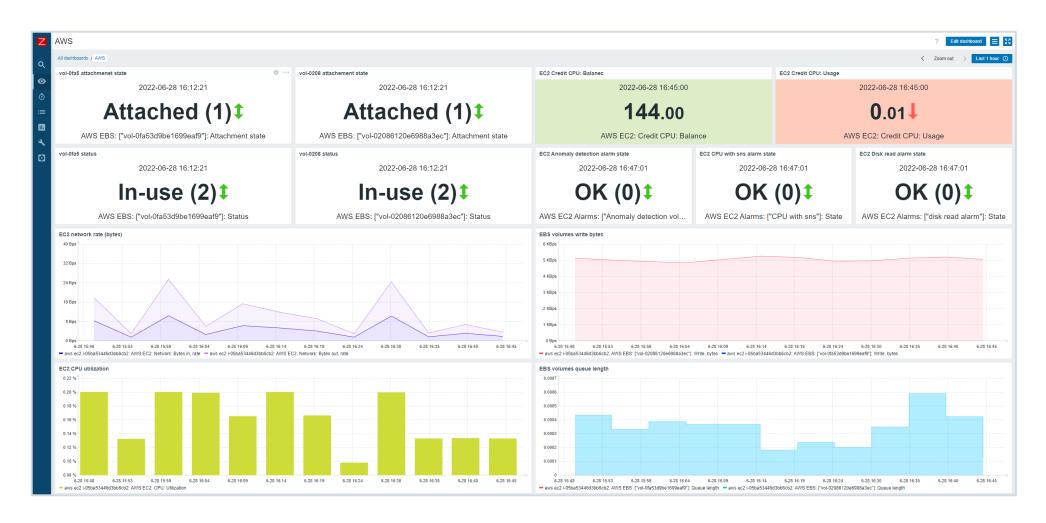
- Monitor AWS EC2 CPU, network, Disk, status and many other metrics
- Discover and monitor AWS EBS volumes
- Discover and monitor AWS EC2 alarms and react to alarm status changes







Official AWS EC2 Template







Official AWS EC2 Template

_	All templat	tes / AWS EC	2 by HTTP	Items 29	Triggers 10	Graphs 4	Dashboards	Discovery rules 2	Web scenarios						,	Filter 🍸
Q		Name ▲					Triggers	Key		Interval	History	Trends	Туре	Status	Tags	
0	•••	AWS CloudV	Vatch: Get ins	tance alarr	ns data			aws.ec2.get_alarm	ıs	0s	0		Script	Enabled	component: raw	
Ō	•••	AWS EBS: G	et volumes d	ata				aws.ec2.get_volum	nes	5m	0		Script	Enabled	component: raw	
≔	•••	AWS EC2: G	et metrics da	ta: AWS E0	C2: CPU: Utiliza	ation	Triggers 1	aws.ec2.cpu_utiliza	ation		7d	365d	Dependent item	Enabled	component: cpu	
•	•••	AWS EC2: G	et metrics da	ta: AWS E0	C2: Credit CPU:	: Balance	Triggers 1	aws.ec2.cpu.credit	_balance		7d	365d	Dependent item	Enabled	component: cpu	
₹	•••	AWS EC2: G	et metrics da	ta: AWS E	C2: Credit CPU	Surplus balar	nce	aws.ec2.cpu.surplu	us_credit_balanc		7d	365d	Dependent item	Enabled	component: cpu	
	•••	AWS EC2: G	et metrics da	ta: AWS E	C2: Credit CPU	: Surplus charg	ged Triggers 1	aws.ec2.cpu.surplu	us_credit_charge		7d	365d	Dependent item	Enabled	component: cpu	
	•••	AWS EC2: G	et metrics da	ta: AWS E0	C2: Credit CPU	Usage		aws.ec2.cpu.credit	_usage		7d	365d	Dependent item	Enabled	component: cpu	
G.	•••	AWS EC2: G	et metrics da	ta: AWS E0	C2: Disk: Read,	rate		aws.ec2.disk.read_	_ops.rate		7d	365d	Dependent item	Enabled	component: disk	
2	•••	AWS EC2: G	et metrics da	ta: AWS E	C2: Disk: Read	bytes, rate		aws.ec2.disk.read_	_bytes.rate		7d	365d	Dependent item	Enabled	component: disk	



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Synchronize Zabbix proxy configuration from the Zabbix frontend

Zabbix 6.2



Synchronize proxy Configuration

Configuration for your proxies can be instantly reloaded from Zabbix frontend:

- > Zabbix proxy configuration can now be refreshed from the Administration Proxies section
- Zabbix proxy configuration can be refreshed from the command line directly on the Zabbix server
- Zabbix proxy configuration can be refreshed by using Zabbix API
- > Central configuration refresh is supported by both active and passive proxies

From command-line using command zabbix_server -R proxy_config_cache_reload

Without arguments for all proxies (using appropriate way for each type of proxy)

```
zabbix_server -R proxy_config_cache_reload
```

For a single proxy

```
zabbix_server -R proxy_config_cache_reload="Passive proxy"
```

With proxy names as arguments

```
zabbix_server -R proxy_config_cache_reload="Active proxy,Passive proxy"
```





Synchronize proxy Configuration

Proxy configuration reload is realized using tasks:

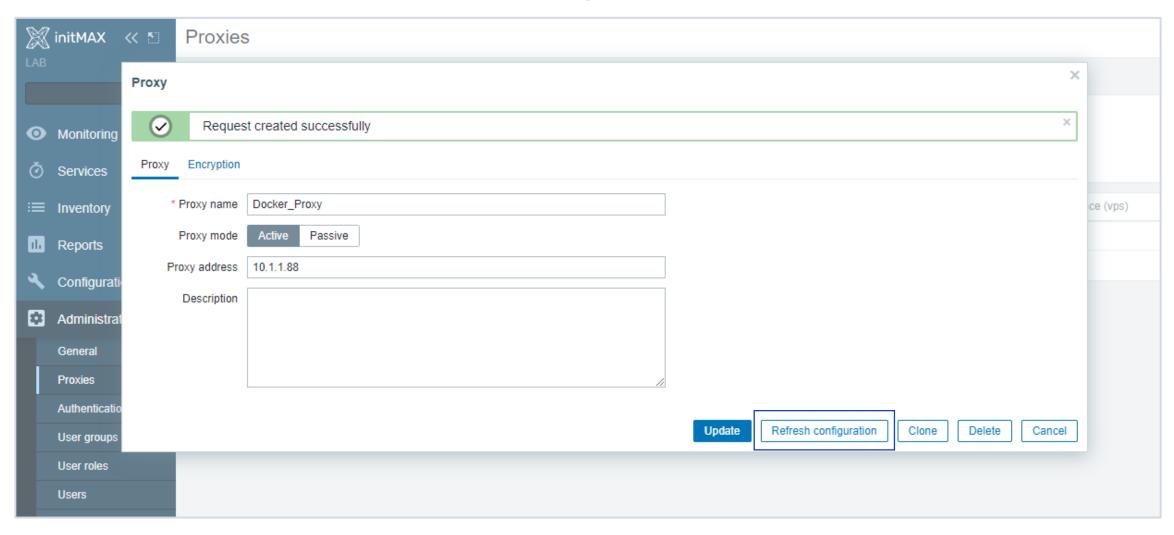
- New task is created for each proxy
 - If proxy doesn't exist failed to reload configuration cache on proxy is reported
 - If proxy type is passive server will use proxy pollers to process the task
 - If proxy type is active a new task is created for this proxy
- Proxy configuration update tasks are logged in the audit log

Time	User	IP	Resource	ID	Action	Recordset ID	Details
2022-07-07 16:09:40	System		Proxy	10531	Configuration refresh	cl5b1q1c8000f7z5g31x5uida	Description: Passive proxy
2022-07-07 16:09:40	System		Proxy	10530	Configuration refresh	cl5b1q1c8000f7z5g31x5uida	Description: Active proxy



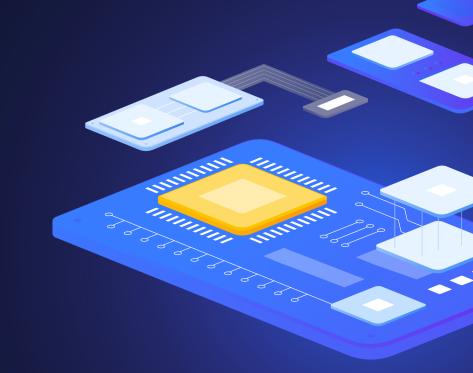


Synchronize proxy Configuration





More control over your discovered hosts





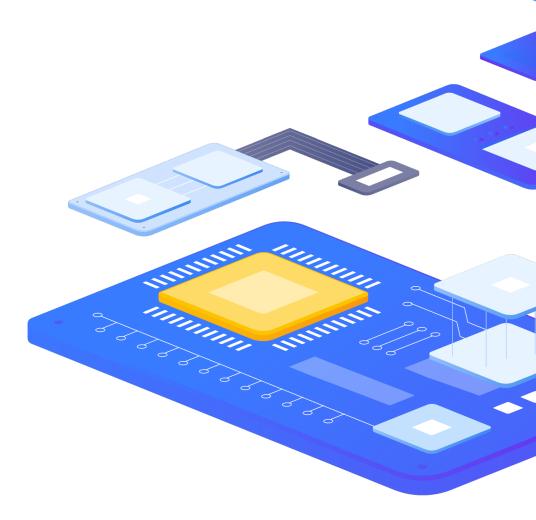


Control hosts created from prototypes

Hosts discovered from host prototypes now support manual editing of templates, tags and user macros:

- Link additional templates to hosts discovered from host prototypes
- Create and modify user macros on hosts created from host prototypes
- Additional tags can now be created on hosts created from host prototypes
- API host methods have been extended to support manual linkage of templates to hosts created from host prototypes
- API host methods have been extended to support adding or modifying tags and user macros to hosts created from host prototypes

This set of features greatly improves already existing features that utilize host prototypes, for example VMware monitoring.







Control hosts created from prototypes

Monitor your discovered VMware hosts with Zabbix agent:

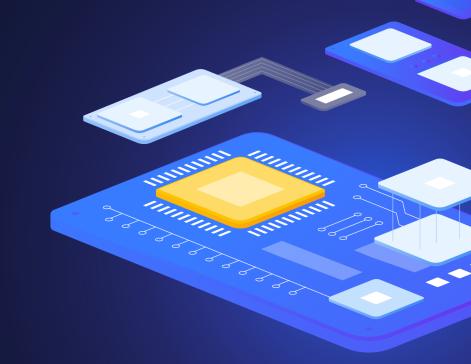
Host							
Host IPMI	Tags Macros 4	Inventory	Encryption				
Discovered	d by Discover VM	ware VMs					
* Host na	ame 50361947-a	d11-d3b9-d56b-l	o69297b58917				
Visible na	ame Debian						
Templates	Name			Action			
	VMware Gue	est (linked by host	discovery)				
	VMware Gue	est VM state		Unlink Unlink and clear	r		
	Linux by Za	bbix agent 🗴			Select		
	type here to	search					
* Host gro	ups Applications	x Datacenter	/vSAN VMS (vm) ×		Select		
	esx7-02-ho	st.zabbix.sandbo	x x vSAN (vm) x				
Interfa	ces Type	IP address		DNS name	Connect to	Port	Default
	Agent	192.168.13.77			IP DNS	10050	





Control hosts created from prototypes

Host					? >	<			
Host IPMI Tags Macros 5 Inventory	Encryption								
Host macros Inherited and host macros									
Macro	Value	Description							
{\$VMWARE.PASSWORD}	Zabbix#33	T · description		Change Remove (created by host discovery)					
{\$VMWARE.URL}	https://192.168.13.67/s	T v description	description		Change Remove (created by host discovery)				
{\$VMWARE.USERNAME}	administrator@zabbix.s andbox	T v description		Change Remove	(created by host discovery)				
{\$VMWARE.VM.UUID}	52abf48f-05f4-8924-89b 4-4fb7a3efd051	T V UUID of guest virtual	machine.	Change Remove (created by host discovery)					
{\$CPU.THRESHOLD}	10	T V CPU load threshold		Remove					
Add	Host IPMI	Tage 4 Macros 4 Invento	on. Encoration						? X
	Host IPMI	Tags 1 Macros 4 Invento	ory Encryption						
	Name		Value						
	DC		Brazil		(created by host discovery)				
	Environment	t	QA	Remove					
	Add	<u>Add</u>							
					Update	Clone	Full clone	Delete	Cancel



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Extended VMware monitoring



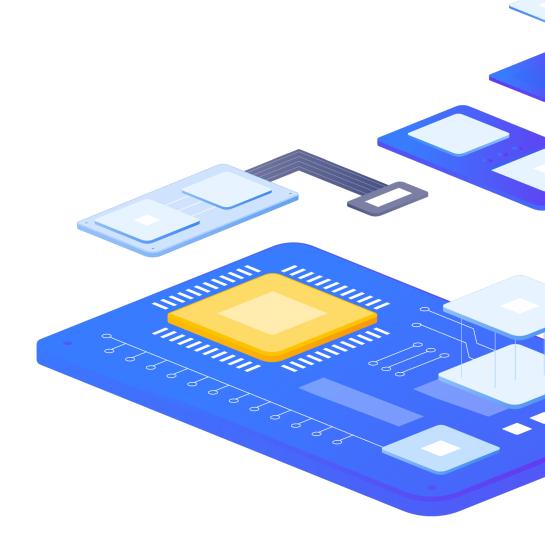


Extended Vmware monitoring

Hosts created by using the Zabbix VMware monitoring features can now be further modified.

This is based on the changes provided as a part of the improved host discovery feature:

- Manually assign additional templates to the discovered VMware hosts
- Create and modify user macros on the discovered VMware hosts
- Create additional tags on the discovered VMware hosts



Zabbix 6.2



New Vmware items and Ilds

VMware monitoring now supports many new items and LLDs:

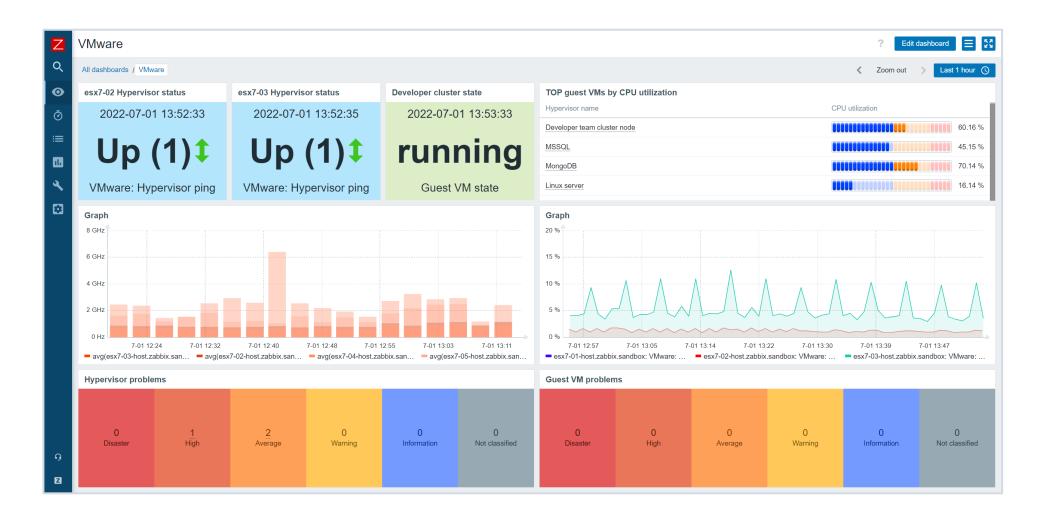
- VMware alarm status
- Number and timestamp of VMware snapshots
- Hypervisor network interface metrics
- VMware vSphere Distributed Switch port metrics
- Datastore IOPS read/write metrics
- Datastore performance counters
- VMware guest state
- And more

Currently the new items are not a part of the VMware templates. Refer to the official documentation to implement these items in custom templates.





New Vmware items and Ilds





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Track your active check status

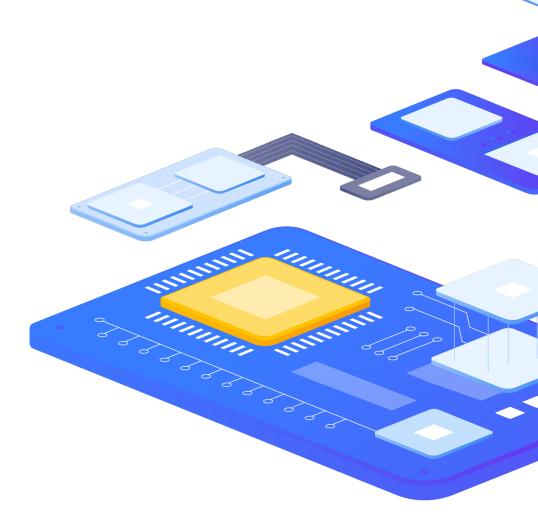




Active agent check status icon

Zabbix active agent check status can now be observed when hovering over the Zabbix agent interface icon:

- Track the availability of your passive and active agent checks directly from Zabbix frontend
- Customizable Zabbix agent heartbeat period is available in the agent configuration file
- A new internal item is available for active agent check status monitoring
- The Zabbix active agent check status can also be retrieved by Zabbix API





Active check availability is based on heartbeat only

Zabbix agent since 6.2 has a new HeartbeatFrequency configuration option

```
### Option: HeartbeatFrequency
# Frequency of heartbeat messages in seconds.
# Used for monitoring availability of active checks.
# 0 - heartbeat messages disabled.
# Mandatory: no
# Range: 0-3600
# Default: 60
HeartbeatFrequency=30
```

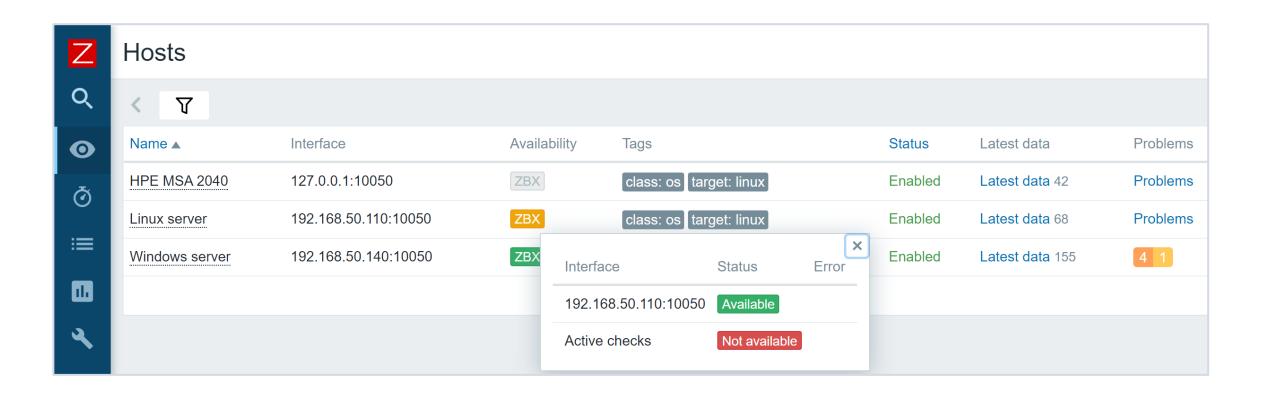
- Active check updates and data sent to Zabbix server is not used for availability calculation
- Older agents (pre 6.2) are not sending heartbeats and will have unknown (gray) status
- Server is calculating status based on next expected heartbeat

```
{
    "request":"active check heartbeat",
    "host":"hostname",
    "heartbeat_freq": 30
}
```





Active agent check status icon



Zabbix 6.2



Active agent check status icon

The Zabix agent host availability icon is now calculated as a combination of passive and active checks.

If a host contains both active and passive agent items:

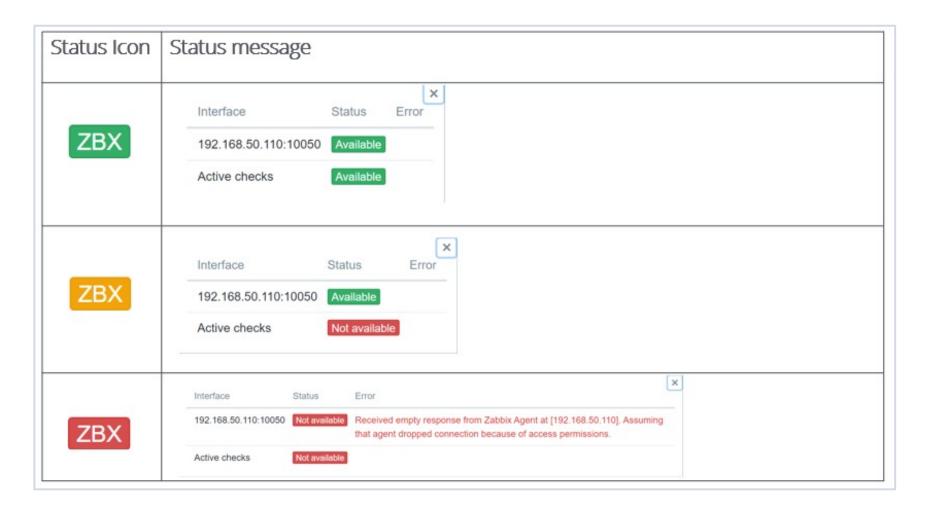
- > The icon will be green if both passive and active checks are available
- > The icon will be gray if one type of check is unknown, and the other type is available
- > The icon will be yellow if one type of check is unavailable, and the other type is available

As agents of older versions are not sending any heartbeats, availability of their hosts will remain unknown.





Active agent check status icon





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Zabbix performance improvements and internal changes



Incremental configuration synchronization

Instead of periodically reloading the full Zabbix configuration data, Zabbix server now receives only the latest configuration changes:

- Configuration cache now supports incremental updates
- Zabbix server now receives only the latest configuration changes
- > The new configuration synchronization logic greatly improves performance on large Zabbix instances

Database triggers and table "changelog" is used to track changes:

- Records older than 1 hour are removed from the table automatically after config sync
- Additional privileges are required when upgrading Zabbix database

On Zabbix server start full configuration cache is loaded from database





Immediate initial item check

The initial item check logic has been improved and newly created items now receive their first metrics within a minute after their creation:

- In previous versions, the items were checked at a random point in time within the item's update interval
- This ensures that you can receive your first metric and check the item status shortly after the item has been created



New User macro cache

As a part of the incremental configuration synchronization design, a new user macro cache has been created:

- Resolves issues with configuration cache locking, which was required during user macro resolution
- Cache is maintained by configuration syncer
- This in turn improves the overall Zabbix performance
- > The cache scales dynamically and does not have a dedicated configuration parameter

In previous versions user macros were kept in configuration cache:

- > User macro resolving required configuration cache lock for each macro
- > This approach was not compatible with incremental updates





Improved execute now usability and behavior

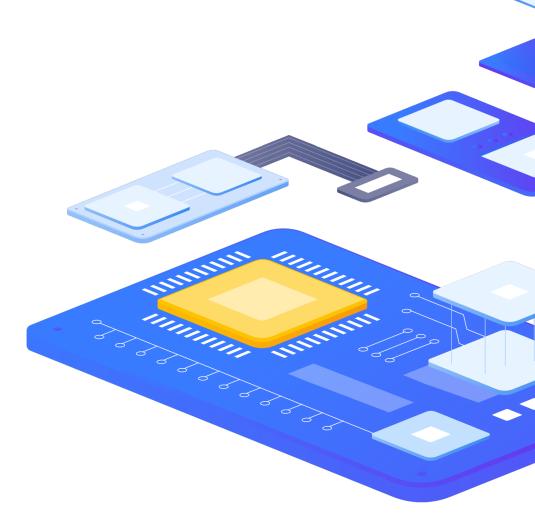




Execute now in latest data

The Execute now button, used to immediately retrieve a metric, is now available from the Latest data section:

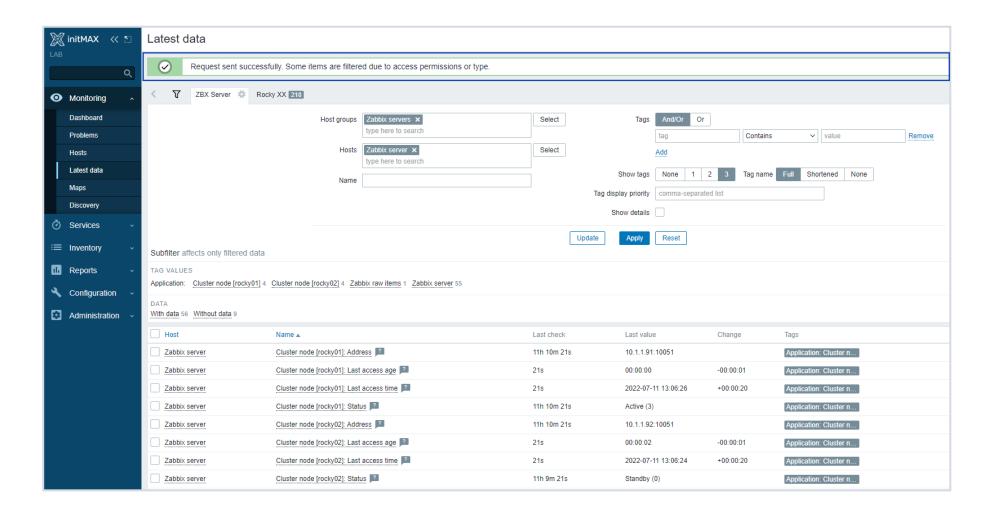
- Items that do not support Execute now will be ignored, instead of displaying an error message
- A warning will be displayed if a user attempts to use the Execute now feature on an item that does not support it
- The Execute now permission has been added to the list of permissions available when customizing a Zabbix role







Execute now in latest data





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Separate host and template groups



Template Groups

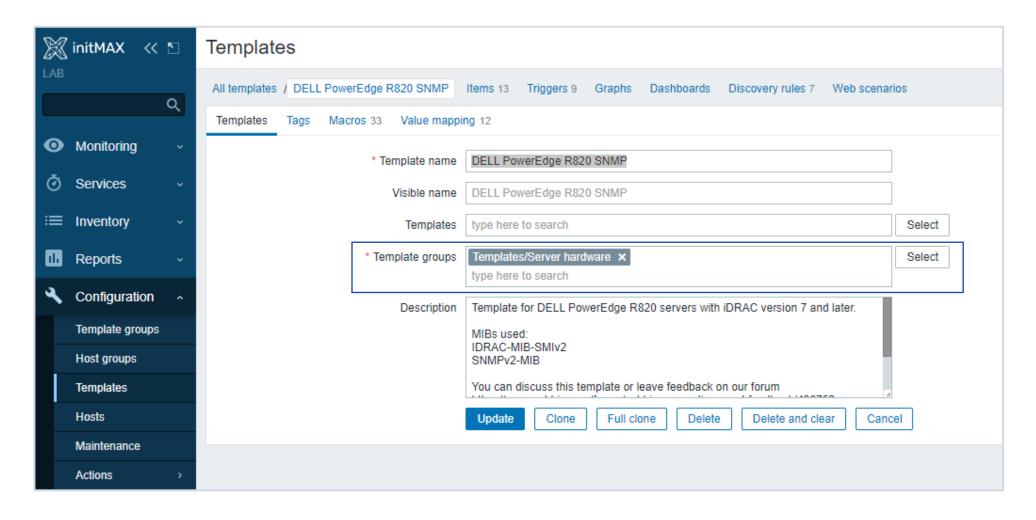
In order to facilitate easier host and template filtering, templates are now grouped in template groups, instead of host groups:

- New Template groups section under the Configuration menu
- During the upgrade process existing templates will be moved to Template groups
- Importing templates and hosts from previous Zabbix versions are fully supported and appropriate groups will be created from the import file
- > Role-based access permissions can be assigned for the Template groups section
- New Template group API methods can be used to create, modify and retrieve template groups



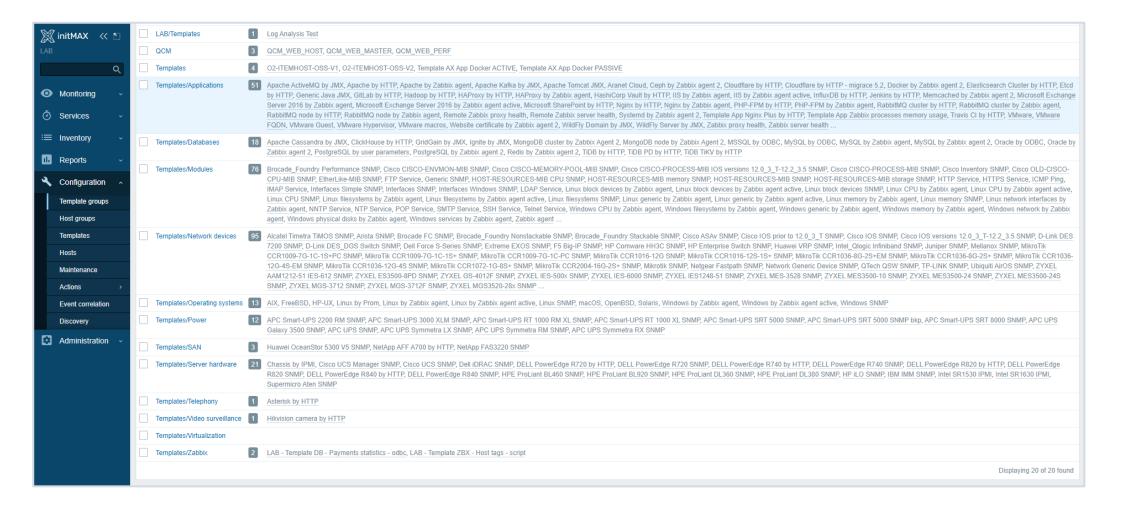


Template Groups





Template Groups





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Support of multiple LDAP servers for user authentication

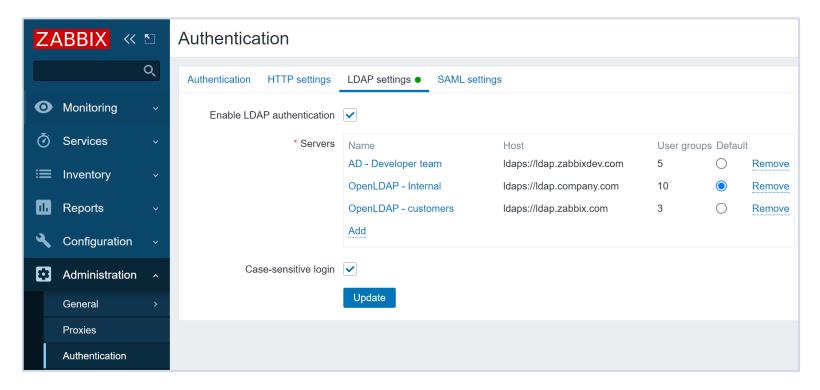




Define Multiple Idap servers

Multiple LDAP servers can now be defined and saved under Authentication - LDAP settings:

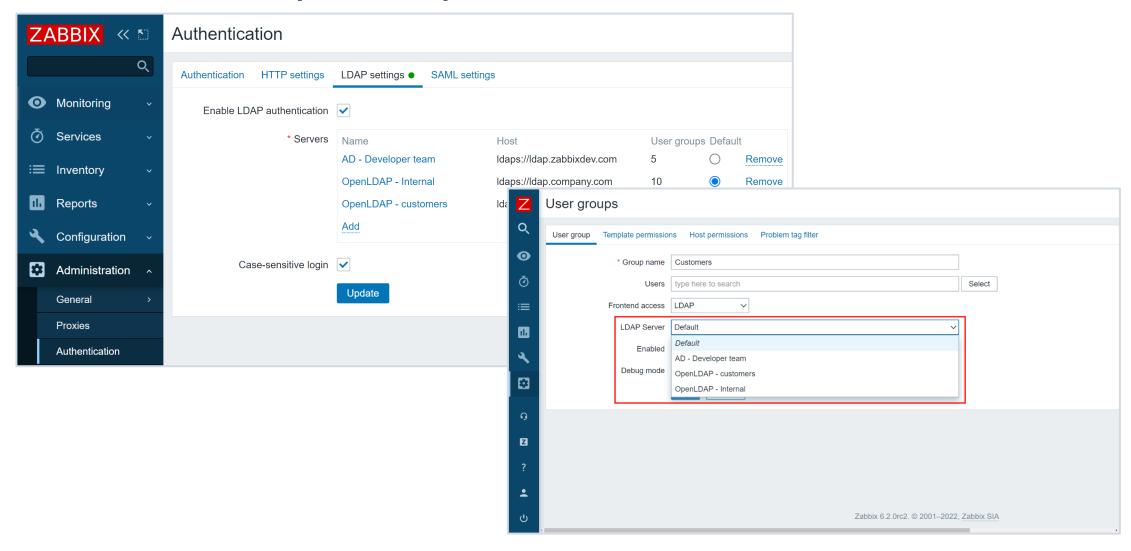
- Improved security and compliance with company policies where organizational units authenticate via different LDAP servers
- > Seamlessly switch user authentication between LDAP servers after LDAP server migration or update







Define Multiple Idap servers





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New templates and integrations





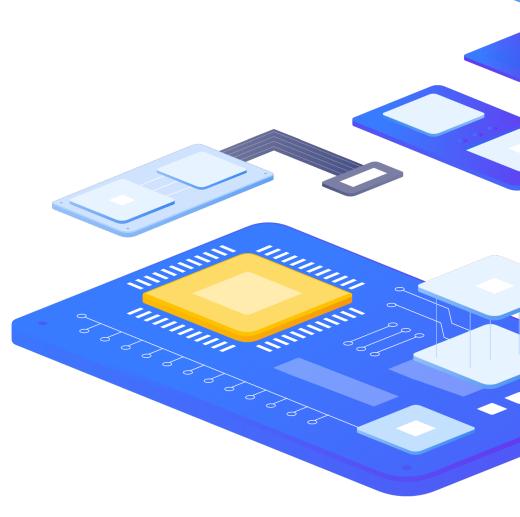
New Templates and integrations

Zabbix 6.2 comes pre-packaged with many new templates for the most popular vendors:

- Envoy proxy
- HashiCorp Consul
- AWS EC2 Template
- CockroachDB
- TrueNAS
- > HPE MSA 2060 & 2040

- > HPE Primera
- The S.M.A.R.T. monitoring template has received improvements

Zabbix 6.2 introduces a webhook integration for the GLPI IT Asset Management solution. This webhook can be used to forward problems created in Zabbix to the GLPi Assistance section.





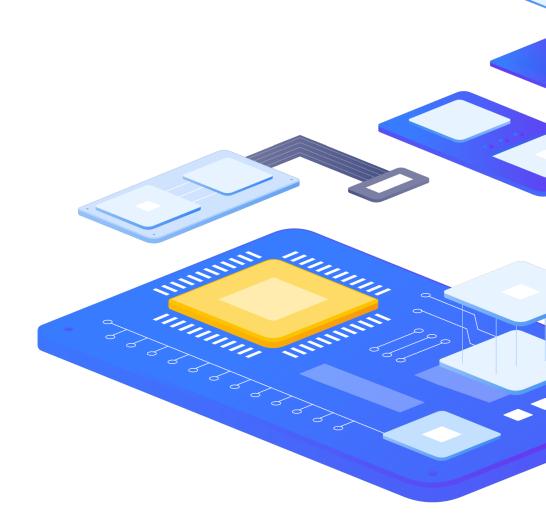


Cloud Monitoring

The official AWS EC2 template is just the first step. Zabbix plans on delivering many more cloud templates for the most popular cloud vendors:

- AWS RDS
- > AWS S3
- Azure cloud monitoring

Continue improving the existing cloud monitoring templates based on the community feedback





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Other changes and improvements



Windows registry monitoring

Retrieve registry key values with the new registry monitoring items:

- New items registry.data[] and registry.get[]
- registry.data[] retrieve the value for the Windows registry key
- registry.get[] list of Windows registry values or keys. Returns JSON



OS process discovery

Discover and monitor OS processes for multiple popular operating systems:

- New item proc.get[], returns JSON.
- Returns a list of running processes/threads or summarized data grouped by process name
- Supports three modes process, thread, summary
- Supported on Linux, Windows and BSD systems
- The list of retrieved attributes is OS-specific. See the official proc.get parameters documentation page for the full list of retrieved attributes



PHP version support

Minimum supported PHP version has been raised to PHP 7.4. Additional compatibility improvements have been made for PHP 8.1:

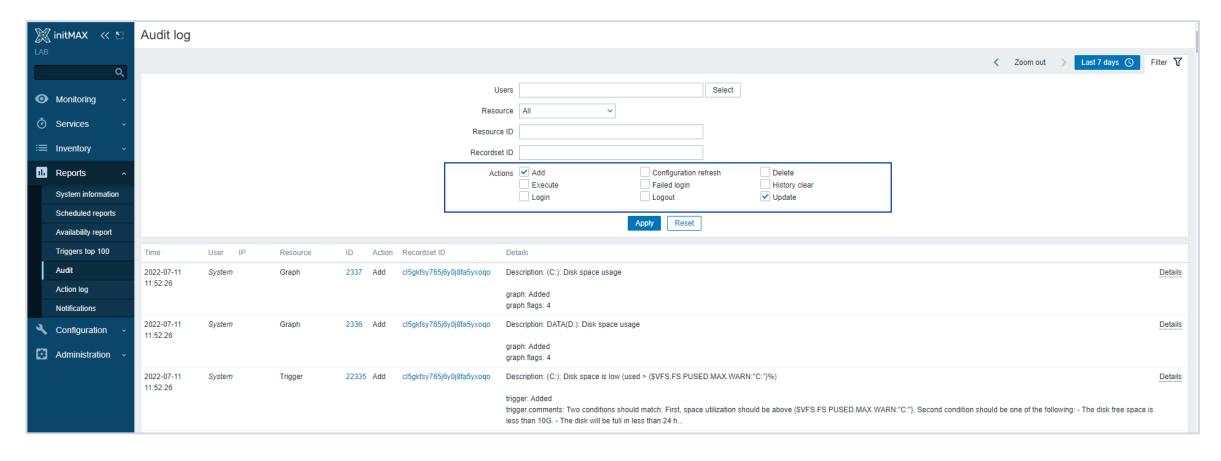
- Minimum supported PHP version raised to 7.4
- An error will be shown if an unsupported PHP version is used
- Multiple compatibility improvements have been implemented for PHP 8.1





Improved audit log filtering

Audit log now supports filtering by multiple actions:



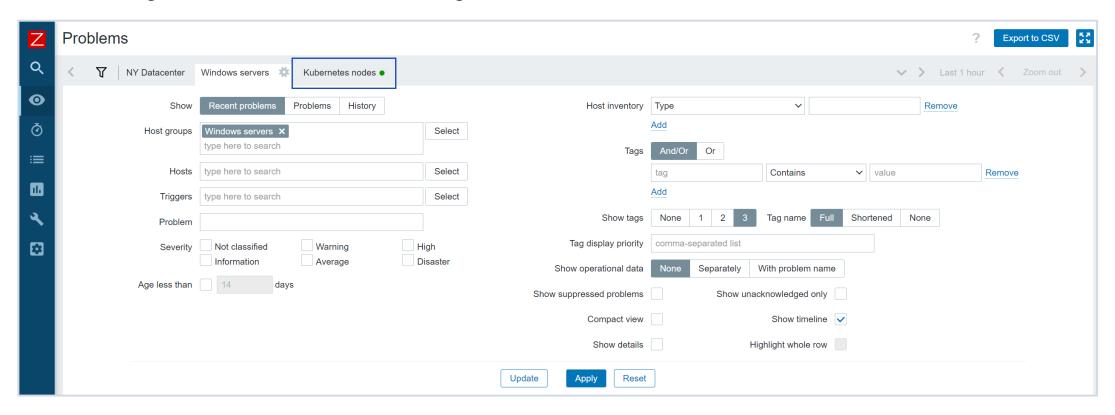




Improved monitoring filtering options

If a filter is changed but not saved, the state of filters will now be preserved in the Monitoring sections (Problems, Hosts, Latest data)

> The changed filter will be marked with a green dot

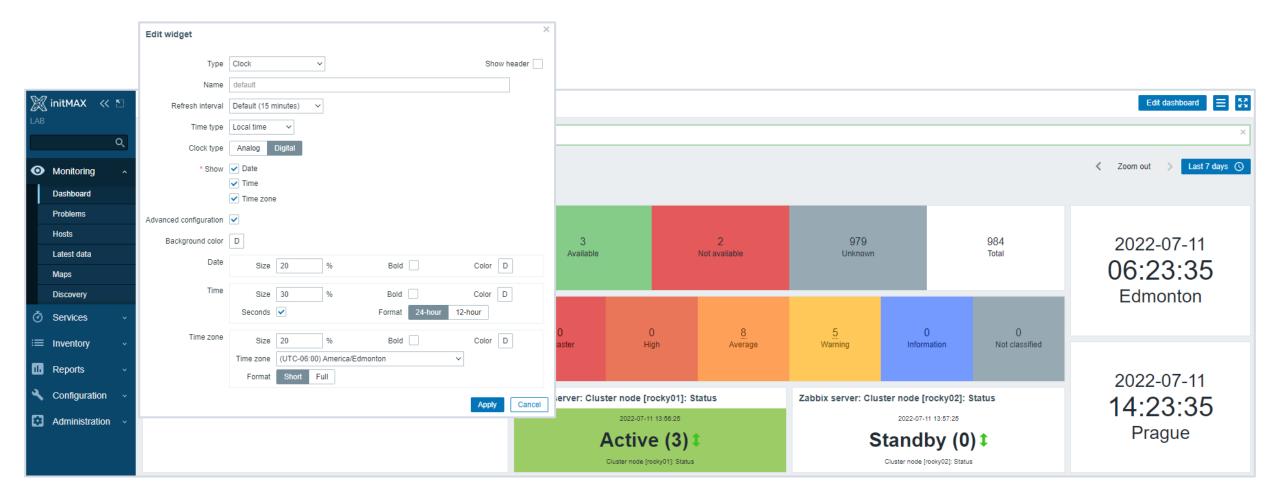






Digital clock widget

The clock widget has been extended with the new digital clock view:





Graph widget improvements

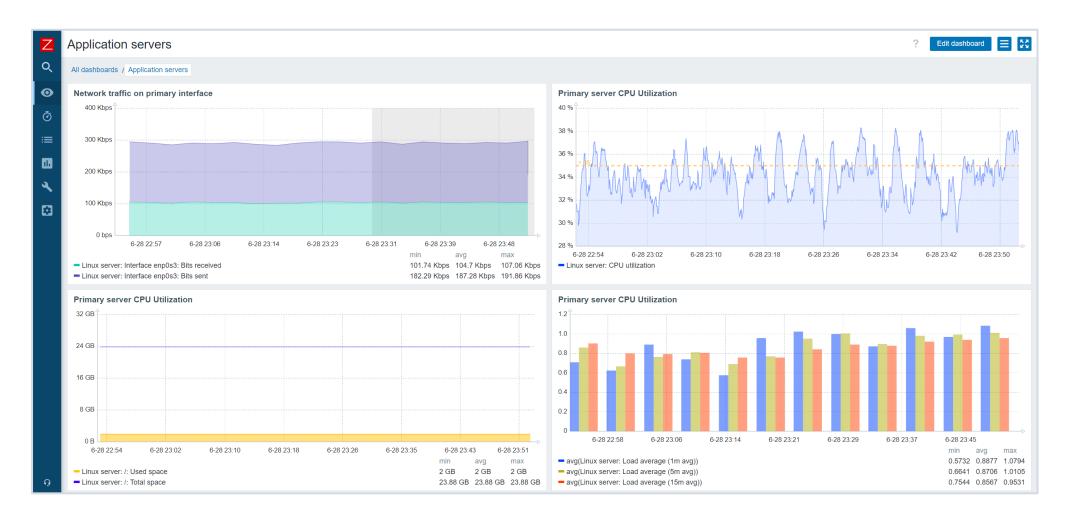
The graph widget has received multiple new features and improvements:

- New type of dataset item list
- Ability to clone datasets
- Stacked graphs
- Display simple triggers on graphs
- Display working time on graphs
- Percentile lines
- Improved legend with trend min/max/avg values
- Display the last known value for missing data
- Configurable approximation when too much data is displayed on graphs





Improved legend and stacked graphs







Missing data options and percentile line

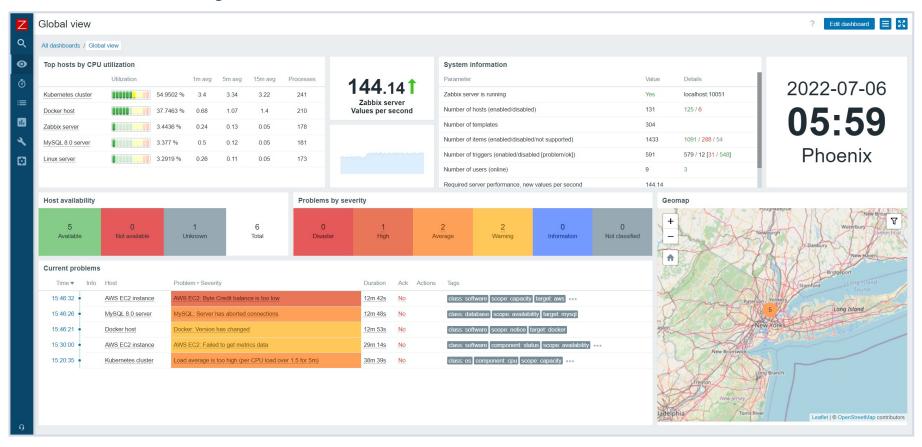






New global view dashboard

The default Zabbix Global dashboard has been redesigned to provide more useful information by using the latest Zabbix widgets:

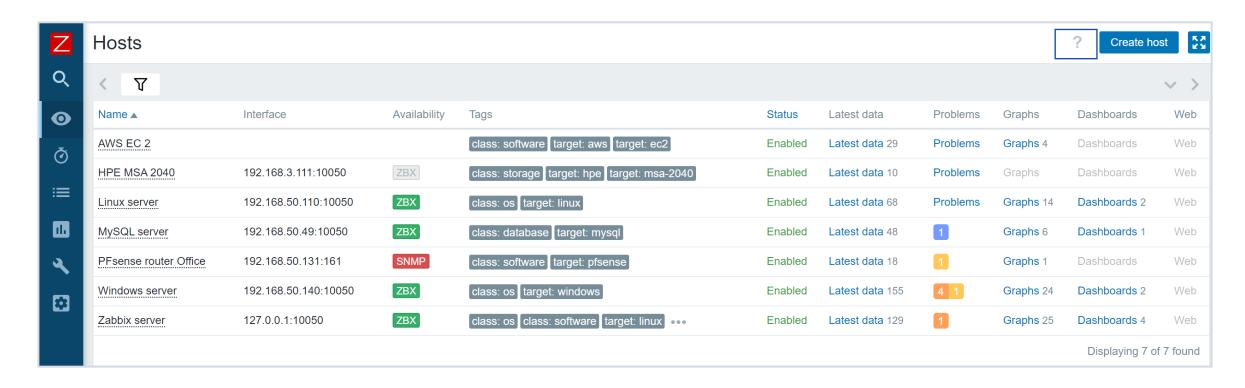






Number of items in monitoring - hosts

Number of items has been added next to the Latest data button under Monitoring – Hosts:







Links to documentation in all ui forms

Help icons have been added to all UI forms, to make Zabbix features more accessible to new users:

Host								? X
Host IPMI Tags	Macros	Inventory ● Encryption Value mapp	ping					
* Host name	Linux server							- 1
Visible name	e Linux server							- 1
Templates	Name		Action					- 1
	Linux by Zabbix agent		Unlink Unlink and clear					
	type here to search			Select				
* Host groups	Demo x h	Kubernetes nodes X Linux servers X		Select				
	type here to	search						
Interfaces	Туре	IP address	DNS name	Conn	ect to	Port	Default	
	Agent	192.168.50.110		IP	DNS	10050	Remove	
	Add							
Description								
2 2 2 2 4 7 2 2 2 2								
					U	pdate Clone	Full clone Delete	Cancel

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Demo





Questions?







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