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ZABBIX PREMIUM PARTNER

ZABBIX CERTIFIED TRAINER

Webinar

What's new in Zabbix 7.4

all your microphones are muted

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

use Chat for discussion, networking or applause

ZABBIX 7.4

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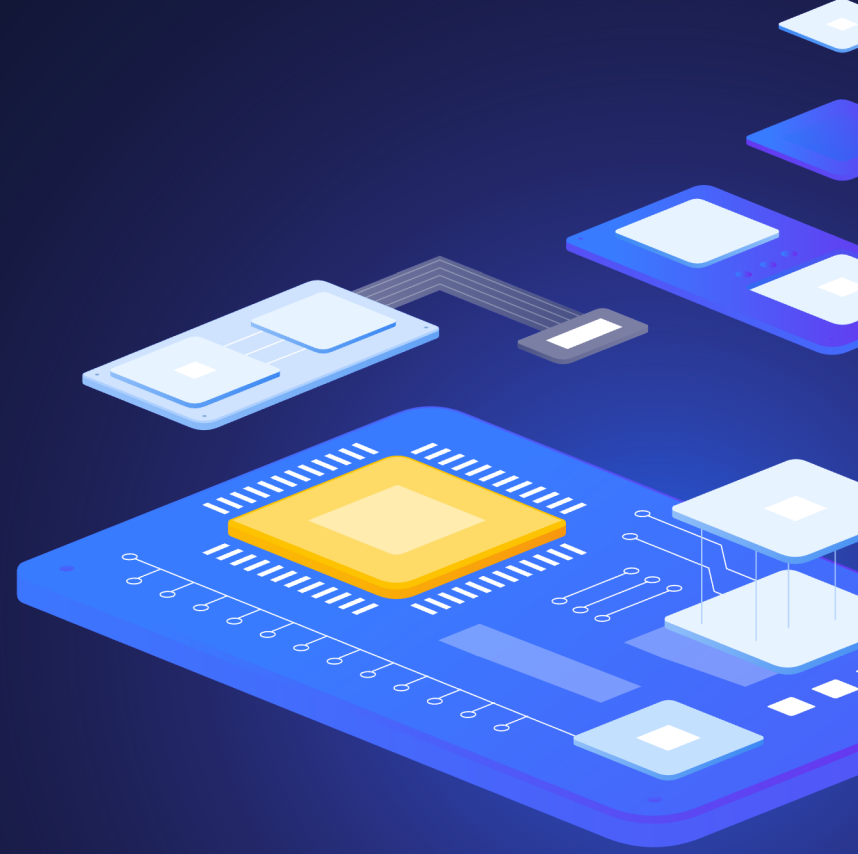
Main Focus

Zabbix 7.4 brings some long expected features, improves security and adds few nice surprises

- Nested low-level discovery
- Host prototypes on discovered hosts
- OAuth 2.0 authentication for email media
- Security (Encryption between frontend and server, Resolving secret vault macros by server/proxy independently)
- Notifications (Separate menu section for user notifications, Managing own user media)
- Host Wizard, improvements in widgets & maps, new functions, macros & more

1

Host Wizard



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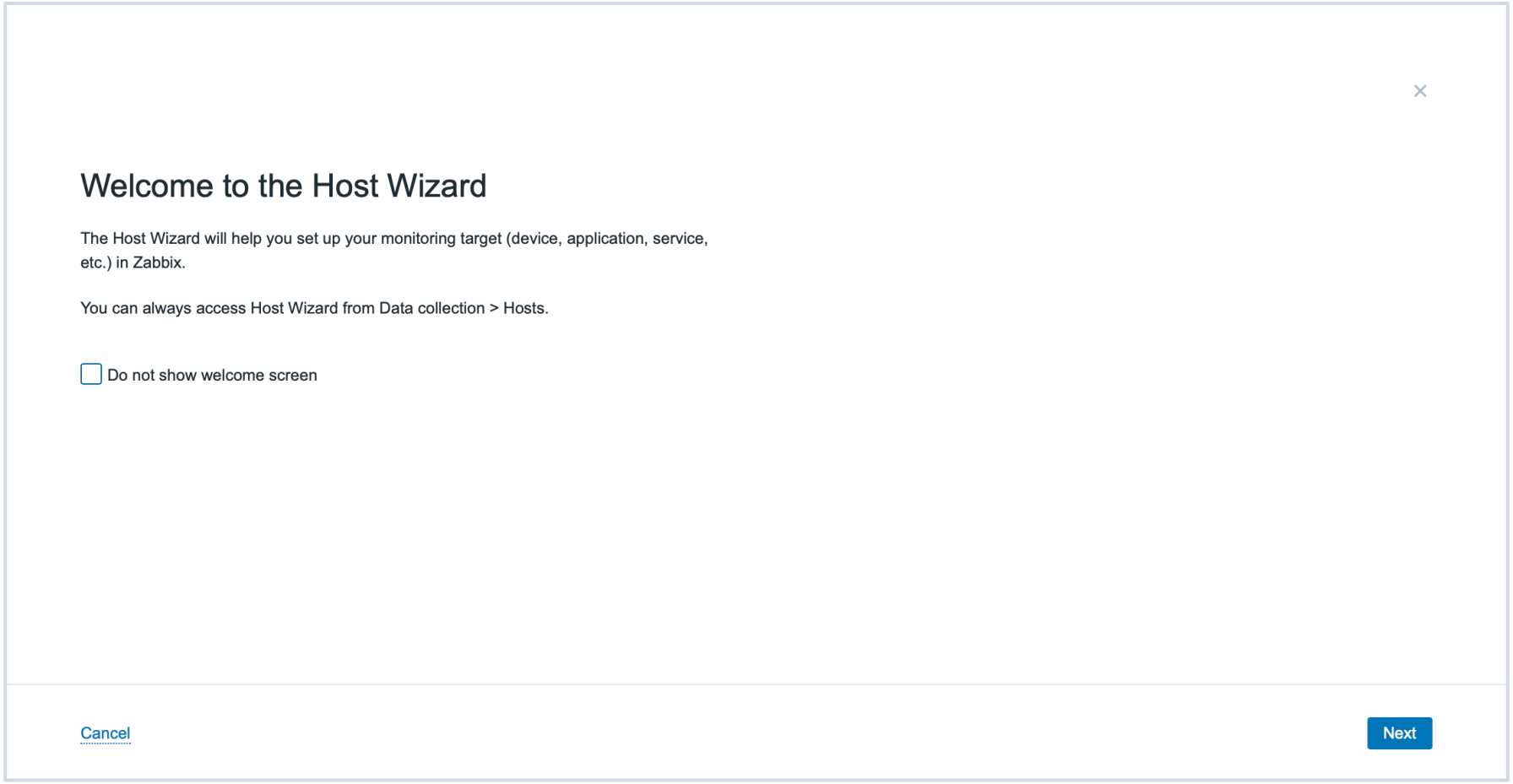
Host Wizard

- The host wizard guides Zabbix users through initial host creation and configuration steps.



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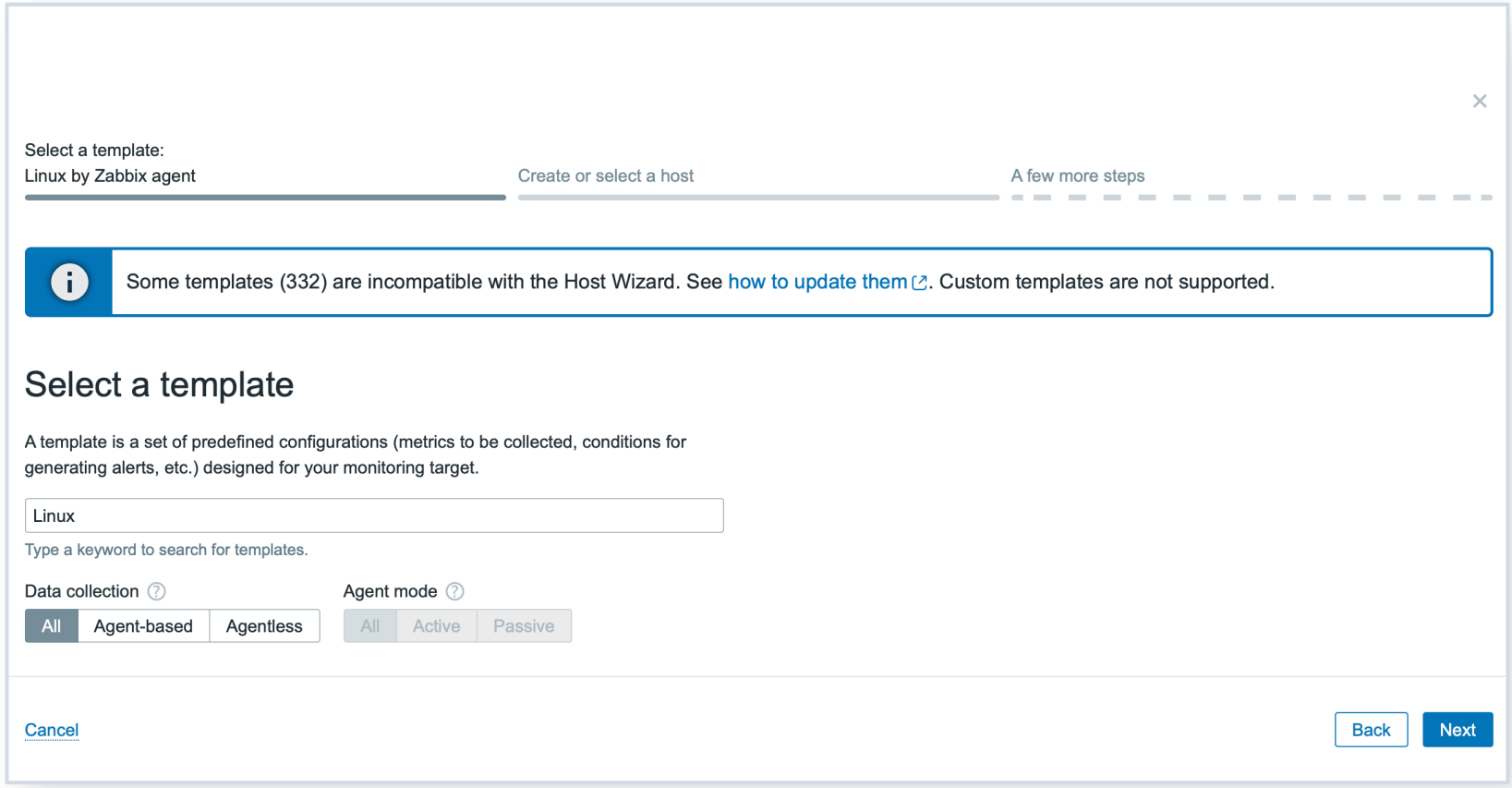
Host Wizard

- Only a single template can be added per the Host Wizard session.
- More templates can be added by opening the Host Wizard and selecting an existing host.



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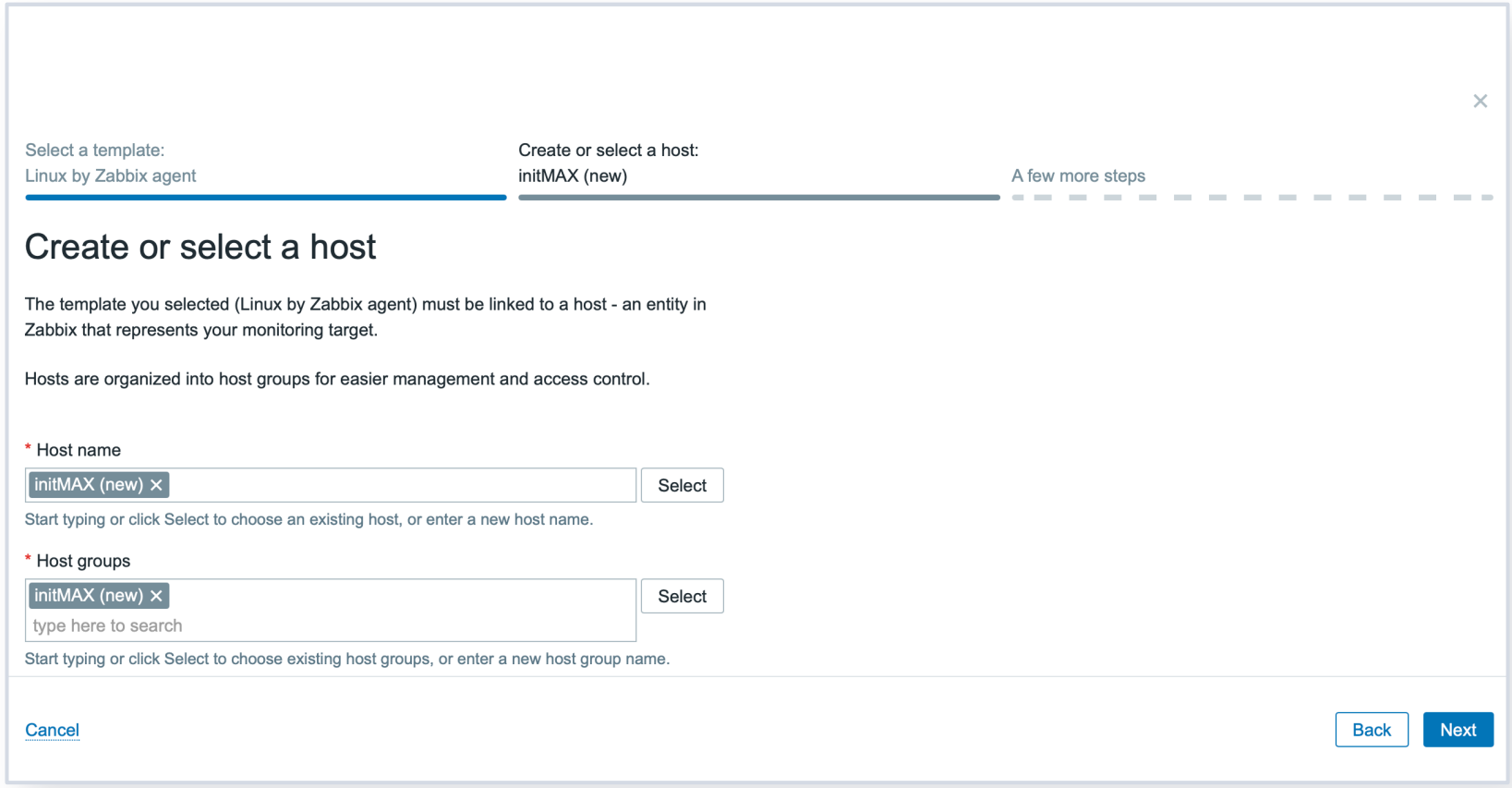
Host Wizard

- Here you can define a new host or select an existing one. In case you select an existing host, the template settings chosen in the previous step will be applied.



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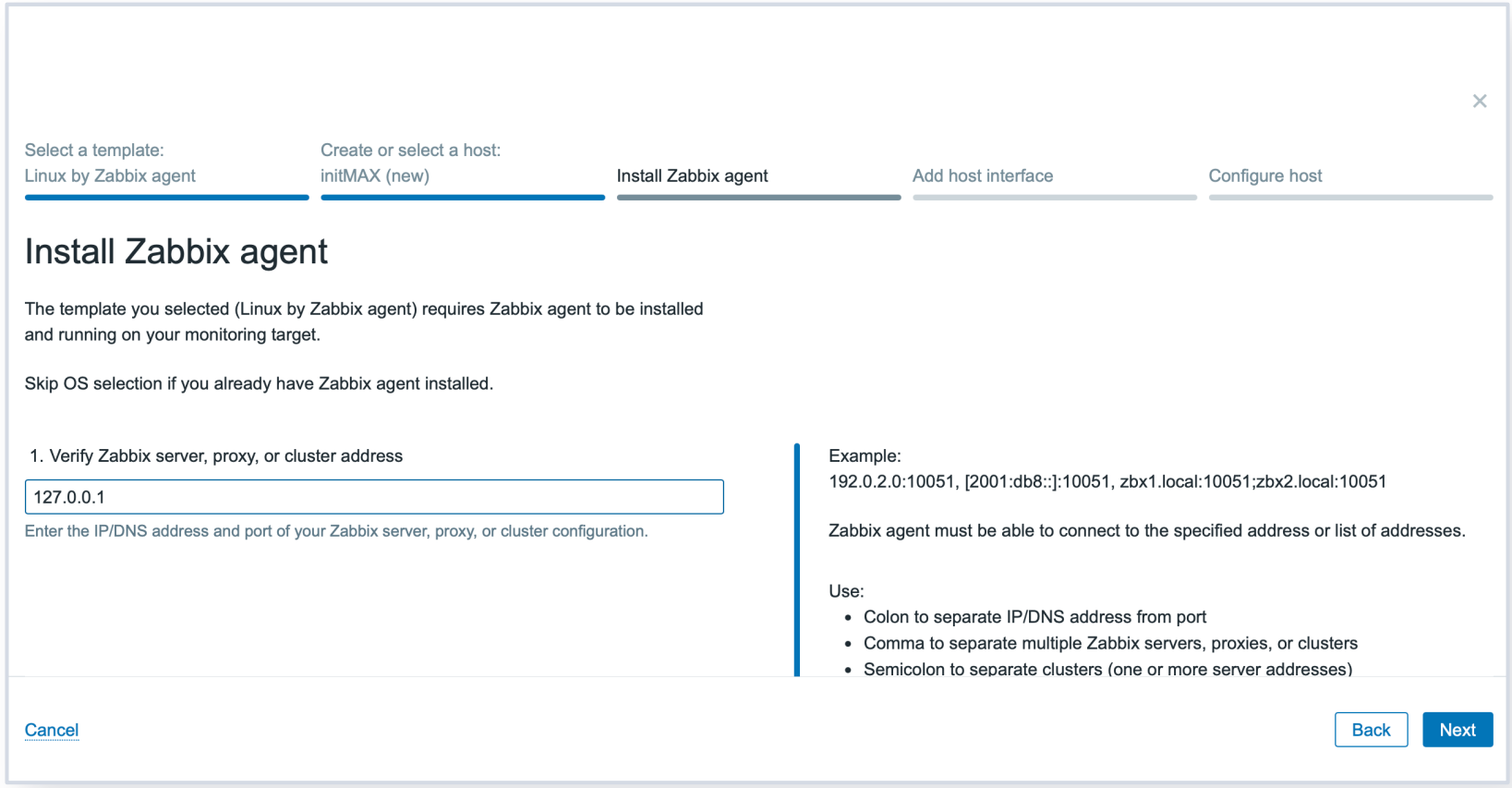
Host Wizard

- Here you must configure connection options for your host in several steps. The required settings depend on the selected item types and their connection methods, including SNMP.



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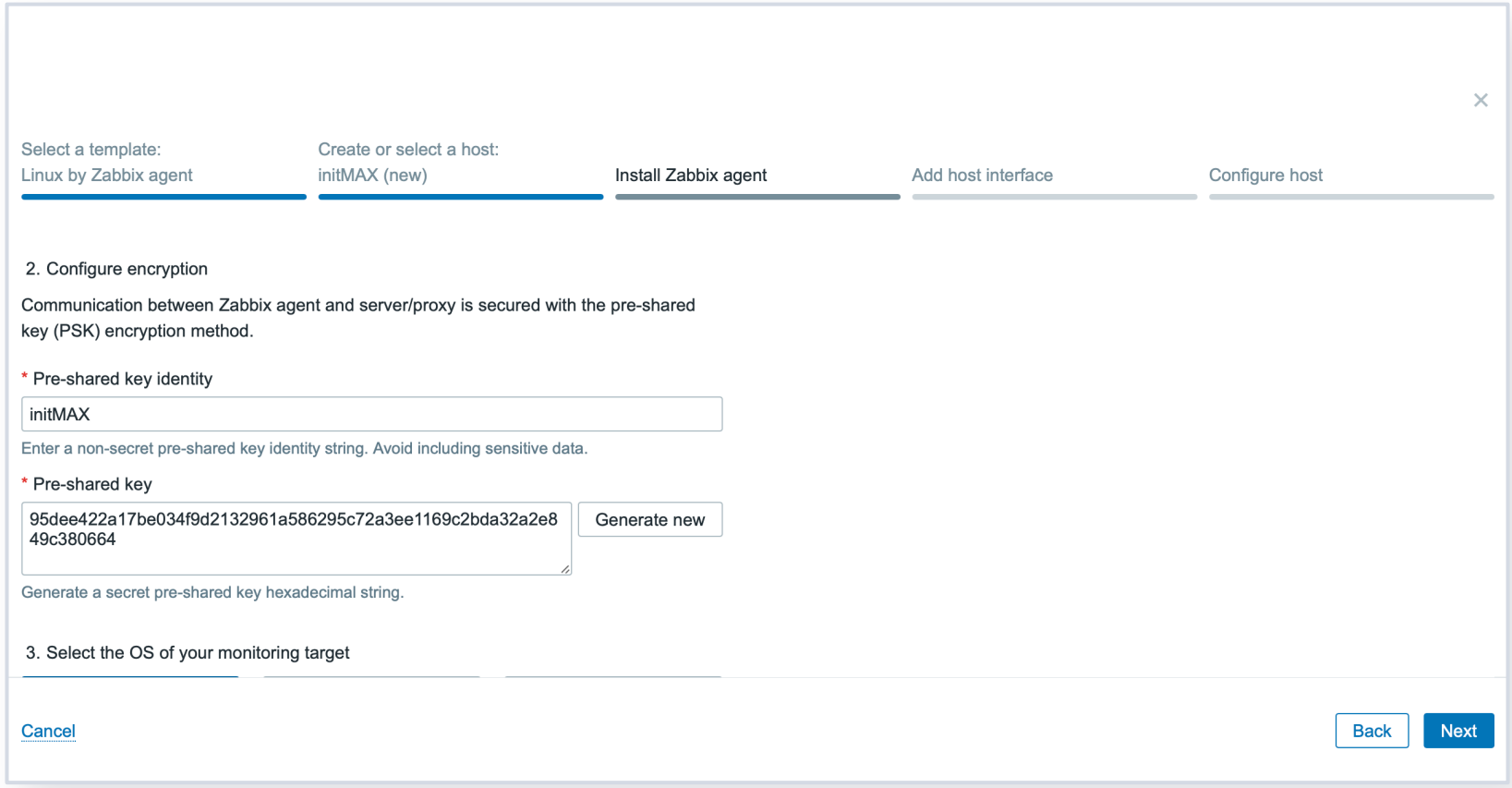
Host Wizard

- Only for Zabbix agent connections, the wizard assists you with PSK configuration for new hosts. This setting is enforced initially but can be disabled later directly on the host.



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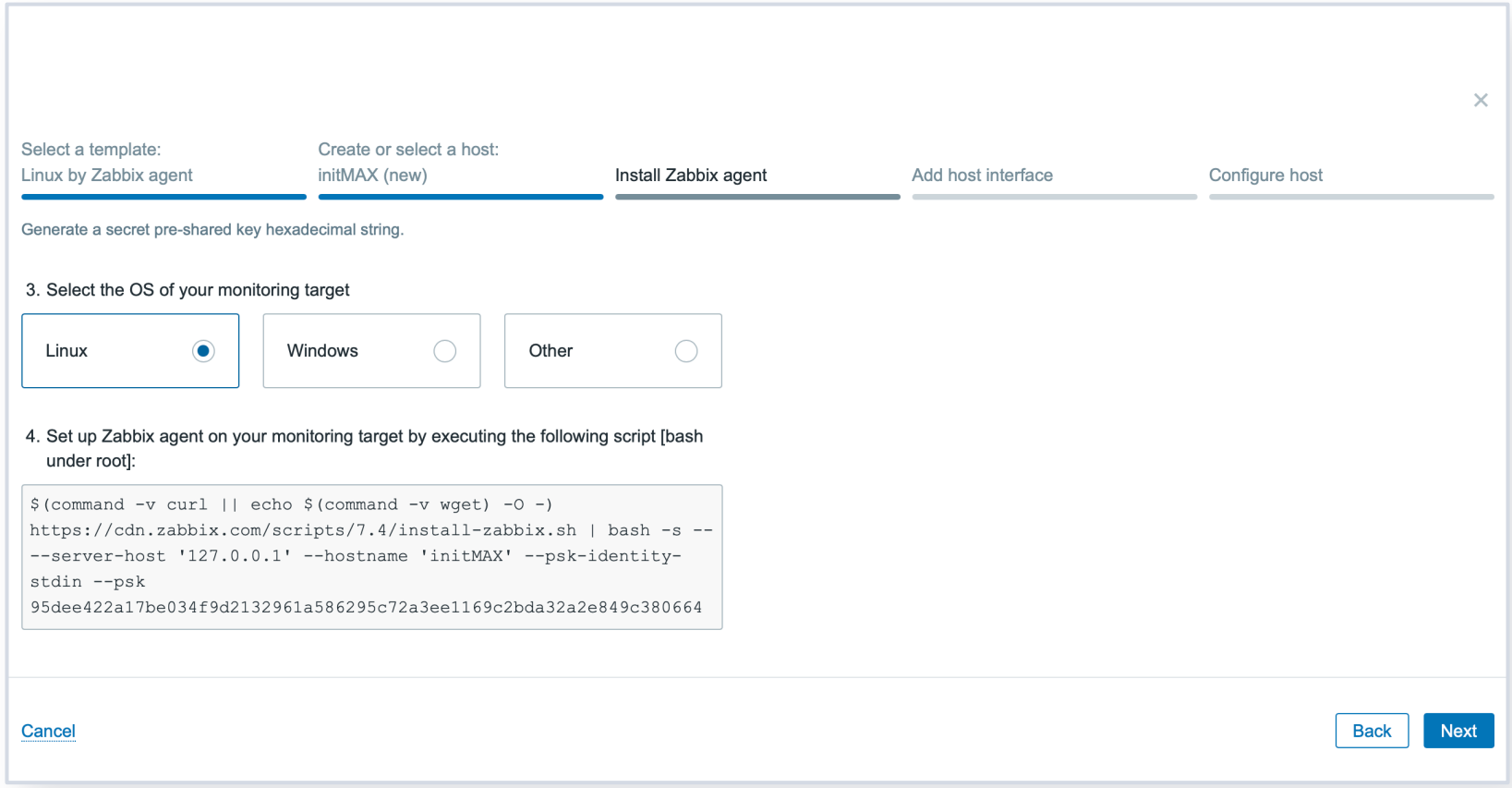
Host Wizard

- The wizard also assists you with installing the Zabbix agent on various platforms if required. You can skip this step or remove the PSK section here if you plan to disable it later.



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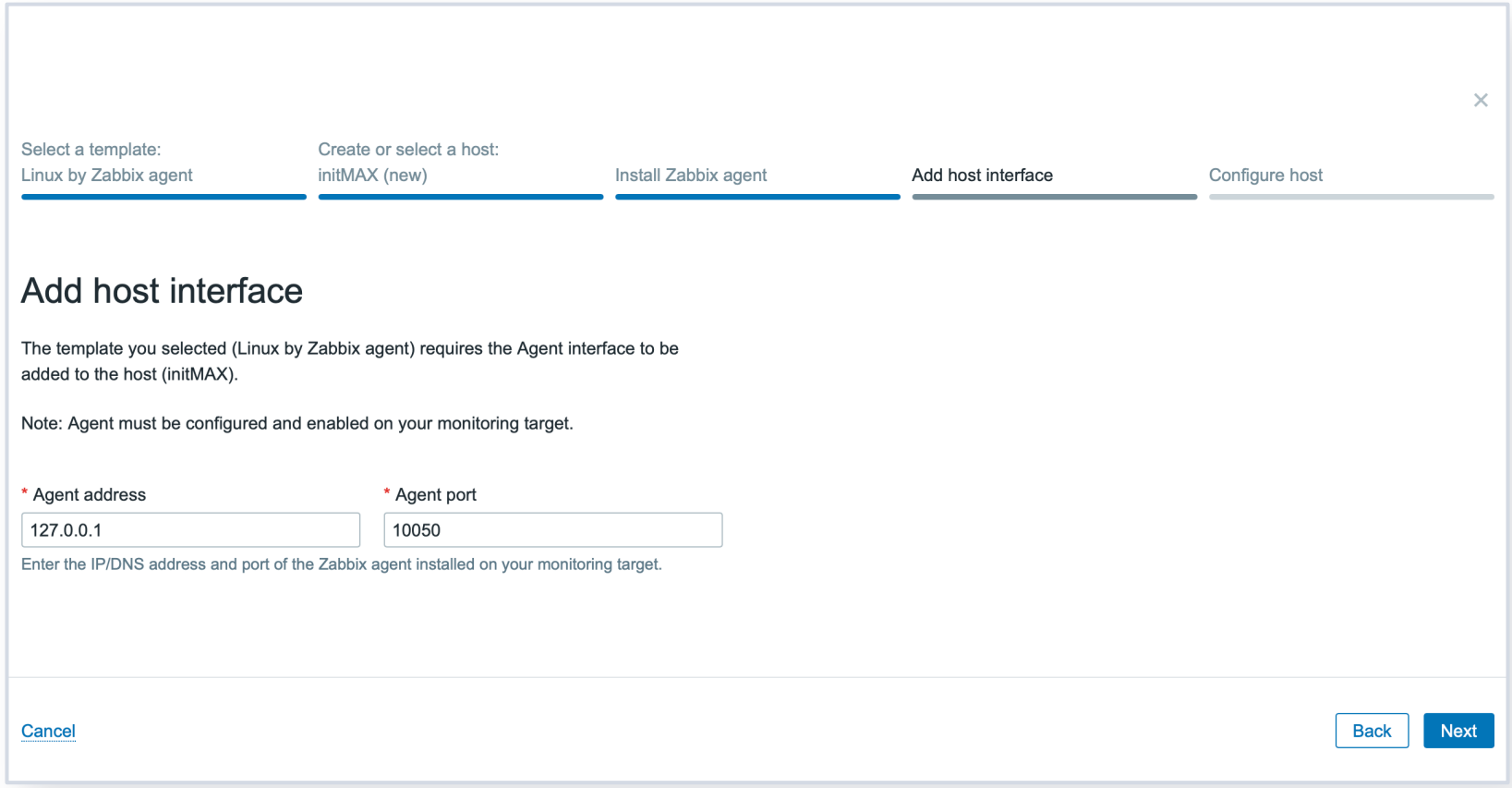
Host Wizard

- Here you must fill in your host interface address. You can also see a helpful explanation about why this is required.



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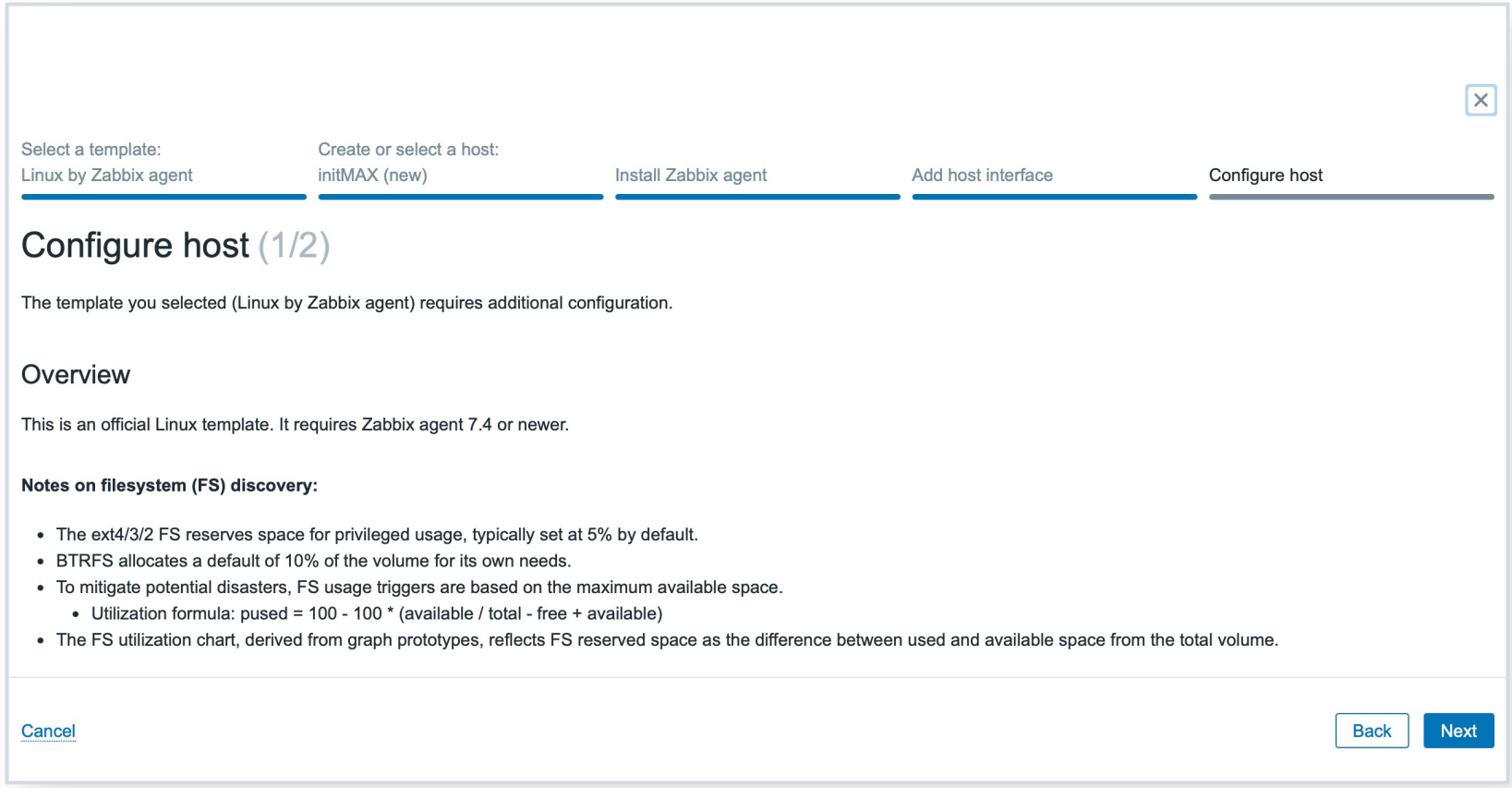
Host Wizard

- If the template contains additional important information, you will see it listed here.
- Here you'll see a brief explanation of selected macros and thresholds.



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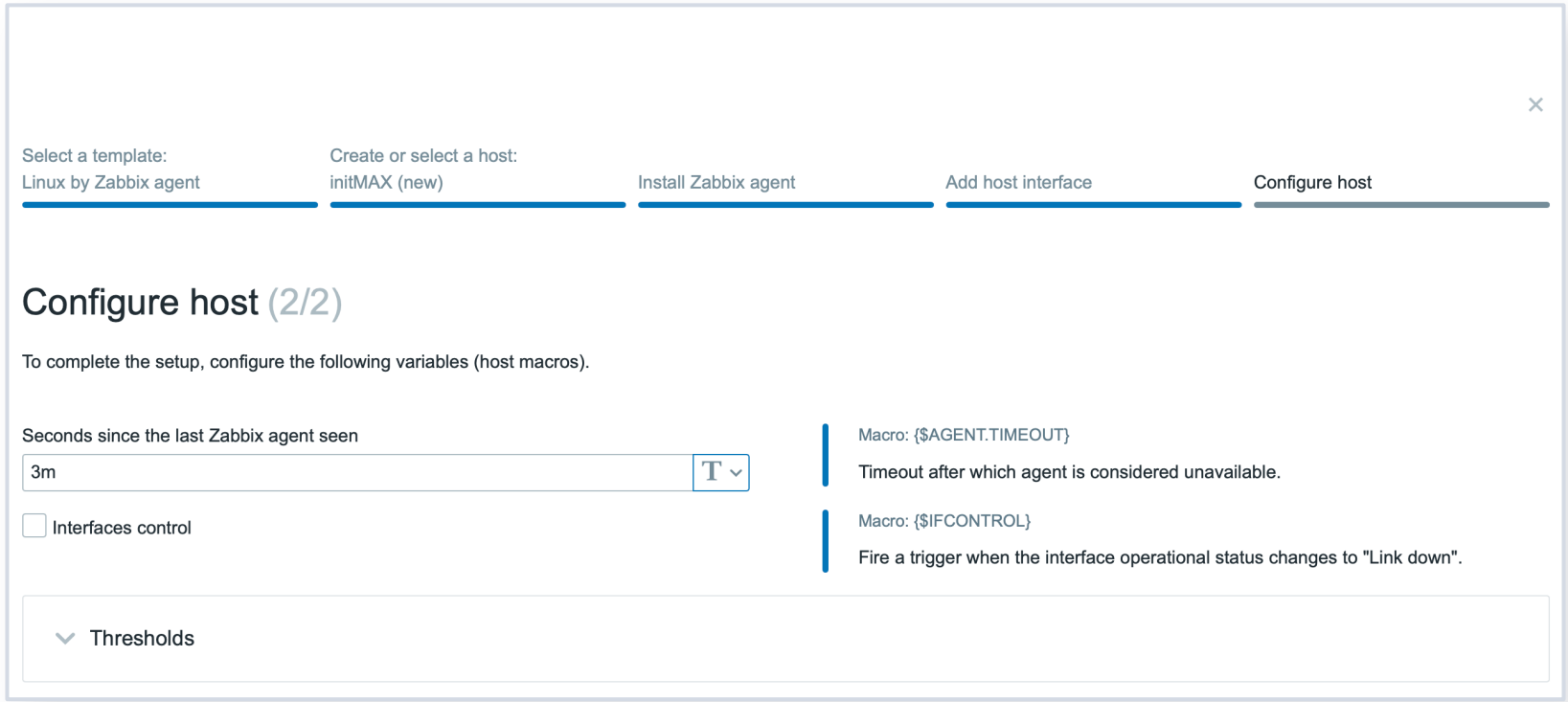
Host Wizard

- On this page, you'll see basic parameters adjustable via macros, along with their default values.
- Parameters are divided into several categories such as Thresholds and Filters, and you can use both text fields and selection buttons.



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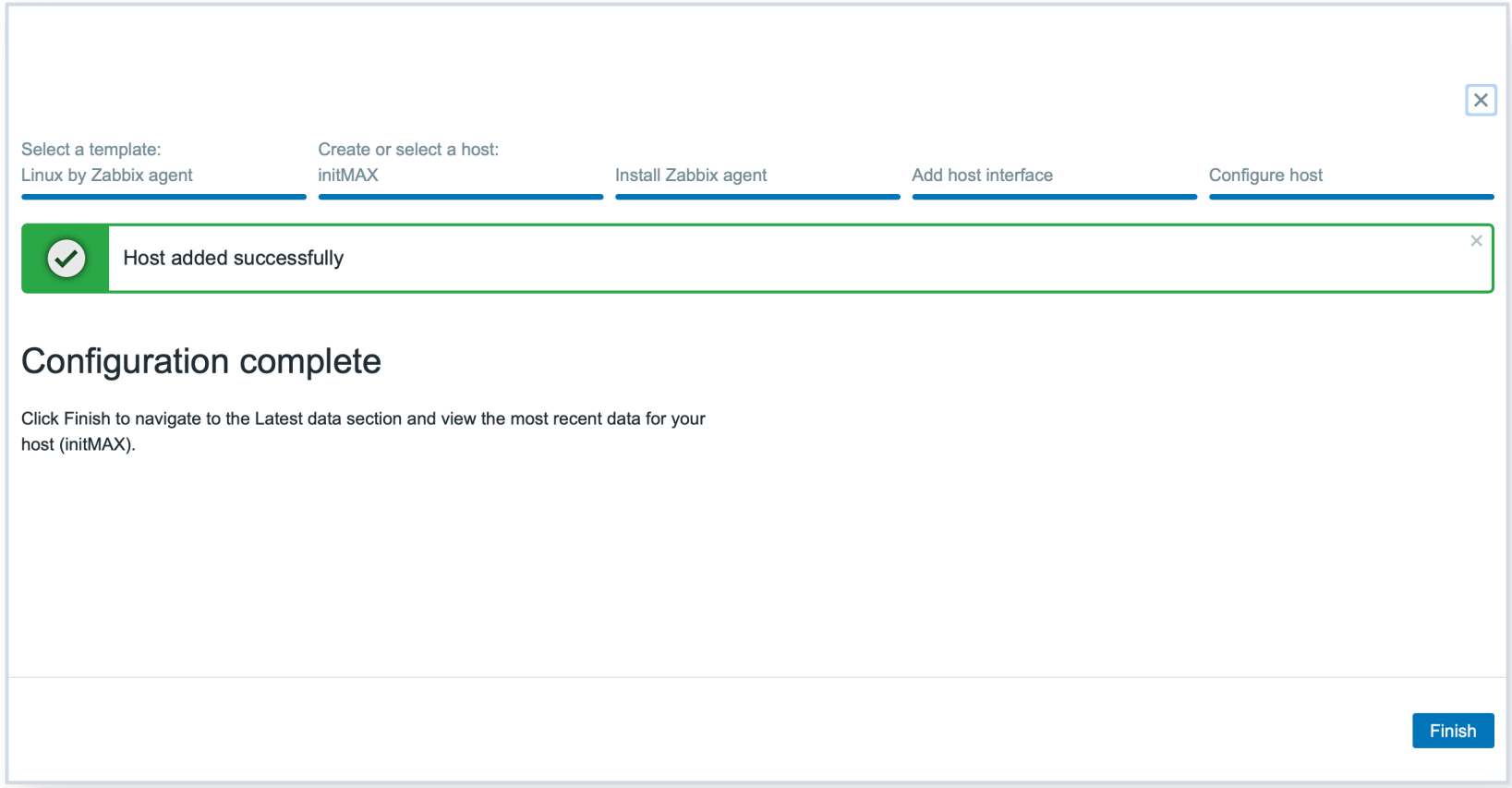
Host Wizard

- On the last page, simply confirm your selected settings.
- The wizard helps avoid missed settings when adding new templates.



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Host Wizard

- If you're upgrading from an earlier Zabbix version, templates must be upgraded to work with the Host Wizard. For instructions, see Template upgrade.

  https://www.zabbix.com/documentation/current/en/manual/config/templates_out_of_the_box#template-upgrade

- The guidelines that have not been updated can be found in a separate section on the Zabbix documentation page.

  https://www.zabbix.com/documentation/guidelines/en/thosts

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Host Wizard

```
zabbix_export:
  version: '7.4'
  template_groups:
    - uuid: 846977d1dfed4968bc5f8bdb363285bc
      name: 'Templates/Operating systems'
  templates:
    - uuid: f8f7908280354f2abeed07dc788c3747
      template: 'Linux by Zabbix agent'
      name: 'Linux by Zabbix agent'
      description: |
        ...
      wizard_ready: 'YES'
      readme: |
        ## Overview
        This is an official Linux template. It requires Zabbix agent 7.4 or newer.
        ...
      vendor:
        name: Zabbix
        version: 7.4-2
      ...
```

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Host Wizard

```
...
macros:
  - macro: '{$AGENT.TIMEOUT}'
    value: 3m
    description: 'Timeout after which agent is considered unavailable...
    config:
      type: TEXT
      priority: '1'
      label: 'Seconds since the last Zabbix agent seen'
      description: 'Timeout after which agent is considered unavailable.'
  - macro: '{$CPU.UTIL.CRIT}'
    value: '90'
    description: 'Critical threshold of CPU utilization expressed in %.'
    config:
      type: TEXT
      priority: '2'
      section_name: Thresholds
      label: 'Threshold of CPU utilization expressed'
      description: 'Critical threshold of CPU utilization expressed in %.
      regex: '^-?([0-9]+|(([0-9]+)\.([0-9]+)))$’
 ...
```

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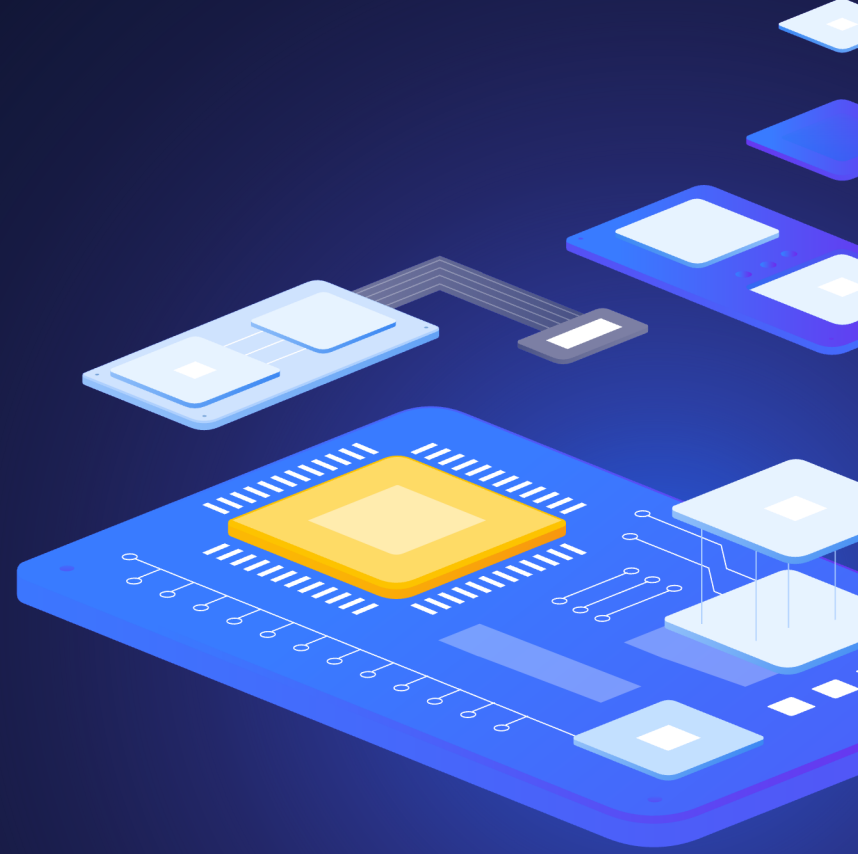
Host Wizard

```
...
- macro: '{$IFCONTROL}'
  value: '1'
  description: 'Link status trigger will be fired only for interfaces where the context…
  config:
    type: CHECKBOX
    priority: '19'
    label: 'Interfaces control'
    description: 'Fire a trigger when the interface operational status changes…
    options:
     - checked: '1'
       unchecked: '0'
...
```

2

Nested low-level discovery



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Nested low-level discovery rules

Zabbix 7.4 introduces the ability to create low-level discovery rule prototypes

- Each low-level discovery rule prototype can have its own item, trigger, graph, host and discovery prototypes
- This way multiple levels of discovery can be performed from a single multi-level JSON array
- Unlimited levels of nesting are supported

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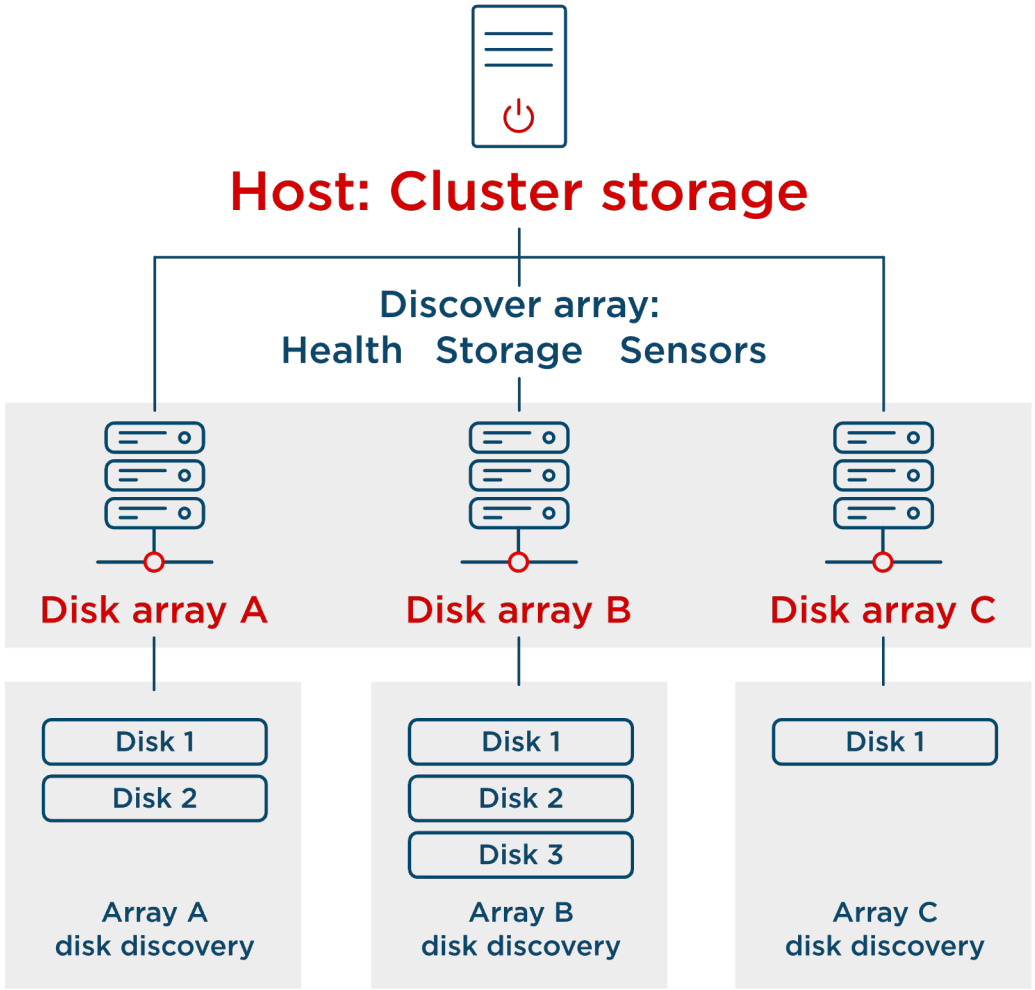
Nested low-level discovery rules

Nested low-level discovery can be used to:

- Discover database instances and use nested low-level discovery to discover instance tables
- Discover services or applications and use nested low-level discovery to discover the underlying components
- Discover hypervisors and use nested low-level discovery to discover virtual machines and containers



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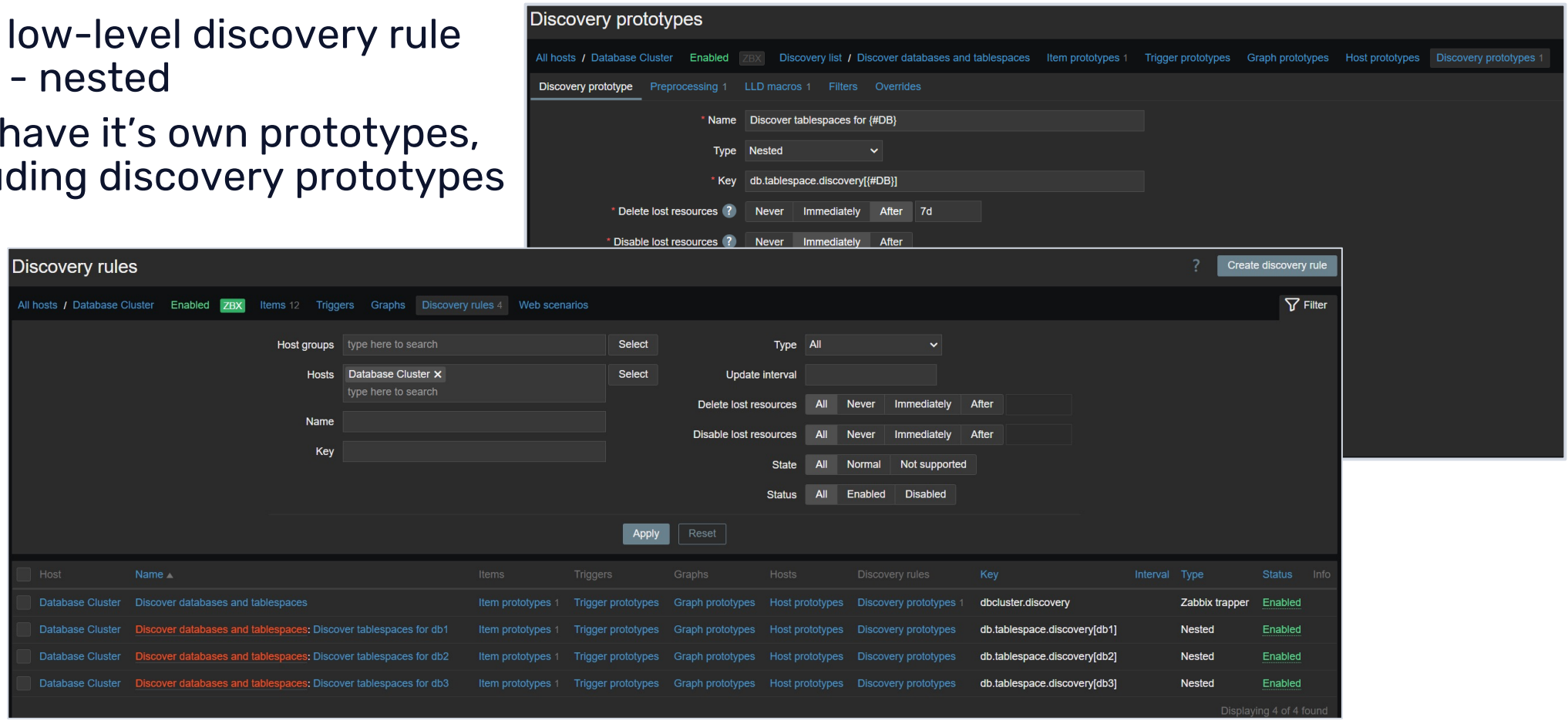
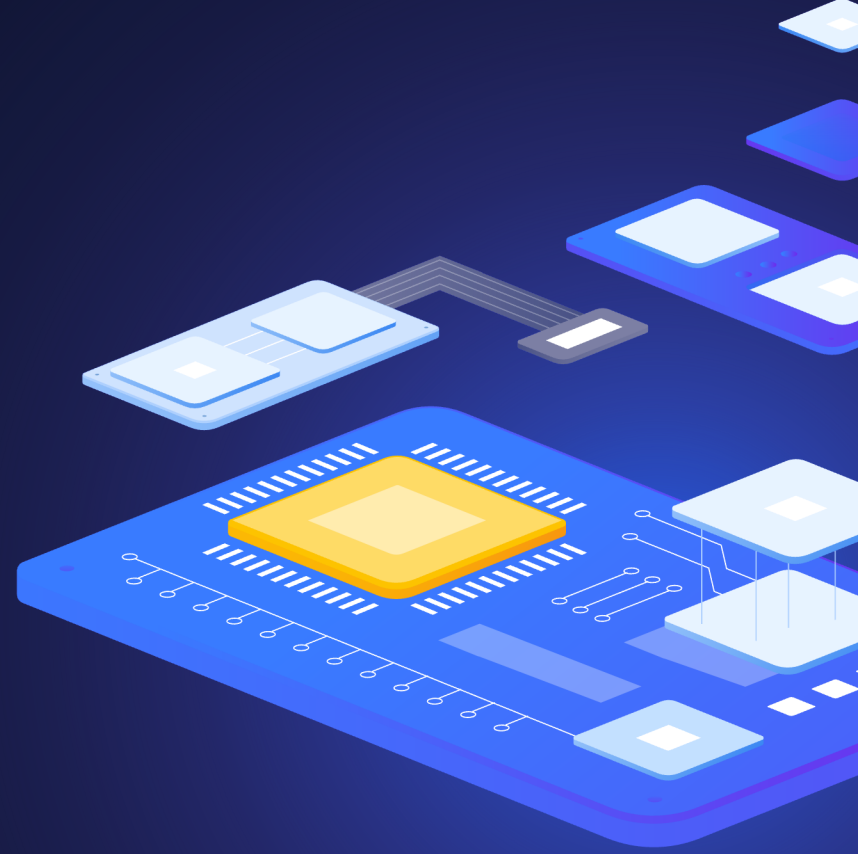
Nested low-level discovery rules

- New low-level discovery rule type - nested
- Can have it's own prototypes, including discovery prototypes



3

Nested host prototypes



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Nested host prototypes

Hosts discovered from host prototypes can now use low-level discovery rules to create hosts of their own

- Nested host prototypes can be defined on as many levels as required
- Nested host prototypes can be used similarly to nested low-level discovery rules
- Nested host prototypes and low-level discovery rules enable a variety of new use cases for automated host and item detection workflows

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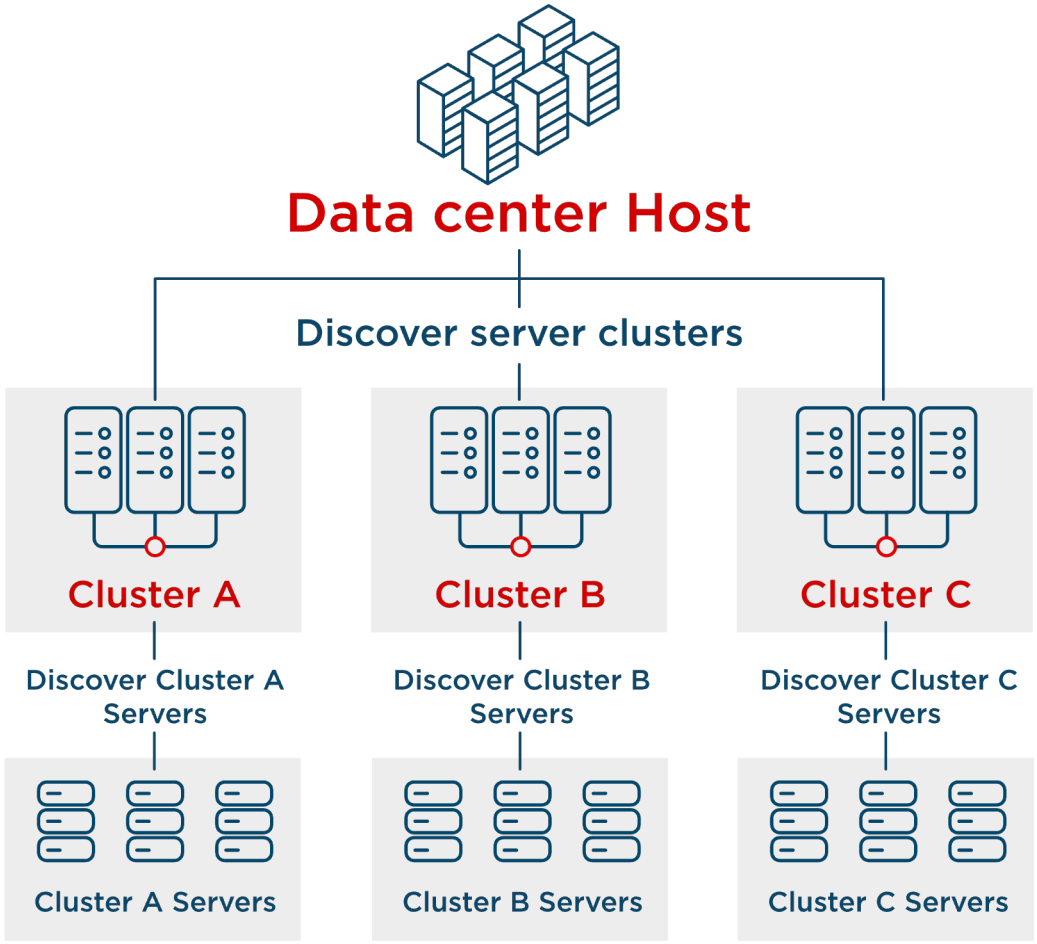
Nested host prototypes

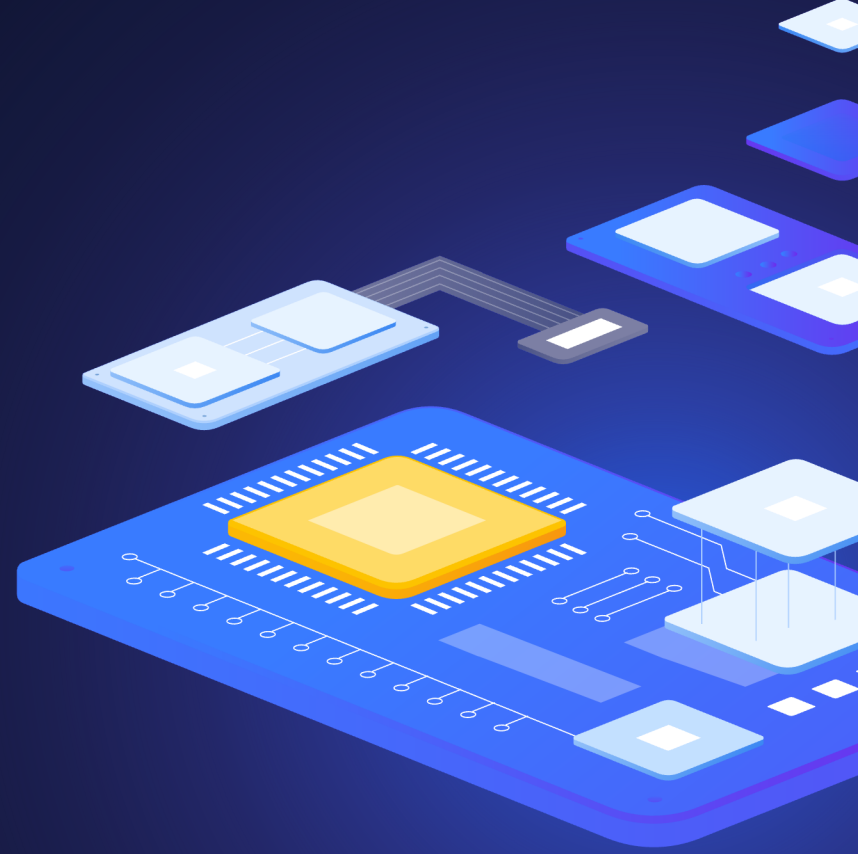
Nested host prototypes are useful when discovering multi-level entities:

- Discover server cluster hosts, which in turn discover individual cluster node hosts
- Discover database hosts, which in turn discover hosts for database tables
- Discover storage array hosts, which in turn discover storage devices per array
- Discover hypervisor hosts, which in turn discover virtual machine hosts



4

Item card widget



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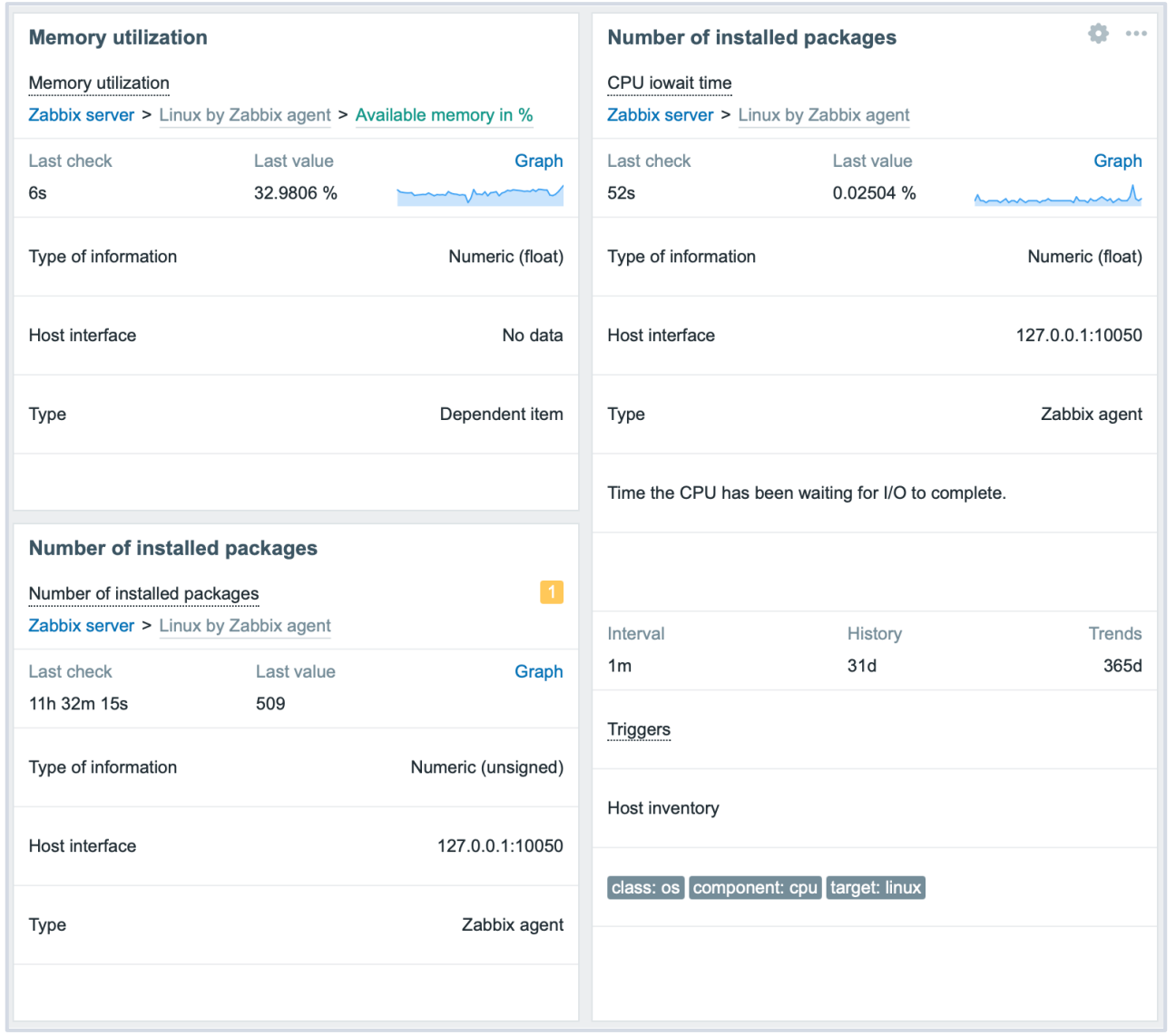
Item card widget

Item card widget provides a customizable view of an item and its various attributes

- Select from a list of fields to display
- Display the fields in any order



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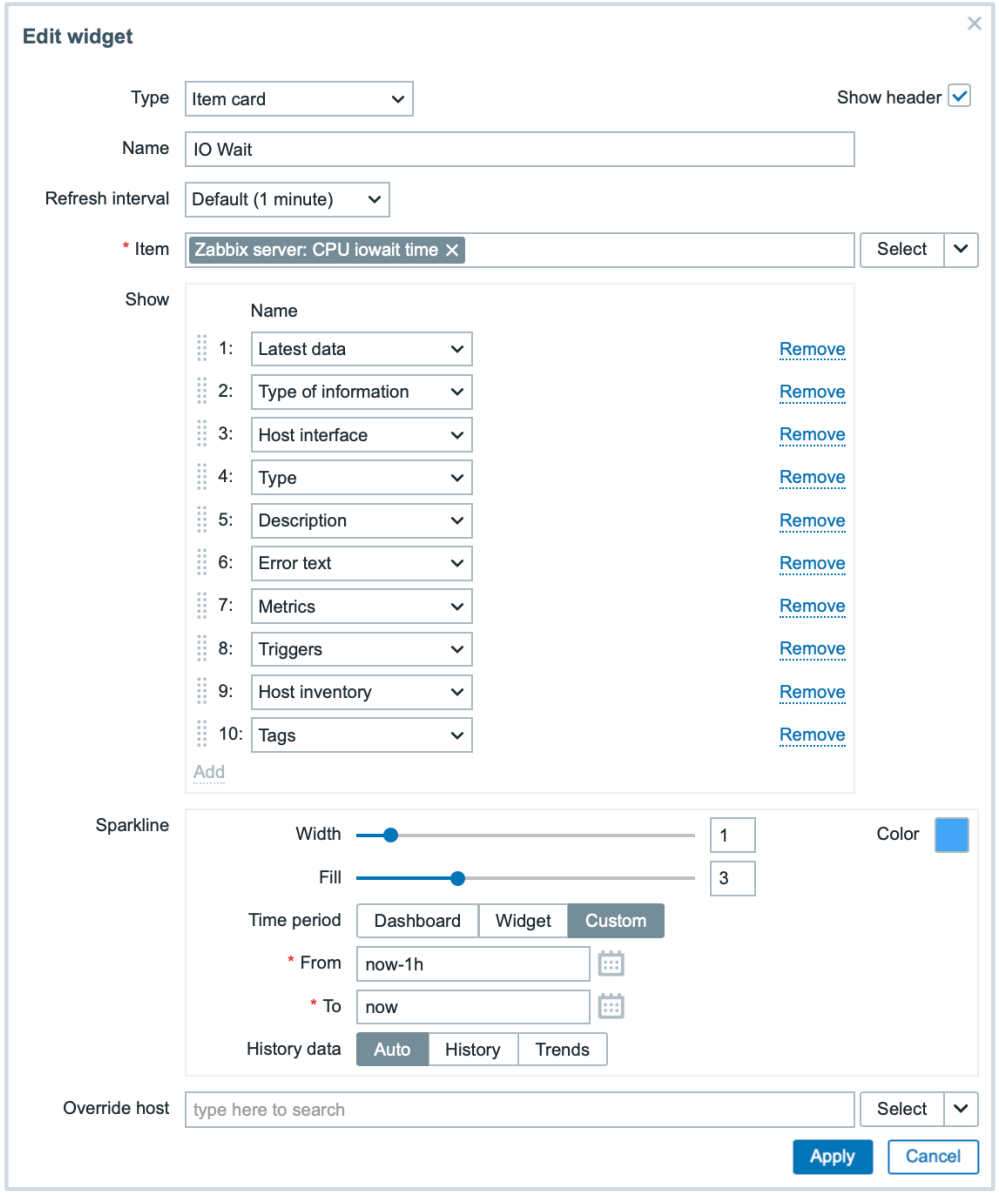
Item card widget

The item card widget can display information like:

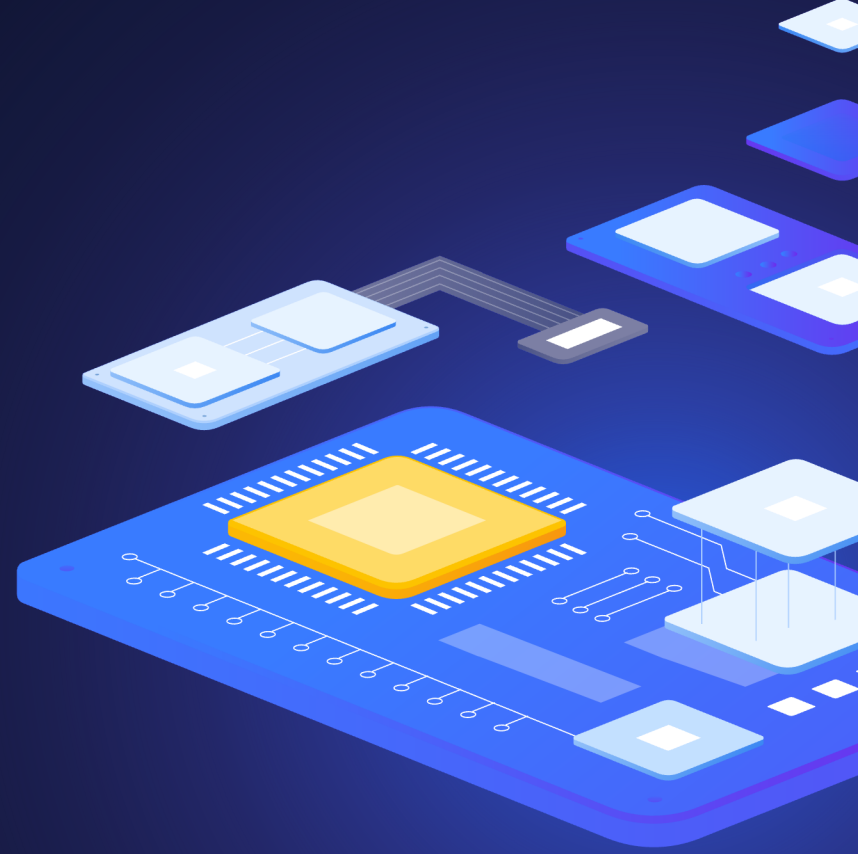
- Latest data
- Type of information
- Host interface
- Type
- Description
- Error text
- Metrics
- Triggers
- Host inventory
- Tags

- Sparkline



5

Network map improvements



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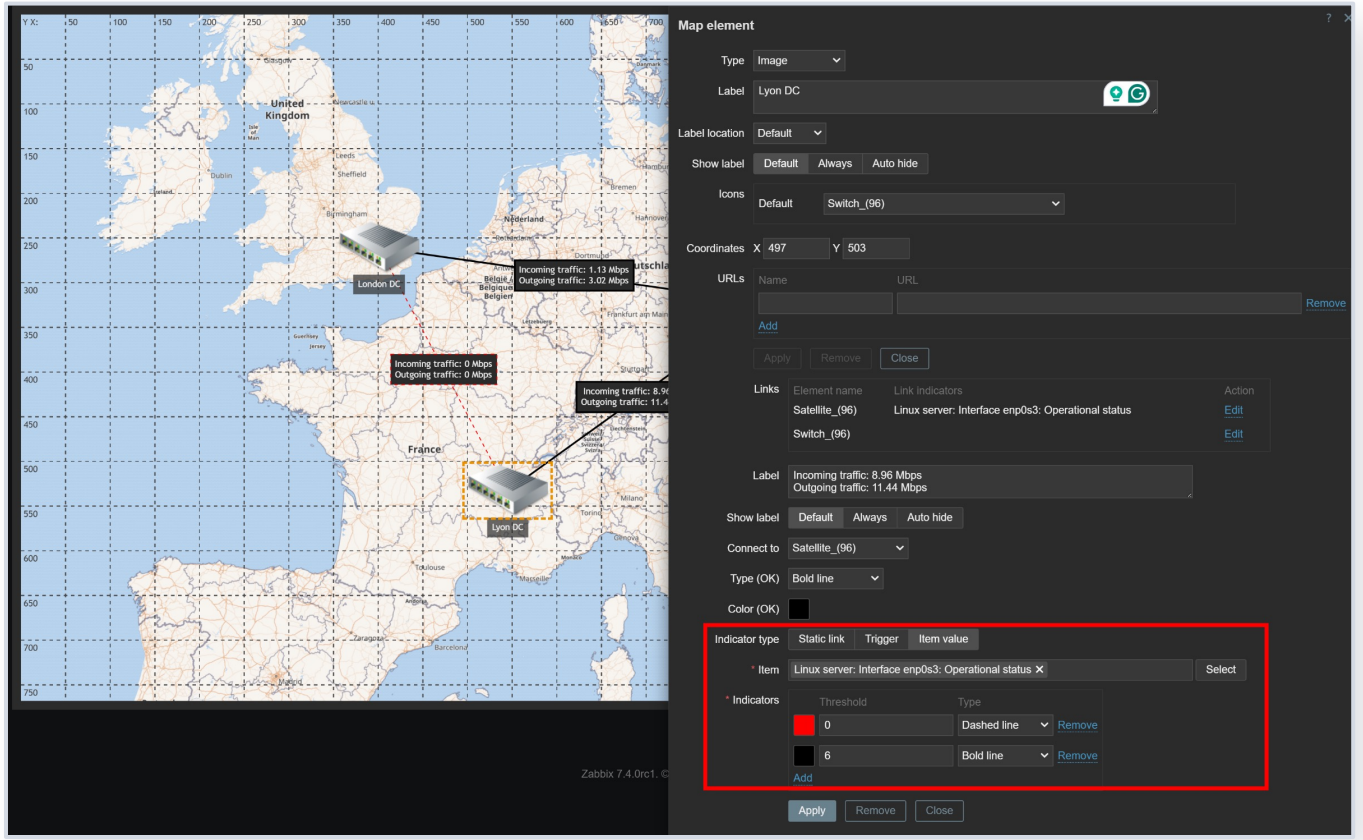
Network map improvements

Various network map improvements have been introduced:

- Map background images can now be scaled proportionally to map dimensions
- Map links now support link indicators based on item value thresholds
- Map element icons can now be ordered when placed on top of one another



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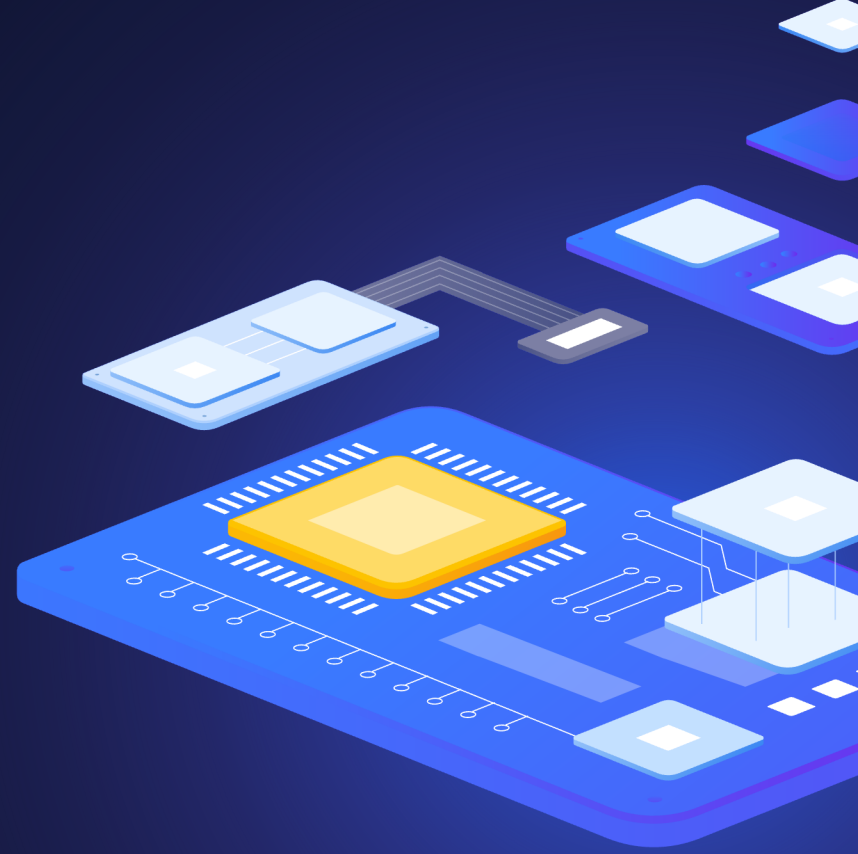
Network map improvements

Various network map improvements have been introduced:

- Map element icons can now be ordered when placed on top of one another
- Host group map elements will now take into account nested host groups when displaying host group related information
- Map link and element labels can now be hidden and only be displayed on mouse hover

6

Dashboard improvements



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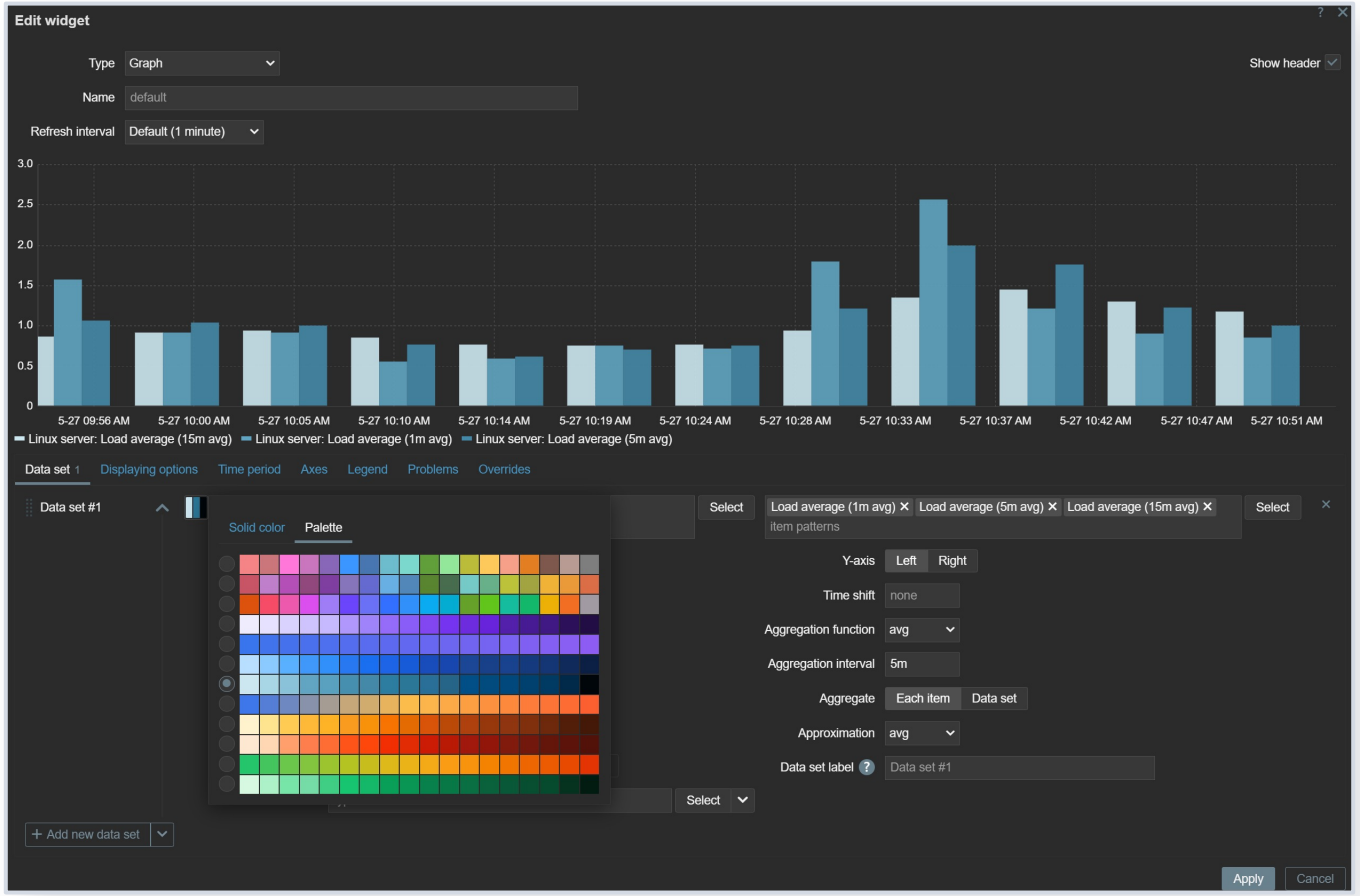
Dashboard improvements

Various dashboard improvements to facilitate faster and smoother dashboard configuration

- New palette color schemes can be used for data sets in graphs, making the individual items more distinguishable
- Widget configuration changes are now instantly reflected in the widget without having to close the configuration form



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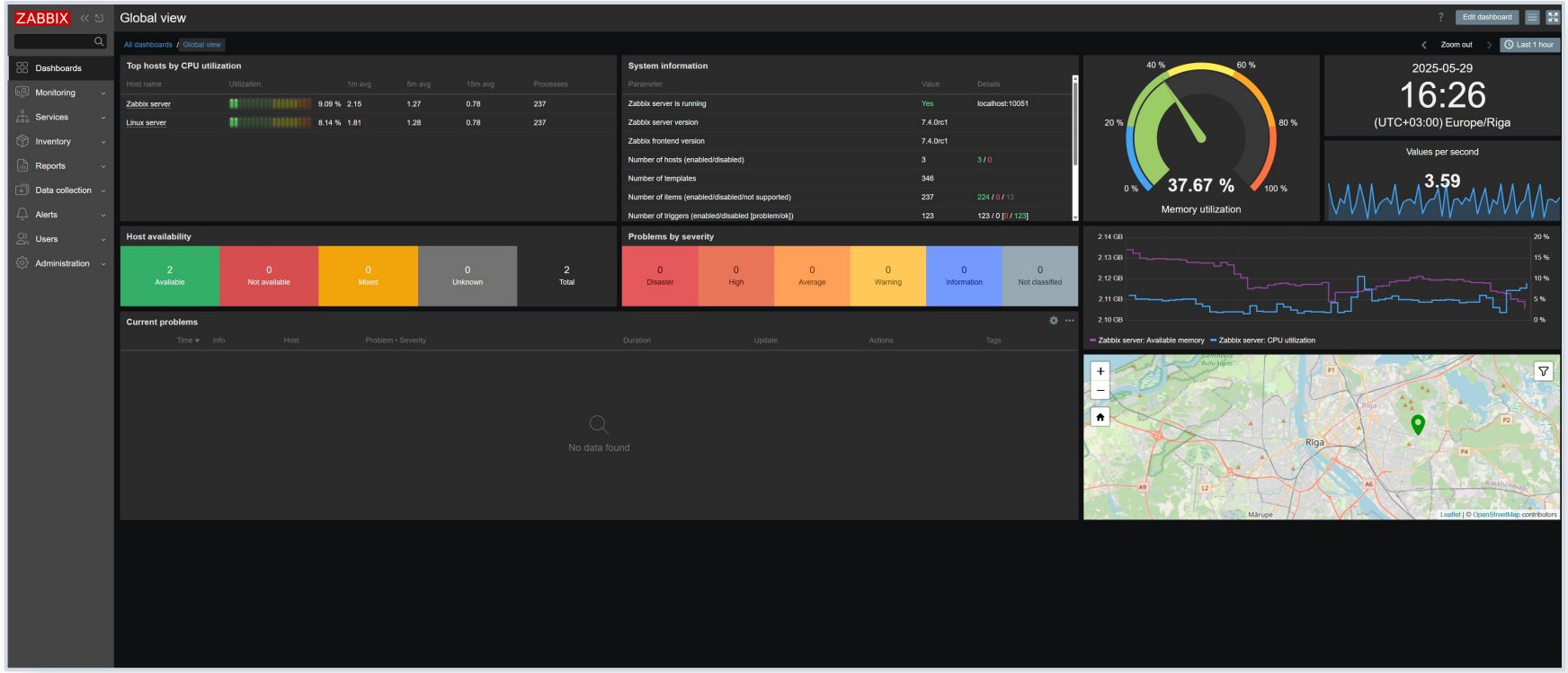
Dashboard improvements

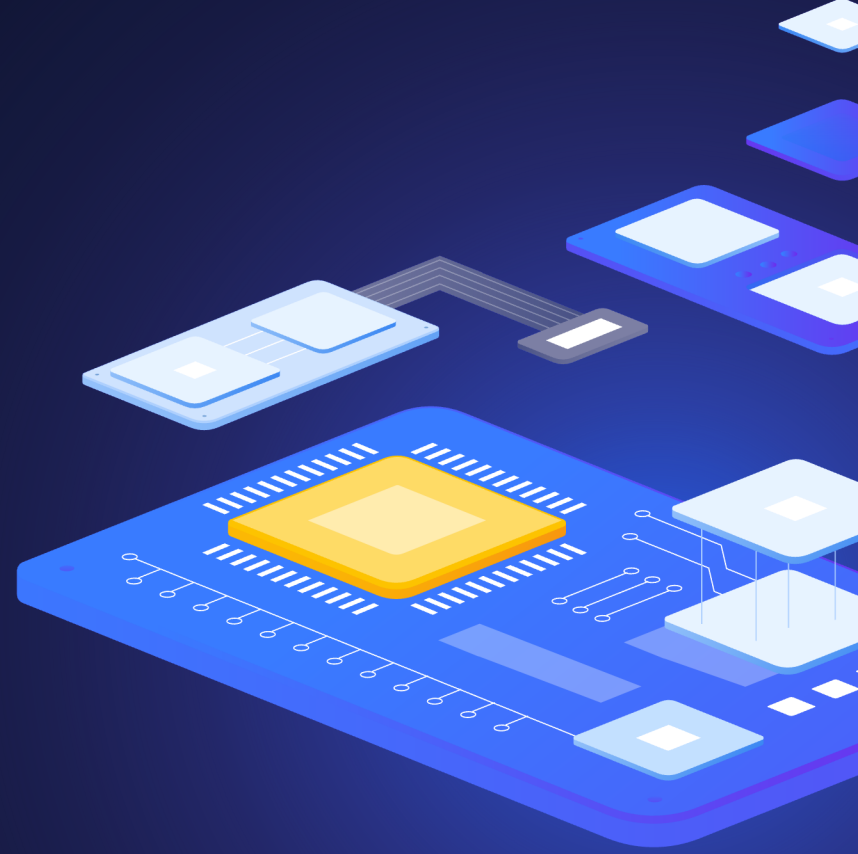
Various dashboard improvements to facilitate faster and smoother dashboard configuration

- The Global view default dashboard has received various improvements



7

Inline form validation



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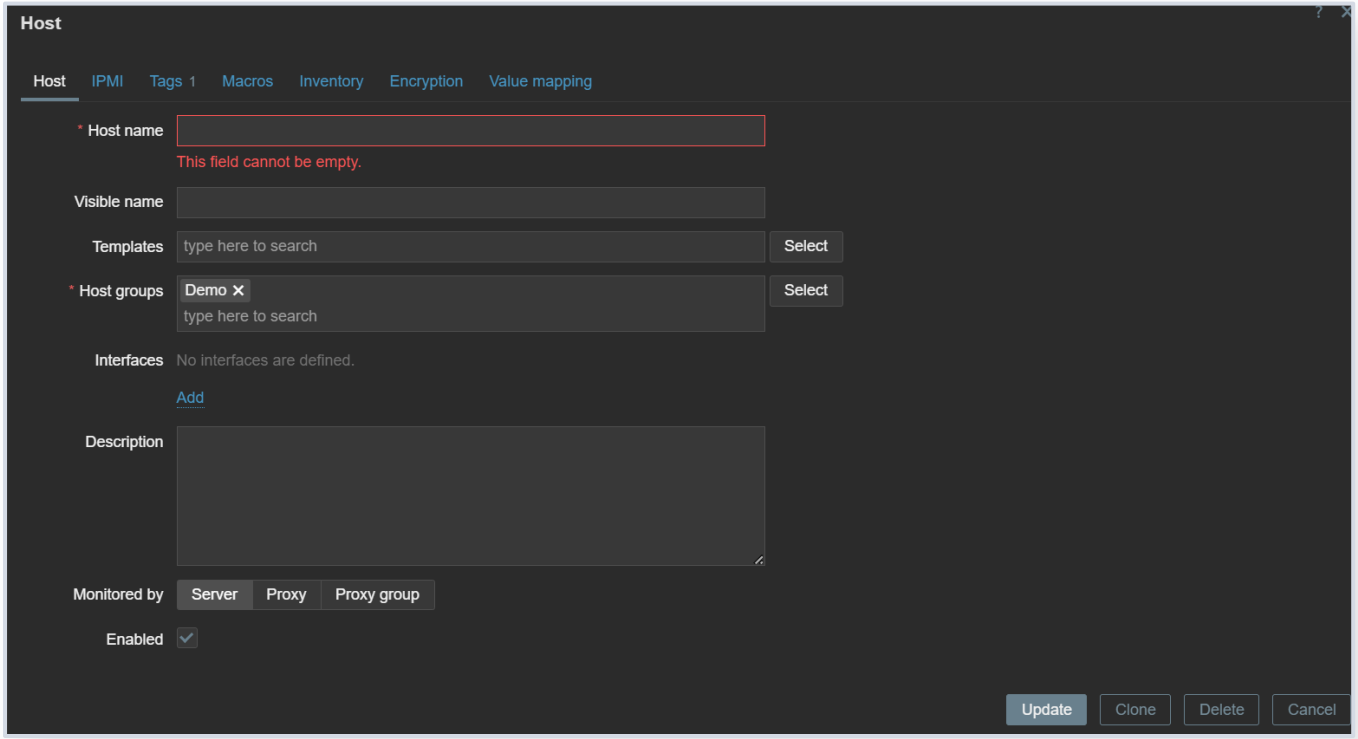
Inline form validation

As of 7.4, inline form validation is supported in:

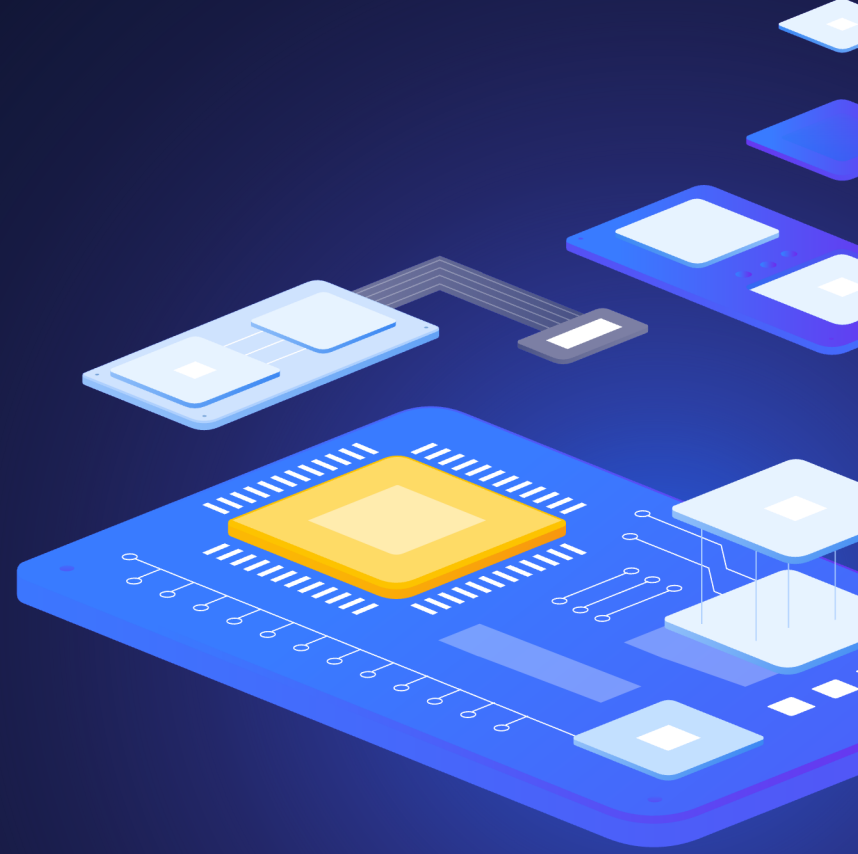
- Host configuration
- Template configuration
- Item configuration
- Trigger configuration

Inline form validation support for other Zabbix sections is planned to be added in later major releases



8

Frontend to server communication encryption



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Frontend to servercommunication encryption

It is now possible to secure frontend to server communication with certificate encryption

New Zabbix server configuration parameters:

- *TLSFrontendAccept* – what incoming connections to accept from frontend
- *TLSFrontendCertIssuer* – Allowed frontend certificate issuer
- *TLSFrontendCertSubject* – Allowed frontend certificate subject
- *FrontendAllowedIP* – Frontend connections will be accepted only from addreses listed here if the parameter is set

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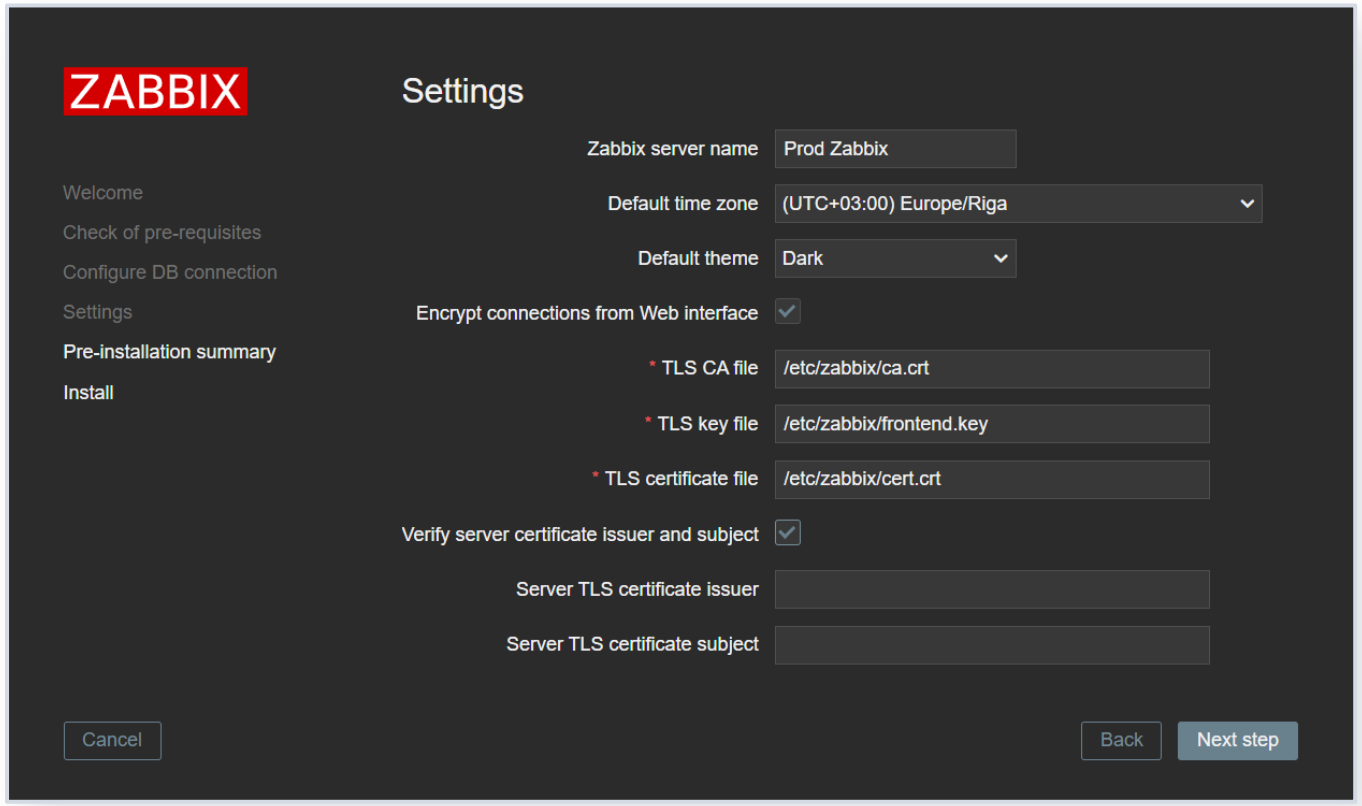
Frontend to server communication encryption

It is now possible to secure frontend to server communication with certificate encryption



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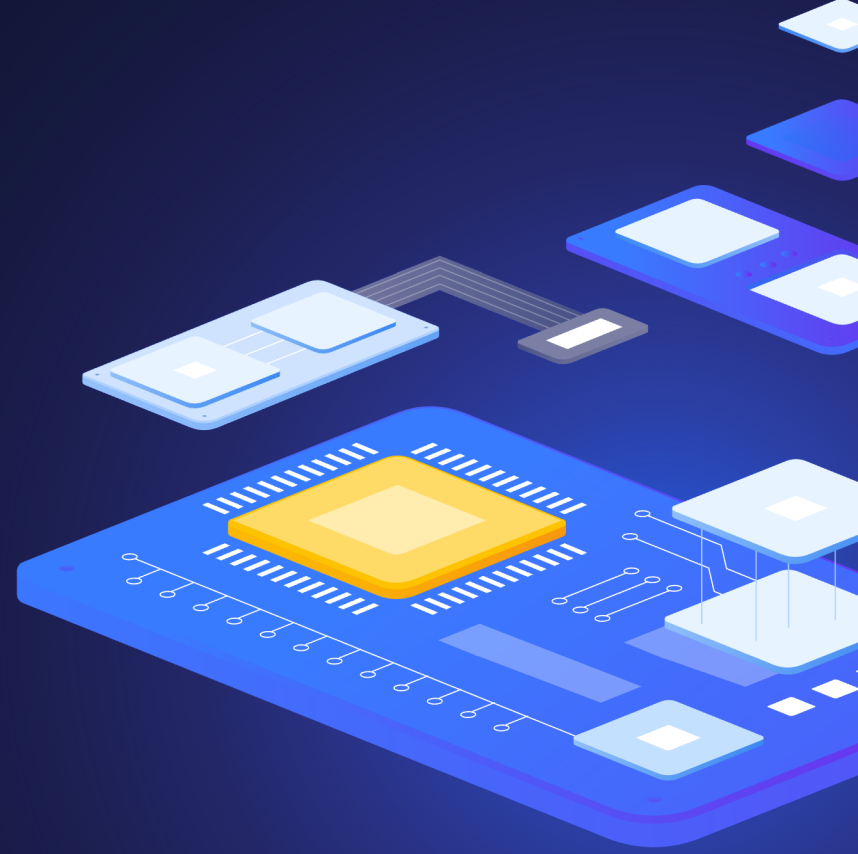
UX/UI improvements



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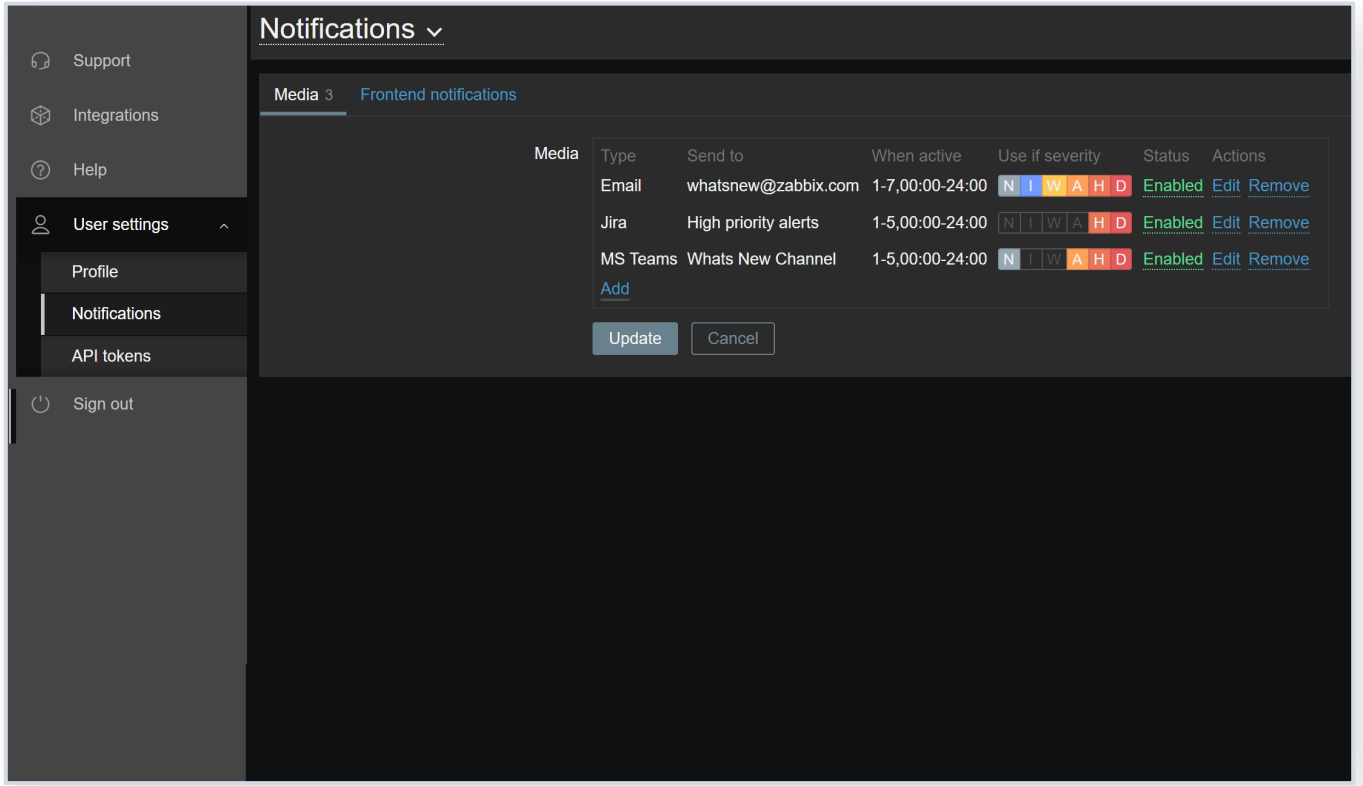
General UI/UX improvements

Multiple UI/UX improvements have been added to improve existing Zabbix workflows:

- New Notifications section has been added under User Settings for customizing notification settings for the current user
- All users are now allowed to manage their own media by default. These permissions can now be revoked in user role settings
- Preprocessing results can now be copied directly to clipboard by using the Copy to clipboard button



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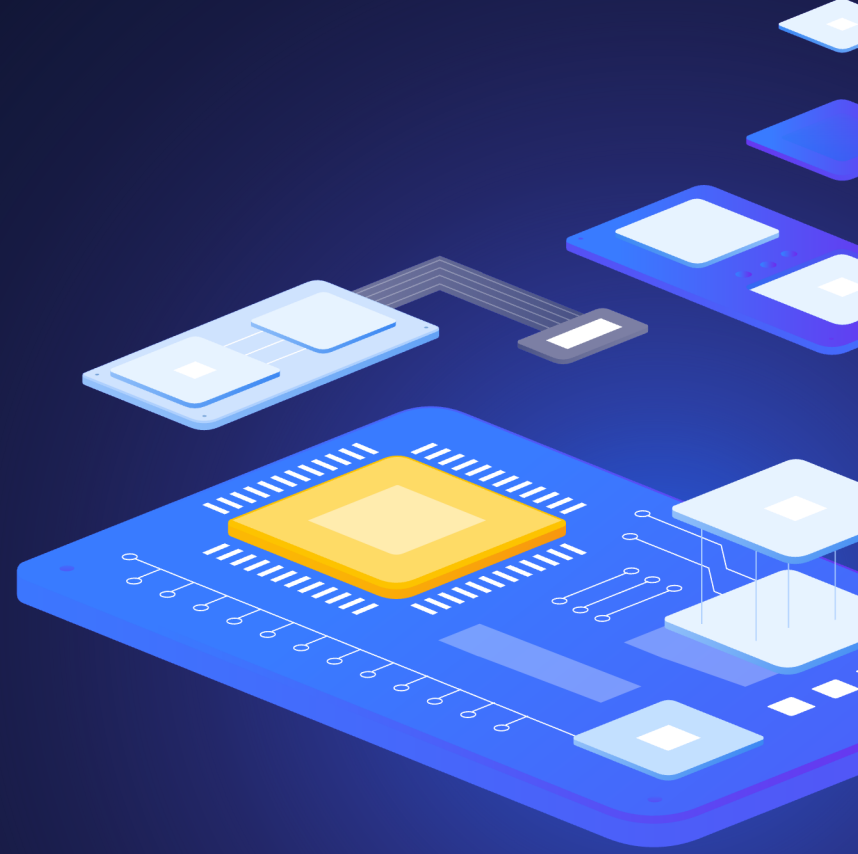
New templates and integrations



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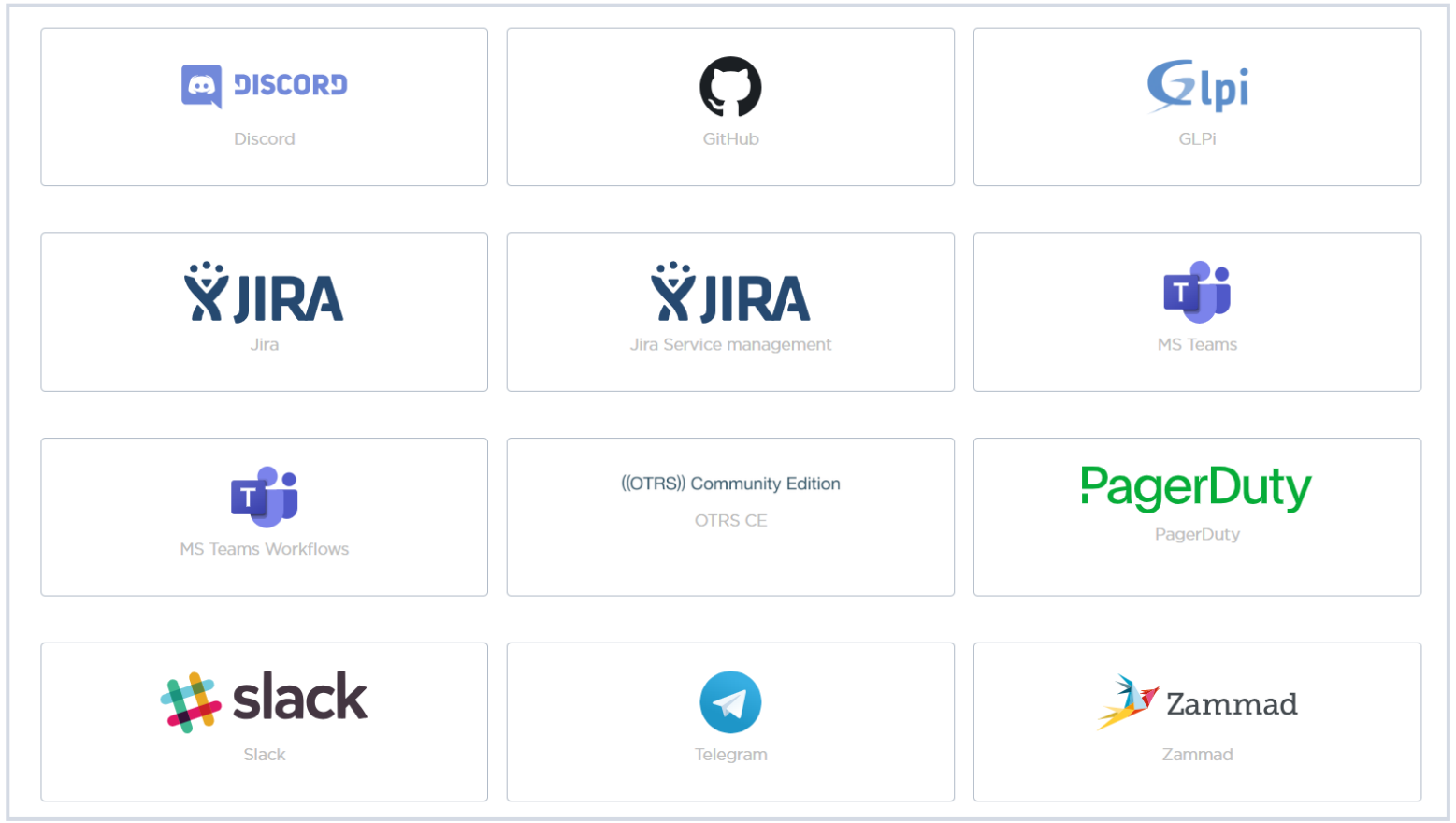
Existing webhook improvements

The following webhooks have been **refactored and updated**:



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New templates

Pure Storage FlashArray by HTTP

Azure SQL Managed Instance by HTTP

Azure MSSQL DTU database by HTTP

Azure Backup Jobs by HTTP

Palo Alto PA-440 by HTTP

Juniper MX by NETCONF

Improvements and fixes for Dell by HTTP and SNMP

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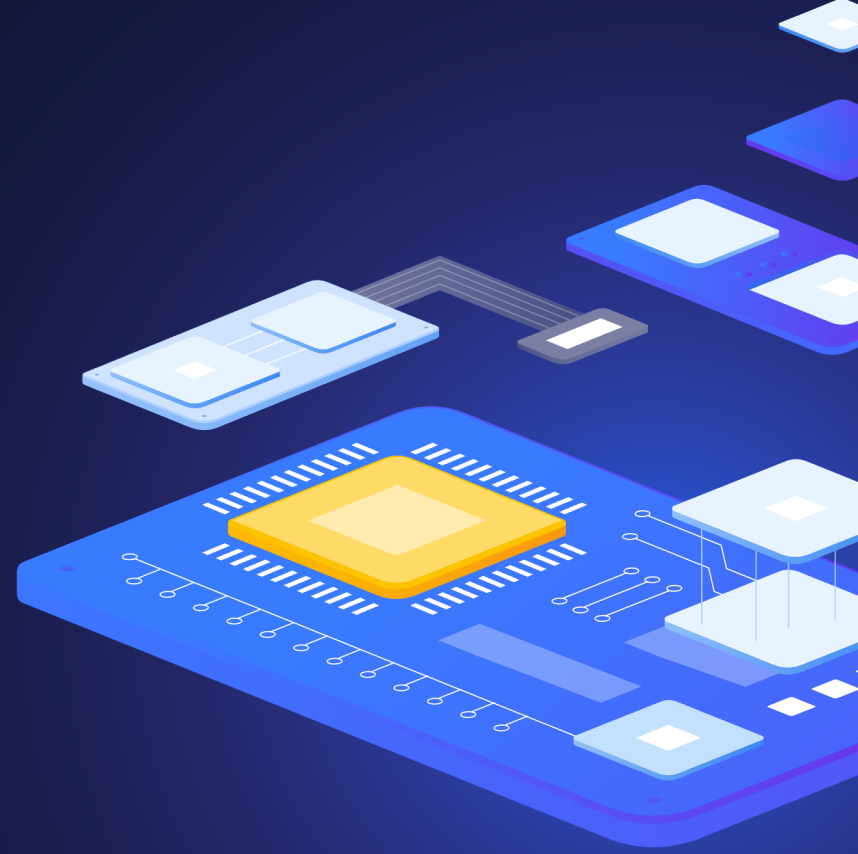
Store SAML certificates in the database



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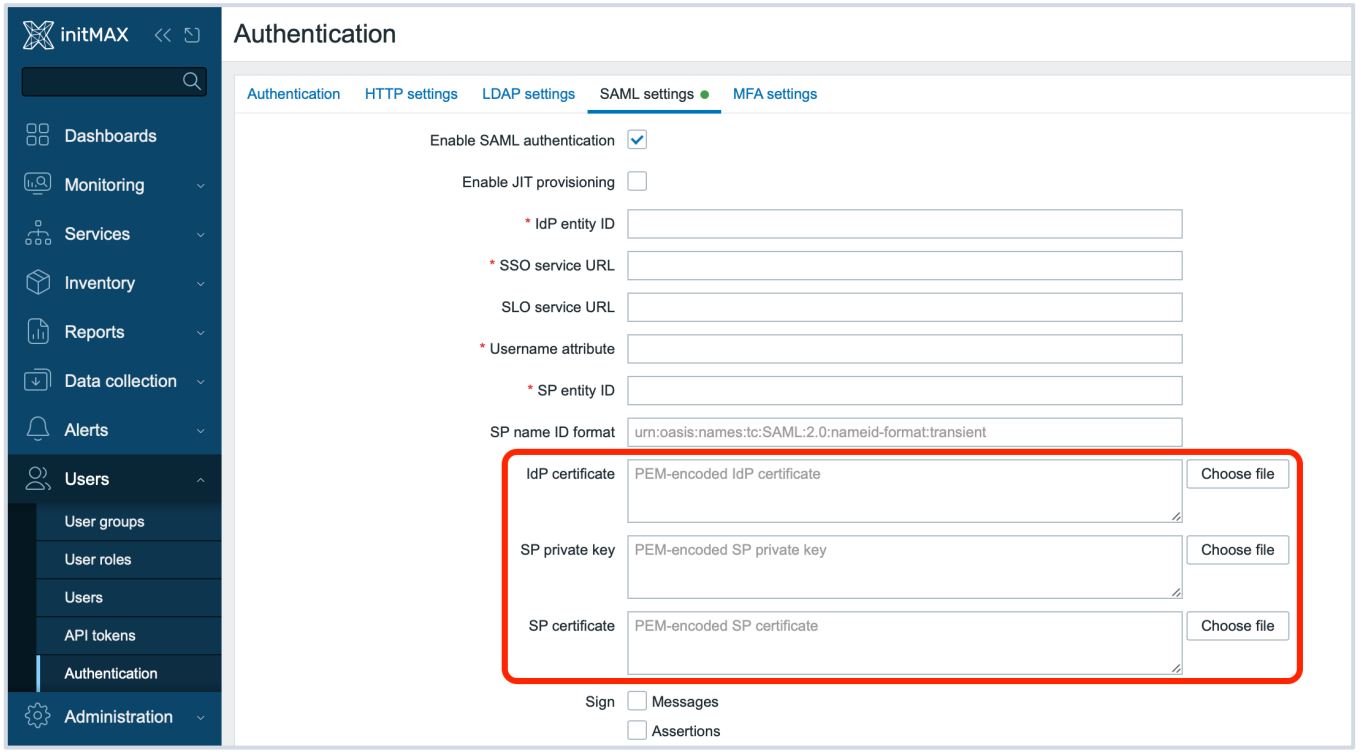
Store SAML certificates in the database

You can now configure Zabbix to store SAML certificates directly in the database.

- Easy configuration directly via the web interface.
- Unified certificate management in High Availability (HA) deployments.
- Simplified administration of the entire SAML configuration.



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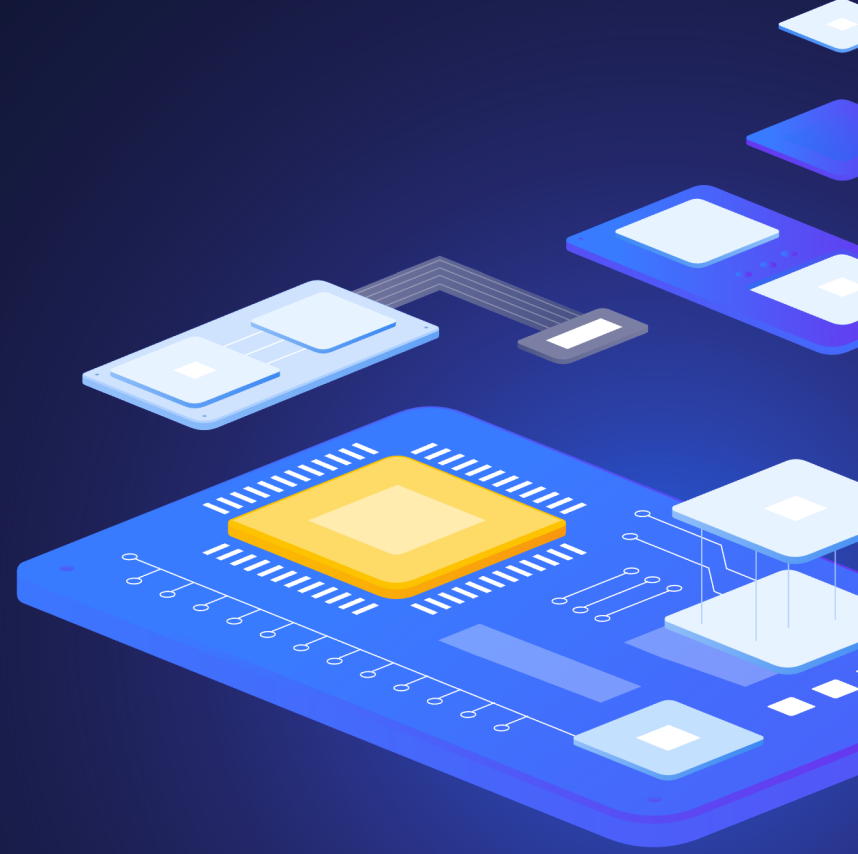
OAuth2 support for SMTP media



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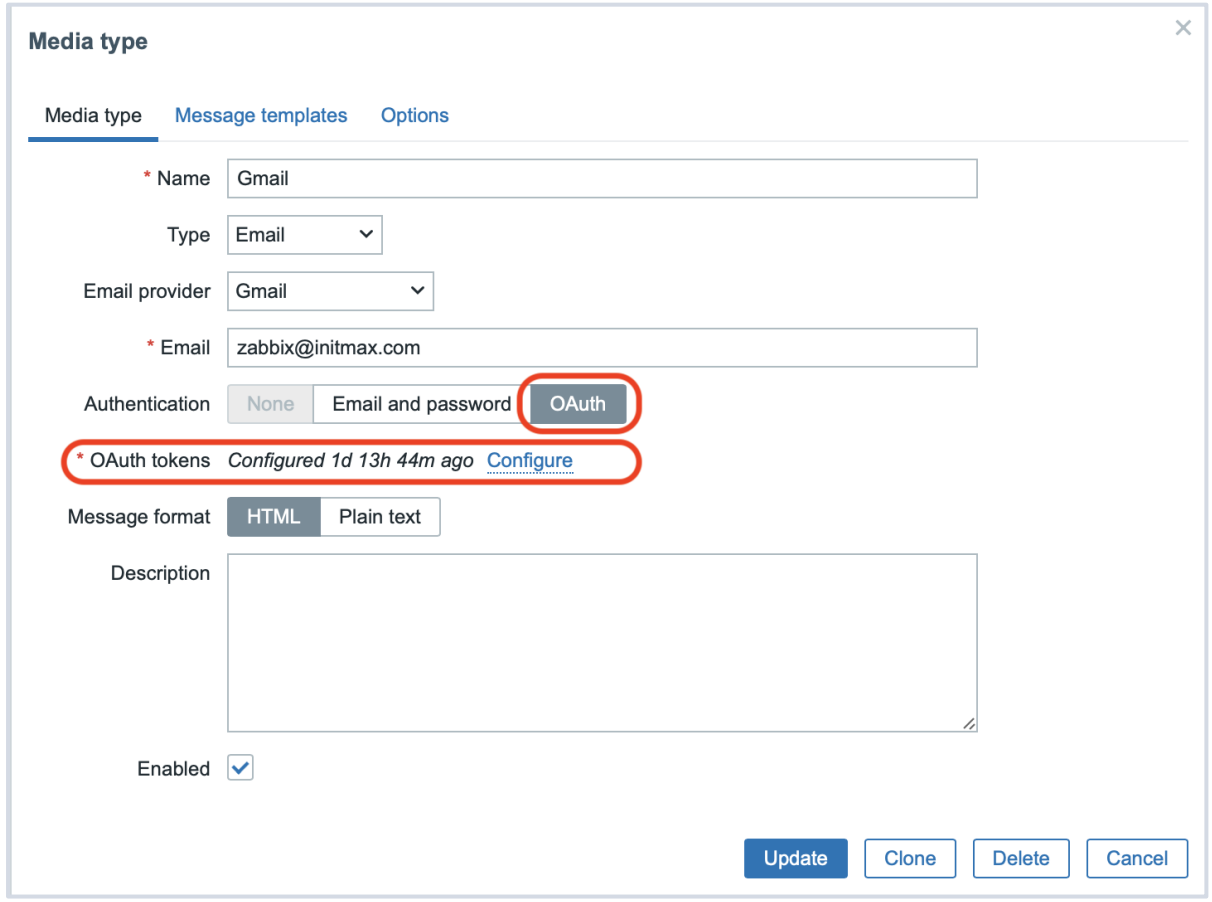
OAuth2 support for SMTP media

Zabbix now supports OAuth2 authentication for SMTP media types **Generic**, **Gmail**, and **Microsoft**.



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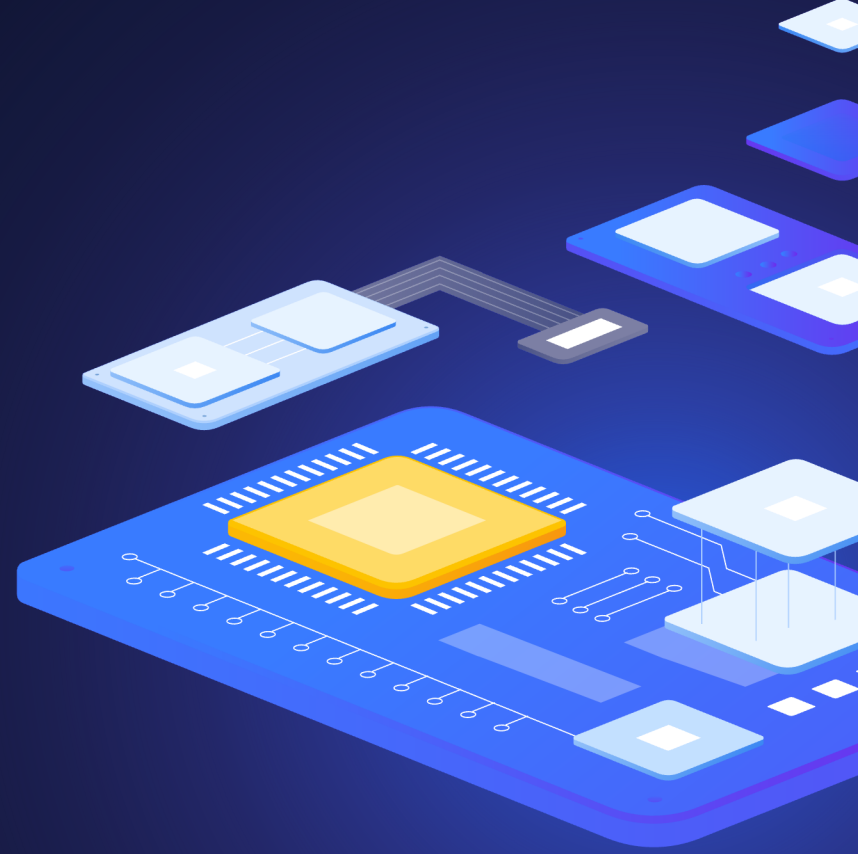
History syncer detailed statistics



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History syncer detailed statistics

History syncer processes now display detailed statistics about processed transactions directly in their names. This enables you to easily monitor how many values and triggers were processed and the duration of each operation.

- The notation **“A+B triggers”** means:
  A: triggers processed based on new values.
  B: triggers processed based on timers.
- In parentheses, you’ll find detailed timing of individual steps in the following order:
  Time spent writing item values to the database
  Time spent updating items (status, errors, host inventory, etc.)
  Time spent writing trends to the database
  Time spent calculating triggers
  Time spent processing events and actions

```
/usr/local/sbin/zabbix_server: history syncer #1 [processed 1 values, 0+0 triggers in 0.001013 (0.001,0.000,0.000,0.000,0.000) sec, idle 1 sec]
/usr/local/sbin/zabbix_server: history syncer #2 [processed 0 values, 0+0 triggers in 0.000025 (0.000,0.000,0.000,0.000,0.000) sec, idle 1 sec]
/usr/local/sbin/zabbix_server: history syncer #3 [processed 0 values, 0+0 triggers in 0.000038 (0.000,0.000,0.000,0.000,0.000) sec, idle 1 sec]
/usr/local/sbin/zabbix_server: history syncer #4 [processed 0 values, 0+0 triggers in 0.000031 (0.000,0.000,0.000,0.000,0.000) sec, idle 1 sec]
```

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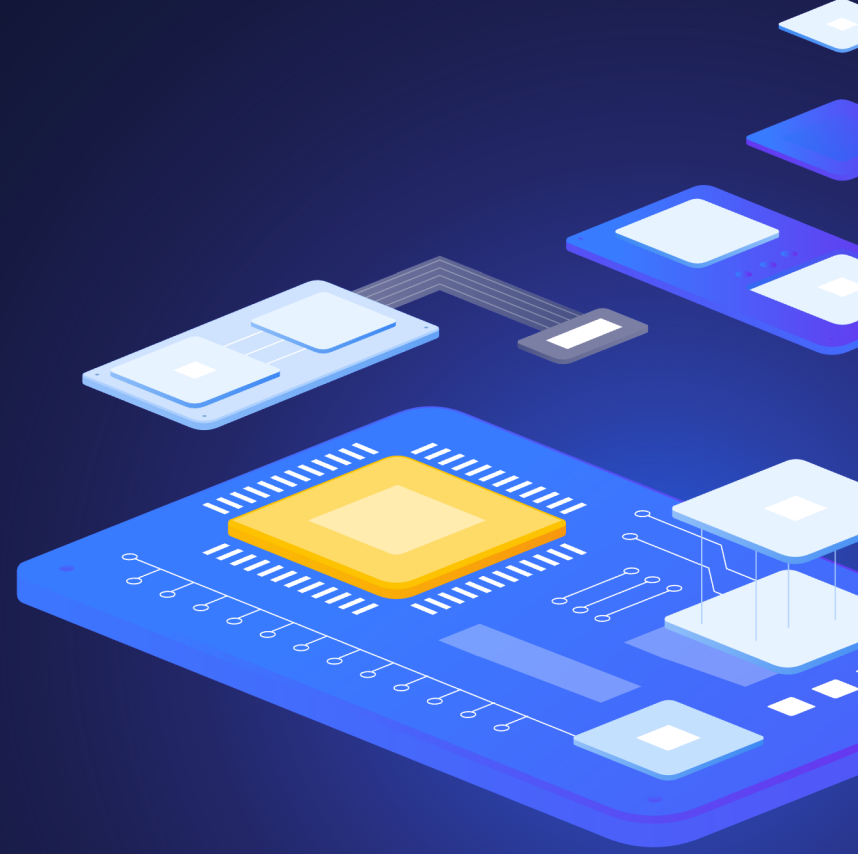
Additional changes and improvements



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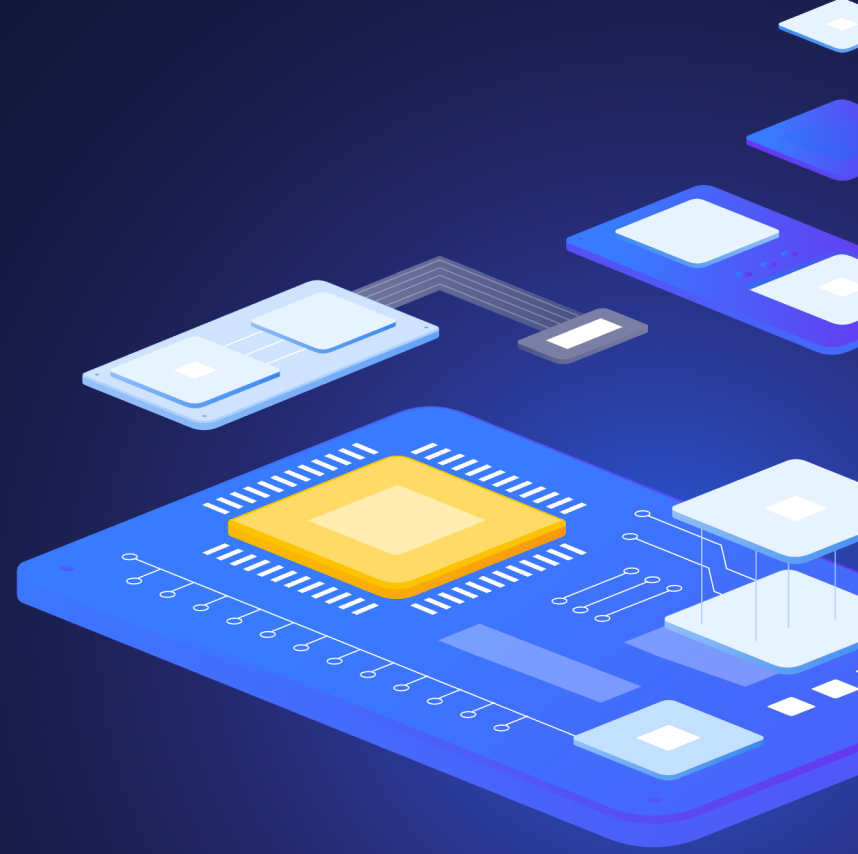
Additional changes and improvements

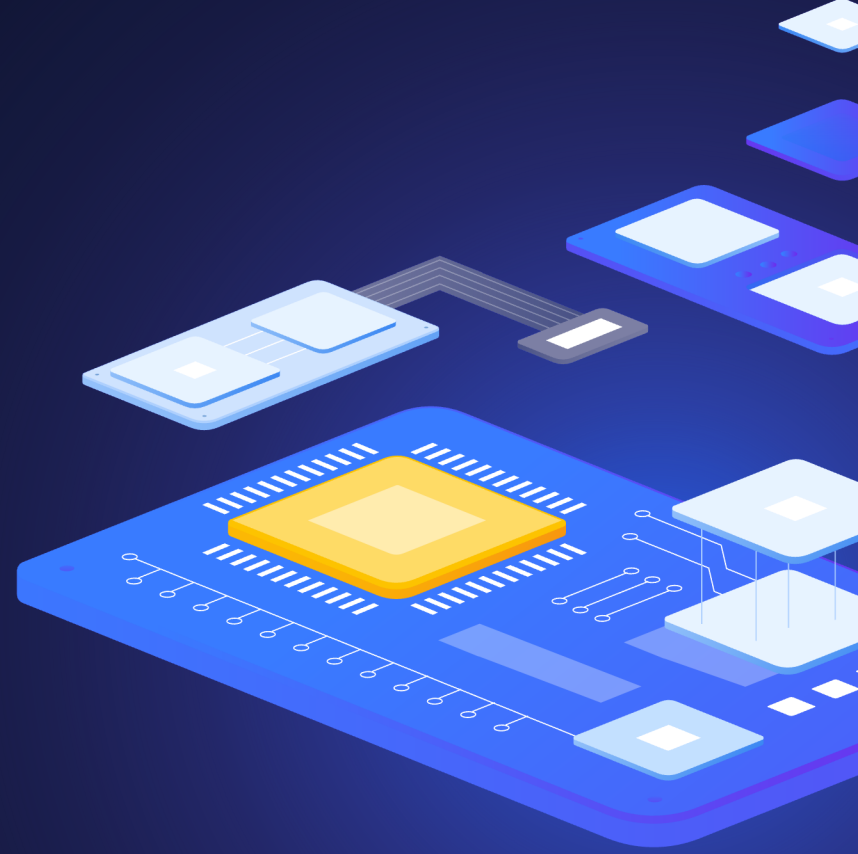
- Vault secret macros can now be resolved either by the Zabbix server or Zabbix proxy
- A new **icmppingretry** simple check has been added to monitor host responses to ICMP ping with the ability to modify retries
- New timestamp tracking history functions have been added
- Multiple new macros added for item-value time tracking
- Zabbix server/proxy automatically logs history cache diagnostic information when history cache is full
- Disabled items are now immediately removed from history cache
- It is now possible to manually clear history cache for a specific item by its id with history_cache_clear=target runtime command

- More detailed info can be found here:
  https://www.initmax.com/zabbix-7-4-is-here/ EN
  https://www.initmax.cz/novy-zabbix-7-4-je-zde/ CZ

Demo



Questions?



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