ZABBIX 5.4 | RELEASE DAY! SPANISH

WHAT'S NEW

LUCIANO ALVES
CEO ZABBIX LATAM

ZABBIX
LATIN AMERICA

AGENDA

- New functionality of Zabbix 5.4
- What we are working on now

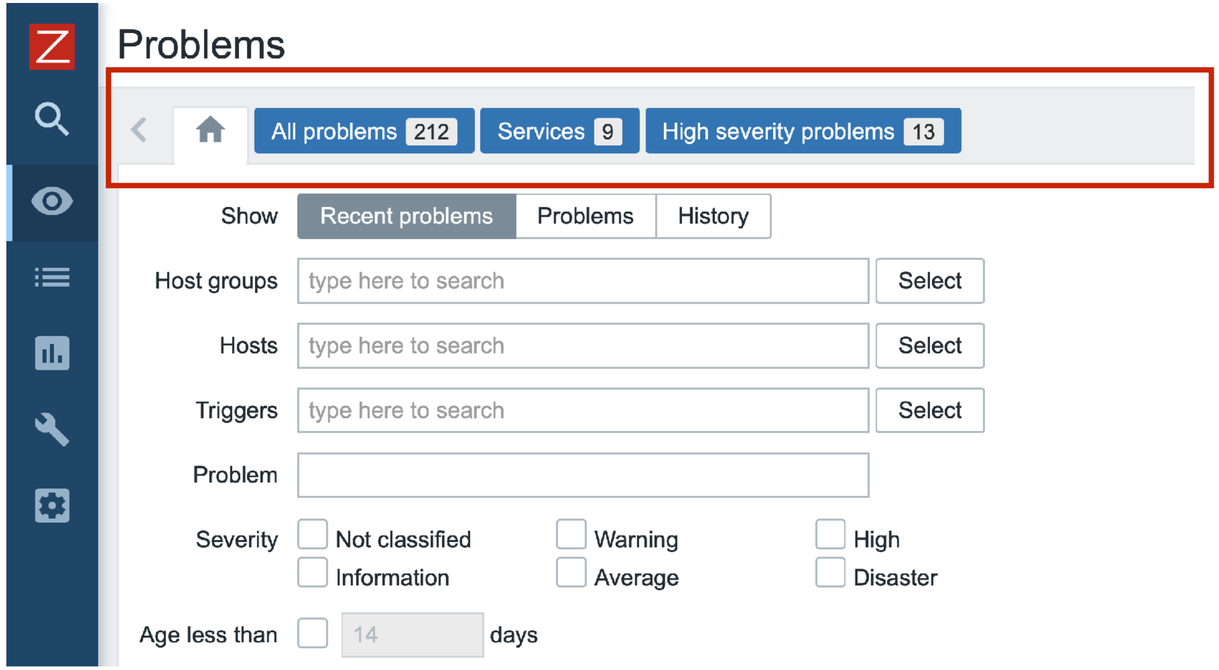
Zabbix 5.4

Zabbix 5.4.0 was released in May 17

Reporting and Visualization

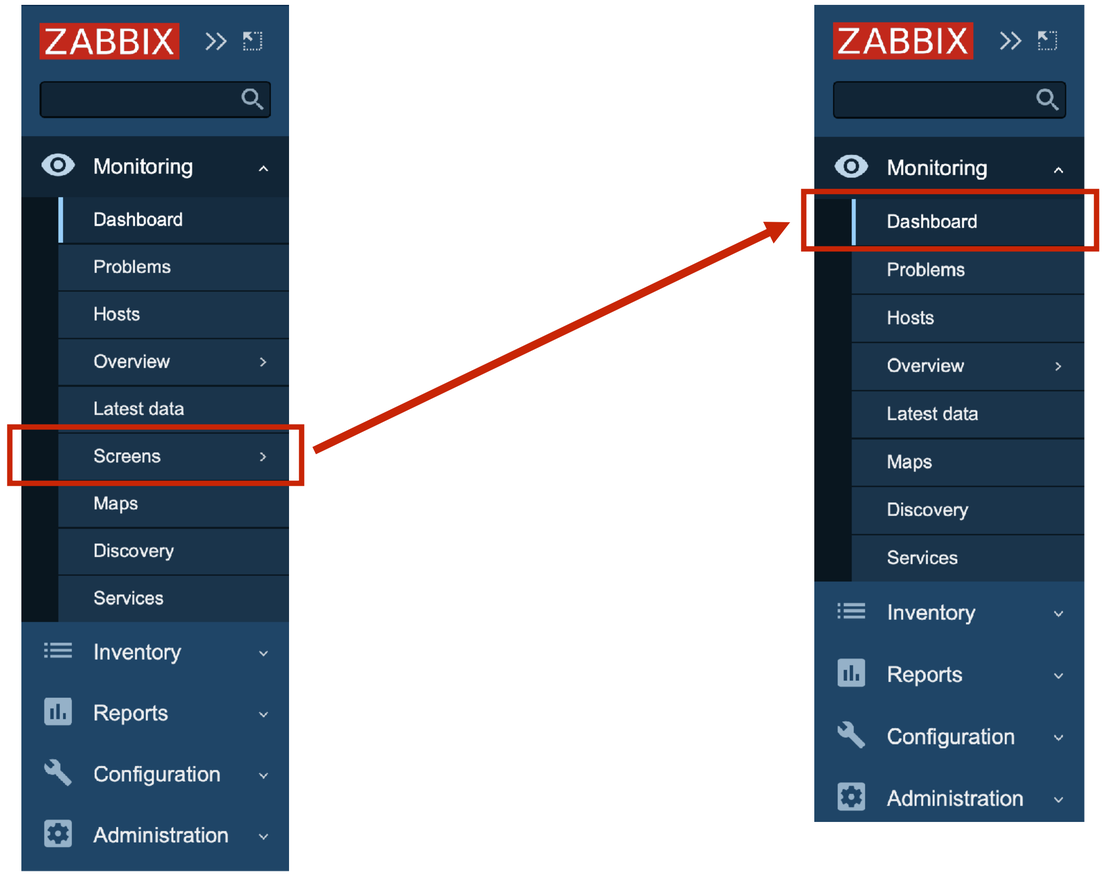
REPORTING AND VISUALIZATION

- Zabbix 5.2: pre-defined views for Monitoring->Problems



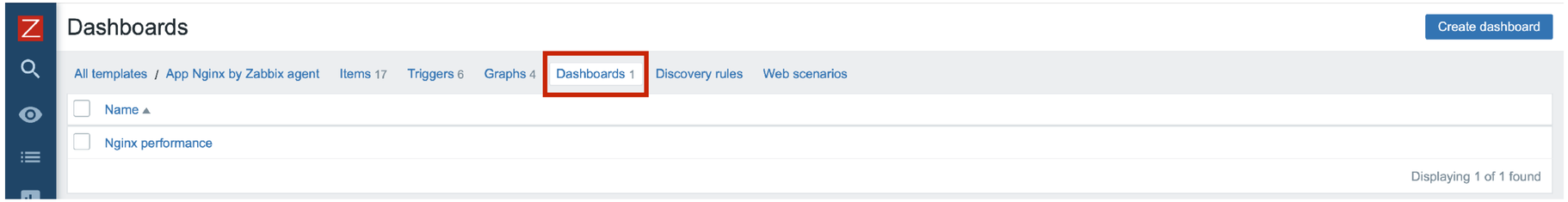
UNIFICATION OF SCREENS AND DASHBOARDS

- Unification of screens and dashboards, no ~~screens~~ anymore!

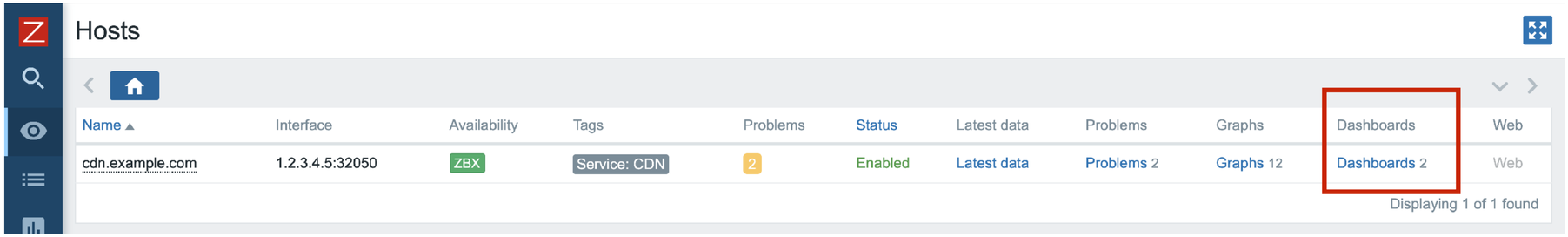


TEMPLATES FOR DASHBOARDS

Configuration->Templates:



Monitoring->Hosts:

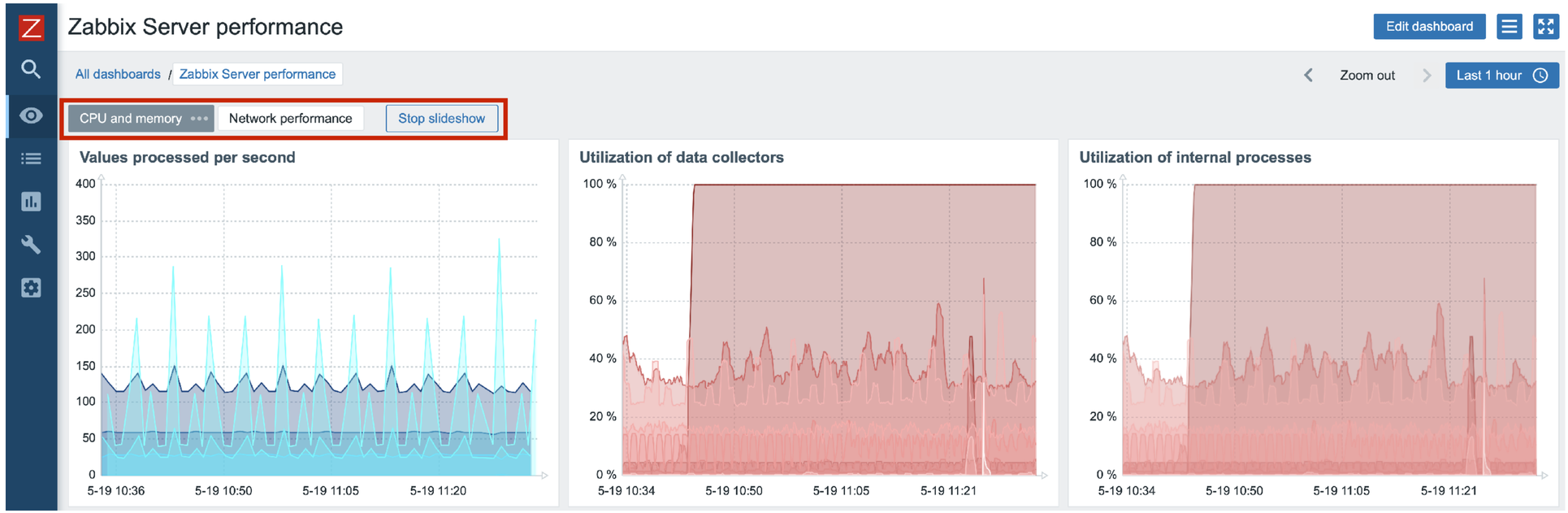


DASHBOARDS FOR HOSTS

MULTI-PAGE DASHBOARDS

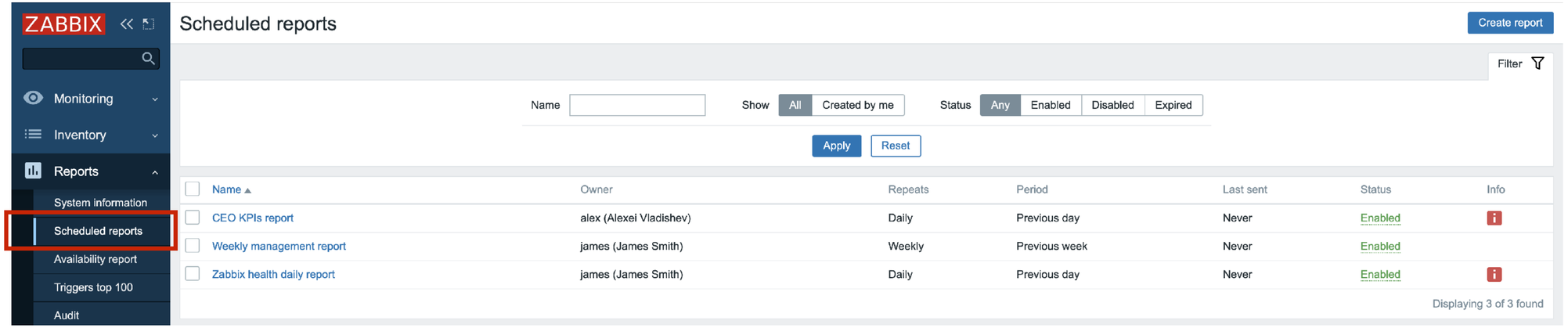
ZABBIX 5.4

MULTI-PAGE DASHBOARDS



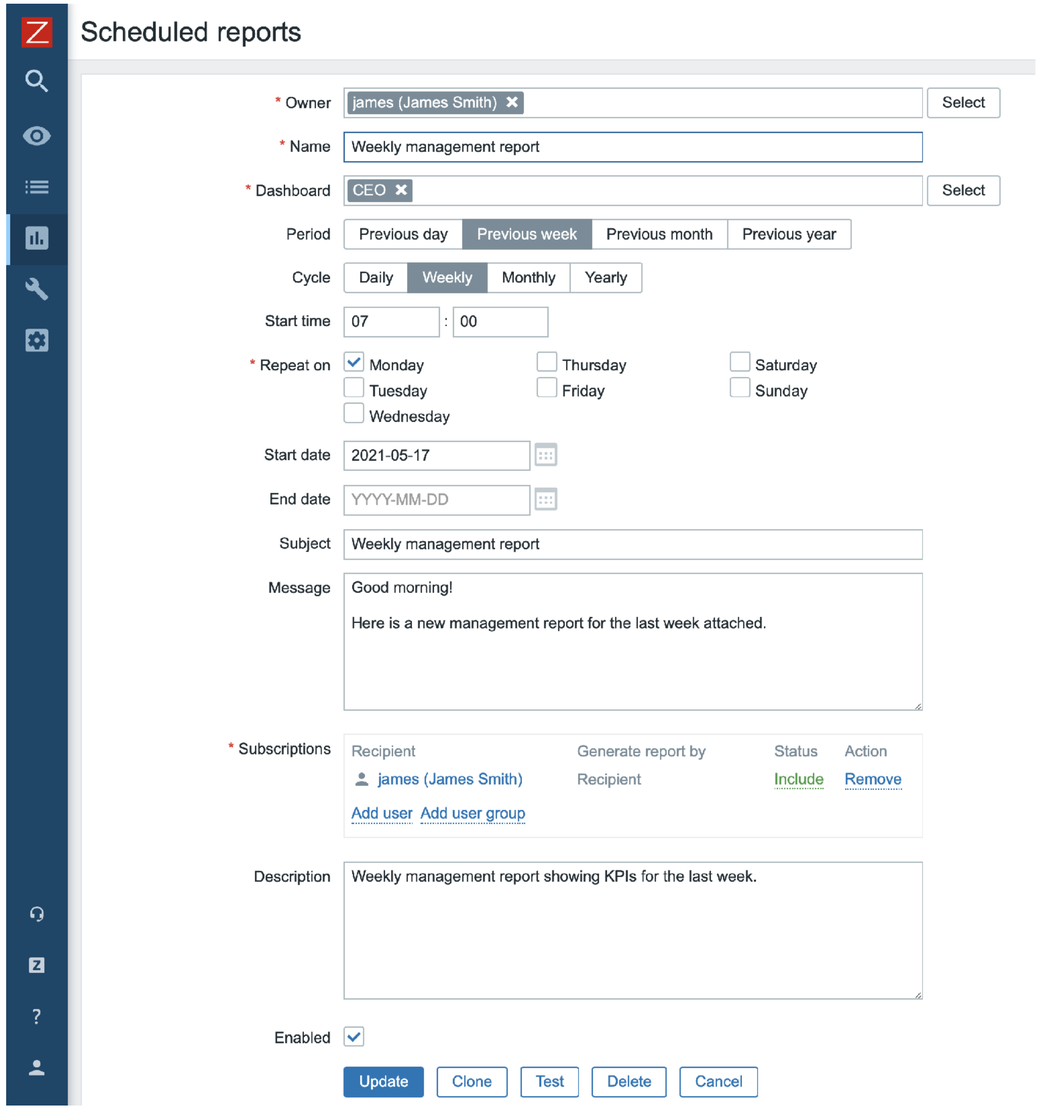
SCHEDULED PDF REPORTS

Reports->Scheduled reports



- Centralised management of reports
- Zabbix converts a dashboard to PDF and sends by email
- Works with any dashboard
- Accessible to all users but can be restricted by a new user role

SCHEDULED PDF REPORTS



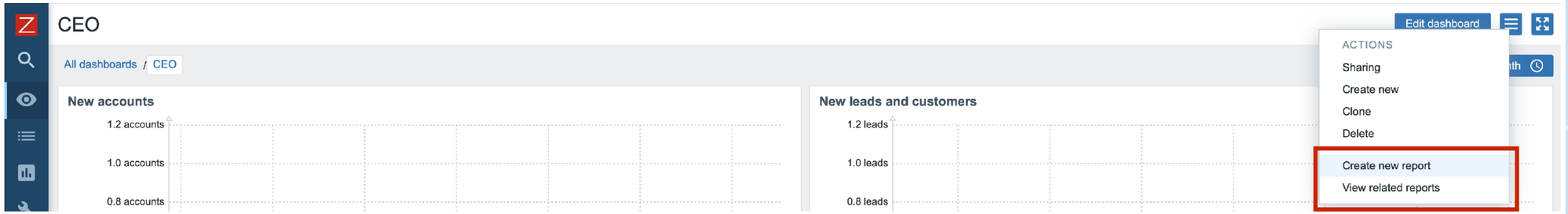
- Scheduled daily, weekly, monthly, or yearly PDF reports

Reports->Scheduled reports

SCHEDULED PDF REPORTS

- Also accessible from dashboards!

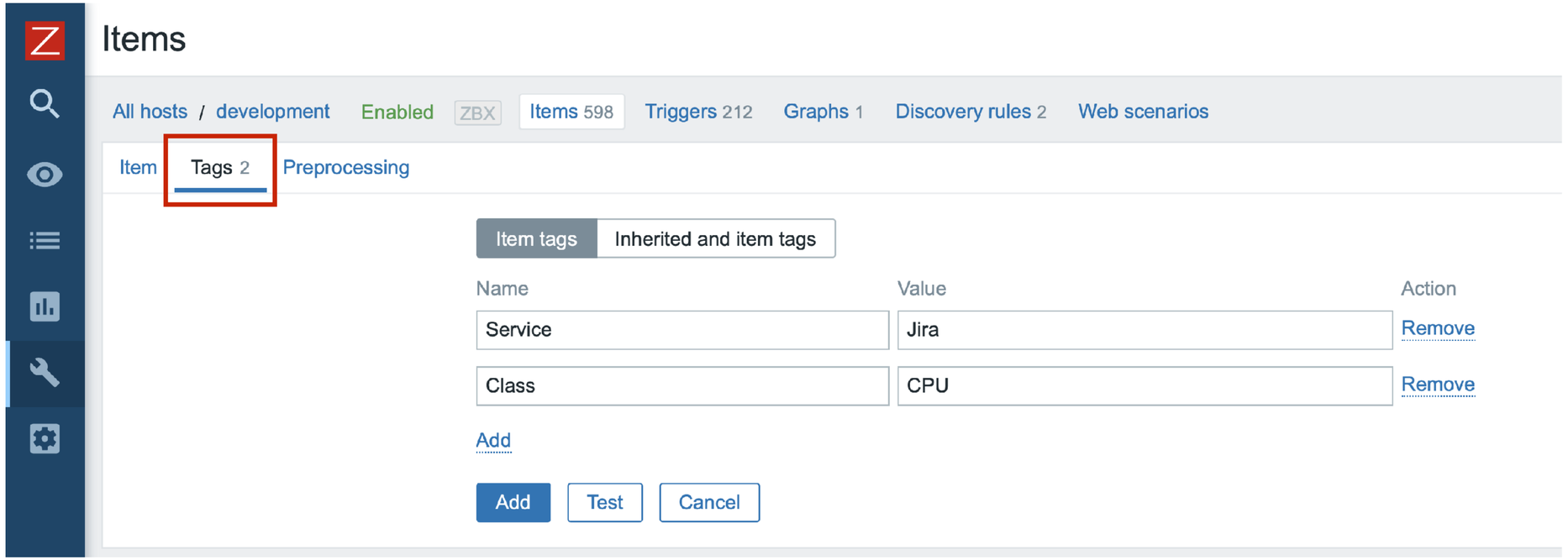
Monitoring->Dashboards



More simple and more powerful

TAGS FOR ITEMS

- Tags for templates, hosts, host prototypes, triggers
- Zabbix 5.4: Now introduced for items, no more applications!



- Automatically transformed into tag “Application: <app name>” during upgrade

OLD SYNTAX

- TRIGGERS: {host:key.func(params)}>0
- CALCULATED: 100*last(“vfs.fs.size[/,free]/last("vfs.fs.size[/,total]")
- AGGREGATE: grpsum["MySQL Servers”,”vfs.fs.size[/,total]",last]

NEW UNIFIED SYNTAX

- TRIGGERS: func(/host/key, params)>0
- CALCULATED: sum(/host/vfs.fs.size[*,free], 10m)
- AGGREGATE: min(avg_foreach(/*/qps?[group=“PostgreSQL” and tag=“Env:Production”], 5m))

ADVANTAGES

- Much more simple unified syntax for everything: triggers, calculated items
- Support of absolute time periods like last day, previous hour, etc
- Free of any limitations of the old syntax
- Powerful aggregations with selection of items by tags, wildcards, etc
- Function can be applied to result of other function: func1(func2(item))
- It is possible to have multiple items as function arguments: min(item1, item2)
- No more aggregated metrics: calculated metrics for everything!

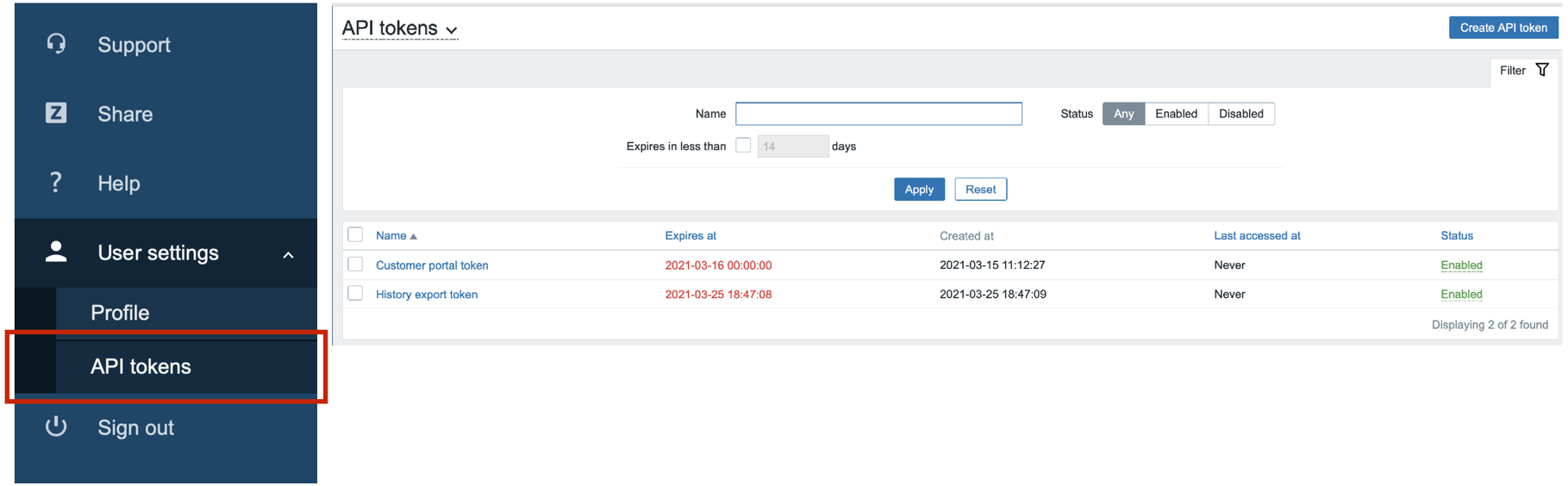
NEW SET OF FUNCTIONS

Function group	Functions
Aggregate functions	avg, count, countunique, kurtosis, mad, max, min, skewness, stddevpop, stddevsamp, sum, sumofsquares, varpop, varsamp
Bitwise functions	bitand, bitlshift, bitnot, bitor, bitrshift, bitxor
Date and time functions	date, dayofmonth, dayofweek, now, time
History functions	change, first, fuzzytime, last, logeventid, logseverity, logsource, percentile, trendavg, trendcount, trendmax, trendmin, trendsum
Mathematical functions	abs, acos, asin, atan, atan2, avg, cbrt, ceil, cos, cosh, cot, degrees, e, exp, expm1, floor, log, log10, max, min, mod, pi, power, radians, rand, round, signum, sin, sinh, sqrt, sum, tan, truncate
Operator functions	between, in
Prediction functions	forecast, timeleft
String functions	ascii, bitlength, bytelength, char, concat, find, insert, left, length, ltrim, mid, repeat, replace, right, rtrim, trim

https://www.zabbix.com/documentation/current/manual/appendix/functions

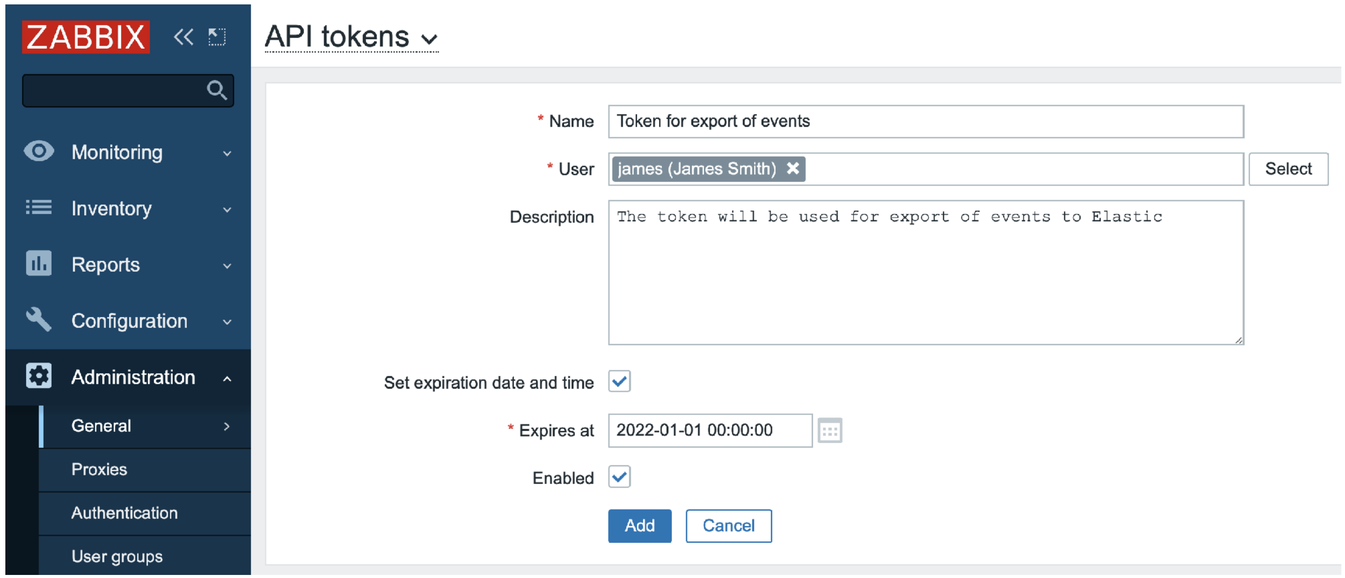
API TOKENS

- Per-user named API tokens with expiry date
- New user role: access to API tokens
- Can be managed globally by super-admins

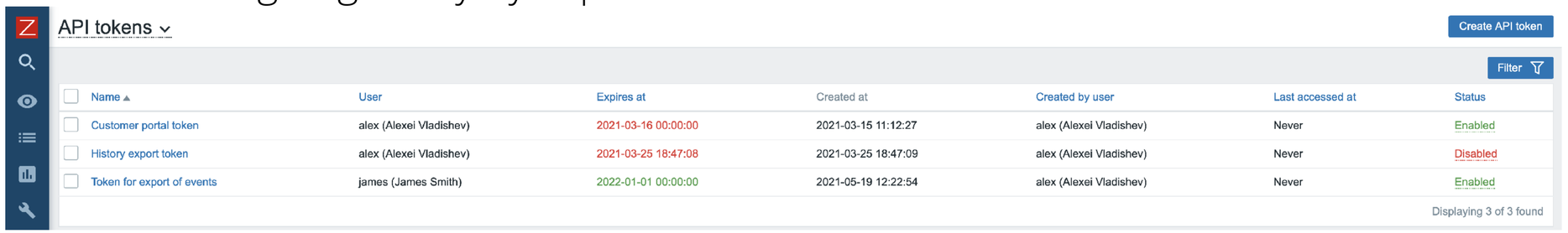


API TOKENS

- Any user having permissions can create it



- Can be managed globally by super-admins



EASY TO MANAGE TEMPLATES

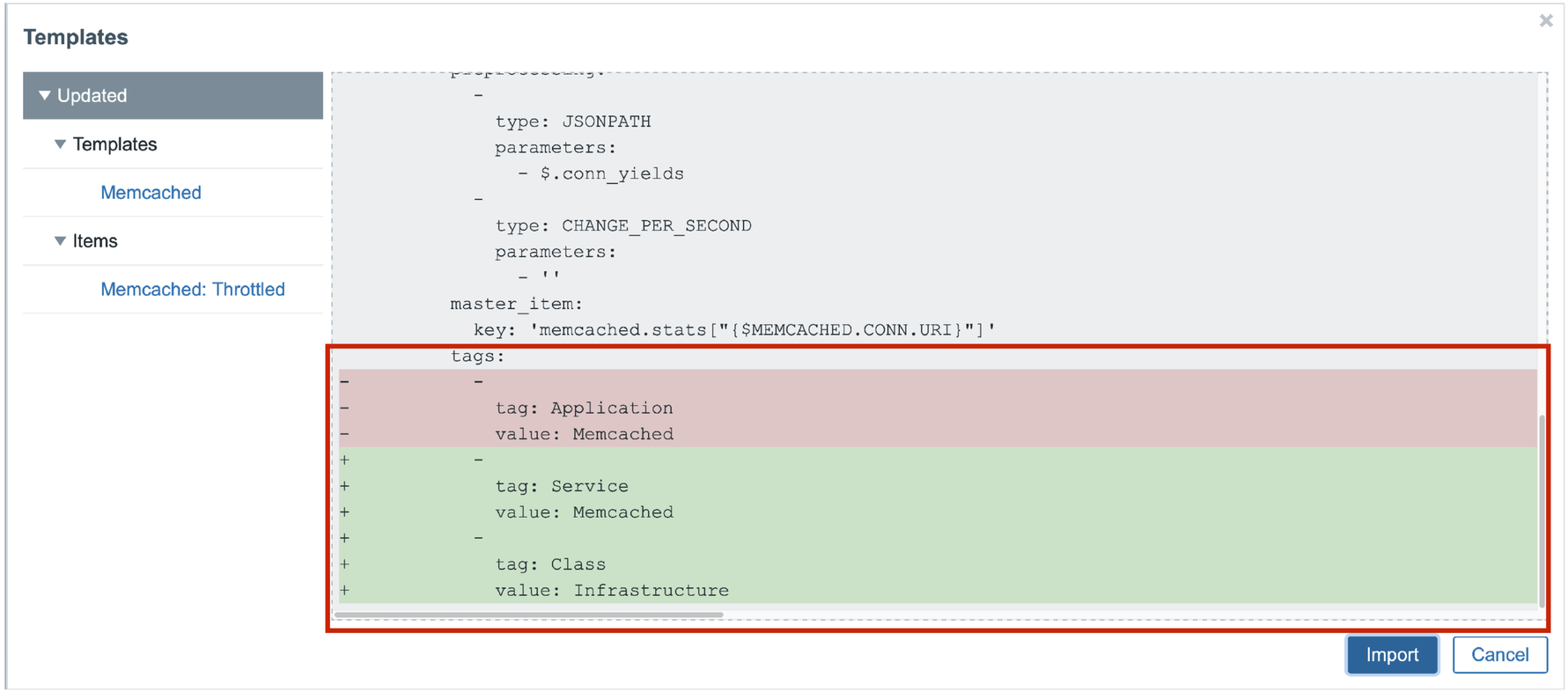
- Each template element got a unique ID that helps to perform template updates in a safe way

```yaml
zabbix_export:
  version: '5.4'
  date: '2021-05-19T09:48:23Z'
  groups:
    -
      uuid: a571c0d144b14fd4a87a9d9b2aa9fcd6
      name: Templates/Applications
  templates:
    -
      uuid: 05894ba2c9184d33992bf1bd21c347f6
      template: Memcached
      name: Memcached
      description: |
        Get Memcached metrics from plugin for the New Zabbix Agent (zabbix-agent2).

        You can discuss this template or leave feedback on our forum https://www.zabbix.

        Template tooling version used: 0.38
```

- It also enables the ability to keep templates in the Git repository and push it to Zabbix by CI/CD pipeline using Zabbix API

BETTER IMPORT

- When importing a new template, Zabbix will clearly show you a difference with the existing template

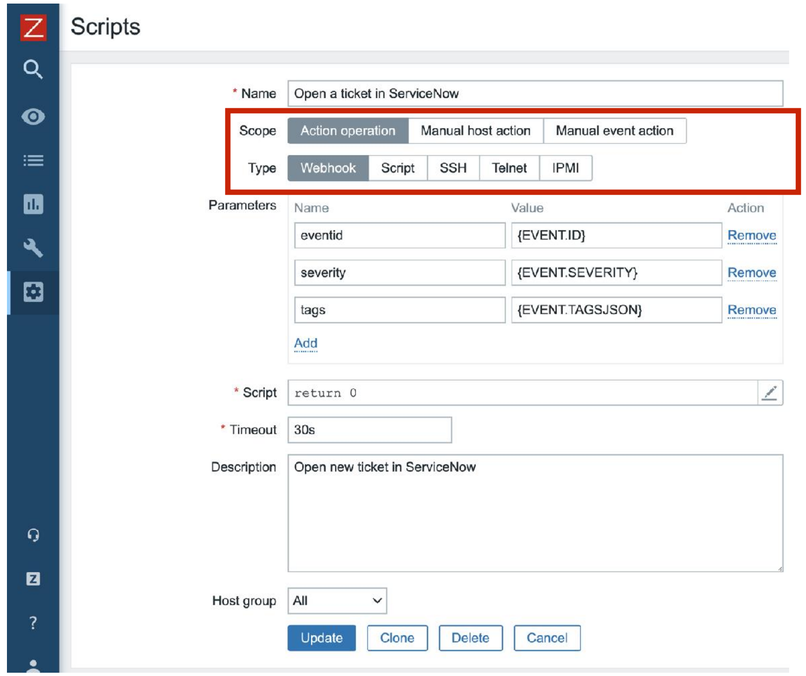


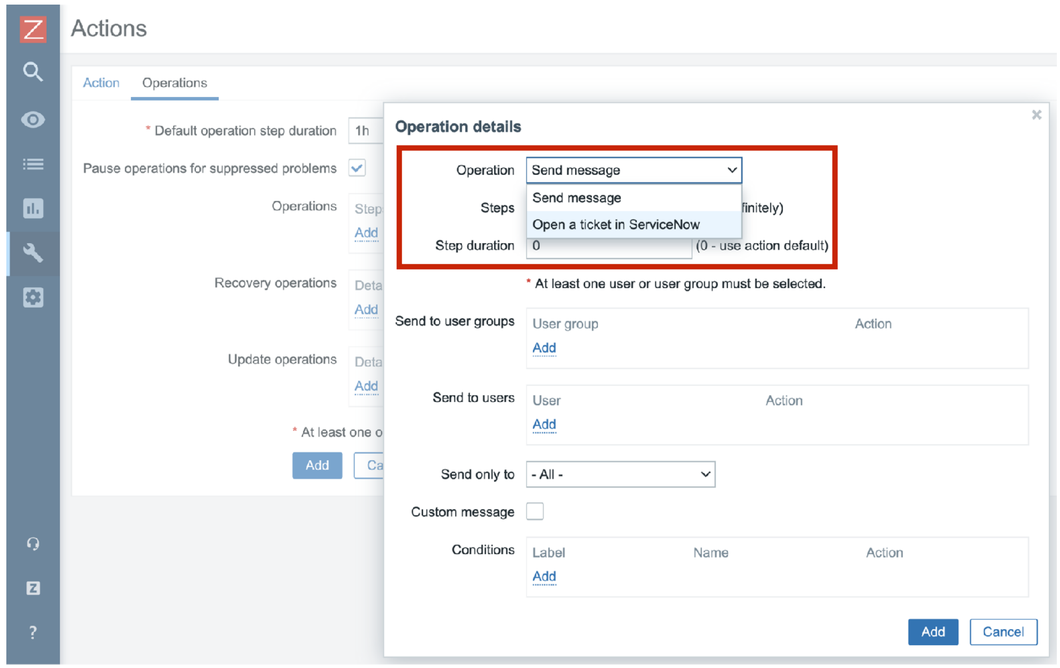
SCALABILITY IMPROVEMENTS

- Zabbix Server and Proxy poller processes do not require database connection anymore
- In-memory cache for trend data, significant speedup for trend-related functions
- Graceful startup of Zabbix Server
- Better parallel data processing on Zabbix Server side for heavy loads

UNIVERSAL GLOBAL SCRIPTS

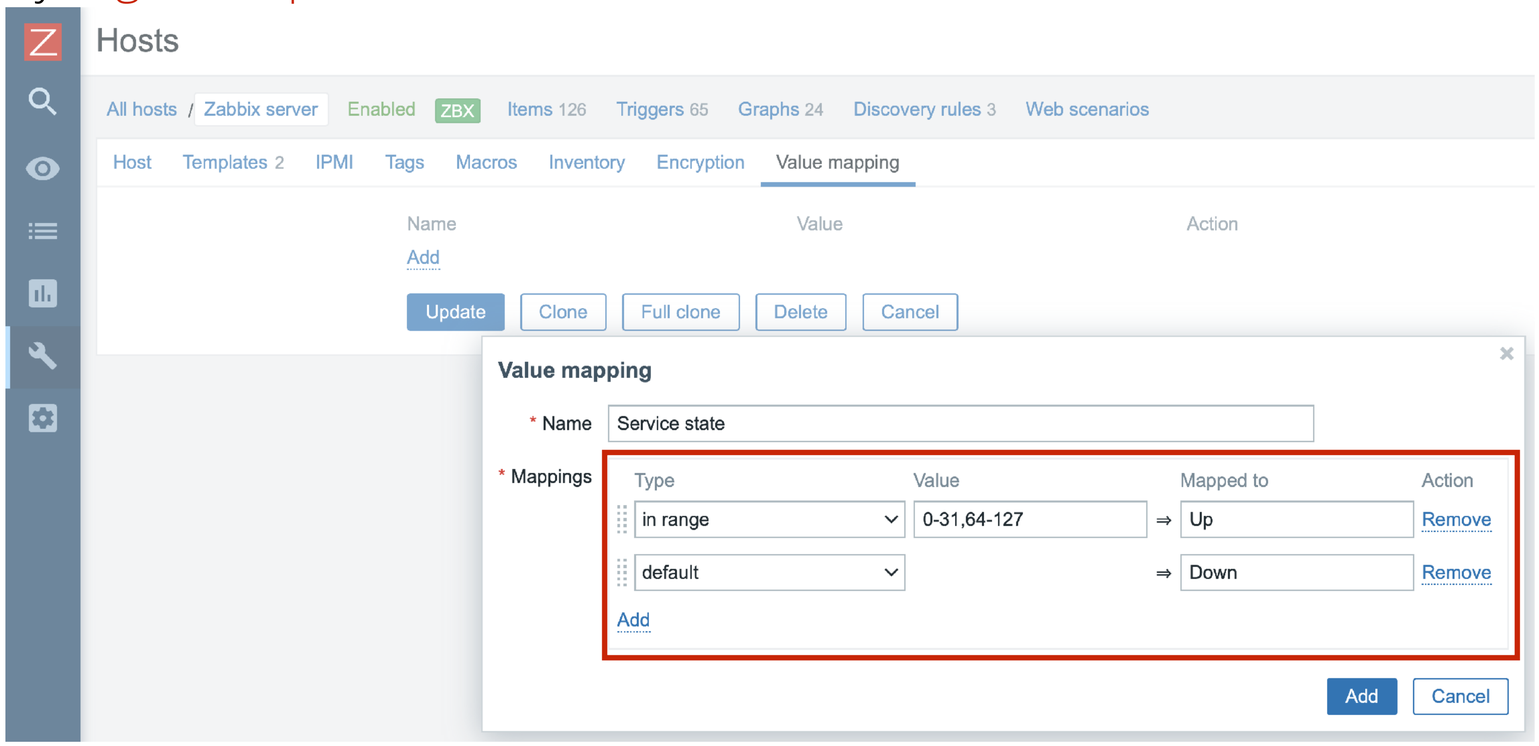
- Support of JavaScript Webhooks for easy integrations with 3rd party alerting and ticketing systems
- Global scripts can be used for: auto-remediation, alerting, integrations and manual actions for hosts and events





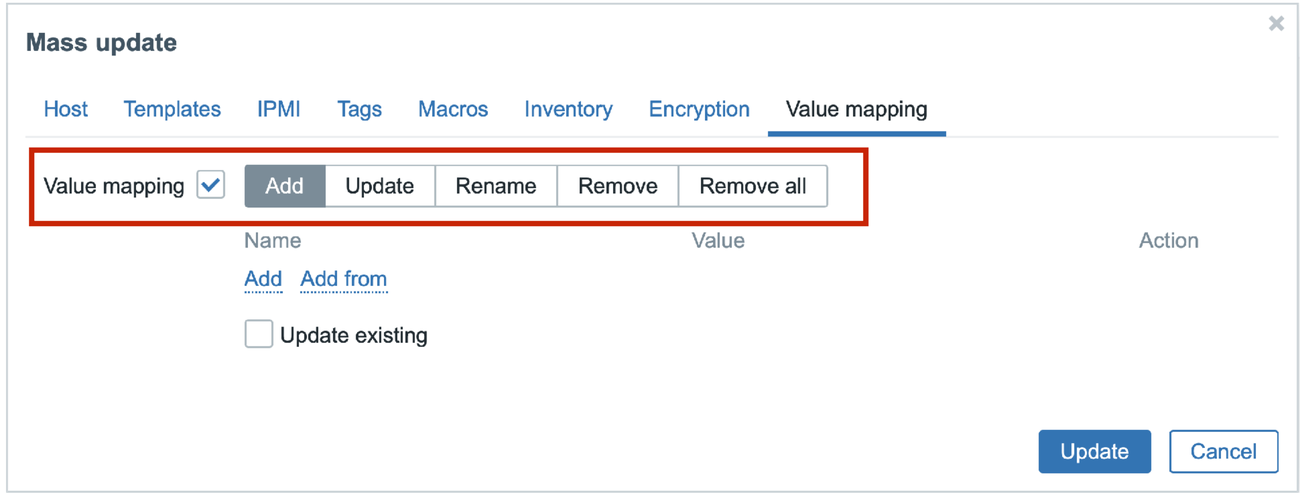
POWERFUL VALUE MAPS

- Exact match
- By range
- By regular expression



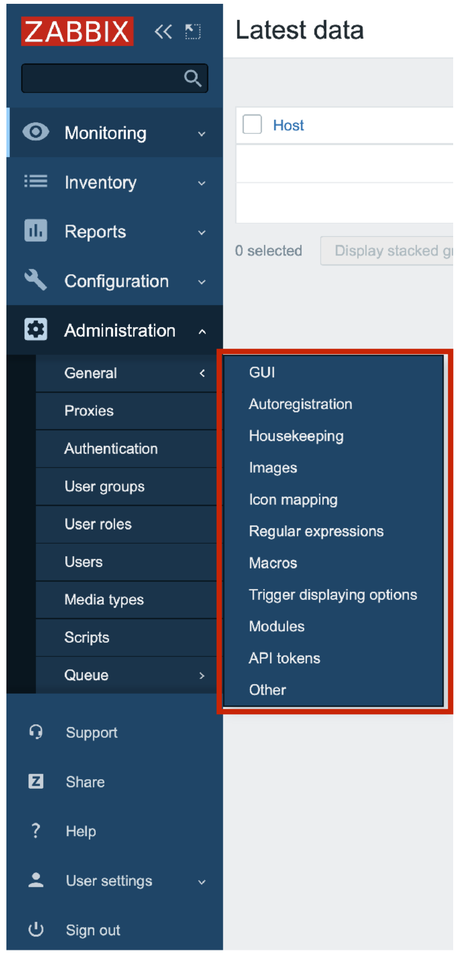
VALUES MAPS FOR TEMPLATES AND HOSTS

- No more global value maps! Now only for templates and hosts
- Advantages:
  - Flat self-contained templates without any references to global objects
  - Better multi-tenancy
- Mass-update operations for easier management



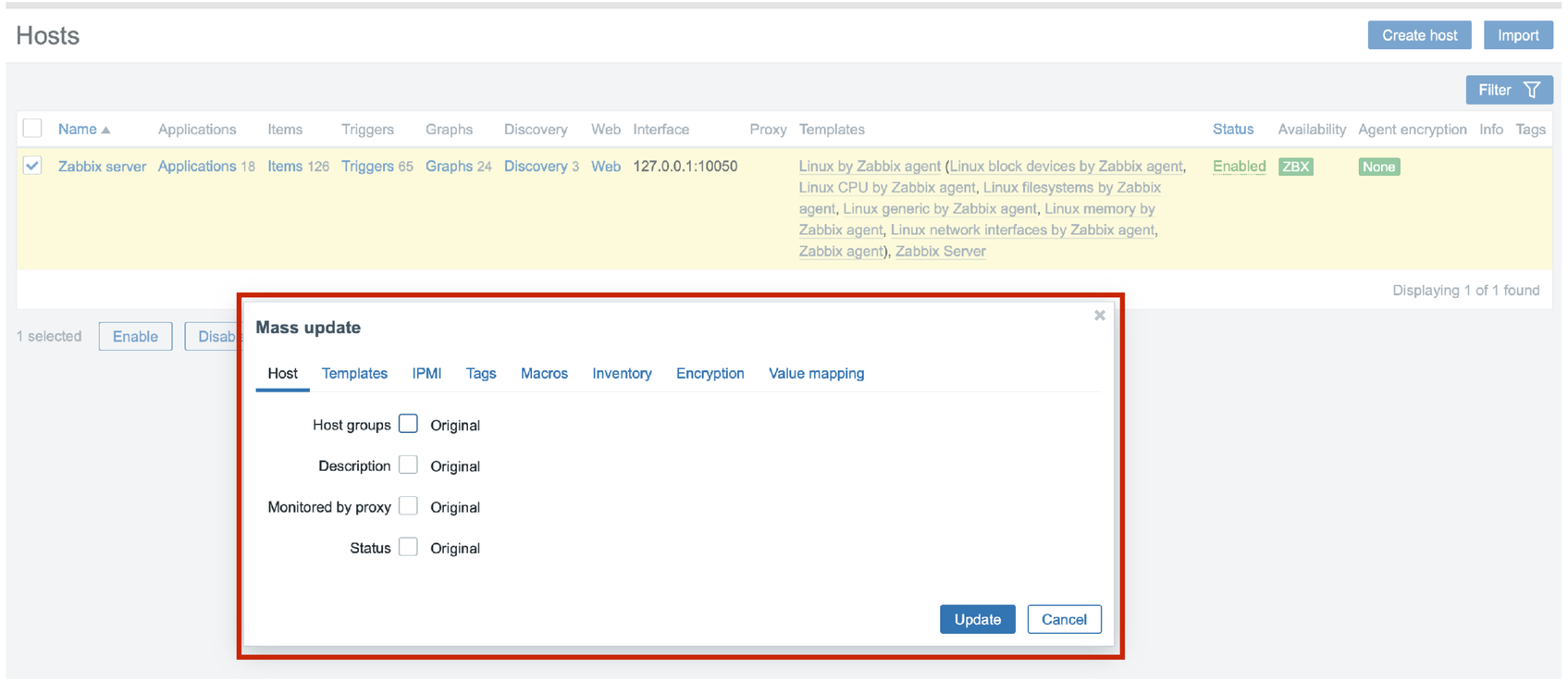
USABILITY IMPROVEMENTS

- Third level menu for better navigation



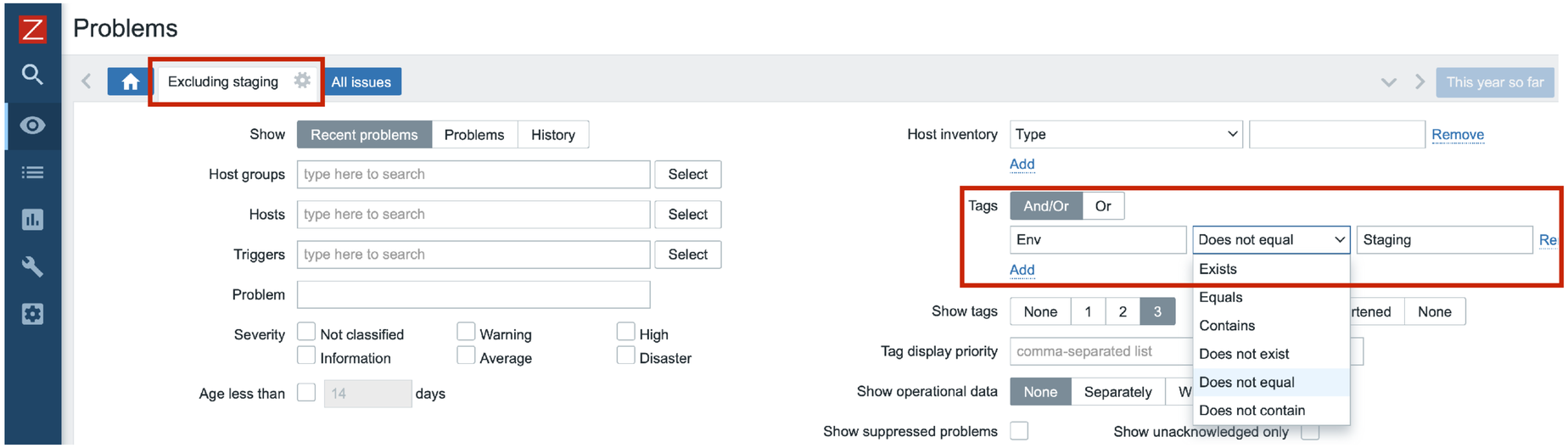
USABILITY IMPROVEMENTS

- Stay focused: modal windows for mass-update and import forms



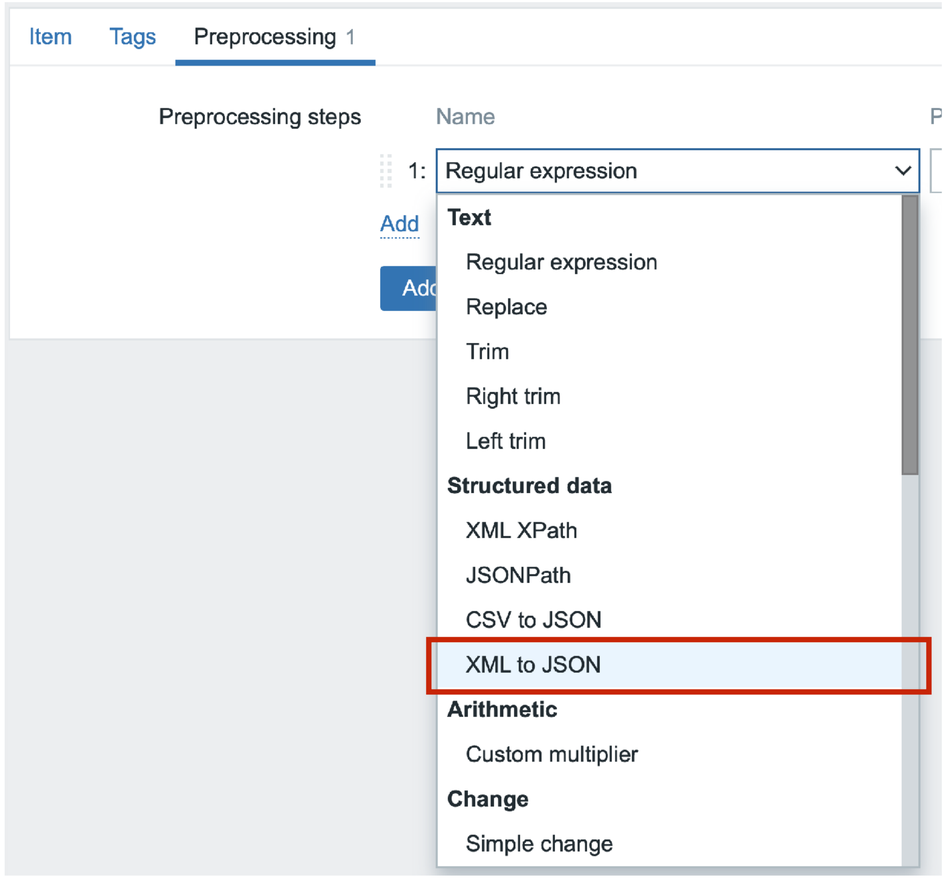
USABILITY IMPROVEMENTS

- Negated filtering by tags



BETTER SUPPORT OF XML PREPROCESSING

- XML XPath
- Now also XML to JSON conversion

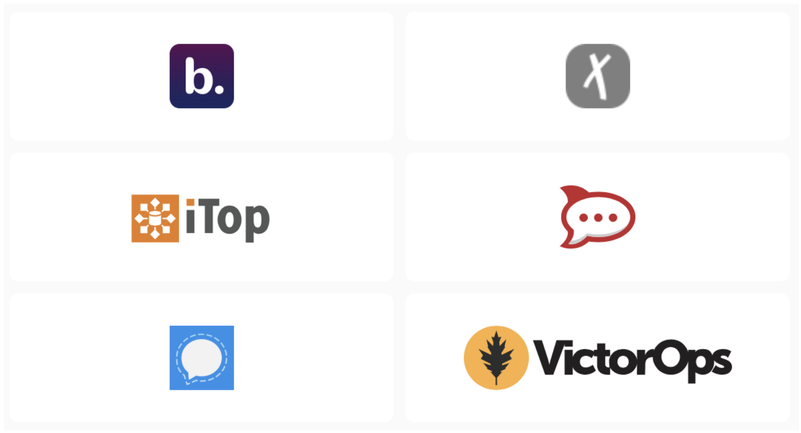


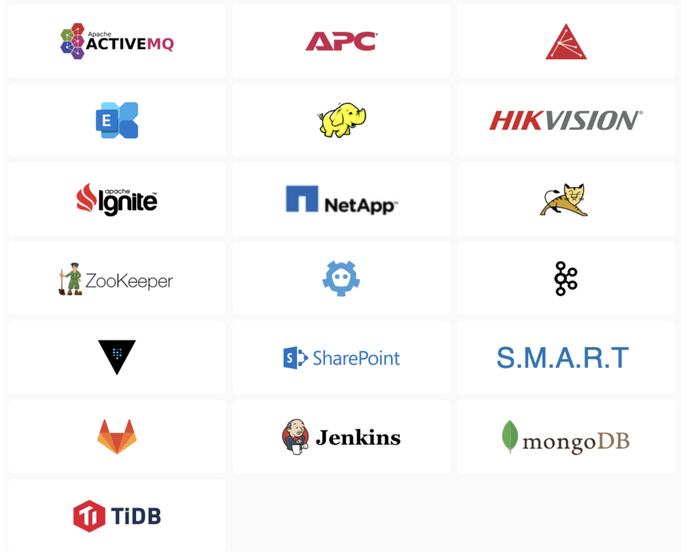
AND MORE!

- Security related
  - Support of all SNMPv3 encryption protocols
  - Unified error messages in case of unsuccessful login
  - Disabled autocomplete for password fields in Zabbix UI
- Real-time export
  - Information about event severity is included in real-time export files
  - More granular configuration of real time export
- Also
  - Support of VMWare cluster monitoring
  - Support of filtering by the presence of LLD macro for low-level discovery
  - Support of macro {ITEM.VALUETYPE} for notifications
  - Support of service name lookup for Oracle for HA setups
  - Support of NTLM authentication for JavaScript Webhooks
  - Support of multiple JMX metrics having same key on one host
  - Increased size of memory available to JavaScript Webhooks and preprocessing
  - CurlHttpRequest renamed to HttpRequest in Webhooks
  - “Alias” renamed to "Username" in user configuration
  - American English is a default language of Zabbix UI and also Zabbix documentation

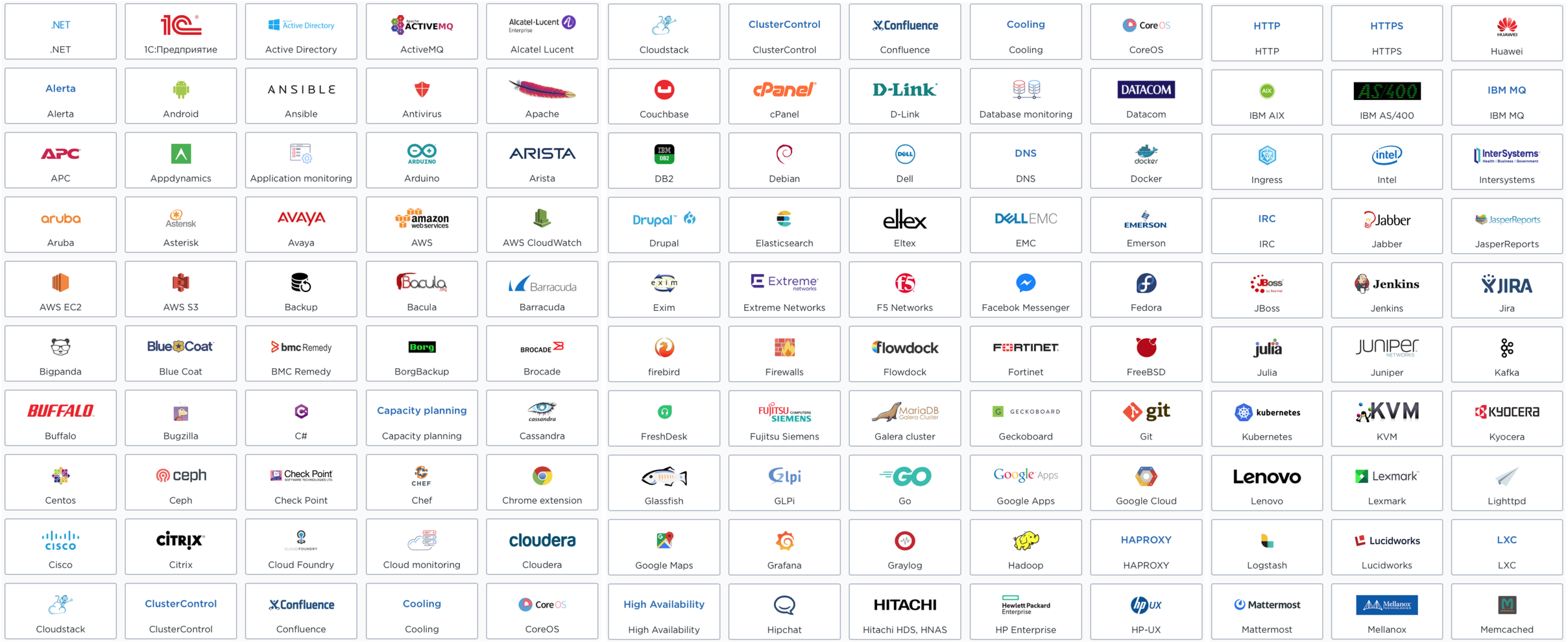
NEW INTEGRATIONS AND TEMPLATES

- Integrations with iTOP, VictorOps, Rocket.Chat, Signal, Express.ms, and other solutions
- New templates for monitoring of APC UPS hardware, Hikvision cameras, etcd, Hadoop, Zookeeper, Kafka, AMQ, HashiCorp Vault, MS Sharepoint, MS Exchange, smartclt, Gitlab, Jenkins, Apache Ignite, and more applications and services



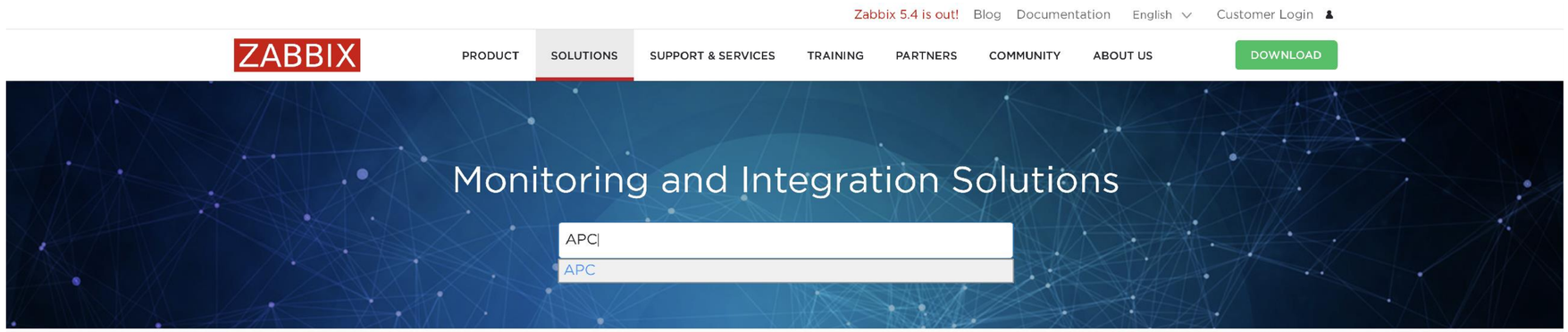


OFFICIAL SOLUTIONS FOR MONITORING AND ALERTING



https://www.zabbix.com/integrations

TEMPLATES FOR HARDWARE VENDOR DEVICES



APC

Manufacturer of power supply products designed to use with various electrical appliances. The company`s power supply products are used in personal computers, engineering work stations, file servers, communications and inter networking equipment, enabling customers to get reliable power and physical IT infrastructure.

Available solutions

Official Templates | 3rd Party Solutions

APC UPS GALAXY:	APC UPS Galaxy 3500 SNMP
APC SMART-UPS:	APC Smart-UPS 2200 RM SNMP, APC Smart-UPS 3000 XLM SNMP, APC Smart-UPS RT 1000 RM XL SNMP, APC Smart-UPS RT 1000 XL SNMP, APC Smart-UPS SRT 5000 SNMP, APC Smart-UPS SRT 8000 SNMP
APC UPS SYMMETRA:	APC UPS Symmetra LX SNMP, APC UPS Symmetra RM SNMP, APC UPS Symmetra RX SNMP
GENERAL TEMPLATE:	APC UPS SNMP

DEPLOY ON-PREMISE

Red Hat · ubuntu · CentOS · SUSE · debian · docker

DEPLOY IN THE CLOUD

aws · Azure · kubernetes · openstack

Google Cloud · DigitalOcean · RED HAT OPENSHIFT · Yandex Cloud · linode NEW

BREAKING CHANGES

- No support of applications and screens
  - Many API methods are affected
- No support of global value maps
- New syntax for trigger expressions and calculated metrics
  - Aggregate metrics are merged into calculated metrics

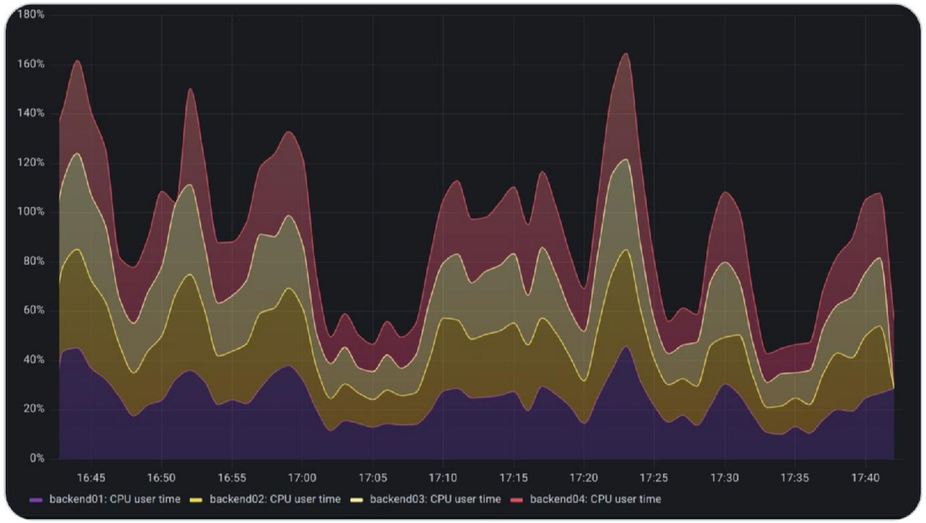
INTEGRATION WITH GRAFANA

- Broken at release day due to API changes
- Quickly fixed by Alexander, thank you!

You Retweeted

Alexander Zobnin @alexanderzobnin · 20h

Grafana-Zabbix 4.1.5 released! Fixed compatibility with Zabbix 5.4. Upgrade and enjoy your dashboards again! grafana.com/grafana/plugin...



2 12 51

UPGRADE NOTES

- Install new binaries for Zabbix Server and Proxies, upgrade Zabbix UI
  - Zabbix Server will upgrade your database automatically
- All trigger expressions, calculated and aggregate metrics will be automatically converted
- Applications will be automatically converted to tags
  - For example: “CPU” will be converted to tag “Application:CPU”
- Global values maps will be moved to templates and host level
- Screens will be automatically converted to Dashboards

6.0 LTS

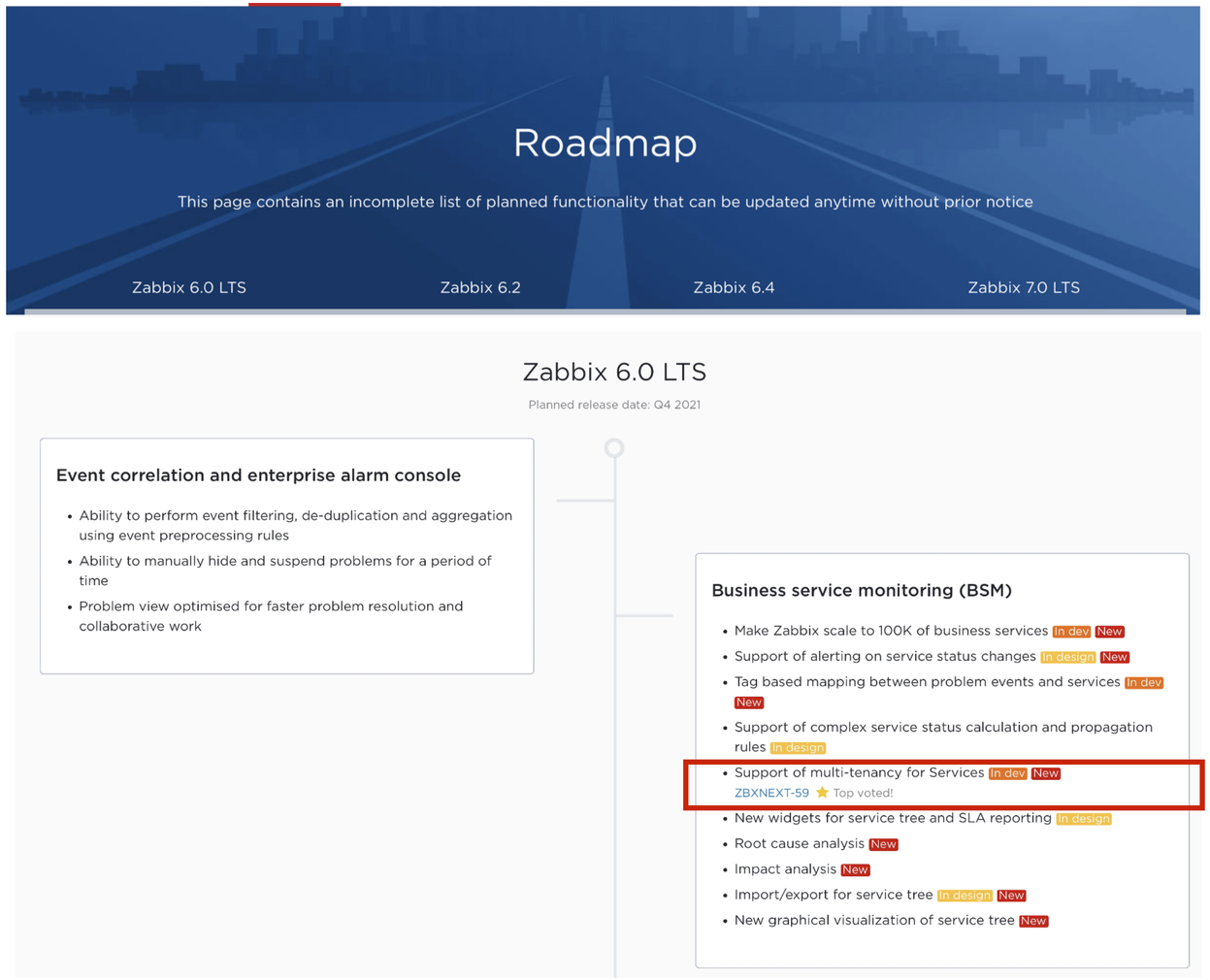
ETA: 2021, Q4

Work in progress:

HA for Zabbix Server

Business Service Monitoring (BSM)

ZABBIX ROADMAP: LONG TERM & UP-TO-DATE



https://www.zabbix.com/roadmap

ZABBIX 5.4

Thank you!