

The roadmap to Zabbix 6.0

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Founder and CEO

ZABBIX 2020
Conference
JAPAN

Let's talk about monitoring...



SaaS and a typical
monitoring
is expensive

Per-metric fees (SaaS)

License fees (On-premise, SaaS)

You pay more as you grow

Zabbix gives you a freedom

No per-metric fees

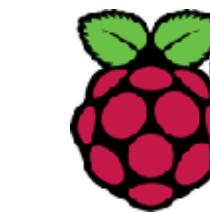
No license fees

Deploy anywhere you want

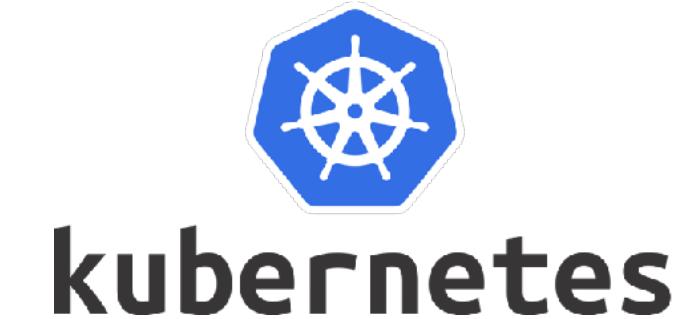
Own your data

Easy migration from on-premise to cloud
and vice versa

DEPLOY ON-PREMISE



DEPLOY IN THE CLOUD



Zabbix is an **Universal** Open Source
enterprise-level monitoring solution

therefore ...

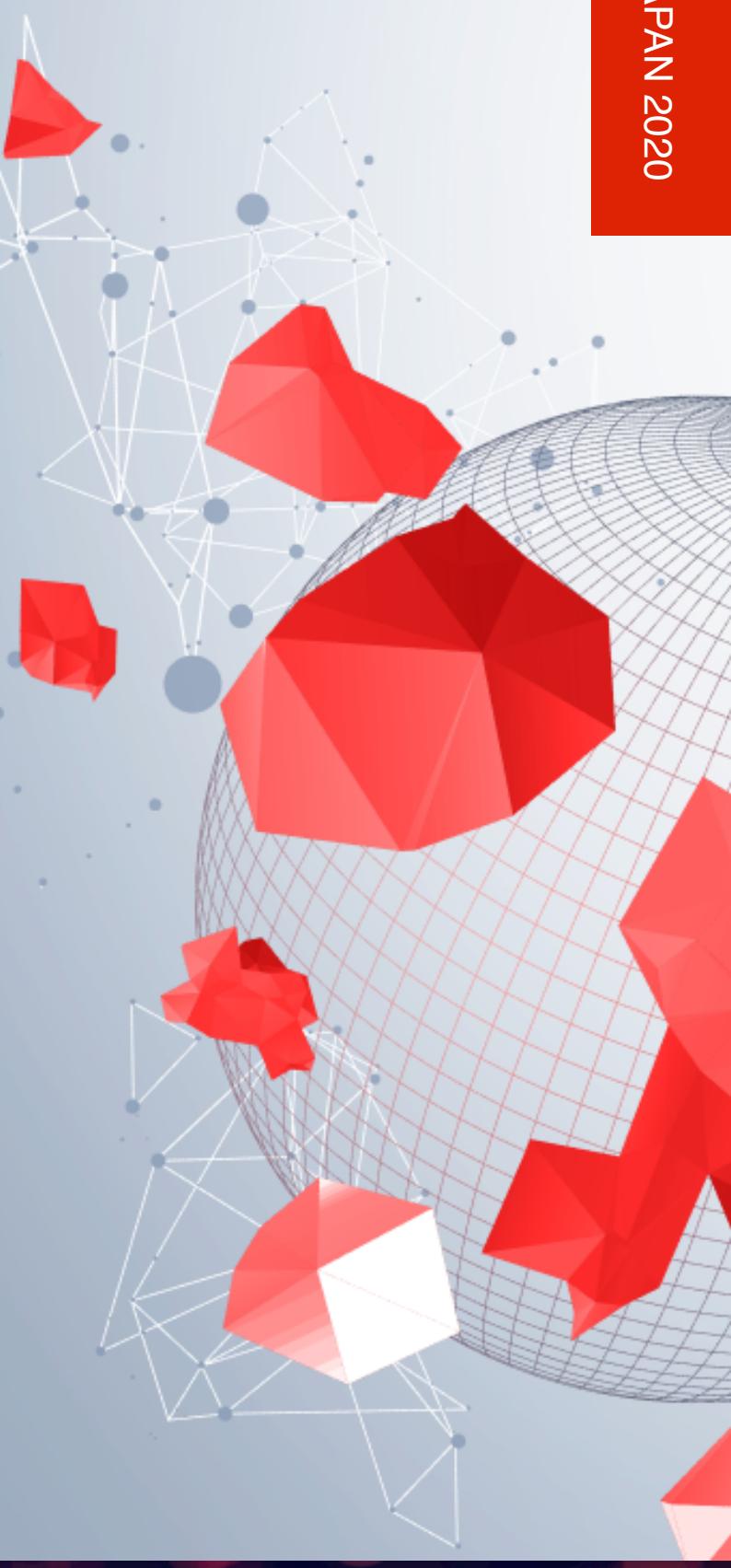
Zabbix has all the **enterprise grade** features included!

*SSO, Distributed Monitoring, Oracle backend,
advanced security, no restrictions or any limits and
much more*

BACKED BY ZABBIX COMPANY, 100 ZABBIXERS



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Riga



2005

Tokyo



2012

New York



2015

Moscow



2019

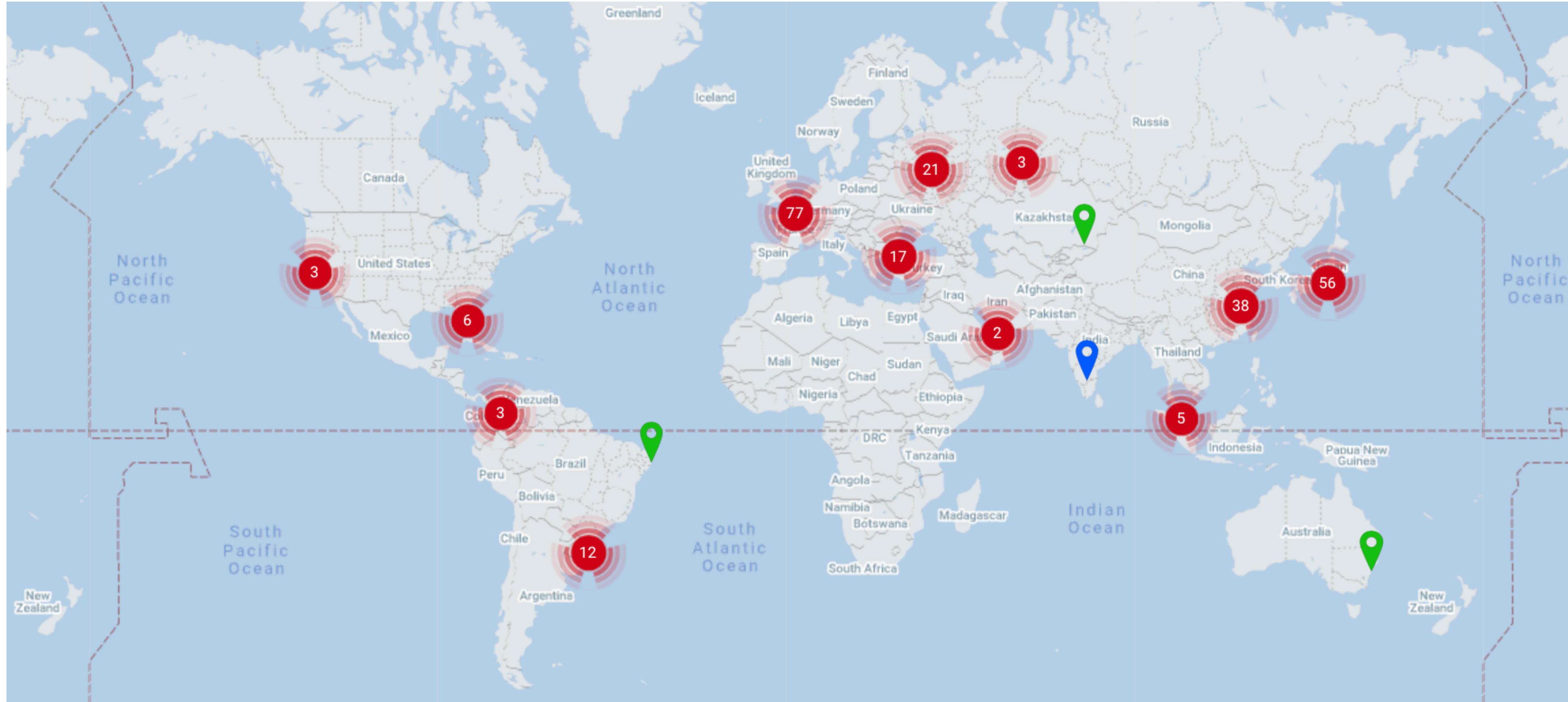
Porto Alegre



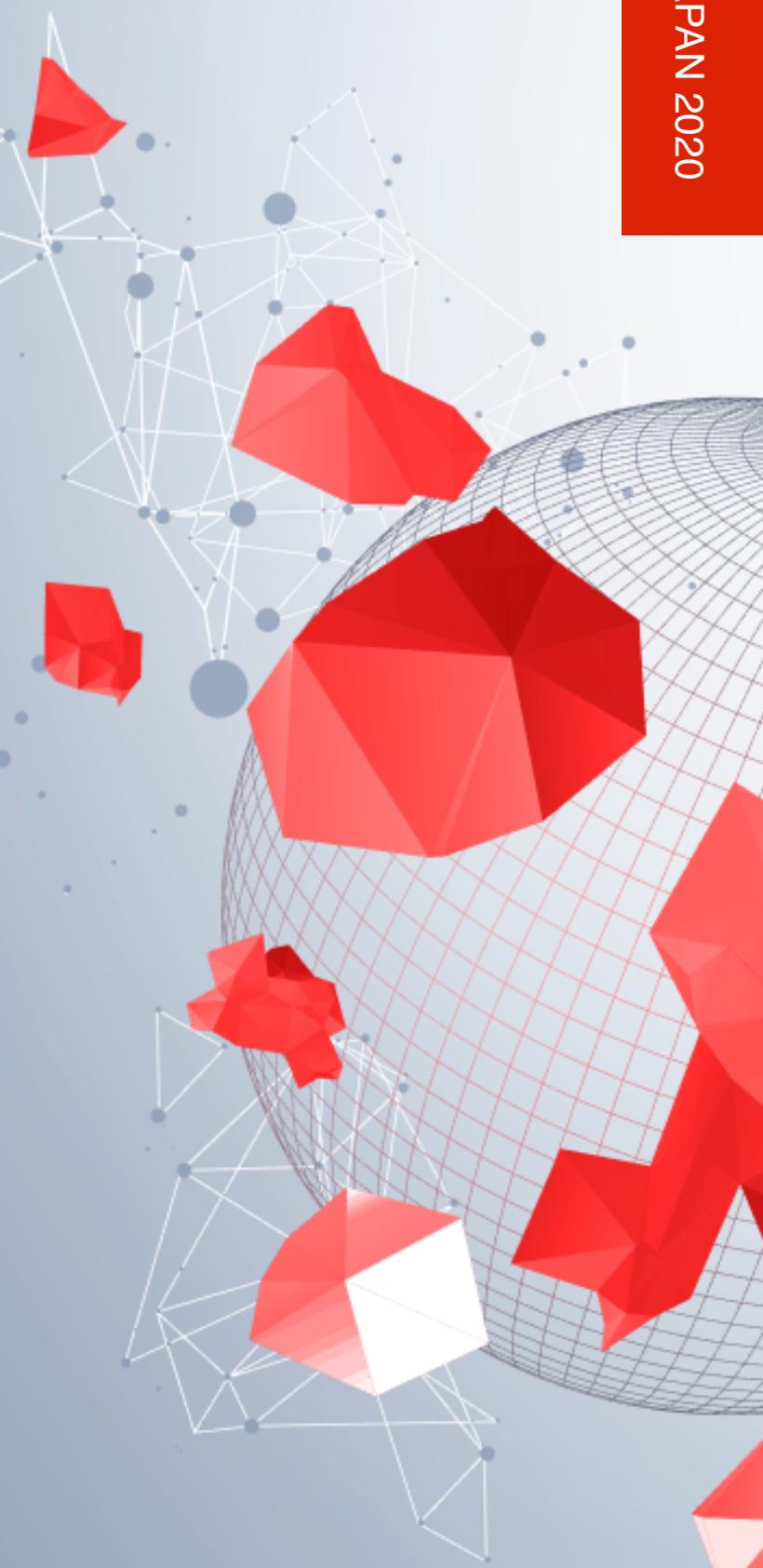
2020



200+ ZABBIX PARTNERS AT YOUR SERVICE



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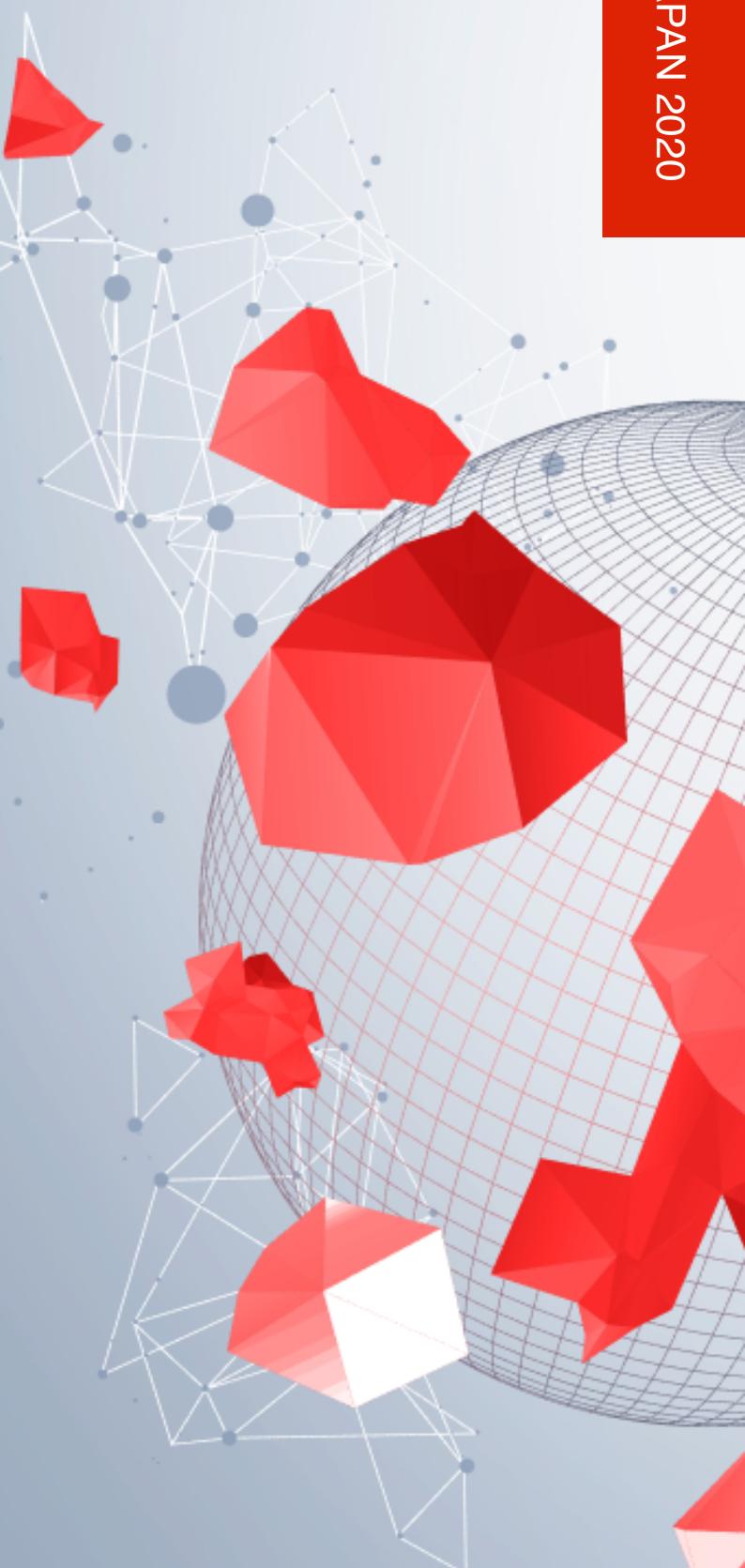


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BUSINESS BENEFITS

- ✓ Umbrella monitoring for the Enterprise
- ✓ Best combination: Free and Open Source with **24x7** vendor support **Worldwide**
- ✓ Technical Support: **fixed price** for unlimited monitoring, extremely low TCO

Silver	Gold	Platinum	Enterprise	Global I
Request a quote	Request a quote	Request a quote	Request a quote	Request a quote
Monitored devices and metrics Unlimited	Monitored devices and metrics Unlimited	Monitored devices and metrics Unlimited	Monitored devices and metrics Unlimited	Monitored devices and metrics Unlimited
Phone call support Included	Phone call support Included	Phone call support Included	Phone call support Included	Phone call support Included
Number of incidents 8	Number of incidents Unlimited	Number of incidents Unlimited	Number of incidents Unlimited	Number of incidents Unlimited
Support availability 8 x 5	Support availability 8 x 5	Support availability 24 x 7	Support availability 24 x 7	Support availability 24 x 7
Initial response time <small>?</small> 1 days	Initial response time <small>?</small> 4 hours	Initial response time <small>?</small> 4 hours	Initial response time <small>?</small> 4 hours	Initial response time <small>?</small> 2 hours
Emergency response time Not available	Emergency response time Not available	Emergency response time 90 minutes	Emergency response time 90 minutes	Emergency response time 60 minutes
Support contacts <small>?</small> 1	Support contacts <small>?</small> 2	Support contacts <small>?</small> 3	Support contacts <small>?</small> 7	Support contacts <small>?</small> 20
Supported Zabbix servers <small>?</small> Priced per server	Supported Zabbix servers <small>?</small> Priced per server	Supported Zabbix servers <small>?</small> Priced per server	Supported Zabbix servers <small>?</small> Unlimited	Supported Zabbix servers <small>?</small> Unlimited
Support for Zabbix Proxy <small>?</small> Not available	Support for Zabbix Proxy <small>?</small> Priced per proxy	Support for Zabbix Proxy <small>?</small> Priced per proxy	Support for Zabbix Proxy <small>?</small> Unlimited	Support for Zabbix Proxy <small>?</small> Unlimited
Legal entities covered <small>?</small> 1	Legal entities covered <small>?</small> 1	Legal entities covered <small>?</small> 1	Legal entities covered <small>?</small> 1	Legal entities covered <small>?</small> 5



GLOBAL SUPPORT, ADDITIONAL COURSES

Global I	
Request a quote	
Monitored devices and metrics	Unlimited
Number of incidents	Unlimited
Support availability	24 x 7
Initial response time	2 hours
Emergency response time	60 minutes
Support contacts	20
Supported Zabbix servers	Unlimited
Support for Zabbix Proxy	Unlimited
Legal entities covered	5

Automation and Integration with Zabbix API The course is designed to provide a detailed and in-depth study of Zabbix API functionality - like import host groups, generate reports, or integrate with other systems. 1 day	Advanced Zabbix Data Pre-processing The course will cover how to extract and transform information from different sources using Zabbix built-in functionality - without using external tools or scripts. 1 day	Advanced Zabbix Security Administration The course will cover how to protect Zabbix internal communications and secure sensitive information like user credentials or encryption keys. 1 day	Advanced Problem and Anomaly Detection with Zabbix The course is fully dedicated to problem detection, from creating simple triggers to using new long-term analytics functions. 1 day
Requirements No requirements Price in EUR Price in USD € 490 <small>Price does not include VAT</small> Apply for course Program description	Requirements No requirements Price in EUR Price in USD € 490 <small>Price does not include VAT</small> Apply for course Program description	Requirements No requirements Price in EUR Price in USD € 490 <small>Price does not include VAT</small> Apply for course Program description	Requirements No requirements Price in EUR Price in USD € 490 <small>Price does not include VAT</small> Apply for course Program description

AVAILABLE ONLINE!

Zabbix is all about monitoring!



BY MONITORING WE UNDERSTAND

- ✓ How fast we detect a potential problem
- ✓ In order to achieve that we need to have:
 - ✓ collection and processing of any data any way we want
 - ✓ real-time problem prediction, detection and remediation if possible
 - ✓ ability to detect root cause of the problem
 - ✓ ability to provide extra information (alerting, visualization) to simplify troubleshooting



Strategy

Be Free and Open Source

Make monitoring super flexible

Make monitoring secure & consistent

Make monitoring scalable

Make monitoring easy to use

Quick recap of Zabbix 4.2, 4.4 and 5.0

Zabbix 4.2

April, 2019

High frequency monitoring with throttling

Data collection: **HTTP agent**, Prometheus

Preprocessing: validation and **JavaScript!**

Preprocessing by Proxies for scalability

Enhanced **tag management**

Zabbix 4.4

September, 2019

Most advanced monitoring agent: Zabbix Agent2

Web hooks for alerting and notifications

Support of TimescaleDB

Built-in knowledge base for metrics and triggers

Standard for Zabbix Templates

Zabbix 5.0

April, 2020

Redesign of Zabbix UI and numerous of usability improvements

Support of compression for TimescaleDB

UI to handle millions of devices

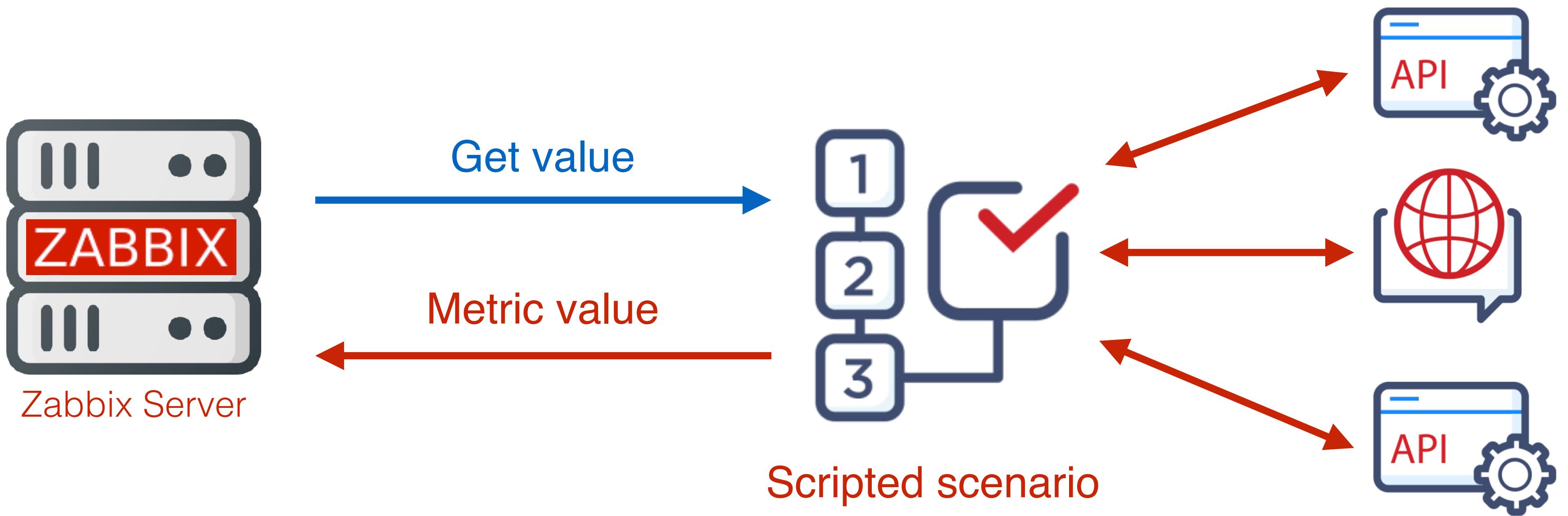
New set of templates and integrations

Zabbix 5.2

More than **35** new features and functional improvements

SYNTHETIC MONITORING

- ✓ Support of complex multi-step scripted data collection
- ✓ Advanced availability checks
- ✓ Complex interaction with different HTTP APIs



STORAGE OF SECRETS IN THE VAULT

- ✓ All sensitive information is kept **outside of Zabbix** in a secure place: HashiCorp Vault
- ✓ Therefore no secret data is stored in Zabbix DB
- ✓ Sensitive data: passwords, API tokens, user names, etc



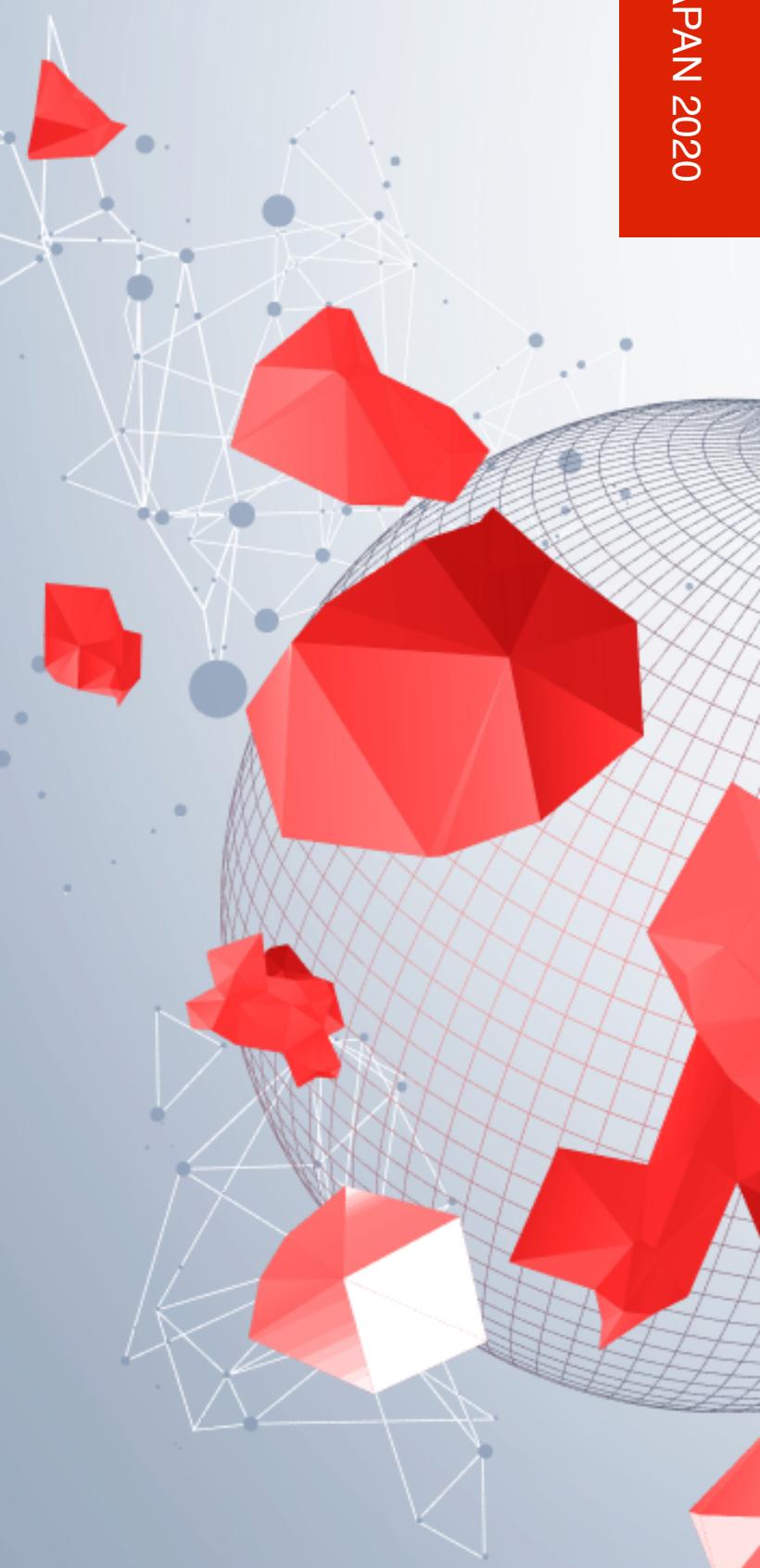
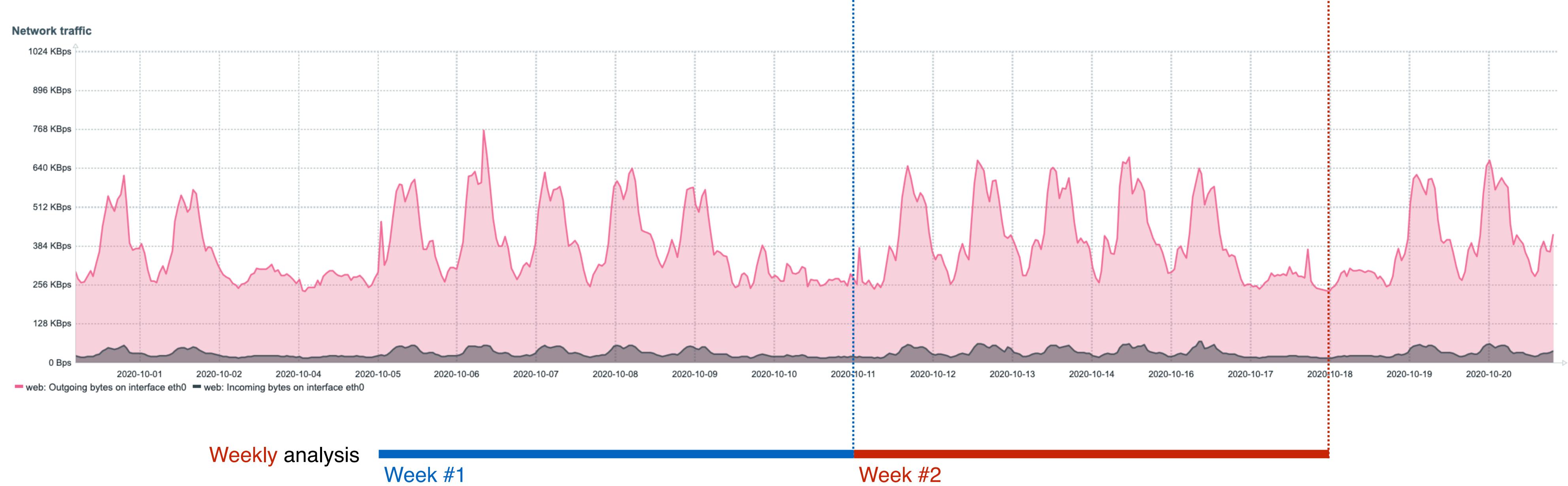
A screenshot of the Zabbix 'Hosts' interface. The top navigation bar shows 'All hosts / confluence' and various metrics like 'Enabled' (ZBX), 'SNMP', 'JMX', 'IPMI', 'Applications 10', 'Items 114', 'Triggers 21', 'Graphs 14', 'Discovery rules 3', and 'Web scenarios'. On the left, there's a vertical sidebar with icons for 'Hosts' (selected), 'Search', 'Template', 'IPMI', 'Tags', 'Macros' (selected), 'Inventory', and 'Encryption'. The main content area is titled 'Hosts' and shows a table for 'confluence'. The 'Macros' tab is selected. A modal window is open for 'Host macros' under 'Inherited and host macros'. It contains two entries:

- Macro: \${DBNAME} Value: zabbix/confluence/db:name Description: Confluence Database Name Remove
- Macro: \${DBPASSWORD} Value: zabbix/confluence/db:password Description: Confluence Database Password Remove

The 'Add' button is visible at the bottom of the modal. Below the modal are buttons for 'Update', 'Clone', 'Full clone', 'Delete', and 'Cancel'.

ZABBIX INSIGHTS

- ✓ Ability to analyze long term data efficiently using new trigger functions
- ✓ Zabbix will provide you with information about anomalies
- ✓ More value out of Zabbix trend data



Zabbix Insights

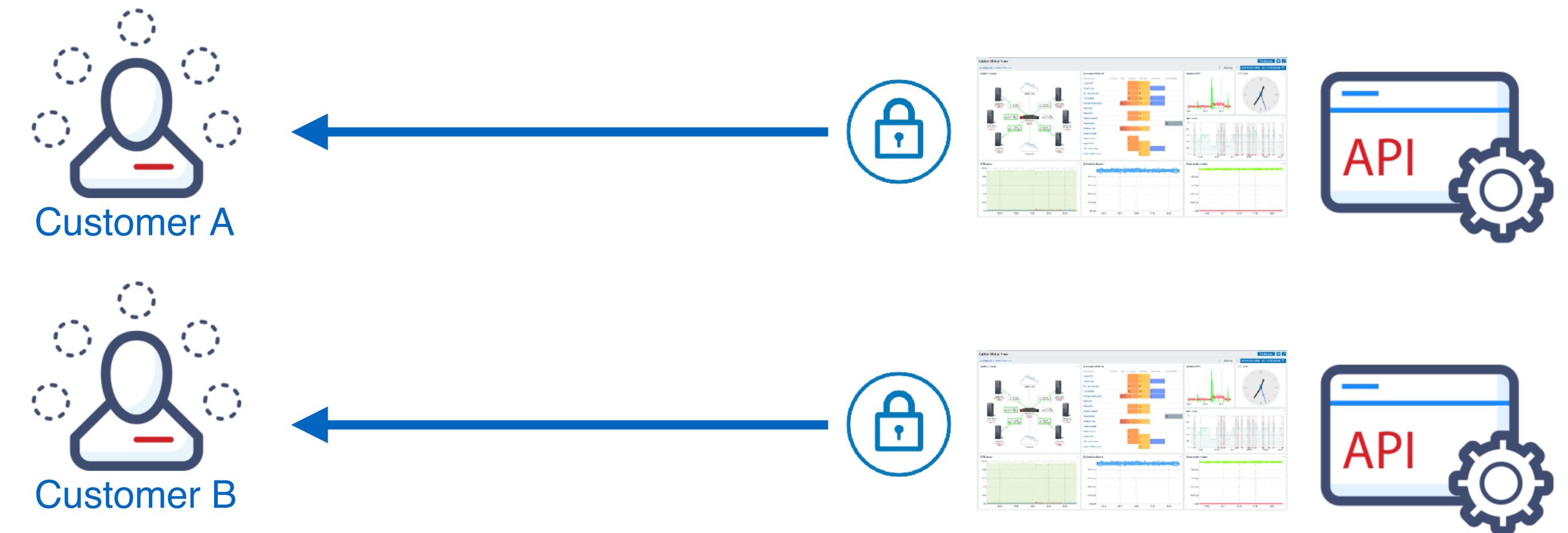
Average number of transactions
increased by 24% in September

Zabbix Insights

“Number of new user registrations
is down 12% last week“

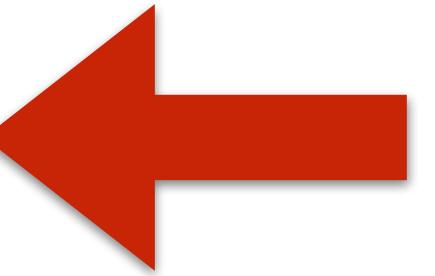
GRANULAR CONTROL OF USER PERMISSIONS

- Customer portal, read only users
- Different parts of UI can be made accessible for different user roles
- Control what user operations are accessible: maintenance, editing of dashboards, etc
- Fine grained control access to API and its methods for extra security



IOT MONITORING

- ✓ Support of **modbus** and **MQTT** protocols
- ✓ Monitoring of sensors, hardware equipment
- ✓ Integration with building management systems, factory equipment, IoT gateways

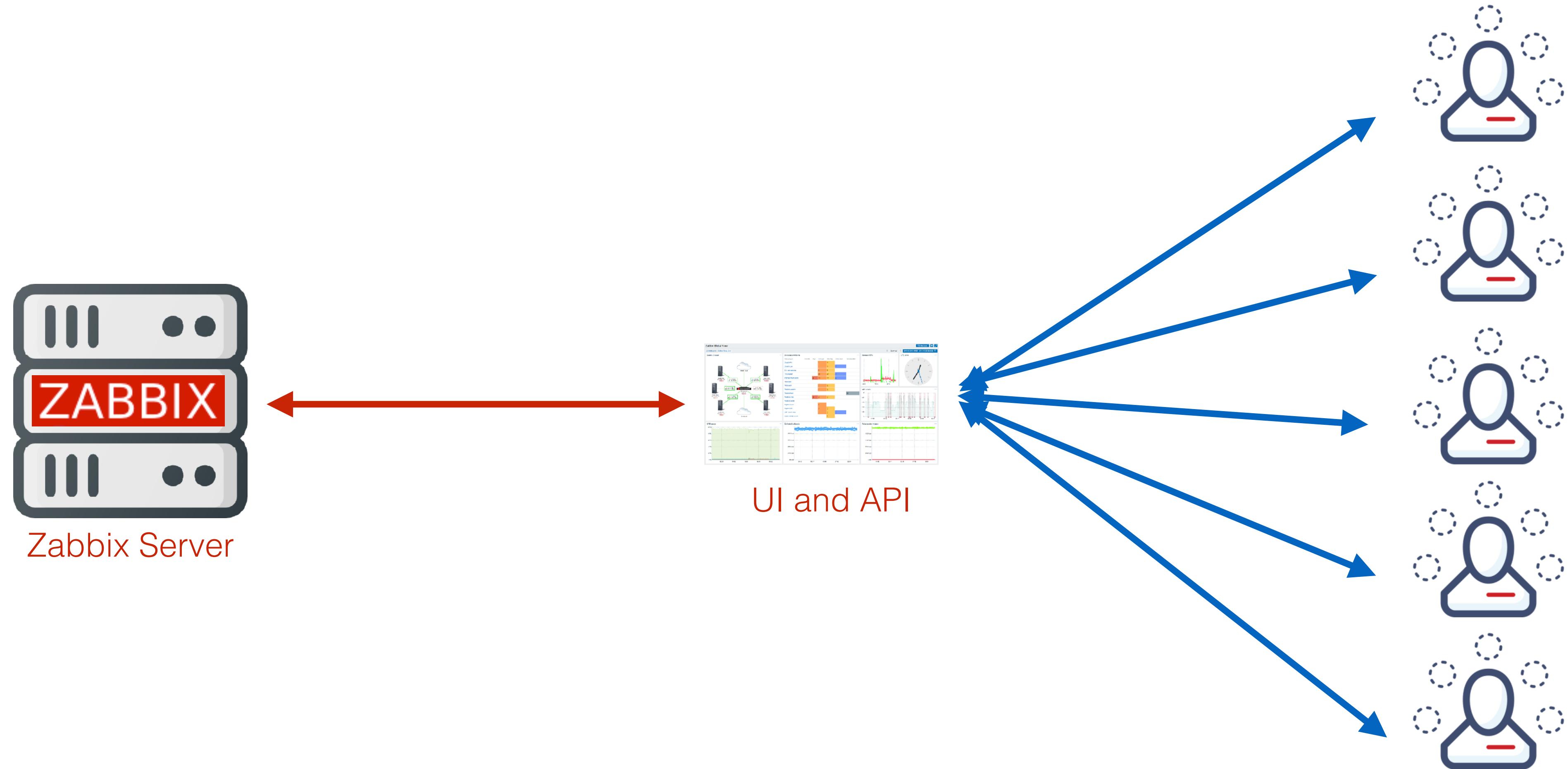


Sensors

IoT devices and gateways

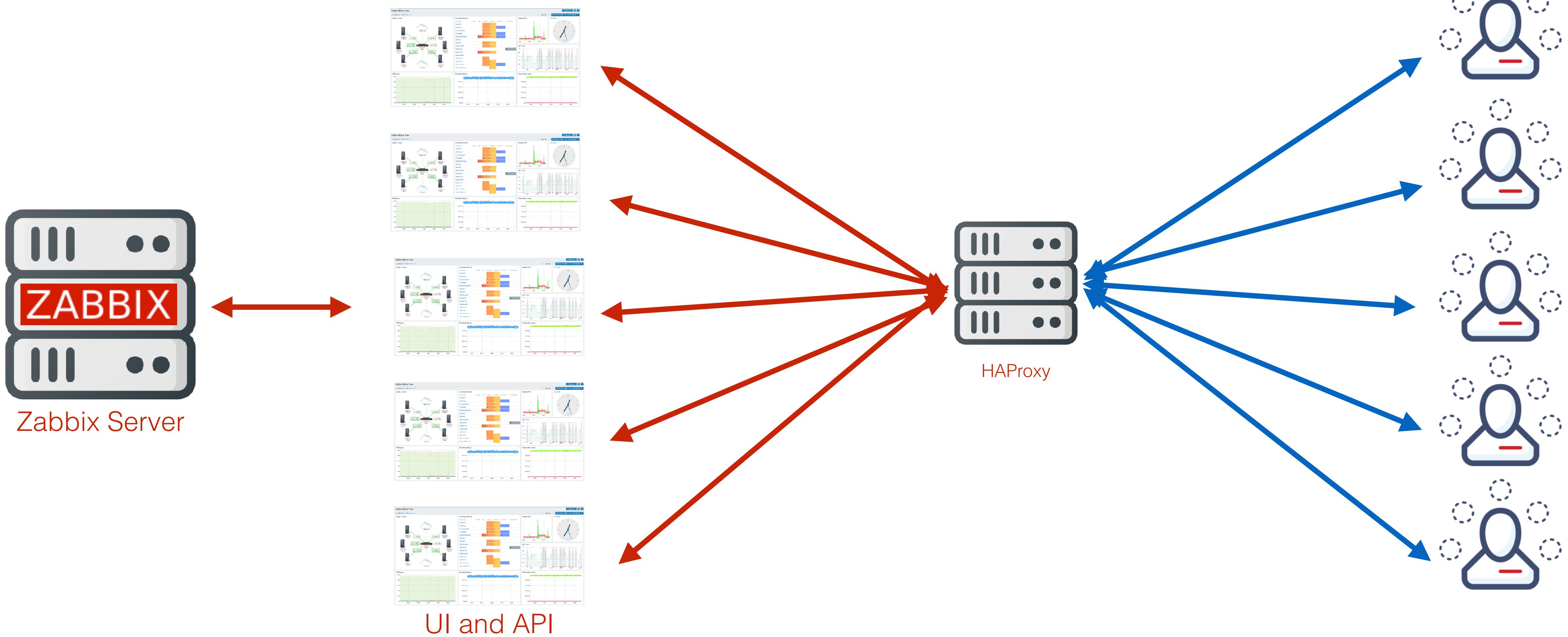
Industrial devices

LOAD BALANCING FOR UI AND API



LOAD BALANCING FOR UI AND API

- ✓ Horizontal scaling for Zabbix UI and API



Zabbix 5.4 & 6.0

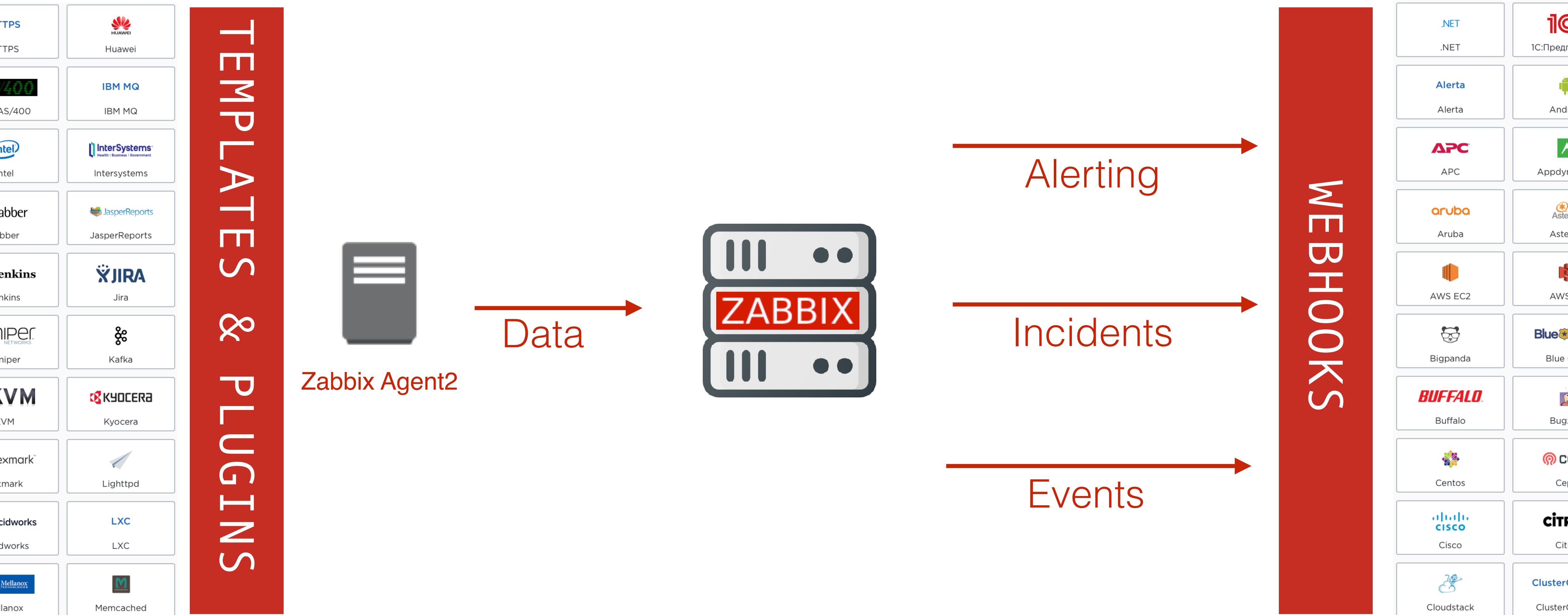
Out of the box monitoring and alerting

OFFICIAL SOLUTIONS FOR MONITORING AND ALERTING

.NET	1C®	Active Directory	Apache ACTIVEMQ	Alcatel-Lucent	Cloudstack	ClusterControl	Confluence	Cooling	CoreOS	HTTP	HTTPS	Huawei
.NET	1C:Предприятие	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	amazon web services	AWS	AWS CloudWatch	Drupal™	Elasticsearch	ellex	DELL EMC	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	Borg	Brocade	firebird	Firewalls	flowdock	FORTRINET	FreeBSD	julia	JUNIPER NETWORKS	Kafka
BUFFALO	Bugzilla	C#	Capacity planning	Cassandra	FreshDesk	FUJITSU COMPUTERS SIEMENS	Galera cluster	Geckoboard	git	kubernetes	iKVM	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	Hewlett Packard Enterprise	HP-UX	Mattermost	Mellanox	Memcached

<https://www.zabbix.com/integrations>

Making a platform for high quality solutions

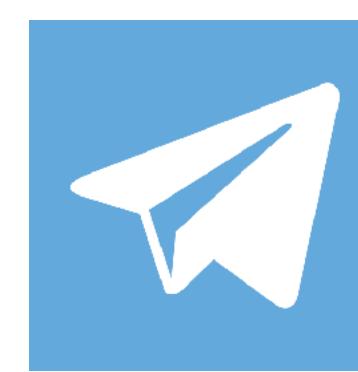


WEBHOOKS

Ticketing



Alerting



TEMPLATES & PLUGINS

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redis



elasticsearch



Monitoring

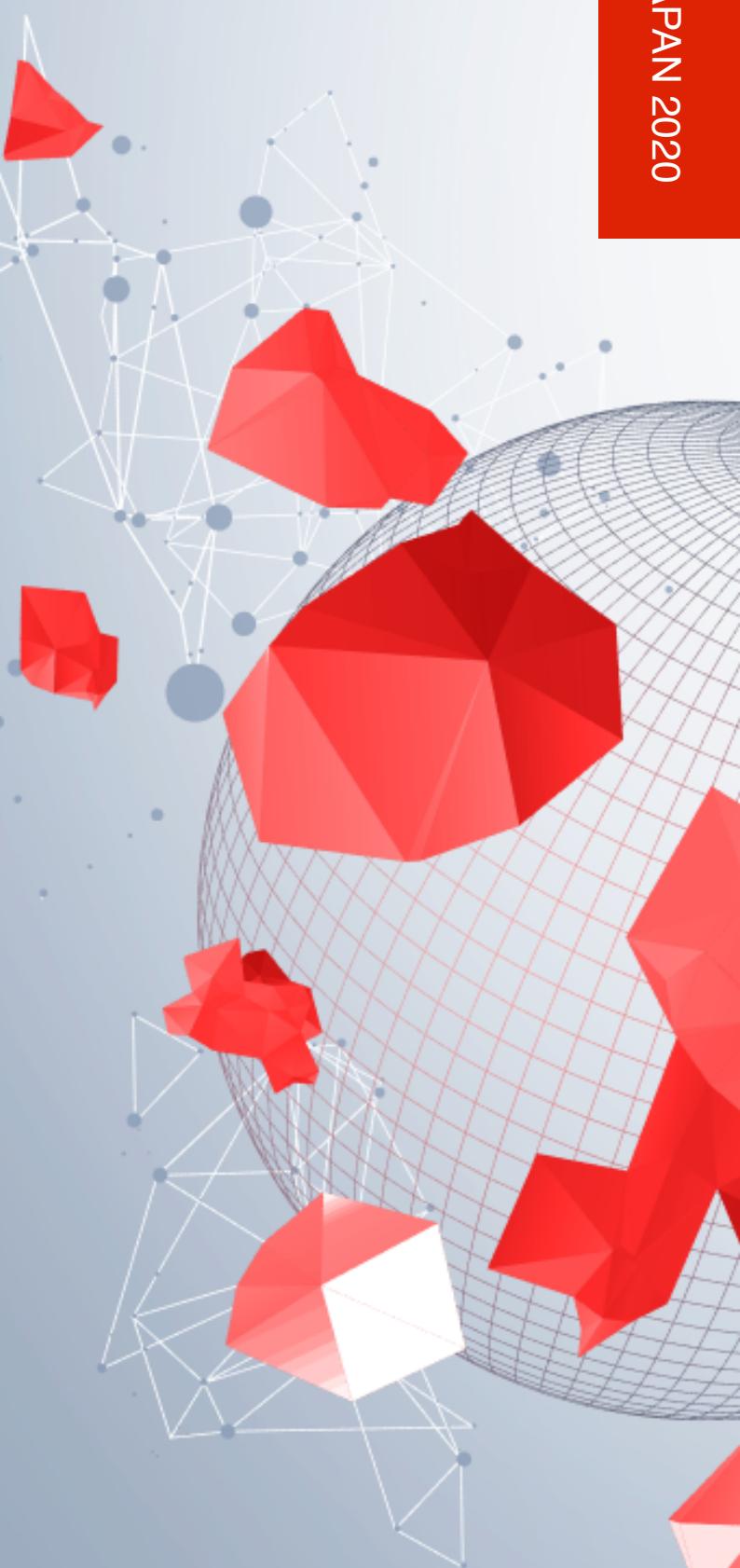


Tags for Everything

TAGS

- ✓ **DONE:** Supported for templates, hosts, host prototypes, triggers
- ✓ Item applications will be replaced by **tags**

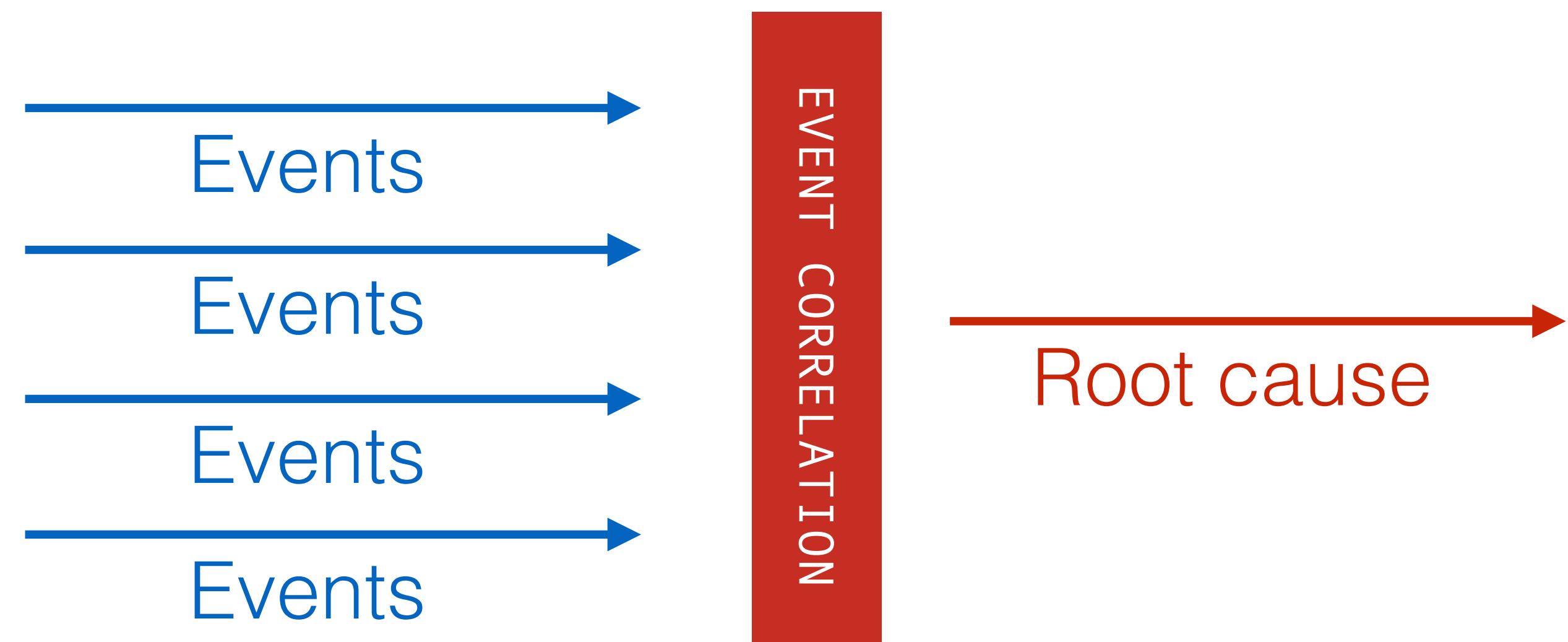
Time ▲	Severity	Recovery time	Status	Info	Host	Problem	Duration	Ack	Actions	Tags
2019-05-23 16:37:00	Average		PROBLEM		Linux907	Zabbix agent on Linux907 is unreachable for 5 minutes	1y 4m 19d	No		Service: Zabbix agent
September										
2019-09-30 12:45:45	Information		PROBLEM		AZ M08	Low CPU utilization on host machines	1y 9d	Yes	1 ↗	Service: Kubernetes Datacenter: FR2
2019-09-30 12:45:45	Information		PROBLEM		AZ M18	Slow query execution time	1y 9d	No	1 ↗	Service: AWS Dynam... Datacenter: NY1 Env: Production
2019-09-30 13:45:45	Average		PROBLEM		AWS N30	Too many queries per second ?	1y 9d	Yes	1 ↗ 2 ↗	Service: HTTP balancer Datacenter: NY1 Env: Production
2019-09-30 13:45:45	Average		PROBLEM		AZ M10	Too many queries per second ?	1y 9d	Yes	2 ↗ 3 ↗	Service: HTTP balancer Datacenter: NY1 Env: Production
October										
2019-10-01 12:25:11	High		PROBLEM		AWS N90	Service Redis stopped	1y 8d	Yes	1 ↗	Service: Redis Datacenter: FR2 Env: Staging
2019-10-01 12:25:11	High		PROBLEM		AWS N34	Service Redis stopped	1y 8d	Yes	1 ↗ 2 ↗	Service: Redis Datacenter: FR2 Env: Staging
Today										
10:48:11	Information		PROBLEM		Zabbix server	Too many processes running on Zabbix server	3m 39s	No		Service: Zabbix OS: Linux Performance



Event correlation

ADVANCED EVENT CORRELATION ENGINE

- ✓ Tag based event correlation
- ✓ Event filtering, de-duplication
- ✓ Root cause analysis
- ✓ Impact analysis



Discovery and Cloud monitoring

DISCOVERY AND CLOUD MONITORING

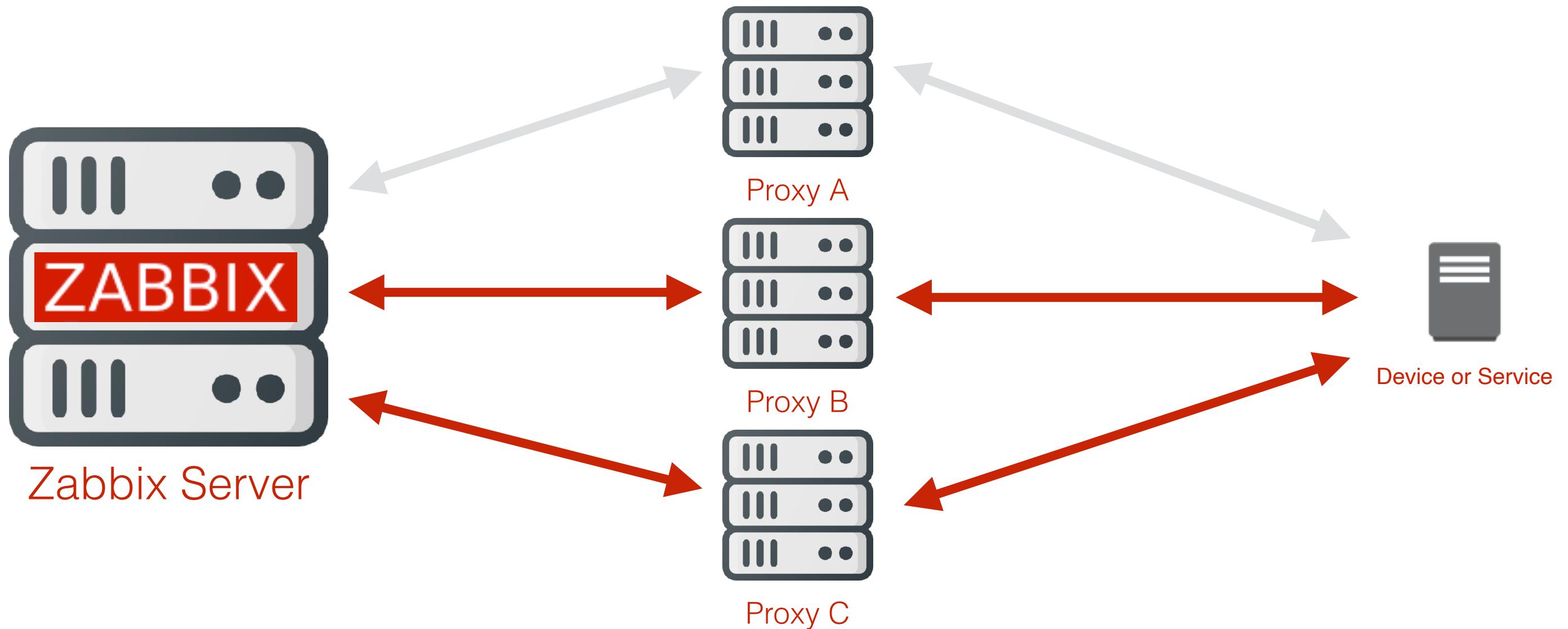
- ✓ **DONE:** Significant improvements of pre-processing, tag for host prototypes, interface-less hosts, UI
- ✓ Out of the box monitoring of AWS, Azure and GCP services
- ✓ Monitoring of Kubernetes
- ✓ Several missing things:
 - ✓ Support of cloud authentication
 - ✓ Triggers for discovered cluster nodes
 - ✓ More flexible discovery



HA, Performance and Scalability

BE CLOUD-NATIVE

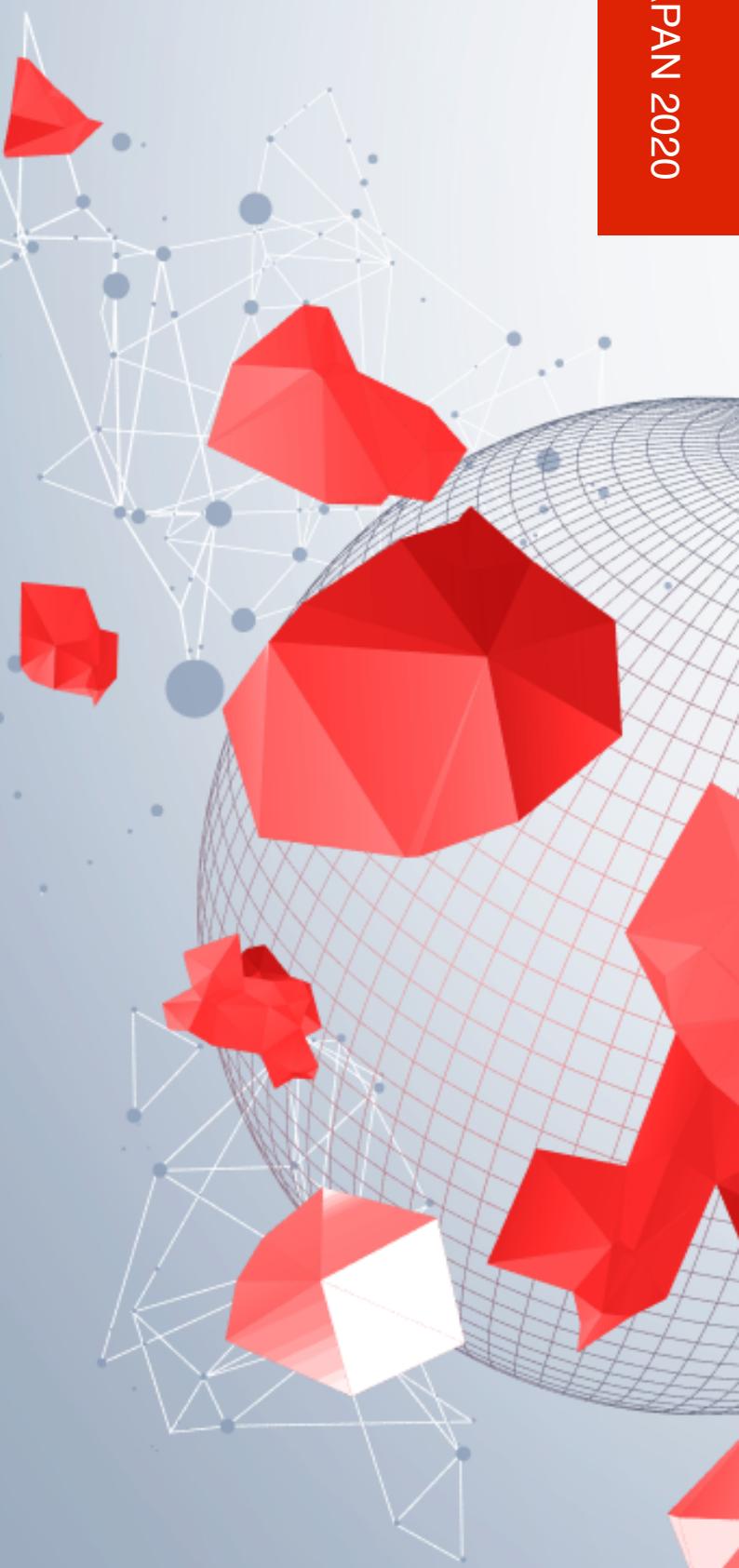
- ✓ **DONE:** HA and load balancing for UI and API
- ✓ Scalable history storage
- ✓ History API for different time-series backends
- ✓ HA and load balancing for Proxies and Servers



Reporting and Visualization

REPORTING AND VISUALIZATION

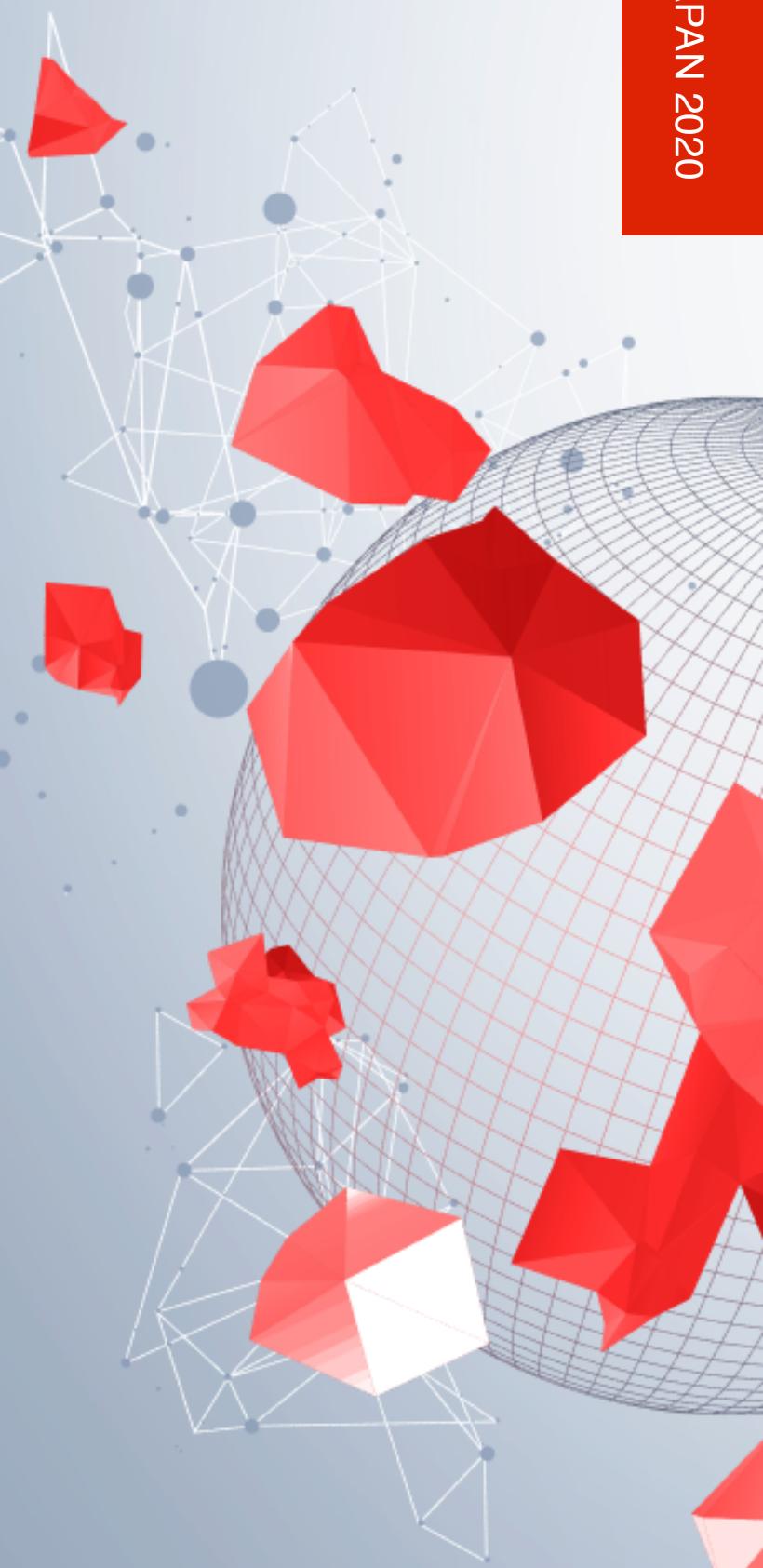
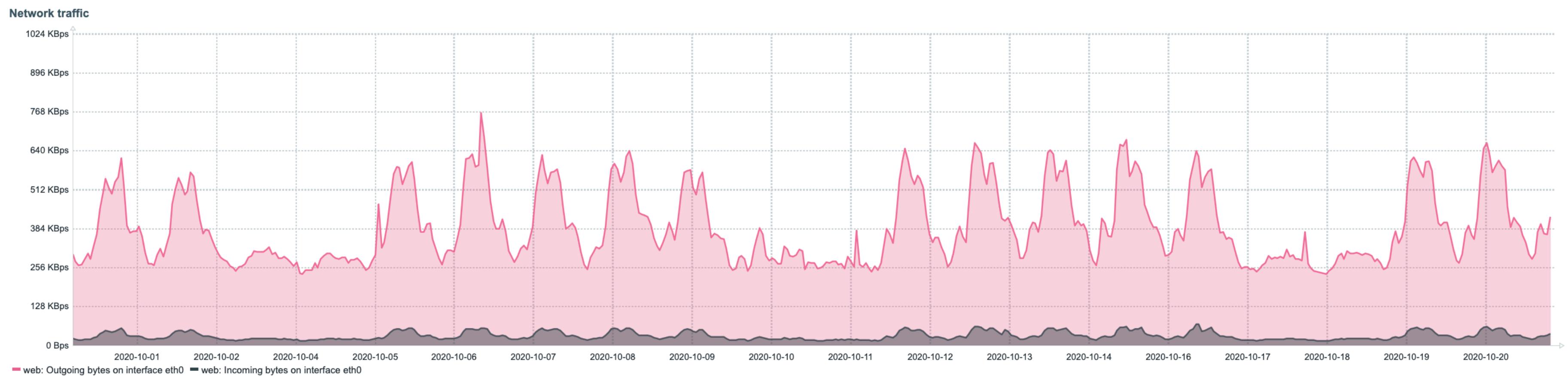
- ✓ **DONE:** pre-defined filters
- ✓ **ALMOST DONE:** unification of screens and dashboards
- ✓ **Scheduled** report generation
- ✓ Extended set of dashboard widgets
- ✓ Modules for extending widget functionality



Baseline Monitoring

BASELINE MONITORING

- ✓ **DONE:** Zabbix Insights for long term analysis of data
- ✓ Automatic thresholds for problem and anomaly detection
- ✓ AI and ML methods for data analysis



ZABBIX ROADMAP

Roadmap

This page contains an incomplete list of planned functionality that can be updated anytime without prior notice.

V 5.2

V 5.4

V 6.0 LTS

ETA: Q2, 2021

General directions

- Synthetic monitoring
- Advanced event correlation engine
 - Ability to perform event filtering, aggregation and root cause analysis
- Keep extending Zabbix monitoring, automatic problem detection, alerting and visualization capabilities
- Keep making Zabbix as modular and flexible as possible
- Make Zabbix truly horizontally scalable monitoring solution ready for the most demanding workloads
- Make it simpler for end users by improving UI

Synthetic monitoring

- Support of data collection using complex custom logic
 - A new metric type "Script" will allow multi-step scenarios for data collection and service checks written in JavaScript.

Smart problem and anomaly detection

- Baseline monitoring
 - New algorithms for data processing to allow automatic problem and anomaly detection based on analysis of historical data. No manual setting of thresholds will be needed anymore!

Enhanced discovery for efficient monitoring of cloud services

- Ability to create triggers able to select and analyse data for a given trigger tag

<https://www.zabbix.com/roadmap>



Thank you!

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