



SUMMIT
ONLINE / 2020

"THE ROADMAP TO ZABBIX 6.0"

Alexei Vladishev

Founder and CEO

ZABBIX, LATVIA



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 data storage limits and much
more*

BACKED BY **ZABBIX COMPANY**, 100 ZABBIXERS



Riga



2005

Tokyo



2012

New York



2015

Moscow



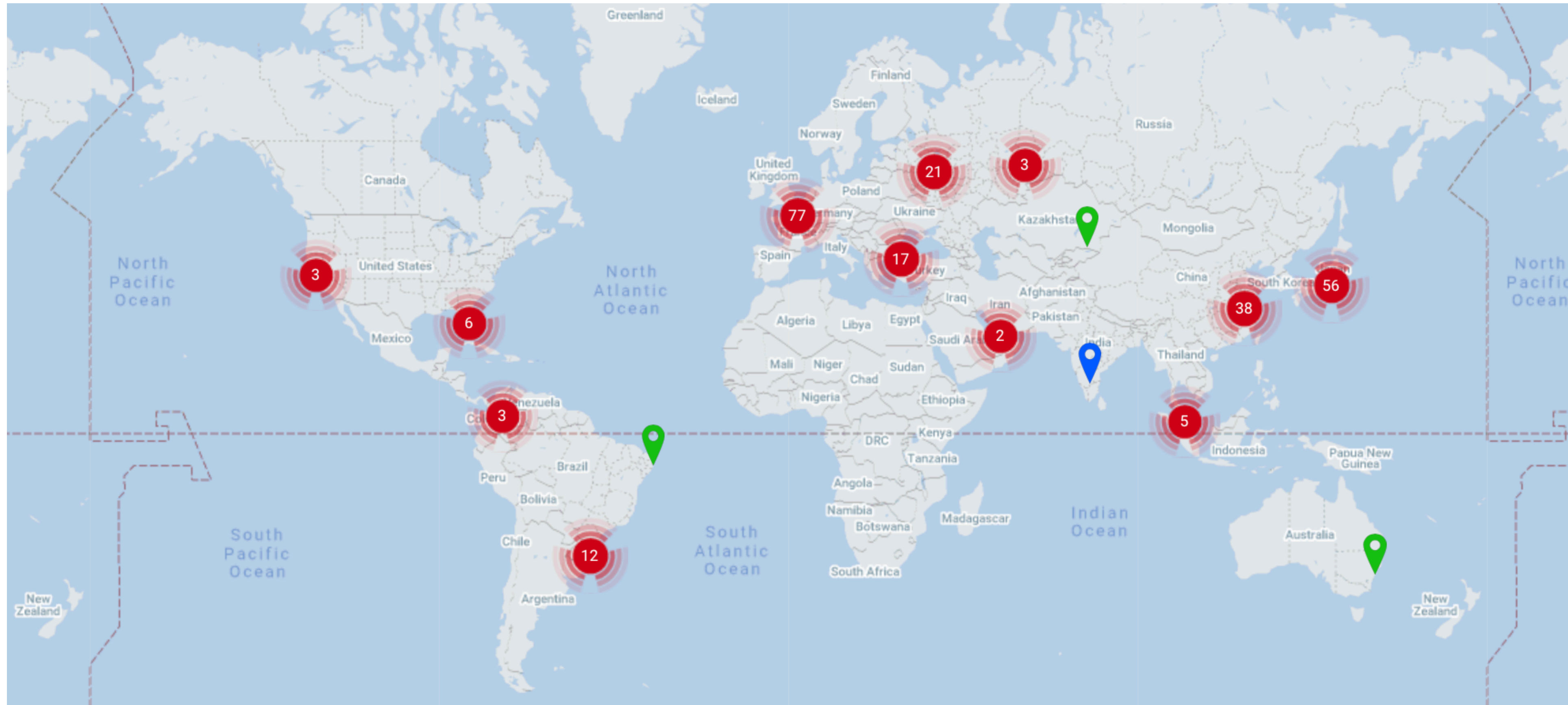
2019

Porto Alegre



2020

200+ ZABBIX PARTNERS AT YOUR SERVICE



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 1 days	Initial response time 4 hours	Initial response time 4 hours	Initial response time 4 hours	Initial response time 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 1	Support contacts 2	Support contacts 3	Support contacts 7	Support contacts 20
Supported Zabbix servers Priced per server	Supported Zabbix servers Priced per server	Supported Zabbix servers Priced per server	Supported Zabbix servers Unlimited	Supported Zabbix servers Unlimited
Support for Zabbix Proxy Not available	Support for Zabbix Proxy Priced per proxy	Support for Zabbix Proxy Priced per proxy	Support for Zabbix Proxy Unlimited	Support for Zabbix Proxy Unlimited
Legal entities covered 1	Legal entities covered 1	Legal entities covered 1	Legal entities covered 1	Legal entities covered 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

Requirements
No requirements

Price in EUR Price in USD

€ 490

Price does not include VAT

[Apply for course](#)

[Program description](#)

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

Requirements
No requirements

Price in EUR Price in USD

€ 490

Price does not include VAT

[Apply for course](#)

[Program description](#)

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

Requirements
No requirements

Price in EUR Price in USD

€ 490

Price does not include VAT

[Apply for course](#)

[Program description](#)

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

Price does not include VAT

[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

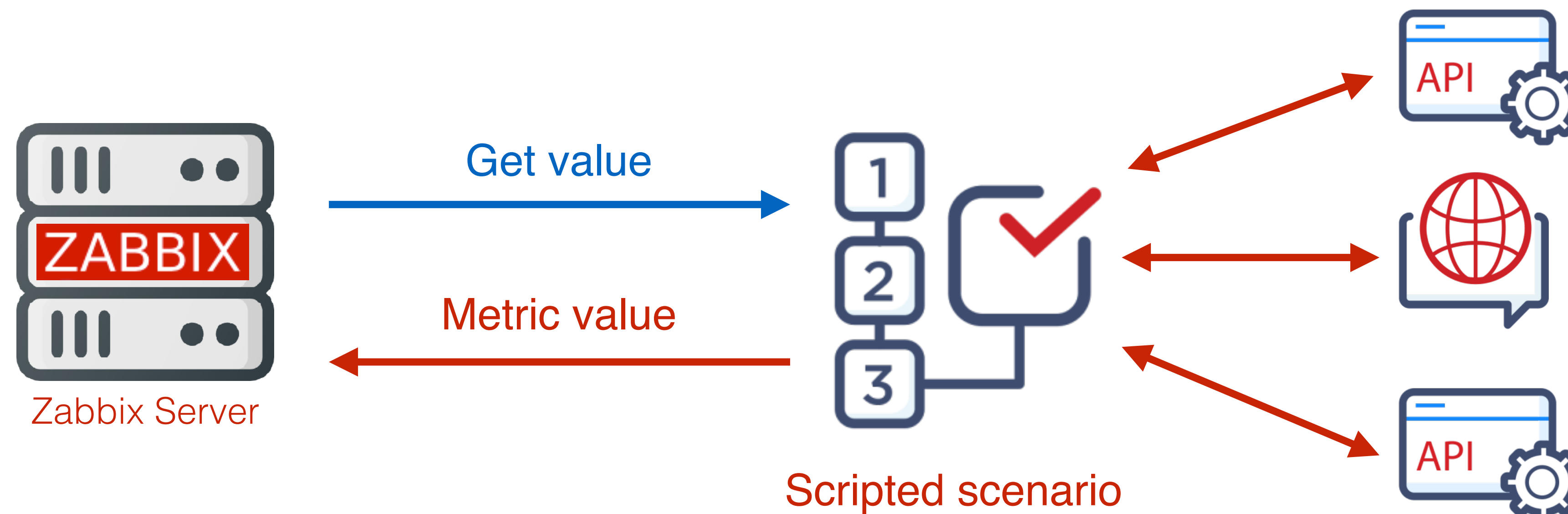


Zabbix 5.2

More than 35 new features and functional improvements

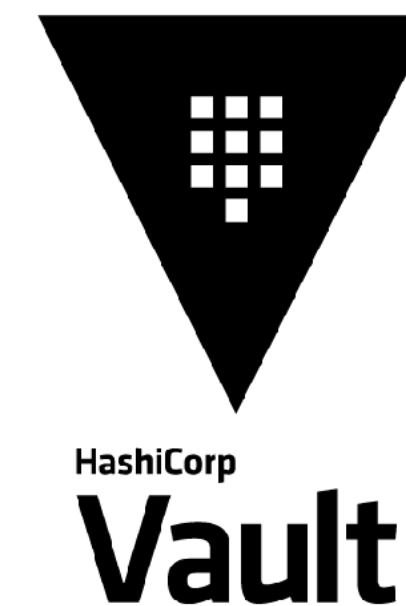
SYNTHETIC MONITORING

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



STORAGE OF SECRETS IN THE VAULT

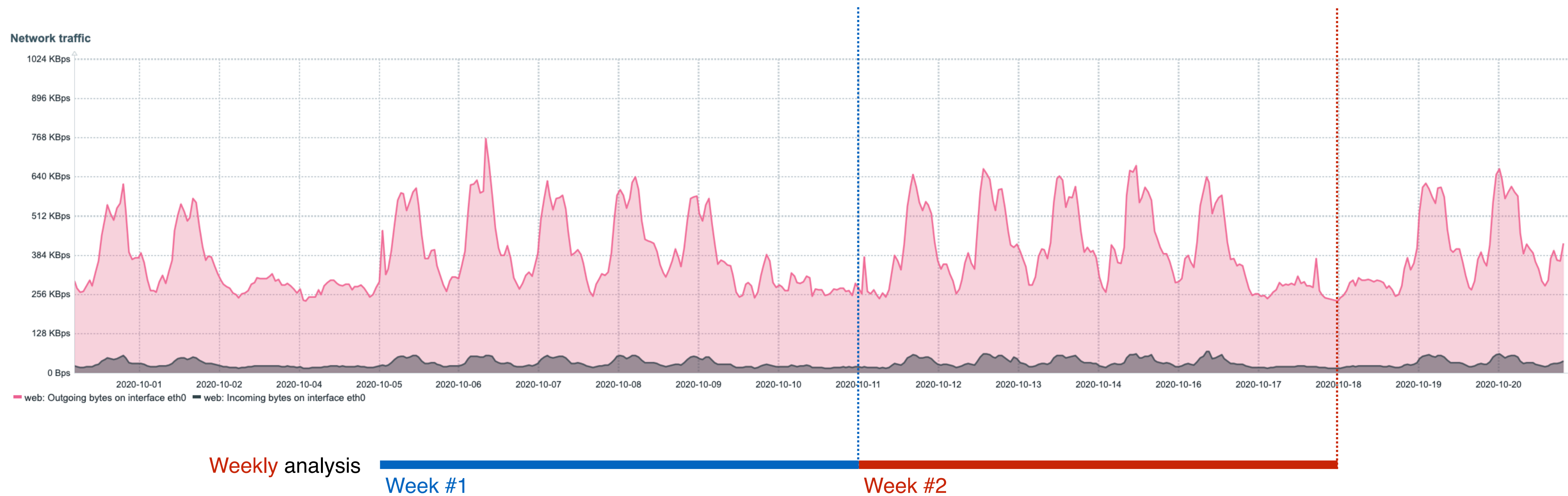
- ✓ All sensitive information is kept **outside of Zabbix** in a secure place: HashiCorp Vault
- ✓ Therefore no secret data is stored in Zabbix DB
- ✓ Sensitive data: passwords, API tokens, user names, etc



A screenshot of the Zabbix web interface showing the configuration of macros for a host named 'confluence'. The 'Host macros' tab is selected, showing a table with two macros: '{DBNAME}' with value 'zabbix/confluence/db:name' and description 'Confluence Database Name', and '{DBPASSWORD}' with value 'zabbix/confluence/db:password' and description 'Confluence Database Password'. A dropdown menu is open for the second macro, showing options: 'Text', 'Secret text', and 'Vault secret'. The 'Vault secret' option is highlighted with a red box. The interface includes a sidebar with navigation icons and a top navigation bar with various tabs like 'All hosts', 'confluence', 'Enabled', 'ZBX', 'SNMP', 'JMX', 'IPMI', 'Applications 10', 'Items 114', 'Triggers 21', 'Graphs 14', 'Discovery rules 3', and 'Web scenarios'. The 'Host' tab is selected in the sub-navigation, and the 'Macros 2' sub-tab is active. The 'Add' button is visible at the bottom left of the macro table.

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

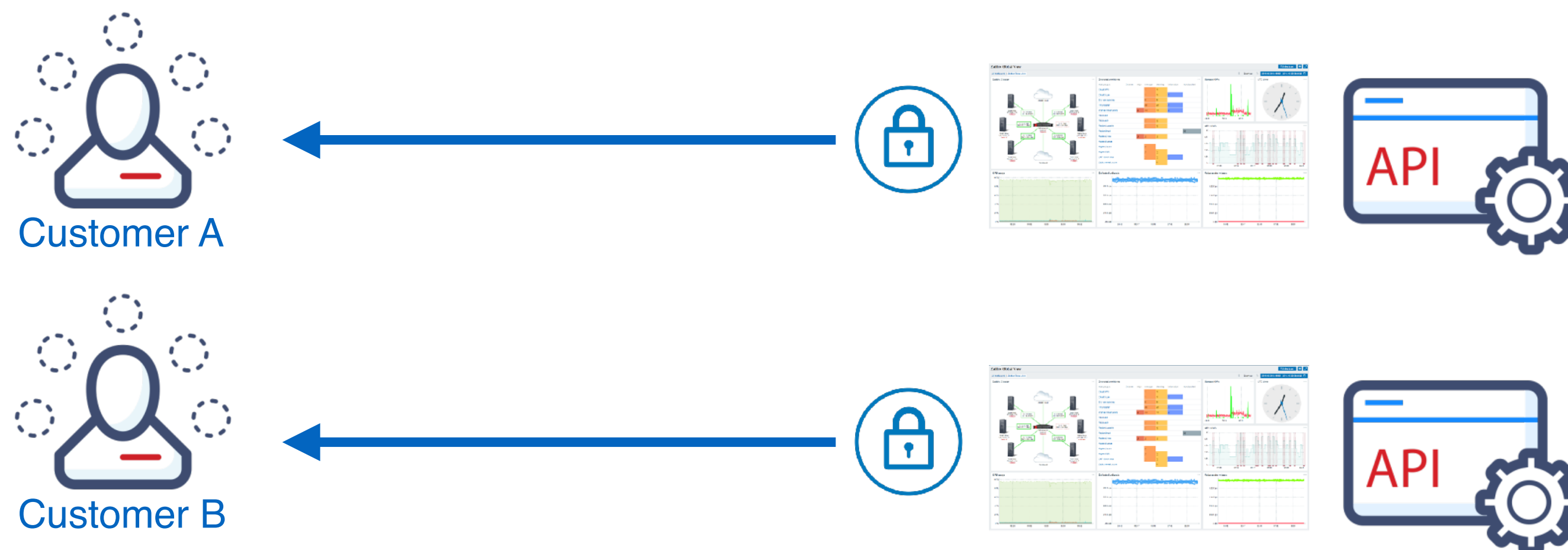


Average number of transactions
increased by 24% in September

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

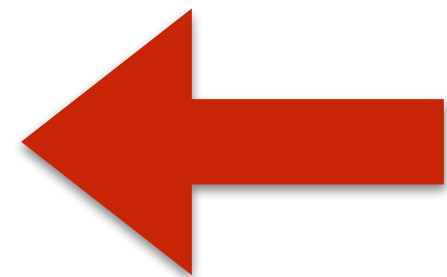
GRANULAR CONTROL OF USER PERMISSIONS

- ✓ 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

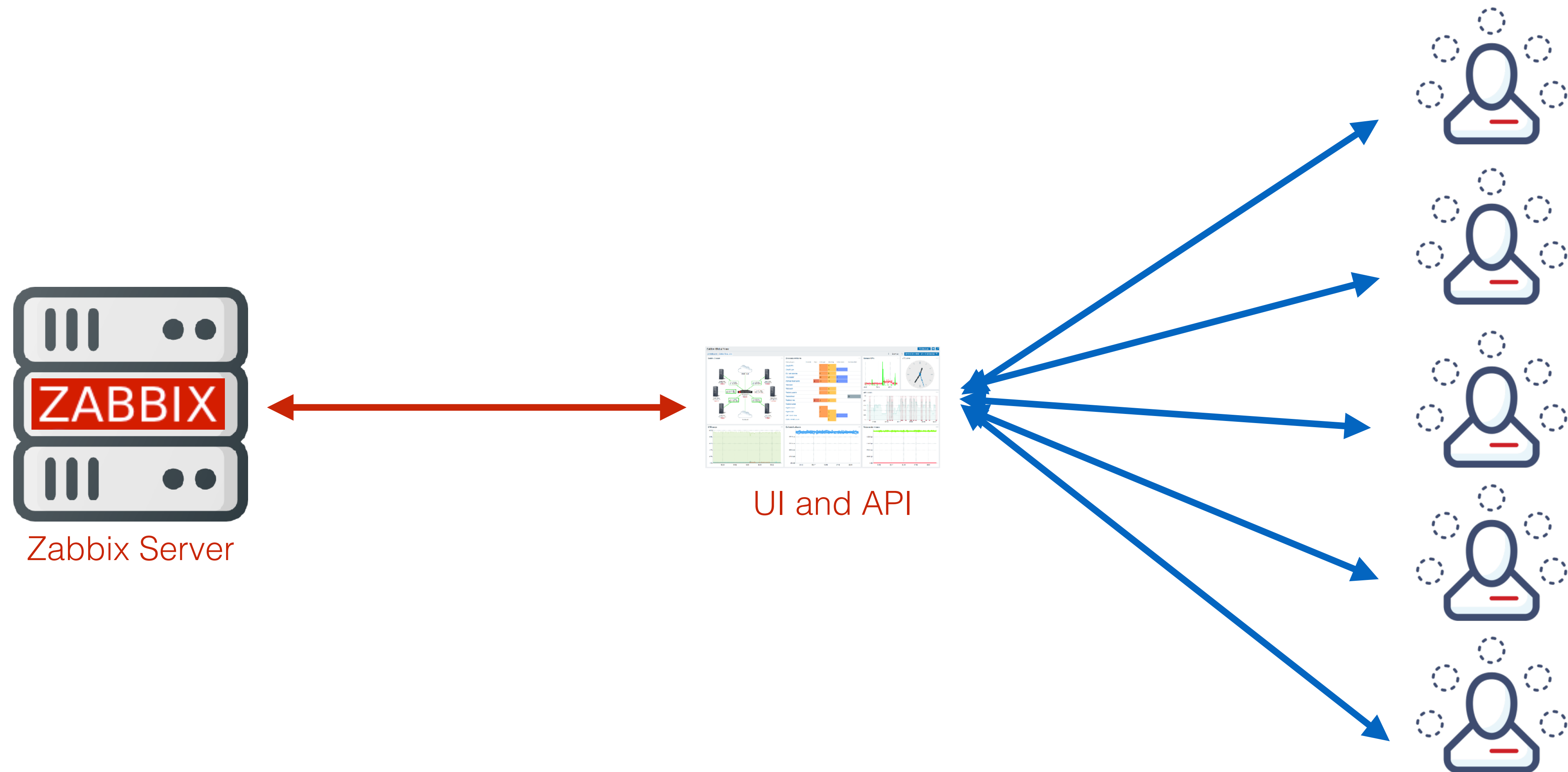


Sensors

IoT devices and gateways

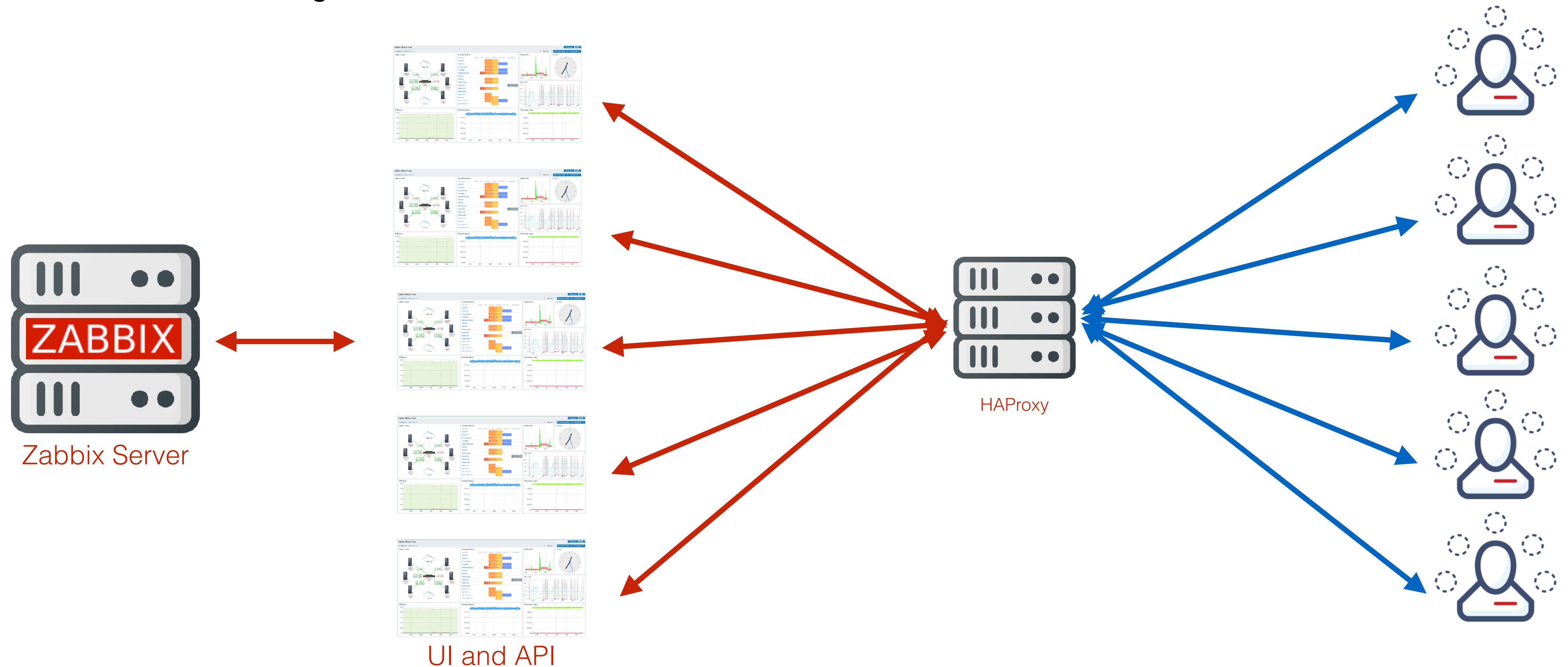
Industrial devices

LOAD BALANCING FOR UI AND API



LOAD BALANCING FOR UI AND API

- ✓ Horizontal scaling for Zabbix UI and API





























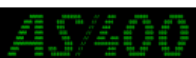









































































































Zabbix 5.4 & 6.0



Out of the box

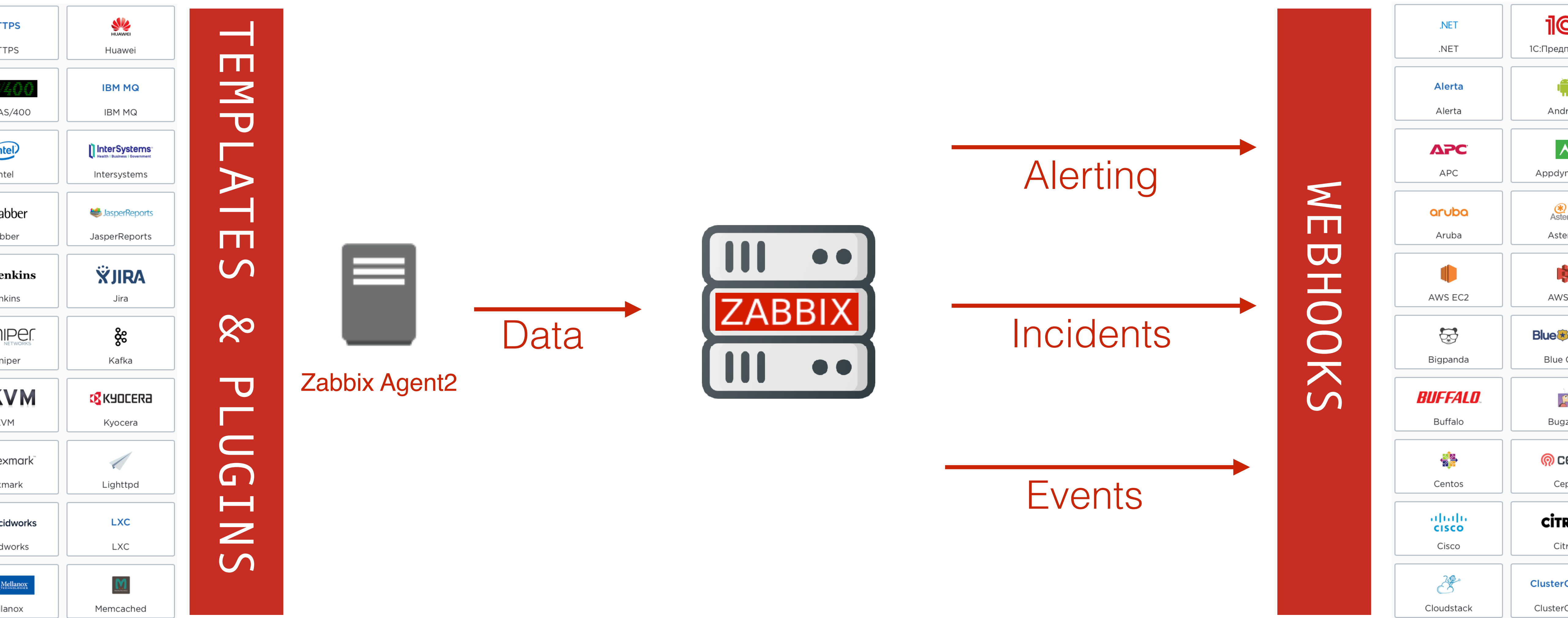
monitoring and
alerting

OFFICIAL SOLUTIONS FOR MONITORING AND ALERTING

 .NET	 1C: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	 AWS	 AWS CloudWatch	 Drupal	 Elasticsearch	 Eltex	 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

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

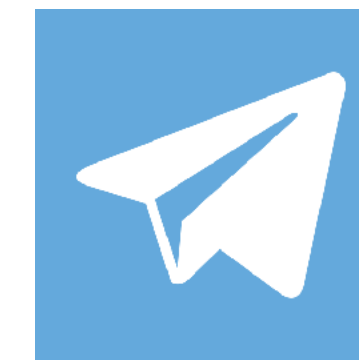
Making a platform for high quality solutions



Ticketing



Alerting





Monitoring



Tags for Everything

TAGS

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

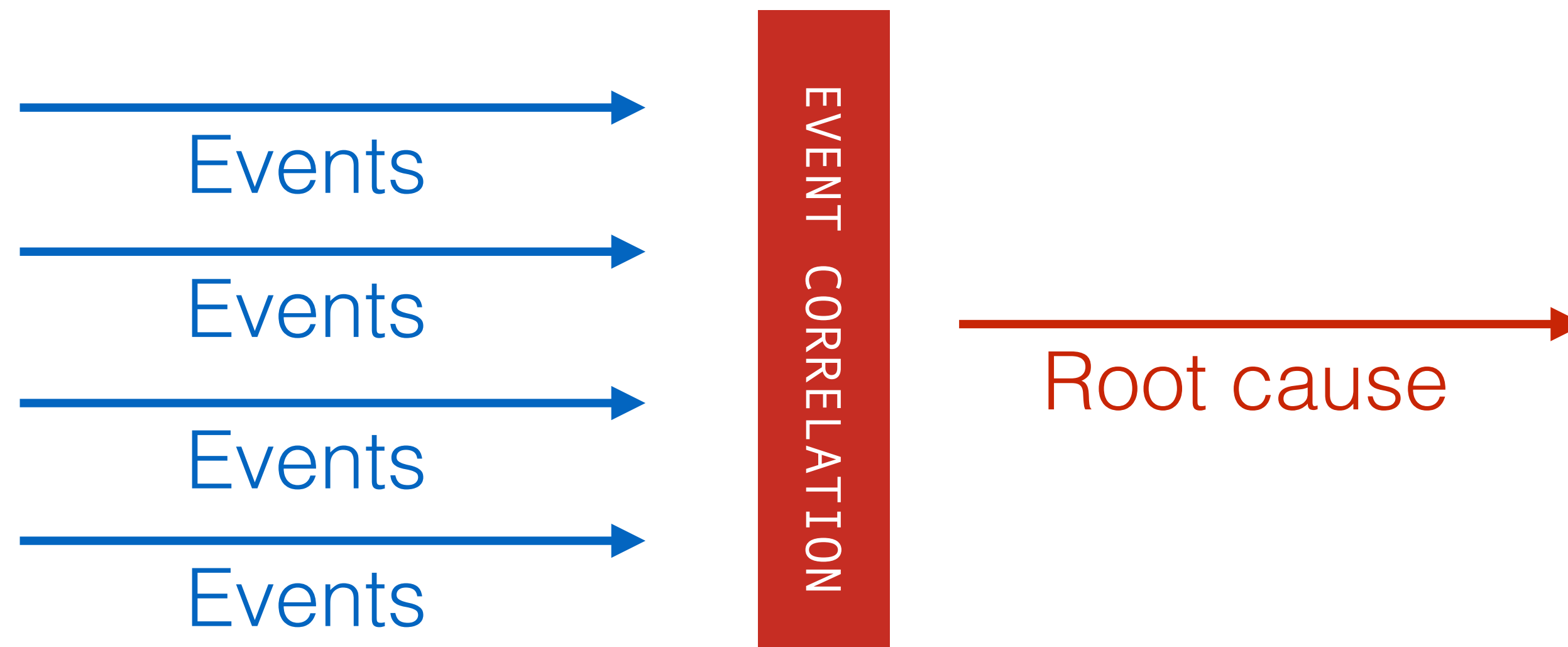
Time ▲	<input type="checkbox"/> Severity	Recovery time	Status	Info	Host	Problem	Duration	Ack	Actions	Tags
2019-05-23 16:37:00	<input type="checkbox"/> Average		PROBLEM		Linux907	Zabbix agent on Linux907 is unreachable for 5 minutes	1y 4m 19d	No		Service: Zabbix agent
September										
2019-09-30 12:45:45	<input type="checkbox"/> Information		PROBLEM		AZ M08	Low CPU utilization on host machines	1y 9d	Yes	1	Service: Kubernetes Datacenter: FR2
2019-09-30 12:45:45	<input type="checkbox"/> 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	<input type="checkbox"/> Average		PROBLEM		AWS N30	Too many queries per second ?	1y 9d	Yes	1	Service: HTTP balancer Datacenter: NY1 Env: Production
2019-09-30 13:45:45	<input type="checkbox"/> Average		PROBLEM		AZ M10	Too many queries per second ?	1y 9d	Yes	2	Service: HTTP balancer Datacenter: NY1 Env: Production
October										
2019-10-01 12:25:11	<input type="checkbox"/> High		PROBLEM		AWS N90	Service Redis stopped	1y 8d	Yes	1	Service: Redis Datacenter: FR2 Env: Staging
2019-10-01 12:25:11	<input type="checkbox"/> High		PROBLEM		AWS N34	Service Redis stopped	1y 8d	Yes	1	Service: Redis Datacenter: FR2 Env: Staging
Today										
10:48:11	<input type="checkbox"/> 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

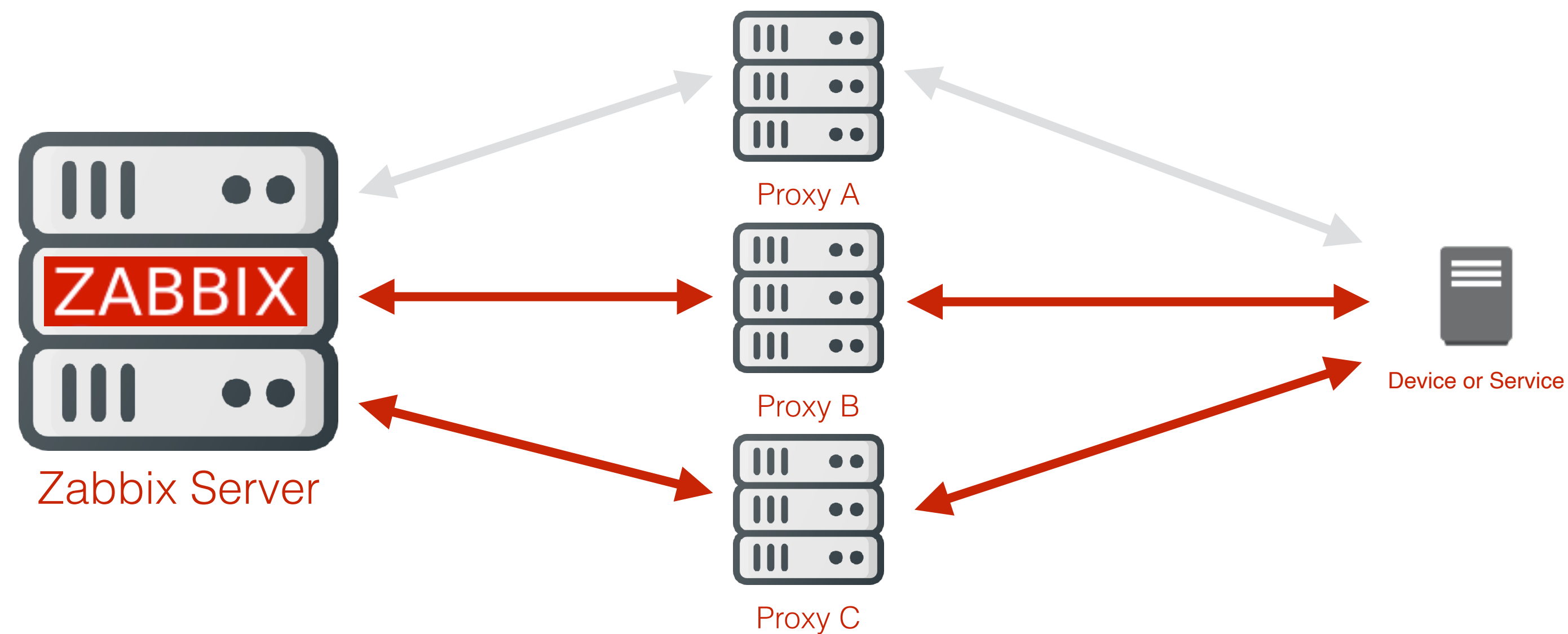




HA, Performance and Scalability

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

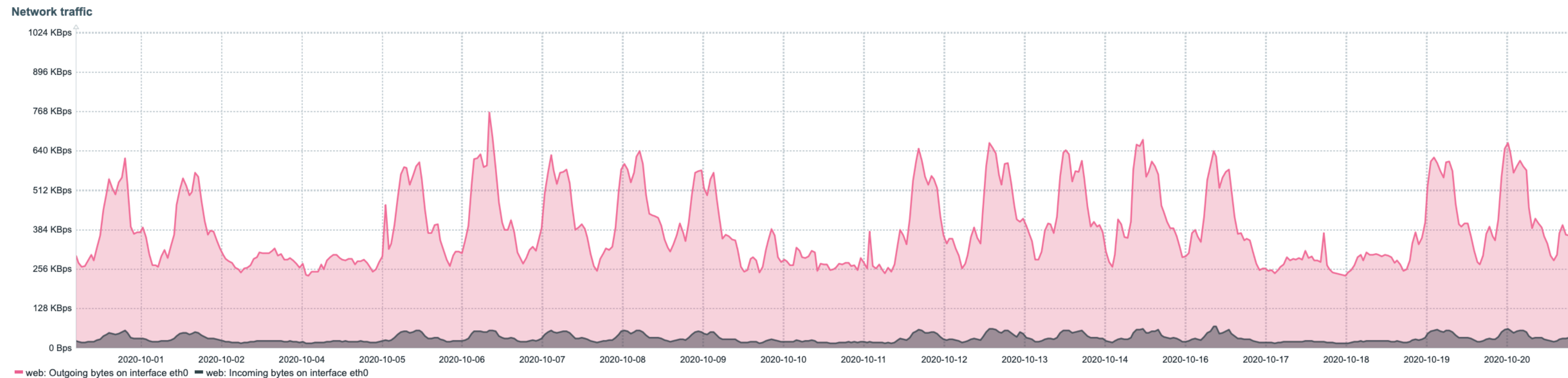




Baseline Monitoring

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

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

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!

ETA: Q2, 2021

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.

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!

LEARN MORE ABOUT ZABBIX 5.2 AT THE SUMMIT!