

ZABBIX

For
Telco
MSP and
Beyond



Who am I



- CTO / Co-Founder CodeHarbor / Triple-C
- Zabbix Certified Expert
- Linux DevOps Expert Telenet BV



Who I work for




- **Telenet**
 - **Belgian Telecom provider**
- **Connectify**
 - **ICT specialist**
 - **Digital screen experience specialist**
- **CodeHarbor**
 - **Report-Engine for Zabbix distributor**

Telenet

Leading Telco Provider

Fixed and mobile Networks
Screen entertainment



-  + 1,7 Milj. Internet Customers
-  + 2.8 Milj. Mobile Customers
-  + 2 Milj. Entertainment subscriptions

Telenet Business



Connect

- Fixed internet
- Mobile internet
- **Smart business networks**

Protect

- **Cybersecurity**
- **Physical security measures**

Cooperation and communication

- **Fixed and cloud telephony**
- **Mobile telephony**
- **Cooperation tools**

Friendly welcome

- **Digital tv**
- **Smart parking**



Telenet Business

- ICT Monitoring landscape



ZABBIX



centreon

Baseⁿ

ZABBIX

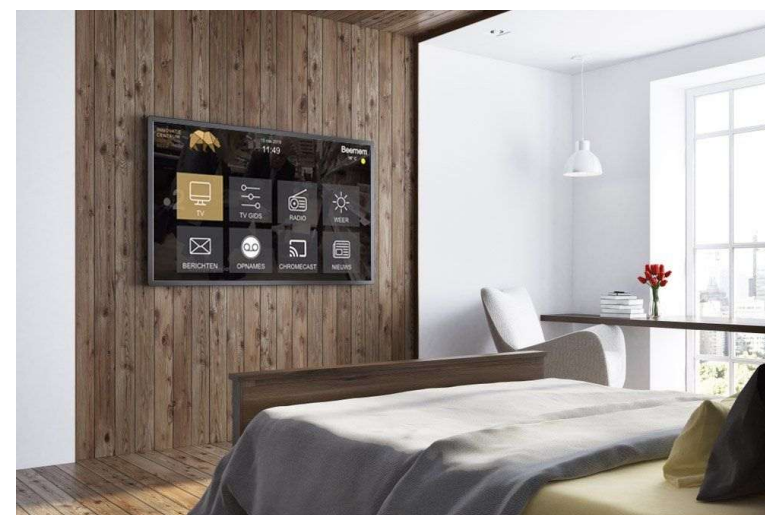
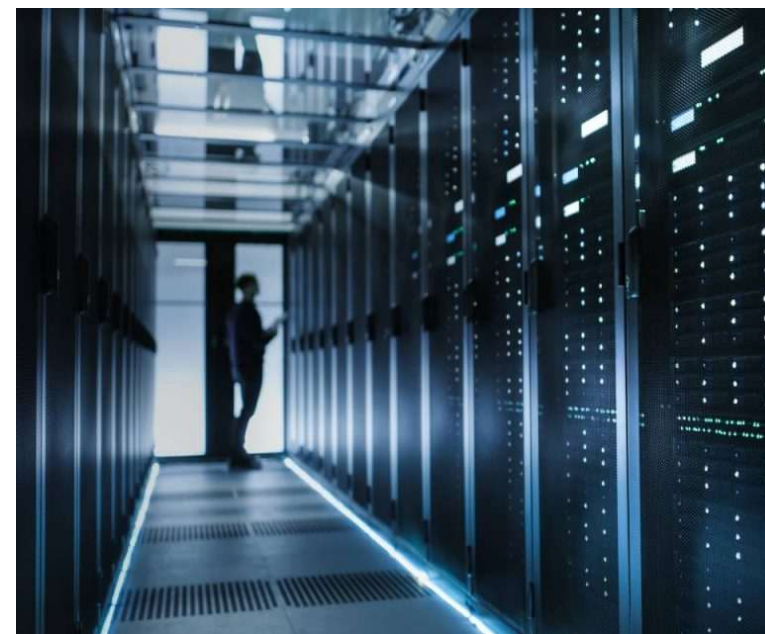
Telenet Business

- ICT Monitoring landscape
 - Currently Over 12K Devices in Zabbix Monitoring
 - Migration ongoing 8K devices
- Core part of the Telenet vision to become a trusted Managed Service Provider
 - Scoping additional 50K devices
- 90% Network & Firewall
- Collaboration with DataMiner for single overall view



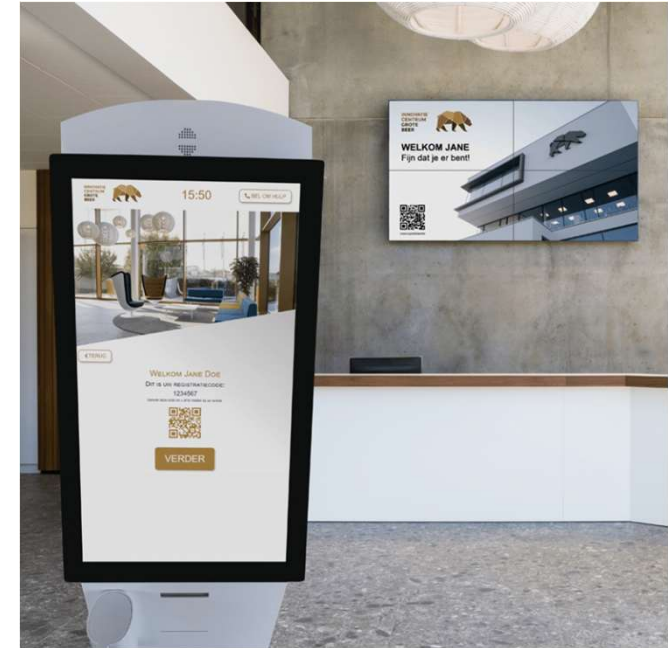
Connectify

- **Connectify**
 - **ICT Service Provider**
 - **Digital screen experience specialist**
- **100% Telenet group owned**
- **Using Zabbix for ICT (on-prem & cloud)**
- **Investigating options for screen monitoring**



Connectify Zabbix

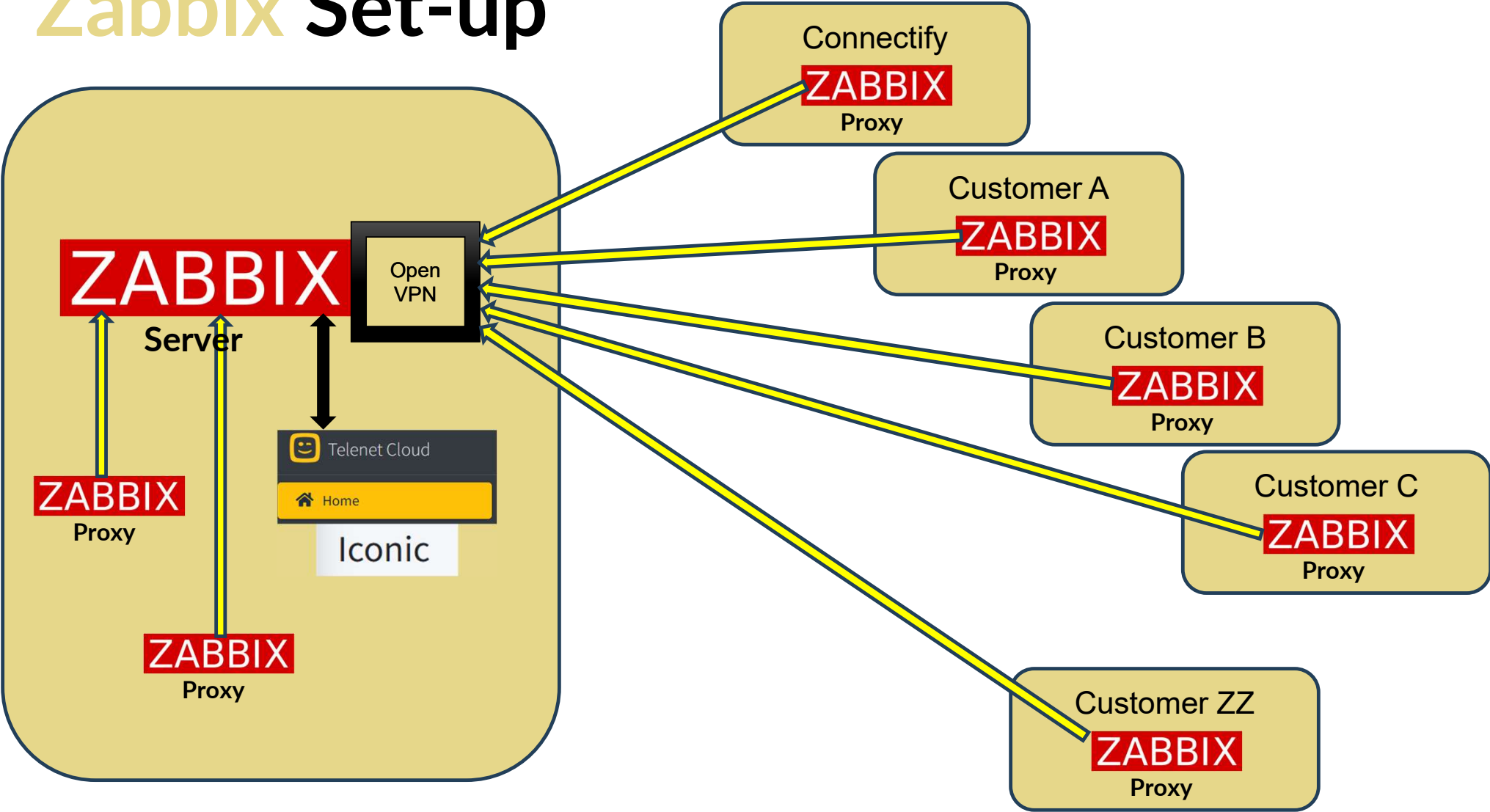
- ICT
 - Same as Telenet Scope
 - Migrating from PRTG to Zabbix
- Tellie Screen solution
 - +14K screens connected to platform
 - Migration of 100K screens ongoing
 - IPTV



Why they all choose Zabbix

- Open Source
- Supported protocols
- Broad spectrum of templates
- Proxy / Server set-up
- Automation
 - Iconic
- Alerting
 - Mail
 - Telegram
 - Automated oncall shifts

Zabbix Set-up



Iconic

- Integrated Control for Operations Network Infrastructure and Cloud

- And the real Meaning...

- I Corne Nick

- Automating Zabbix

- RBAC for multi tenant

Zabbix Host Information Tool

Customer: Connectify

Host Overview Maintenance Windows

Show 25 entries

+ Add Host Create Maintenance Window Remove Host(s) Export Data

Search:

Name	Interface	Templates	Enabled
ACCENT-ACCENT-ACCENTSRV	192.168.3.4 - ZBX	Zabbix Agent - Operating System - Windows	✓
ACCENT-ACCENT-ACC-WEV-AP-01	192.168.3.14 - ZBX	Zabbix Agent - Operating System - Windows	✓
ACCENT-ACCENT-ACC-WEV-BR-01	10.1.253.21 - ZBX	Zabbix Agent - Operating System - Windows	✓
ACCENT-ACCENT-ACC-WEV-BU-01	10.1.246.11 - ZBX	Zabbix Agent - Operating System - Windows	✓
ACCENT-ACCENT-ACC-WEV-DC-01	10.1.253.1 - ZBX	Zabbix Agent - Operating System - Windows	✓
ACCENT-ACCENT-ACC-WEV-FS-01	10.1.253.11 - ZBX	Zabbix Agent - Operating System - Windows	✓
ACCENT-ACCENT-ACC-WEV-FS-02	10.1.253.12 - ZBX	Zabbix Agent - Operating System - Windows	✓
ACCENT-ACCENT-ACC-WEV-GW-01	10.1.254.11 - ZBX	Zabbix Agent - Operating System - Windows	✓
ACCENT-ACCENT-ACC-WEV-HV-01	10.1.252.1 - ZBX	Zabbix Agent - Operating System - Windows	✓

Iconic what it does

- **Single pane of glass**
 - **Webhosting provisioning and maintenance**
 - **Mail hosting provisioning and maintenance**
 - **EPP calls towards domain registries (registration, DNSSEC, ...)**
 - **Deploying Zabbix Agents on hosts with a single click**
 - **Loading hosts towards agents**
 - **Create and schedule custom Reports**
 - **Linux Server maintenance and patching**
 - **CMDB view and edit pane**
 - ...



Iconic how it works

- Automation framework using Ansible Automation Controller (API)
- GitOps way of work
- Fully containerized
- Running on Kubernetes (OpenShift)
- Rootless containers
- Private registry including security scanning
- Scalable with a single click
- Okta integrated

queue-default	2 of 2 pods	app.kubernetes.io/environment=prd app.kubernetes.io/instance=prd-iconic app.kubernetes.io/name=iconic app.kubernetes.io/version=v4
queue-logs	2 of 2 pods	app.kubernetes.io/environment=prd app.kubernetes.io/instance=prd-iconic app.kubernetes.io/name=iconic app.kubernetes.io/version=v4
queue-mail	2 of 2 pods	app.kubernetes.io/environment=prd app.kubernetes.io/instance=prd-iconic app.kubernetes.io/name=iconic app.kubernetes.io/version=v4
queue-polling	5 of 5 pods	app.kubernetes.io/environment=prd app.kubernetes.io/instance=prd-iconic app.kubernetes.io/name=iconic app.kubernetes.io/version=v4
queue-reverb	2 of 2 pods	app.kubernetes.io/environment=prd app.kubernetes.io/instance=prd-iconic app.kubernetes.io/name=iconic app.kubernetes.io/version=v4
queue-zabbix	3 of 3 pods	app.kubernetes.io/environment=prd app.kubernetes.io/instance=prd-iconic app.kubernetes.io/name=iconic app.kubernetes.io/version=v4
queue-zabbix-graphs	10 of 10 pods	app.kubernetes.io/environment=prd app.kubernetes.io/instance=prd-iconic app.kubernetes.io/name=iconic app.kubernetes.io/version=v4

Iconic Zabbix

- Add Customers
- Add (bulk) Hosts
- Edit Hosts
- Set Maintenance
- Remove Hosts
- Integration with On call calendar's

The screenshot displays the Zabbix web interface. At the top, there's a navigation bar with a hamburger menu icon and the text "Update Zabbix Host". Below this, a form for "Host name" contains the text "ACCENT-ACCENT-PROD-CLOUDFLOW".

In the foreground, a "Create Maintenance Window" modal is open. It features a "Period:" input field with a clock icon. Below this is a calendar view for February 2025 and March 2025. The date "18" in February is selected. At the bottom of the modal, there are time selection dropdowns for "21 : 00" and "23 : 00", and a date range "18/02/2025 09:00 PM - 18/02/2025 11:59 PM". Buttons for "Cancel" and "Apply" are present.

In the background, the Zabbix Host Information Tool is visible. It shows a "Customer:" field with "Adsanddata" and a "Host Overview" section. A table lists hosts with columns for "Name" and "Enabled". The first host is "ADSANDDATA-HBDDC3263" with a green checkmark in the "Enabled" column. The second host is "ADSANDDATA-HBDDC3264" with a grey square in the "Enabled" column.

At the bottom of the screenshot, there's a dropdown menu showing "PROXY-CON-ACCENT" and a "Cancel" button next to a green "Update host" button.

Reporting in the past

- Avenue

- Not user friendly
- Not always accurate
- Not the fastest application
- Error handling

Most Common output:

Error



Zabbix native reports



- Requires dashboards
- Extra webserver (headless chrome)
- Limited customization options

- No custom code
- Supported by Zabbix

Custom Solution

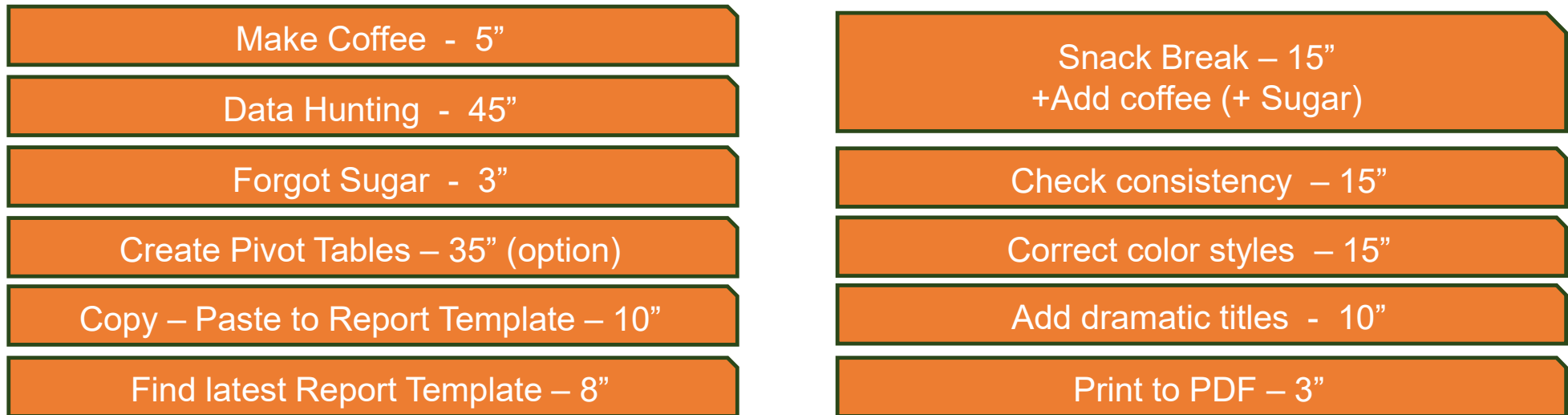


- Development time

- Self-managed
- Customer ready
- Custom styling
- Multi-tenant capable
- Dummy proof interface

How a data-report was created?

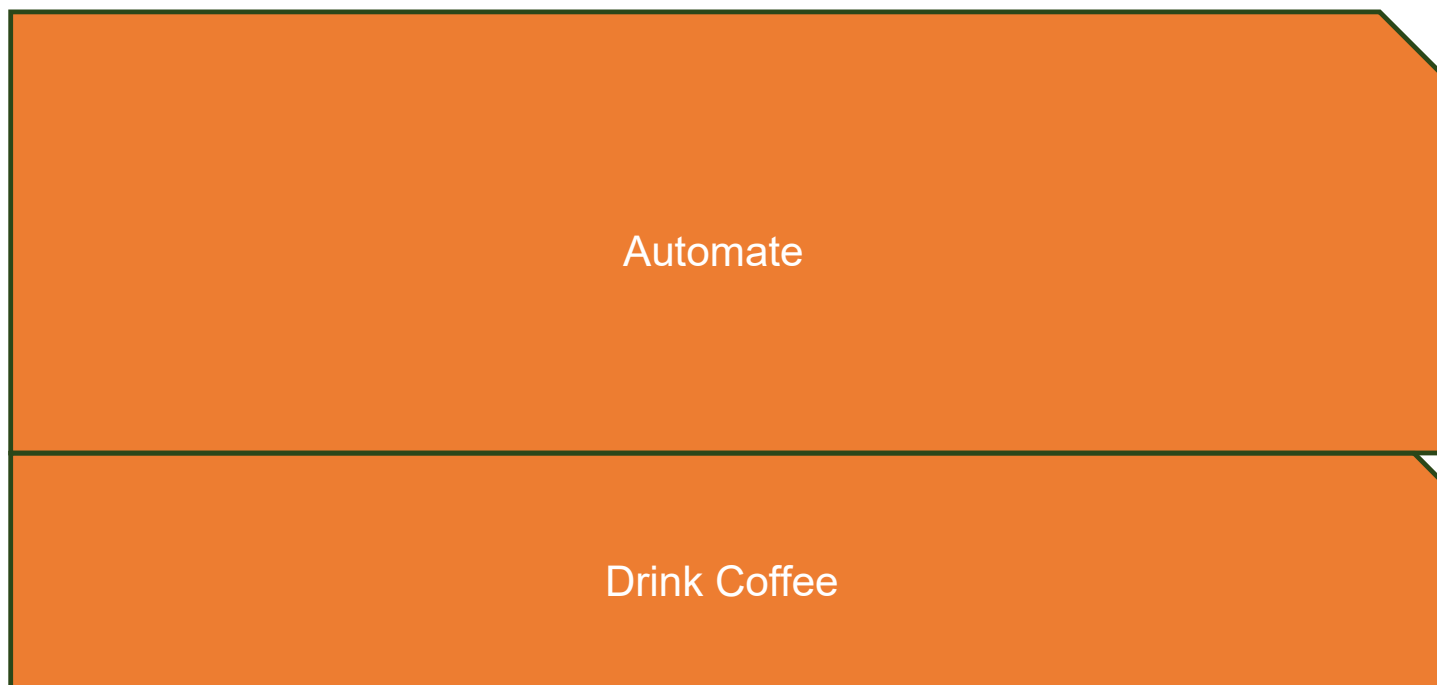
- Average report creation steps.



Avg. 129 Min (If coffee machine works)

How a **data-report** is created?

- How do I solve this



Reporting the search goes on

- Requirements
 - User Friendly
 - Usable for Non Zabbix users
 - Fully customizable
 - Internal and External delivery
 - PLEASE NO Headless Chrome
 - Manager needs to cut down on Coffee



Why a Report-Engine?

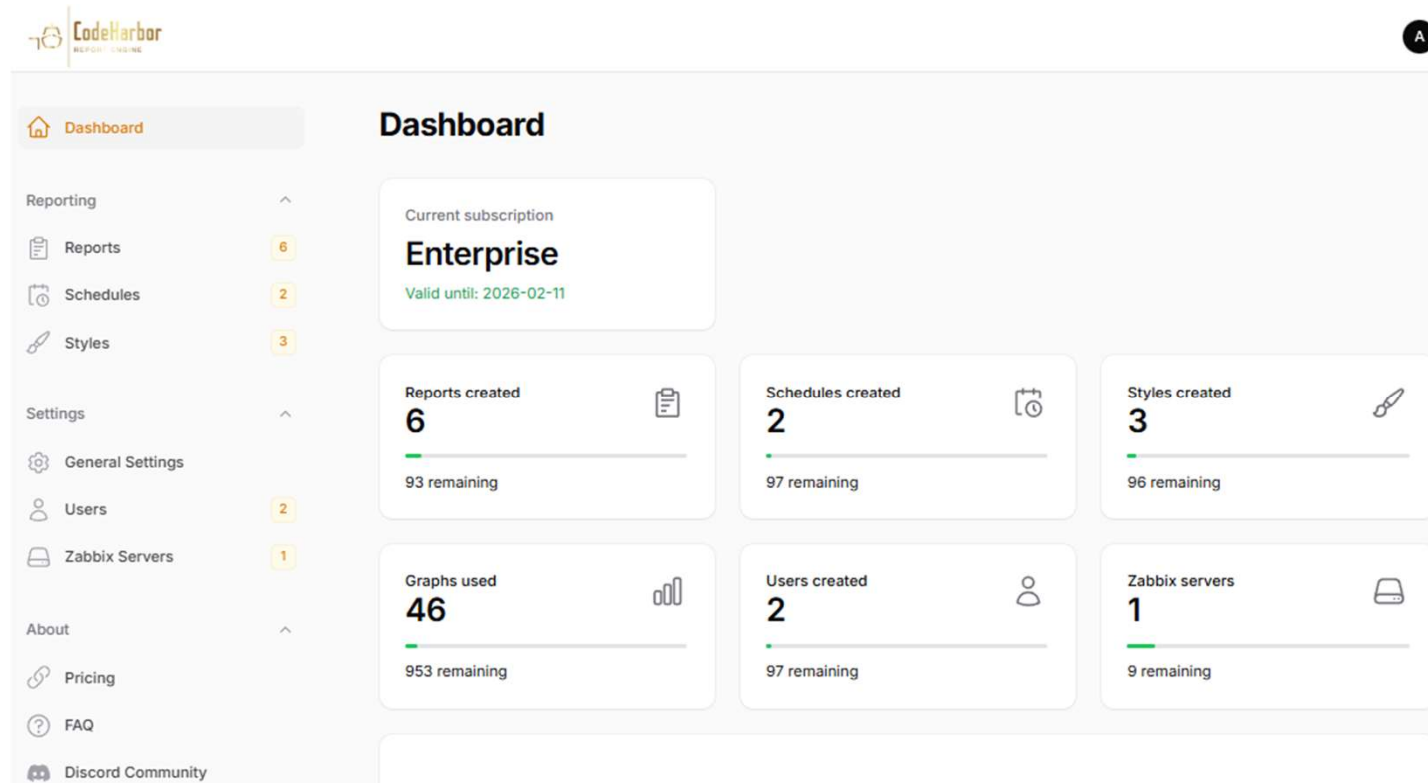
- Keep focus on your core business
- Consistent reporting
- Reduced costs
- Automate
- Scale as you go
- Ease of use



Report-Engine and



- Zabbix Reporting Solution
 - Zabbix 6+
 - Zabbix 7+
 - Zabbix Cloud
- Zabbix API technology
 - Host lists
 - Active Problems
 - Past problems
 - Graphs
- Laravel framework

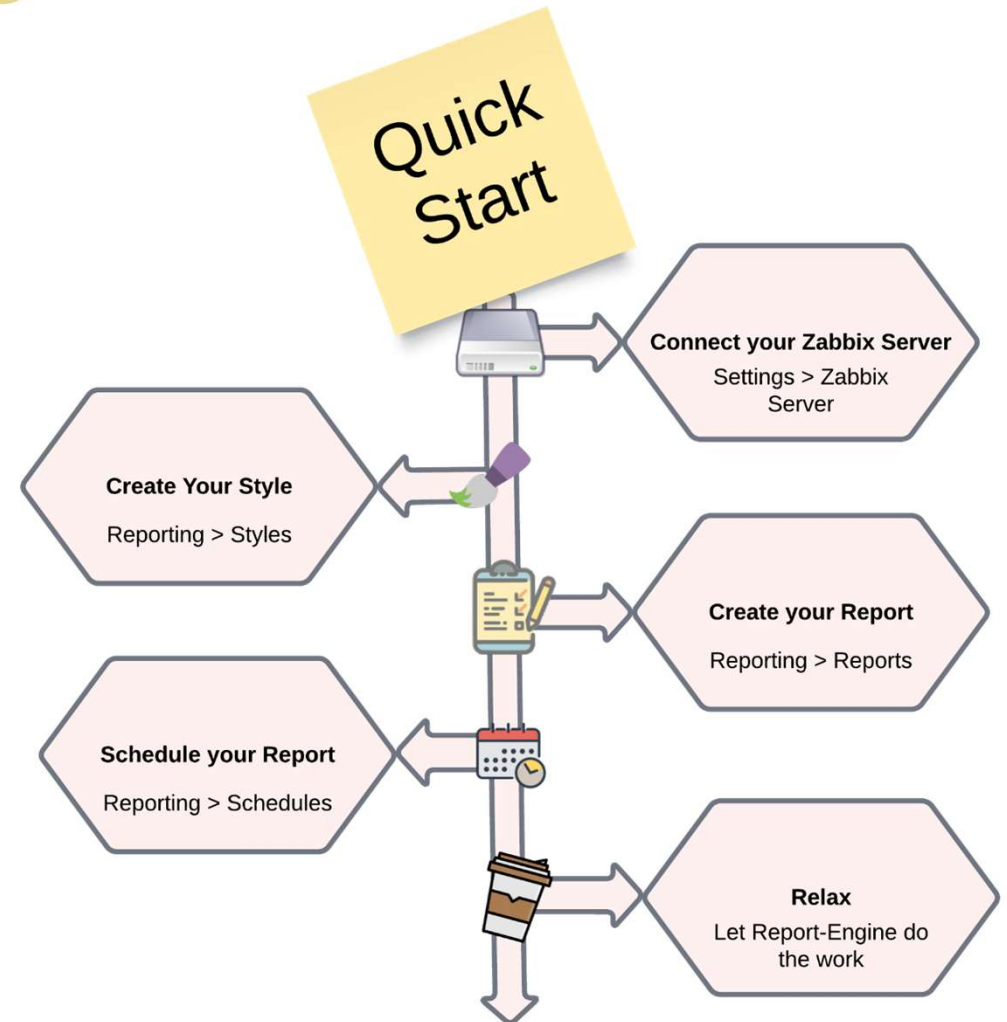


How does Report-Engine work?

- 100% Zabbix API driven
- No headless-chrome
- Multi-tenancy
- Easy to use interface



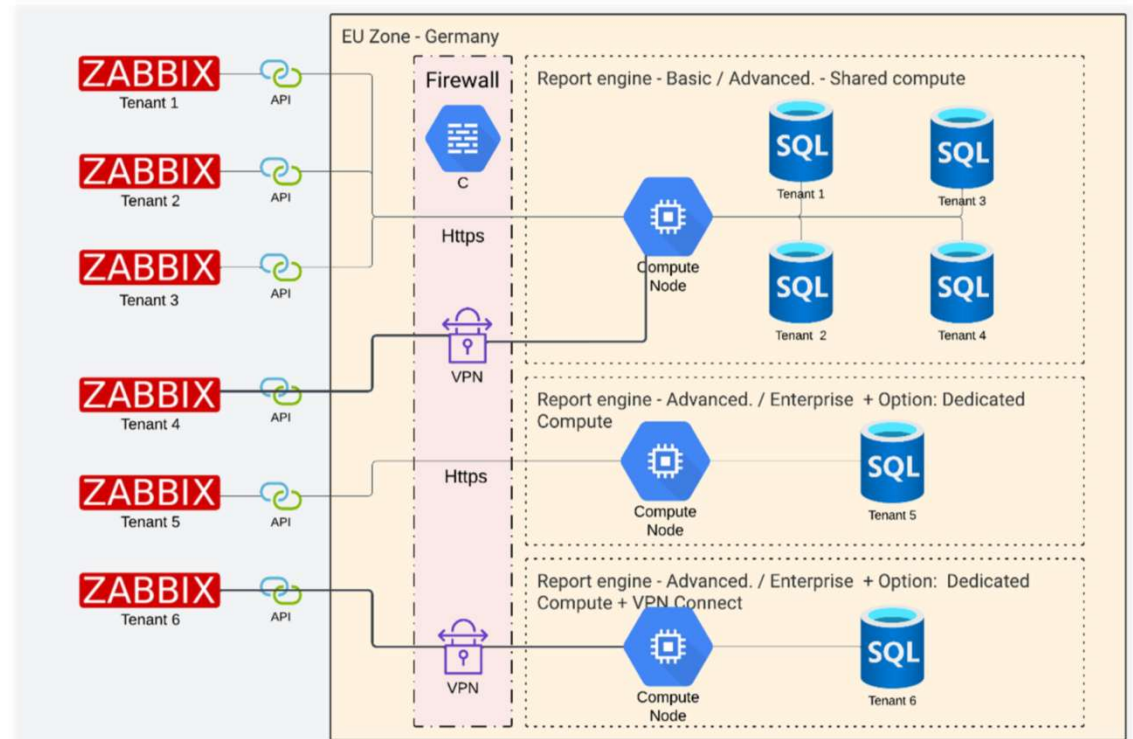
The Ultimate Open Source
Monitoring Solution



Multi-tenancy

- Multiple Zabbix servers*
- Data Isolation
- Multiple connection options

* Depending subscription



CodeHarbor Report-Engine for ~~Z~~ZABBIX



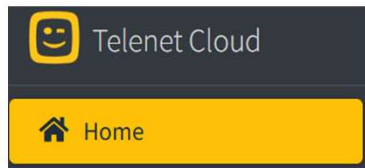
CodeHarbor
REPORT ENGINE

A match in
the Cloud

Free trials
available

Questions?

Thank you for your attention



Iconic



CodeHarbor

