initMAX

ZABBIX
PREMIUM PARTNER

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CERTIFIED TRAINER

Zabbix Online Meetup January 2026

Migrating Enterprise Monitoring: From IBM Netcool to Zabbix

all your microphones are muted

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

use Chat for discussion, networking or applause

1

Customer request

Customer request

Pain points with IBM Netcool (current state)

- **Legacy platform**: solution is outdated; upgrades are difficult/slow and bring high risk
- **Limited flexibility**: hard to adapt to new requirements and evolving operations
- **Vendor lock-in:** many "simple" changes cannot be done internally
  - Every request requires an external vendor and adds cost + delays
- **Customization is painful**: difficult to extend, integrate, or connect external systems
- **High licensing and maintenance costs**: paying for licenses instead of improving the platform
- **Slow time-to-value**: new dashboards/alerts/use cases take too long to deliver
- **More than a basic visualization layer:** it comes with a web client, a desktop client, and a dedicated in-house web application.

Customer request

What the customer wants (future state)

- **Easy to maintain** and upgrade with predictable lifecycle
- L1-friendly operations: **similar workflows to Netcool**, but without old limitations
- License-free / open source approach: **invest budget into functionality**, automation, and scale — not licenses
- Modern UI & usability:
  - **simple web app access**
  - easy user management (**roles/permissions**)
  - **dashboards and tailored visualizations for teams**
- Full internal ownership:
  - **understand how it works**
  - develop/customize **internally** without external dependency
- Strong integration capabilities:
  - **robust API** for data export and integration
  - easy connection to TTS, CMDB, automation pipelines

Customer request

O_2

Customer: “Zabbix is popular, but everyone tells us our use case **can’t be done** with it. We’d be happy to hear your opinion – we want to give Zabbix a fair chance.” Internally, we’ve already spent about several months **testing it and evaluating other open-source alternatives.**”

initMAX

initMAX: “After hearing how you operate and what you need, we already have a few ideas on how to implement it in Zabbix. The best next step is a joint, **free PoC to validate it** – and if it succeeds, we’ll move forward together with the full-scale solution.”

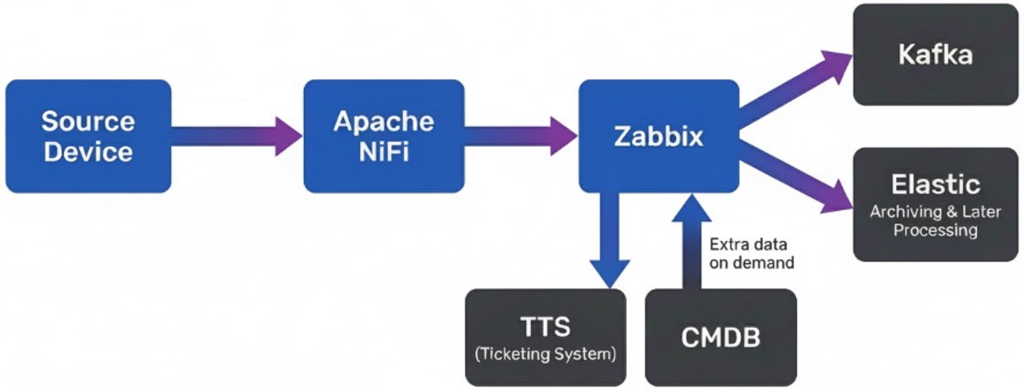
2

Architecture

Architecture

Architecture

- **Source data from SNMP traps** is converted by a custom library using **MIBs** and JSON-based transformation rules.
- **Apache NiFi** handles problem enrichment, data cleaning, and aggregation/counting.
- **Zabbix** receives the processed data via **Zabbix trapper** items and uses it to evaluate triggers and manage the full problem lifecycle (create and close problems).
- **Visualization** is provided through **custom widgets**, combined with additional Zabbix front-end modules.
- We also integrate **TTS** and support ad-hoc retrieval of device information via HTTP calls to the **CMDB**.
- **Kafka and Elasticsearch** are used later for reporting and additional downstream processing, while also preserving the original data stream as a source of truth.



Architecture

High Availability & Resilience

- For this specific customer, we operate across three data centers (DCs) — each DC is capable of handling the full load of the entire stack (**active/active-ready** design).
- Every component has **DEV/TEST** environments in addition to production.
- The whole platform is driven by **GitOps**: changes are version-controlled, tested, and validated before deployment, minimizing human error.
- Infrastructure **provisioning is automated**:
  - device preconfiguration (“device prescript”)
  - Ansible for VM provisioning and baseline configuration
- Apache NiFi configuration is fully managed as code.
- **Preprocessing:** 2×1 VM (active–standby), **6+6, 32 GB RAM, 8 vCPU**
- **Post-processing:** 2×1 VM (active–standby), **6+6, 32 GB RAM, 8 vCPU**

Architecture

High Availability & Resilience

- Zabbix is deployed with high availability:
  - 3 separate frontends
  - 3 separate backend/server nodes
- PostgreSQL backend runs on a Patroni cluster with 3 data nodes and automatic failover/switchover.
- Traffic handling:
  - frontend traffic is load-balanced
  - backend traffic (port 10051) is routed to the active node
  - both load balancers are implemented on F5 BIG-IP

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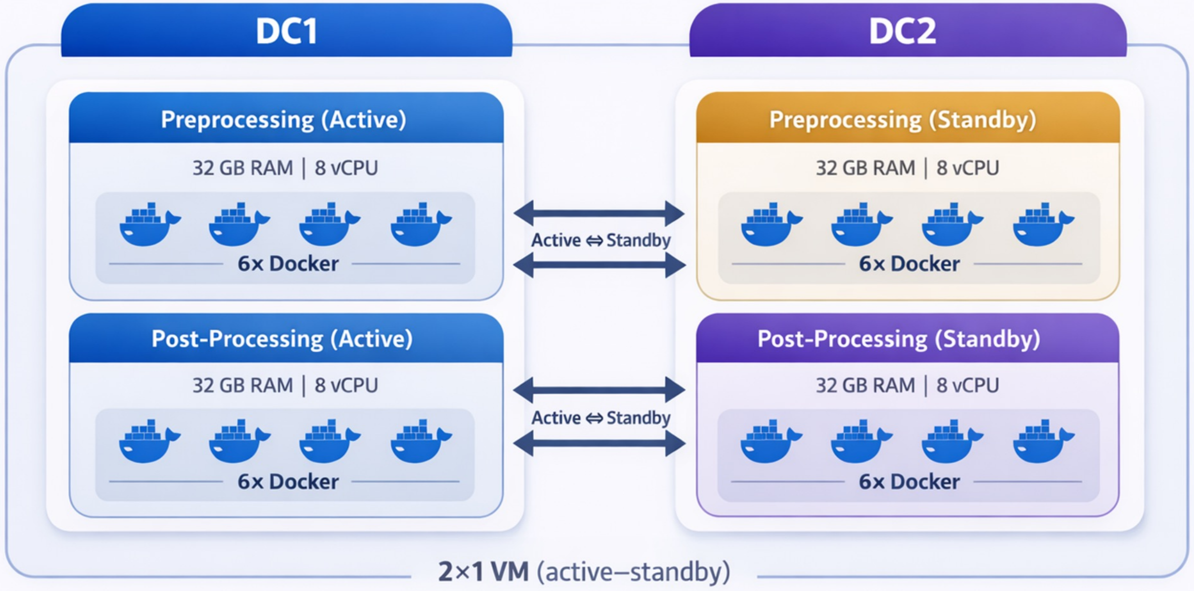
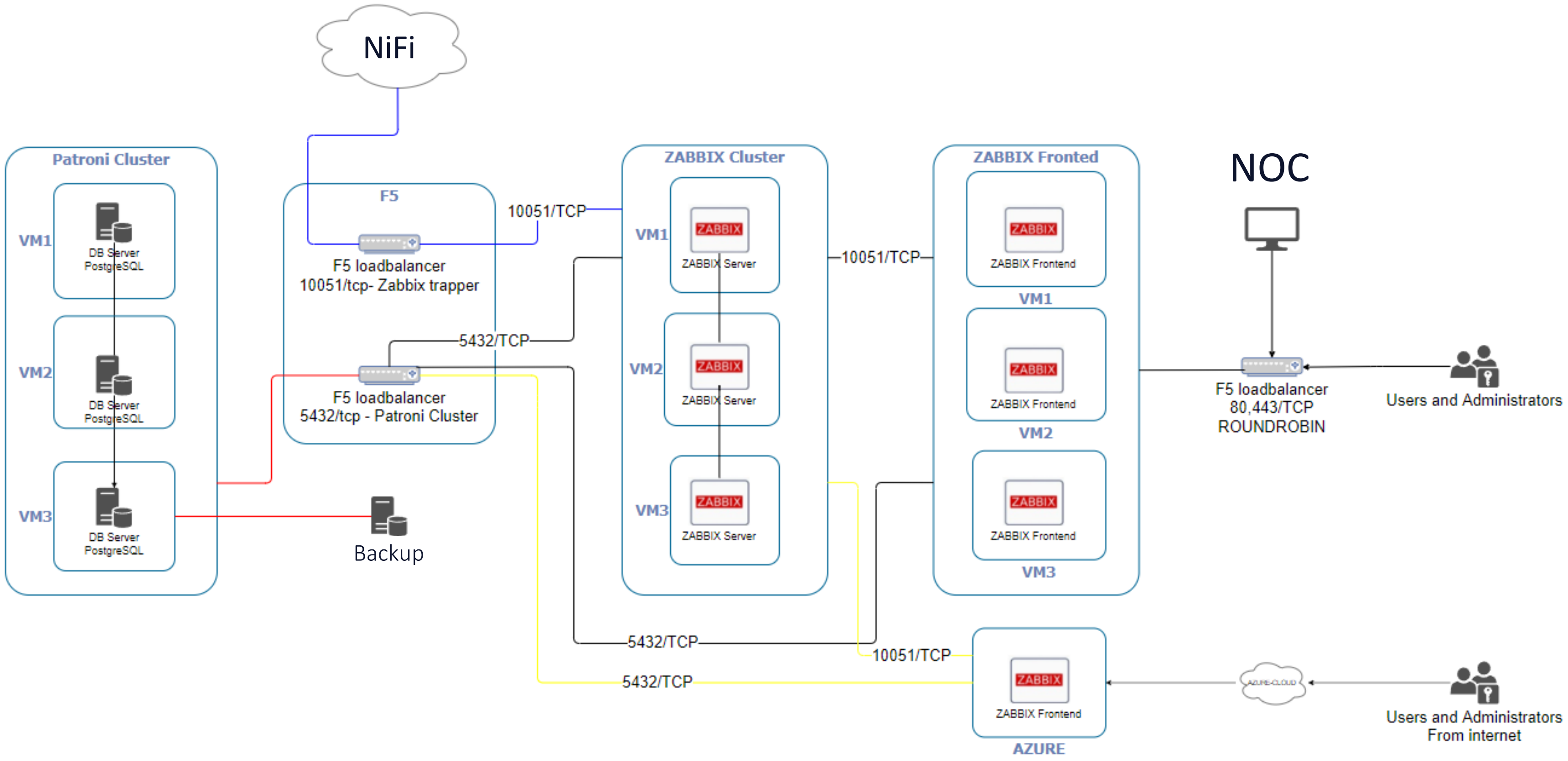
Architecture

High Availability – NiFi



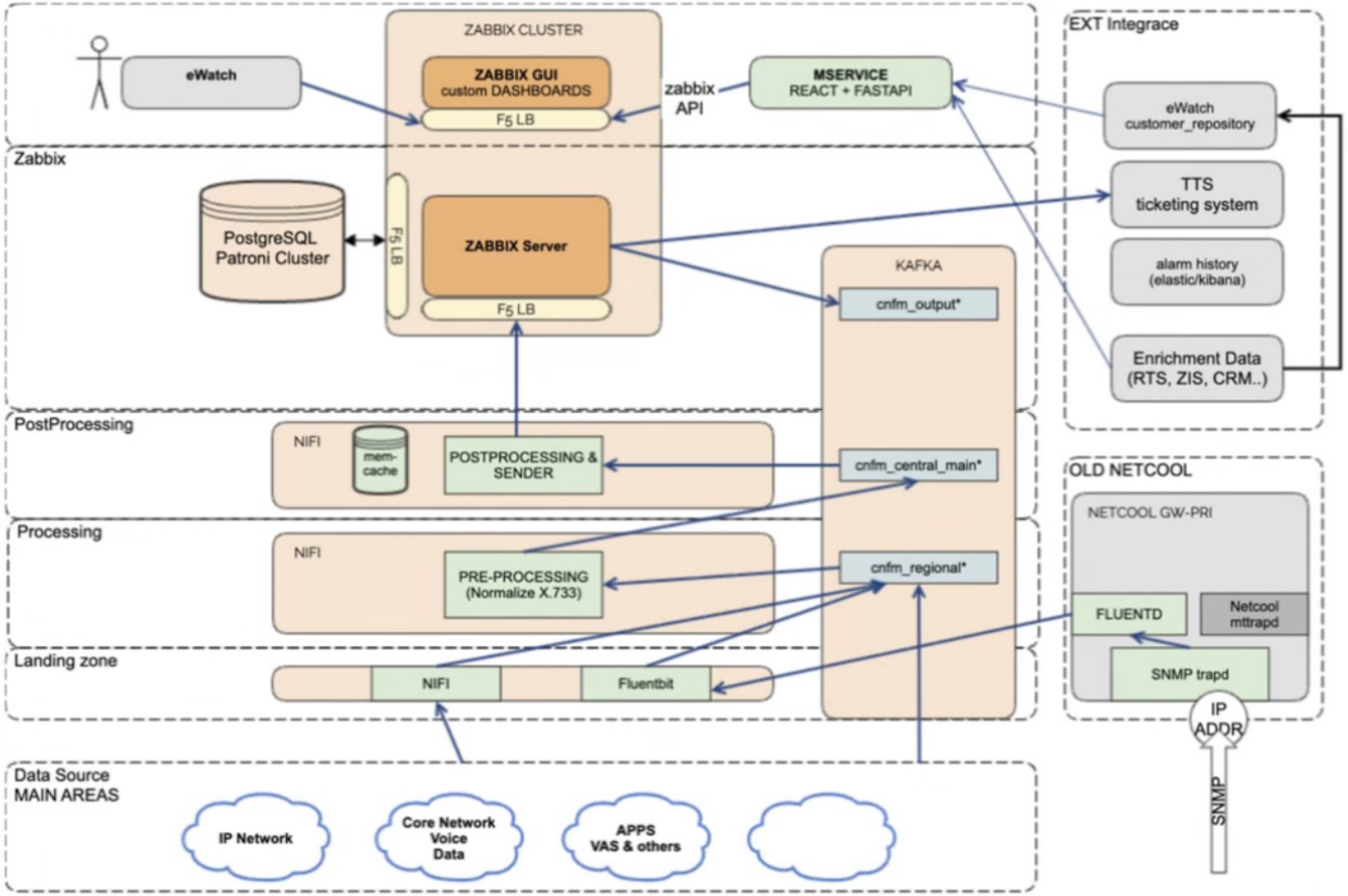
Architecture

High Availability - Zabbix



Architecture

High Availability – All in one



3

Problem Enrichment & Apache NiFi

Problem Enrichment & Apache NiFi

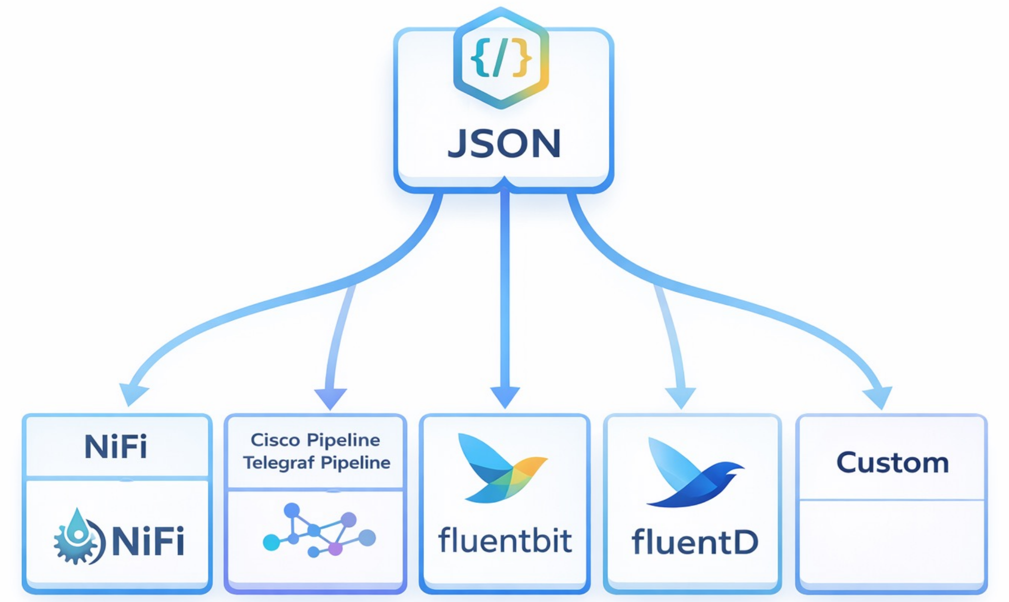
Different inputs (heterogeneous sources)

- **NiFi (1.2)** pulling data via **TCP/HTTP (TCP GET)** (e.g., Core Network / MAE)
- **Cisco pipeline / Telegraf pipeline** for **event-driven telemetry** (IP infrastructure)
- **Fluent Bit** reading from **files** (e.g., exports/logs from network/Zabbix-related sources)
- **Fluentd** from **SQL queries** (e.g., openBMP)
- **Fluentd** from **syslog**
- **SNMP polling + SNMP traps** via **“trapo sonda” + MIB/OID translation** (OID → readable fields)
- **Kafka ingestion** (direct writes to Kafka or reading from an existing Kafka source)

Problem Enrichment & Apache NiFi

The Output Matters – JSON

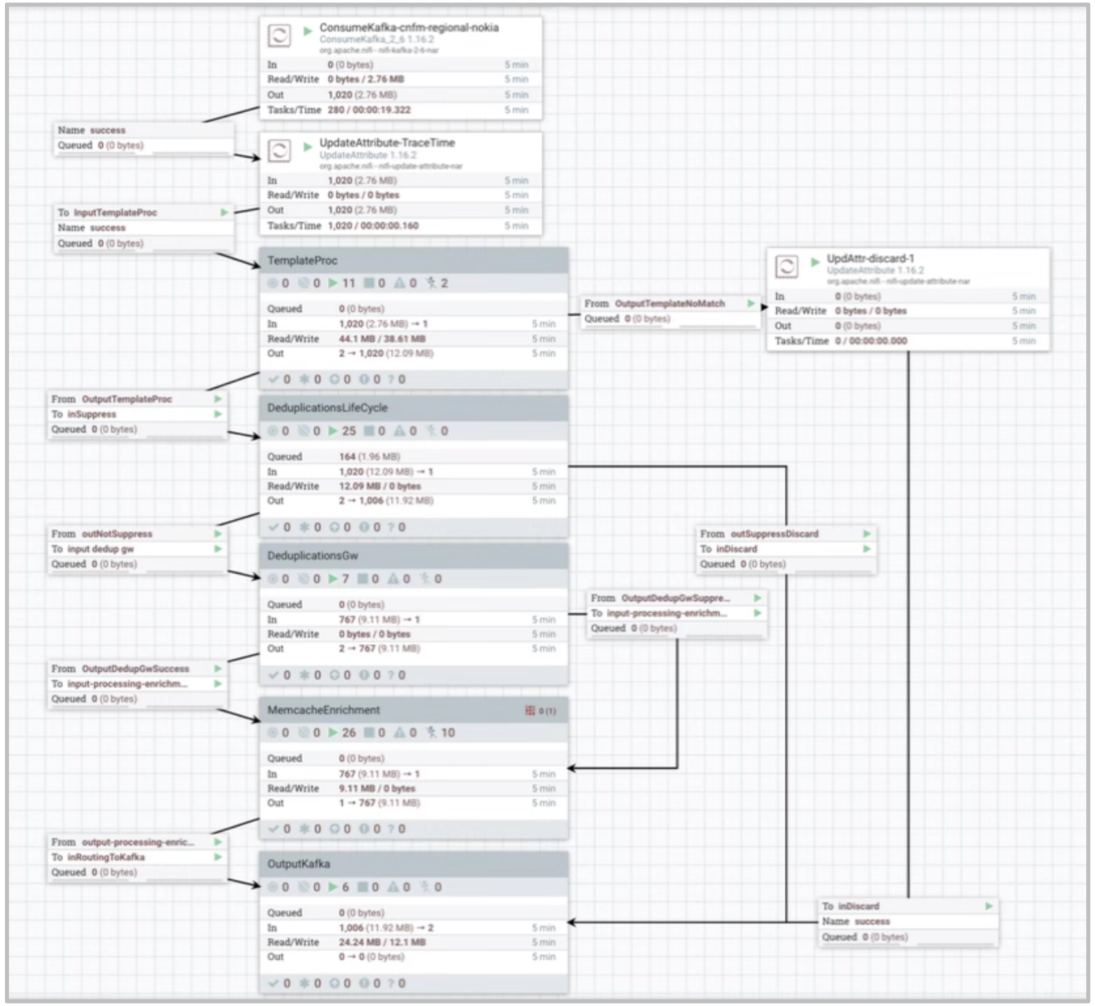
- There are **a million ways to collect data** (agents, pipelines, open-source tools, custom scripts, APIs, SNMP, syslog, SQL, Kafka…).
- We don't standardize *how* data is ingested – we standardize **what comes out.**
- **The only requirement:** every source must produce a **JSON event.**



Problem Enrichment & Apache NiFi

Problem pre-processing

- **Consume data from Kafka** (source topic)
- **Add a "Kafka ingest timestamp"** (primarily for debugging/traceability)
- **Normalize the data** (unify schema/fields/formats)
- **Deduplicate micro-outage duplicates** (e.g., brief retransmits / short gaps)
- **Deduplicate identical events from multiple sources at the same time window** (e.g., two HA firewalls emitting the same event)
- **Transform/enrich event payload** (add customer-specific data/metadata)
- **Publish the final events to the main Kafka topic** (canonical/output topic)



ConsumeKafka-cnfm-regional-nokia
ConsumeKafka_2_6 1.16.2
org.apache.nifi - nifi-kafka-2-6-nar
In 0 (0 bytes) 5 min
Read/Write 0 bytes / 2.76 MB 5 min
Out 1,020 (2.76 MB) 5 min
Tasks/Time 280 / 00:00:19.322 5 min

Name success
Queued 0 (0 bytes)

UpdateAttribute-TraceTime
UpdateAttribute 1.16.2
org.apache.nifi - nifi-update-attribute-nar
In 1,020 (2.76 MB) 5 min
Read/Write 0 bytes / 0 bytes 5 min
Out 1,020 (2.76 MB) 5 min
Tasks/Time 1,020 / 00:00:00.160 5 min

To InputTemplateProc
Name success
Queued 0 (0 bytes)

TemplateProc
0 0 11 0 0 2
Queued 0 (0 bytes)
In 1,020 (2.76 MB) → 1 5 min
Read/Write 44.1 MB / 38.61 MB 5 min
Out 2 → 1,020 (12.09 MB) 5 min
✓ 0 ✱ 0 0 0 ? 0

From OutputTemplateNoMatch
Queued 0 (0 bytes)

UpdAttr-discard-1
UpdateAttribute 1.16.2
org.apache.nifi - nifi-update-attribute-nar
In 0 (0 bytes) 5 min
Read/Write 0 bytes / 0 bytes 5 min
Out 0 (0 bytes) 5 min
Tasks/Time 0 / 00:00:00.000 5 min

From OutputTemplateProc
To inSuppress
Queued 0 (0 bytes)

DeduplicationsLifeCycle
0 0 25 0 0 0
Queued 164 (1.96 MB)
In 1,020 (12.09 MB) → 1 5 min
Read/Write 12.09 MB / 0 bytes 5 min
Out 2 → 1,006 (11.92 MB) 5 min
✓ 0 ✱ 0 0 0 ? 0

From outNotSuppress
To input dedup gw
Queued 0 (0 bytes)

From outSuppressDiscard
To inDiscard
Queued 0 (0 bytes)

DeduplicationsGw
0 0 7 0 0 0
Queued 0 (0 bytes)
In 767 (9.11 MB) → 1 5 min
Read/Write 0 bytes / 0 bytes 5 min
Out 2 → 767 (9.11 MB) 5 min
✓ 0 ✱ 0 0 0 ? 0

From OutputDedupGwSuppre...
To input-processing-enrichm...
Queued 0 (0 bytes)

From OutputDedupGwSuccess
To input-processing-enrichm...
Queued 0 (0 bytes)

MemcacheEnrichment 0 (1)
0 0 26 0 0 10
Queued 0 (0 bytes)
In 767 (9.11 MB) → 1 5 min
Read/Write 9.11 MB / 0 bytes 5 min
Out 1 → 767 (9.11 MB) 5 min
✓ 0 ✱ 0 0 0 ? 0

From output-processing-enric...
To inRoutingToKafka
Queued 0 (0 bytes)

OutputKafka
0 0 6 0 0 0
Queued 0 (0 bytes)
In 1,006 (11.92 MB) → 2 5 min
Read/Write 24.24 MB / 12.1 MB 5 min
Out 0 → 0 (0 bytes) 5 min
✓ 0 ✱ 0 0 0 ? 0

To inDiscard
Name success
Queued 0 (0 bytes)

Problem Enrichment & Apache NiFi

Problem post-processing

- **Same concept as preprocessing** (pipeline-style data handling)
- **Check whether the host exists; create it automatically if it doesn’t**
- **Call the Talli API** (fetch/enrich required context)
- **Update events via API**: change severity, acknowledge, and add/append an event message
- **Publish data to an external Kafka topic** (for 3rd-party consumers)
- **Send data to Elasticsearch for archiving**

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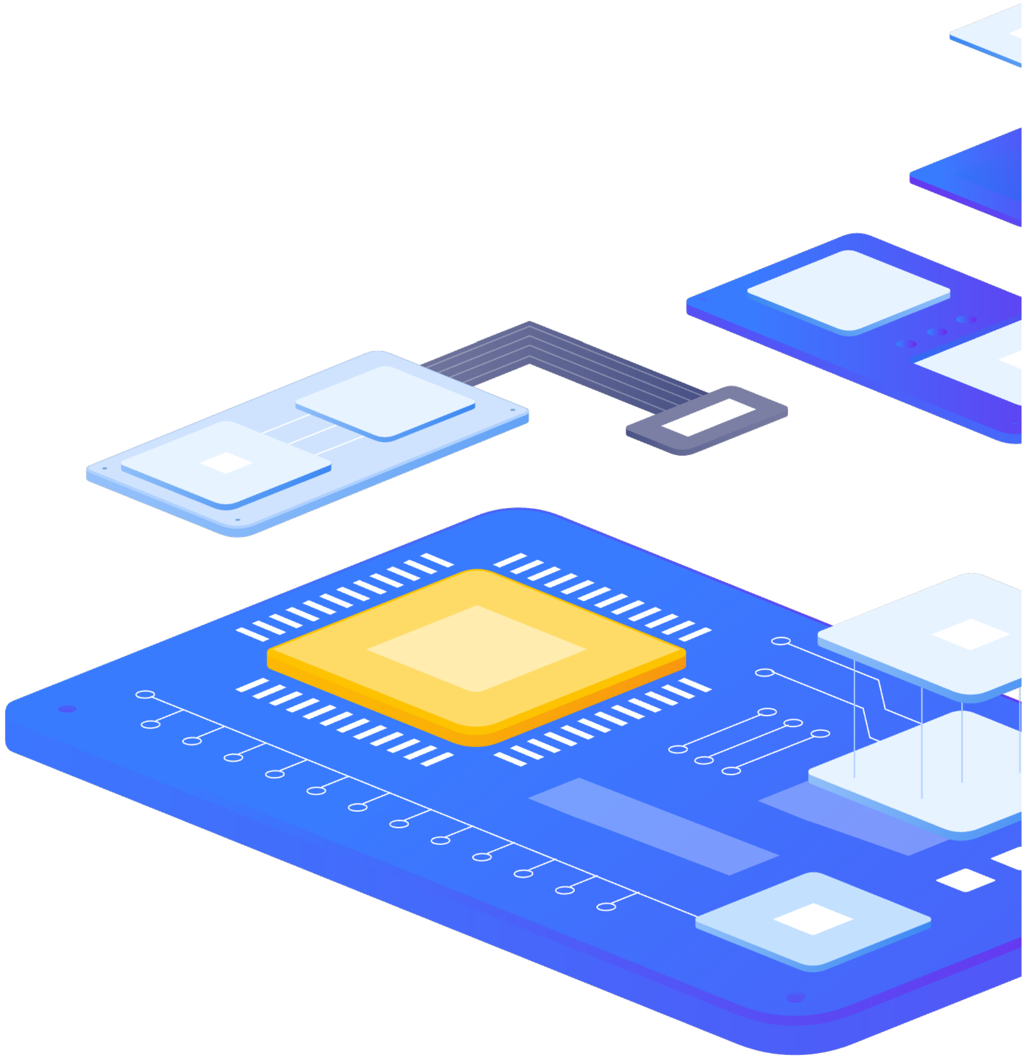
Technical Solution in Zabbix

Technical Solution in Zabbix

Zabbix Architecture

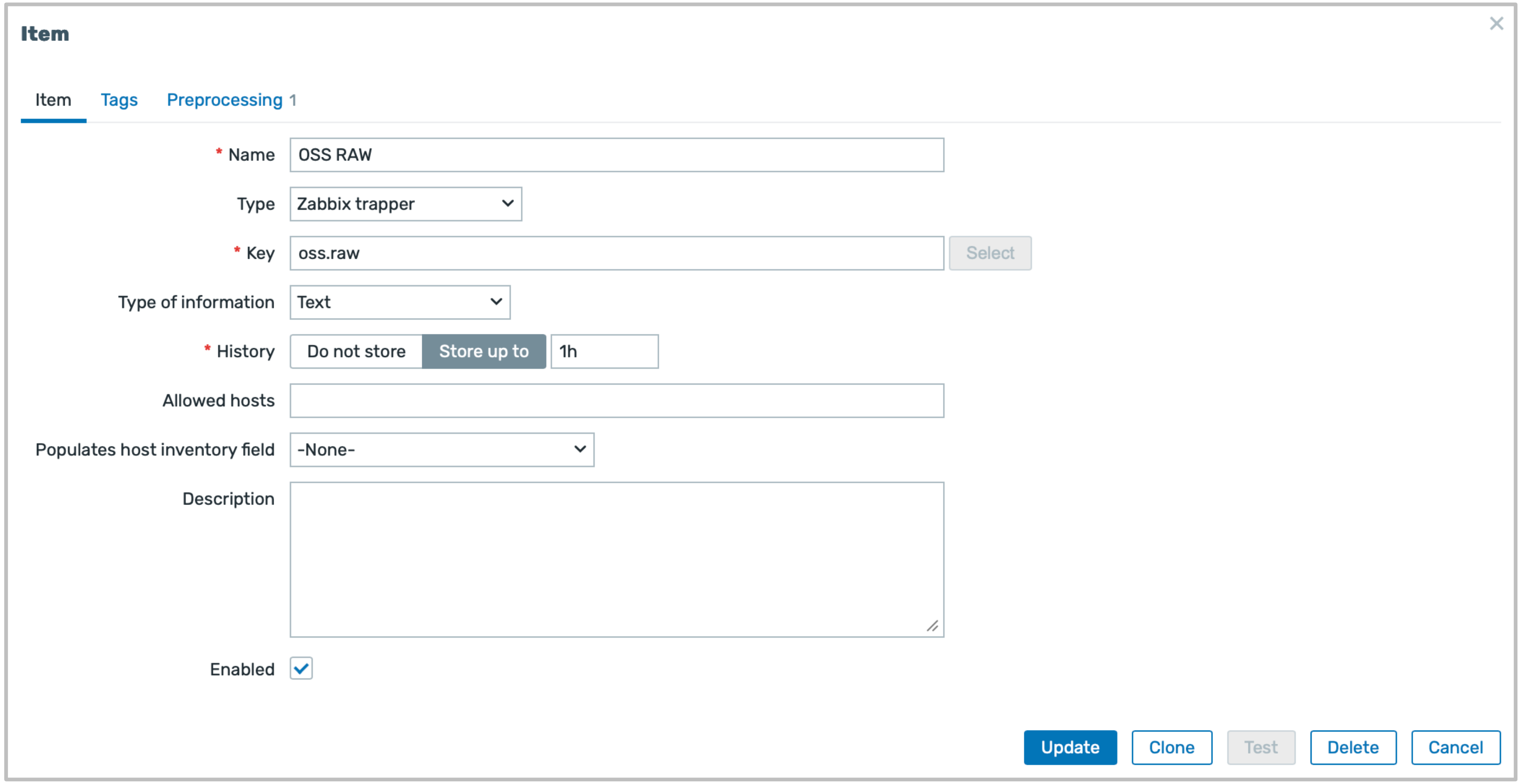
- Each host is linked to a template that contains a predefined **Zabbix trapper** item.
- This item is evaluated by triggers that support **multiple event generation.**
- To make each event unique, the event name and additional fields are extracted using **regular expressions.**
- Trigger **tags** are also populated via regular expressions — these tag values carry key enrichment data coming from the upstream processing.
- We use **six similar triggers**, each mapped to a different **severity level**, so the same logic can create problems with the correct priority.



Technical Solution in Zabbix

Zabbix Architecture - item

- Preprocessing is intentionally minimal: JSON validation only.



* Name	OSS RAW
Type	Zabbix trapper
* Key	oss.raw
Type of information	Text
* History	Do not store / [✓ Store up to] 1h
Allowed hosts	
Populates host inventory field	-None-
Description	
Enabled	☑

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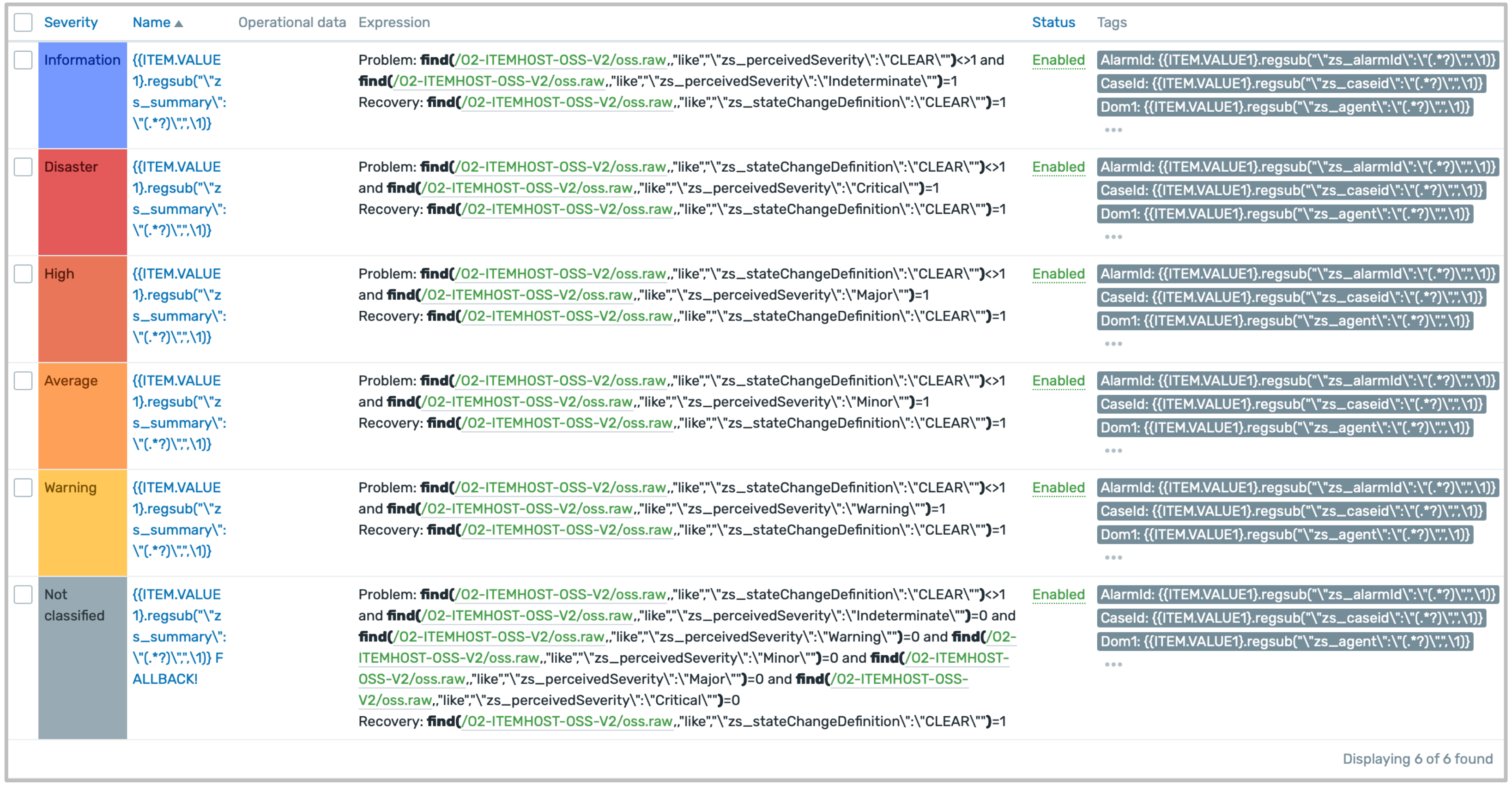
Technical Solution in Zabbix

Zabbix Architecture – triggers

- "Not classified" covers cases where enrichment fields are not found during regex parsing.



☐	Severity	Name ▲	Operational data	Expression	Status	Tags

☐	Information	{{ITEM.VALUE1}.regsub("\"zs_summary\":\"(.*?)\"",\1)}		Problem: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"CLEAR\""**)**<>1 and **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"Indeterminate\""**)**=1
				Recovery: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\""**)**=1
					Enabled	AlarmId: {{ITEM.VALUE1}.regsub("\"zs_alarmId\":\"(.*?)\"",\1)}
						CaseId: {{ITEM.VALUE1}.regsub("\"zs_caseid\":\"(.*?)\"",\1)}
						Dom1: {{ITEM.VALUE1}.regsub("\"zs_agent\":\"(.*?)\"",\1)}
						•••

☐	Disaster	{{ITEM.VALUE1}.regsub("\"zs_summary\":\"(.*?)\"",\1)}		Problem: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\""**)**<>1 and **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"Critical\""**)**=1
				Recovery: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\""**)**=1
					Enabled	AlarmId: {{ITEM.VALUE1}.regsub("\"zs_alarmId\":\"(.*?)\"",\1)}
						CaseId: {{ITEM.VALUE1}.regsub("\"zs_caseid\":\"(.*?)\"",\1)}
						Dom1: {{ITEM.VALUE1}.regsub("\"zs_agent\":\"(.*?)\"",\1)}
						•••

☐	High	{{ITEM.VALUE1}.regsub("\"zs_summary\":\"(.*?)\"",\1)}		Problem: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\""**)**<>1 and **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"Major\""**)**=1
				Recovery: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\""**)**=1
					Enabled	AlarmId: {{ITEM.VALUE1}.regsub("\"zs_alarmId\":\"(.*?)\"",\1)}
						CaseId: {{ITEM.VALUE1}.regsub("\"zs_caseid\":\"(.*?)\"",\1)}
						Dom1: {{ITEM.VALUE1}.regsub("\"zs_agent\":\"(.*?)\"",\1)}
						•••

☐	Average	{{ITEM.VALUE1}.regsub("\"zs_summary\":\"(.*?)\"",\1)}		Problem: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\""**)**<>1 and **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"Minor\""**)**=1
				Recovery: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\""**)**=1
					Enabled	AlarmId: {{ITEM.VALUE1}.regsub("\"zs_alarmId\":\"(.*?)\"",\1)}
						CaseId: {{ITEM.VALUE1}.regsub("\"zs_caseid\":\"(.*?)\"",\1)}
						Dom1: {{ITEM.VALUE1}.regsub("\"zs_agent\":\"(.*?)\"",\1)}
						•••

☐	Warning	{{ITEM.VALUE1}.regsub("\"zs_summary\":\"(.*?)\"",\1)}		Problem: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\""**)**<>1 and **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"Warning\""**)**=1
				Recovery: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\""**)**=1
					Enabled	AlarmId: {{ITEM.VALUE1}.regsub("\"zs_alarmId\":\"(.*?)\"",\1)}
						CaseId: {{ITEM.VALUE1}.regsub("\"zs_caseid\":\"(.*?)\"",\1)}
						Dom1: {{ITEM.VALUE1}.regsub("\"zs_agent\":\"(.*?)\"",\1)}
						•••

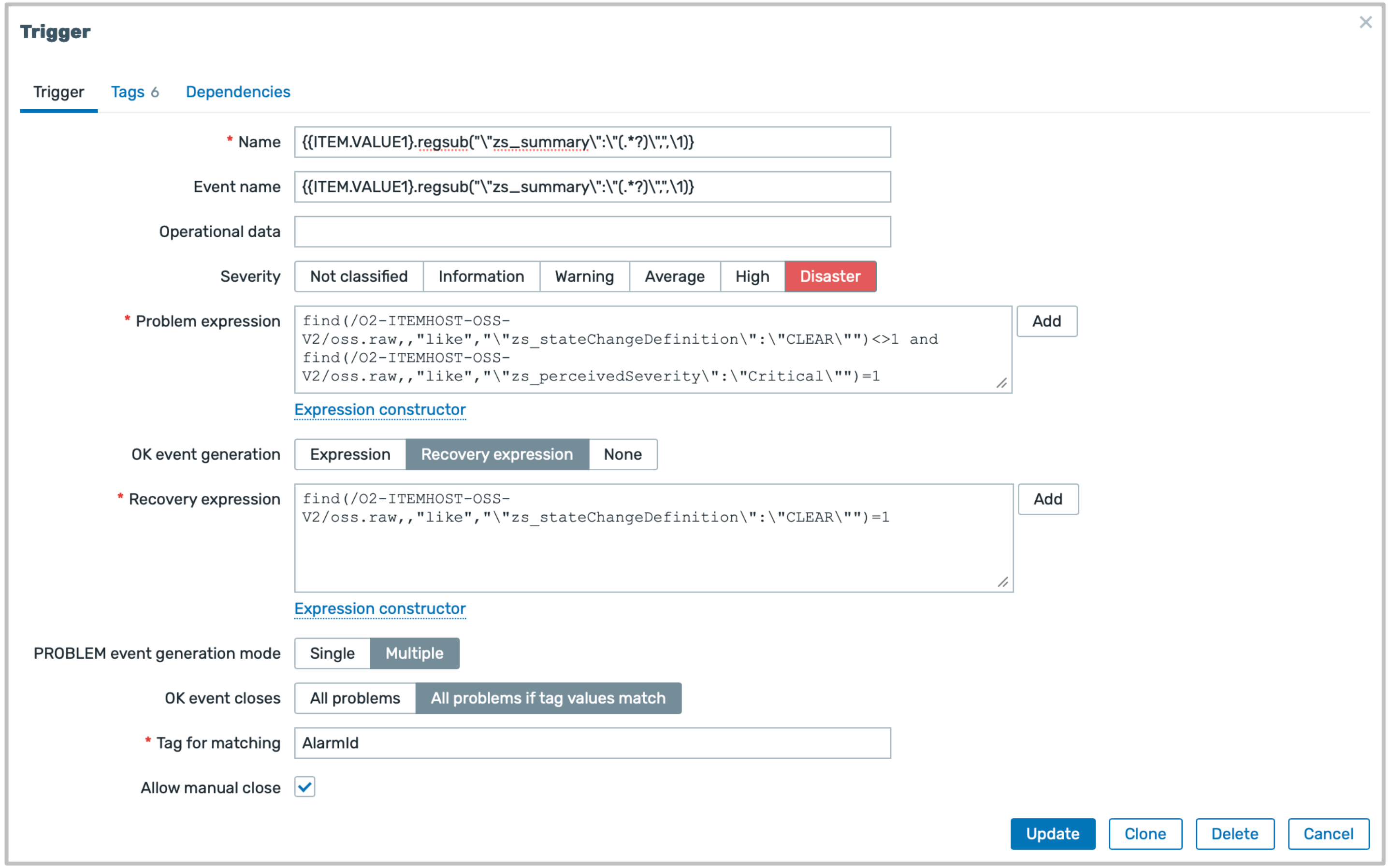
☐	Not classified	{{ITEM.VALUE1}.regsub("\"zs_summary\":\"(.*?)\"",\1)} FALLBACK!		Problem: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\""**)**<>1 and **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"Indeterminate\""**)**=0 and **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"Warning\""**)**=0 and **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"Minor\""**)**=0 and **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"Major\""**)**=0 and **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"Critical\""**)**=0
				Recovery: **find(**/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\""**)**=1
					Enabled	AlarmId: {{ITEM.VALUE1}.regsub("\"zs_alarmId\":\"(.*?)\"",\1)}
						CaseId: {{ITEM.VALUE1}.regsub("\"zs_caseid\":\"(.*?)\"",\1)}
						Dom1: {{ITEM.VALUE1}.regsub("\"zs_agent\":\"(.*?)\"",\1)}
						•••

Displaying 6 of 6 found

Technical Solution in Zabbix

Zabbix Architecture – trigger detail

- The **event name** is generated using the **regsub()** function, and the trigger runs in **multiple event generation** mode.
- **Problem closing** is performed only when a **matching recovery/close event** arrives with the **same AlarmId** (correlation key).



Trigger

* Name	{{ITEM.VALUE1}.regsub("\"zs_summary\":\"(.*?)\"",\1)}
Event name	{{ITEM.VALUE1}.regsub("\"zs_summary\":\"(.*?)\"",\1)}
Operational data	
Severity	Not classified / Information / Warning / Average / High / [✓ Disaster]
* Problem expression	find(/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\"")<>1 and find(/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_perceivedSeverity\":\"Critical\"")=1
OK event generation	Expression / [✓ Recovery expression] / None
* Recovery expression	find(/O2-ITEMHOST-OSS-V2/oss.raw,,"like","\"zs_stateChangeDefinition\":\"CLEAR\"")=1
PROBLEM event generation mode	Single / [✓ Multiple]
OK event closes	All problems / [✓ All problems if tag values match]
* Tag for matching	AlarmId
Allow manual close	☑

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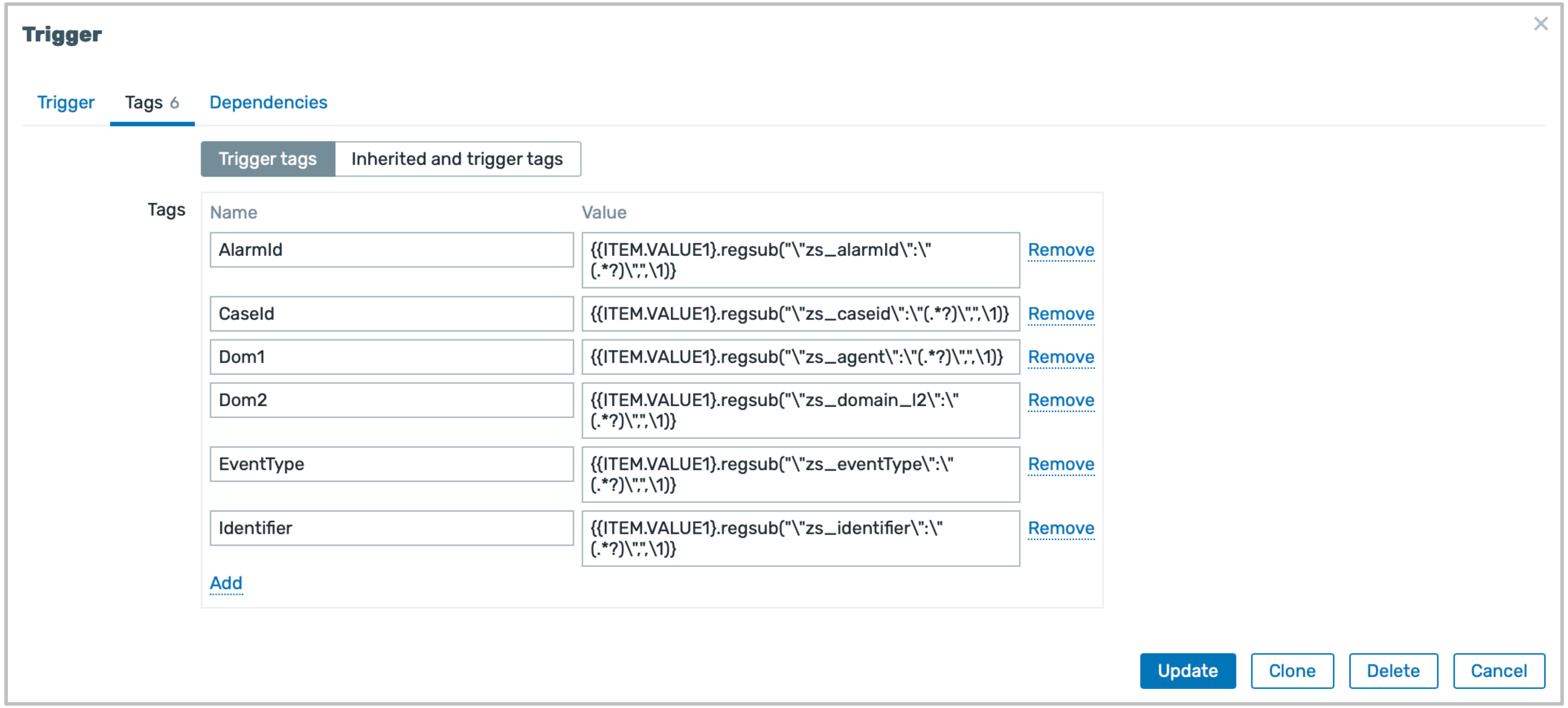
Technical Solution in Zabbix

Zabbix Architecture – trigger detail

- In this example, we add multiple additional **tags** later, which are then used for **event filtering** and routing to a specific area/team.

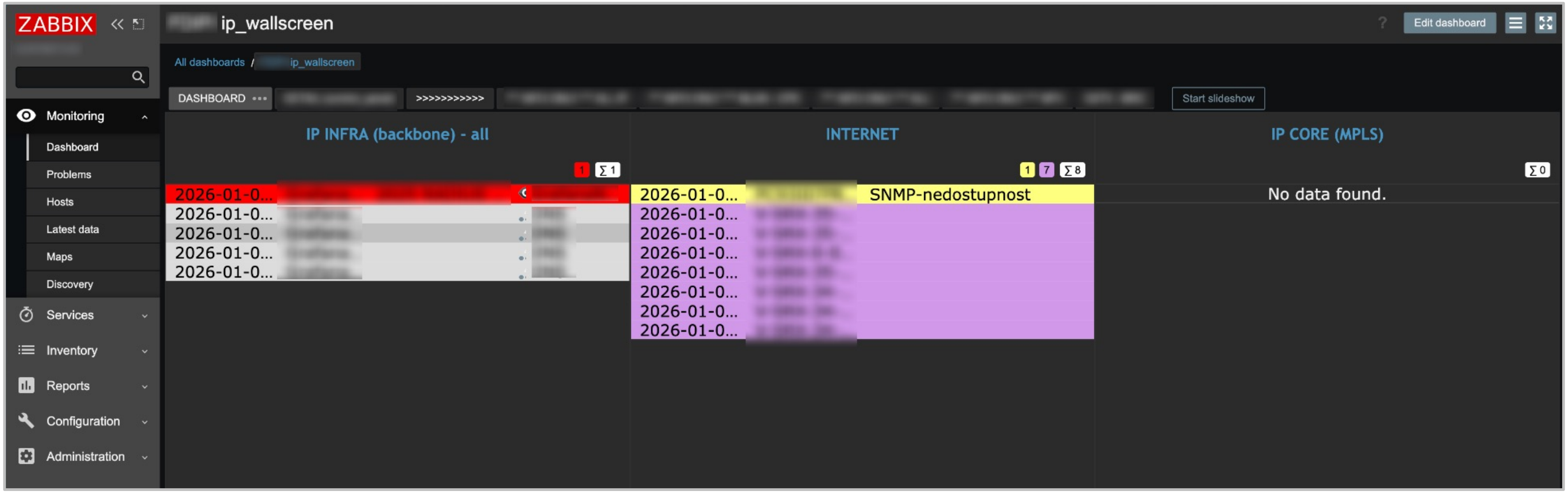


Tags

Name	Value	
AlarmId	{{ITEM.VALUE1}.regsub("\"zs_alarmId\":\"(.*?)\",",\1)}	Remove
CaseId	{{ITEM.VALUE1}.regsub("\"zs_caseid\":\"(.*?)\",",\1)}	Remove
Dom1	{{ITEM.VALUE1}.regsub("\"zs_agent\":\"(.*?)\",",\1)}	Remove
Dom2	{{ITEM.VALUE1}.regsub("\"zs_domain_l2\":\"(.*?)\",",\1)}	Remove
EventType	{{ITEM.VALUE1}.regsub("\"zs_eventType\":\"(.*?)\",",\1)}	Remove
Identifier	{{ITEM.VALUE1}.regsub("\"zs_identifier\":\"(.*?)\",",\1)}	Remove

Technical Solution in Zabbix

Zabbix Architecture – Custom widget



IP INFRA (backbone) - all

1 Σ 1

2026-01-0... [redacted]
2026-01-0... [redacted]
2026-01-0... [redacted]
2026-01-0... [redacted]
2026-01-0... [redacted]

INTERNET

1 7 Σ 8

2026-01-0... [redacted] SNMP-nedostupnost
2026-01-0... [redacted]
2026-01-0... [redacted]
2026-01-0... [redacted]
2026-01-0... [redacted]
2026-01-0... [redacted]
2026-01-0... [redacted]
2026-01-0... [redacted]

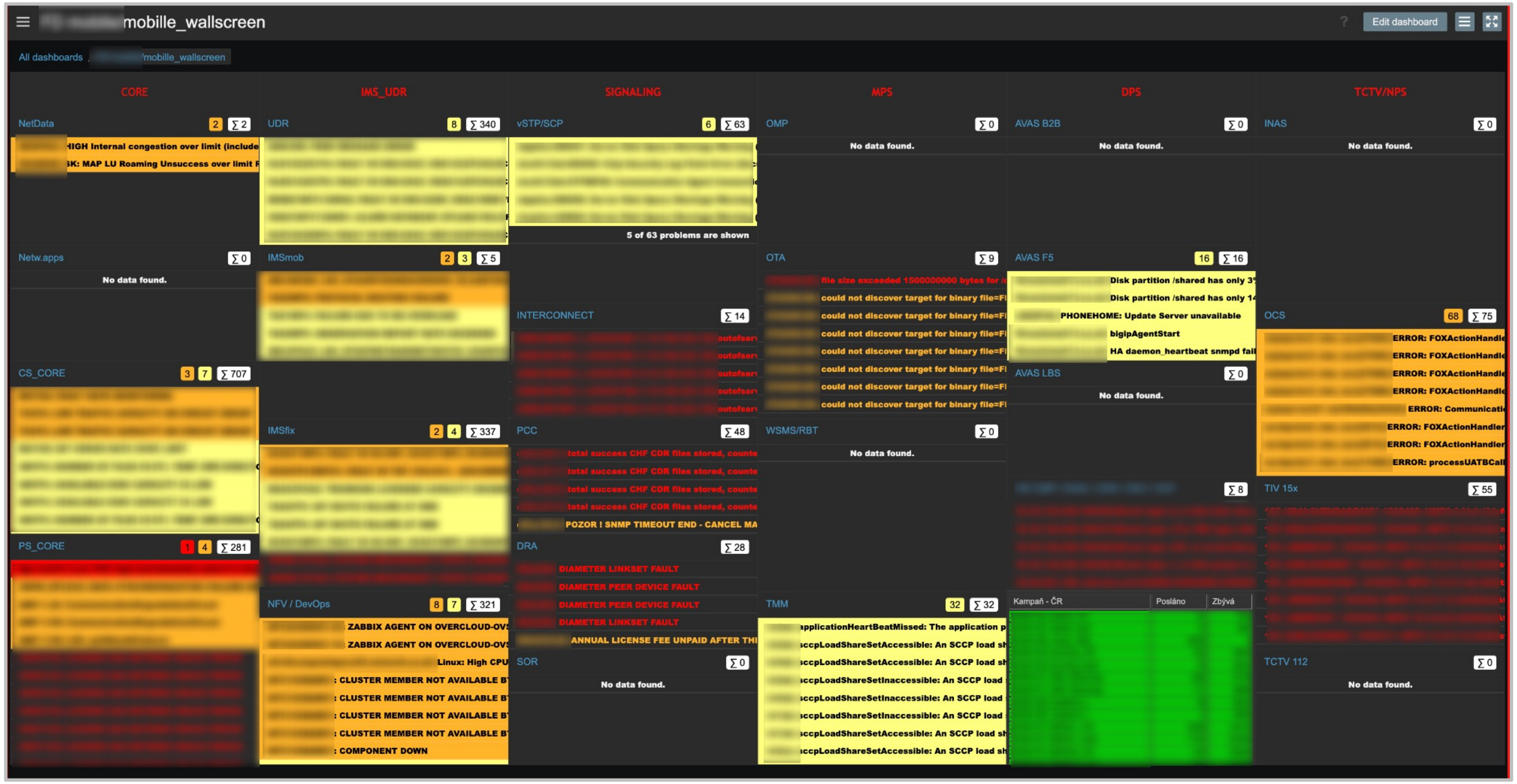
IP CORE (MPLS)

Σ 0

No data found.

Technical Solution in Zabbix

Zabbix Architecture – Custom widget



[redacted] mobille_wallscreen

All dashboards [redacted]/mobille_wallscreen

CORE

NetData 2 ∑ 2

[redacted] HIGH Internal congestion over limit (include
[redacted] SK: MAP LU Roaming Unsuccess over limit F

Netw.apps ∑ 0

No data found.

CS_CORE 3 7 ∑ 707

[redacted]

PS_CORE 1 4 ∑ 281

[redacted]

IMS_UDR

UDR 8 ∑ 340

[redacted]

IMSmob 2 3 ∑ 5

[redacted]

IMSfix 2 4 ∑ 337

[redacted]

NFV / DevOps 8 7 ∑ 321

[redacted] ZABBIX AGENT ON OVERCLOUD-OVS
[redacted] ZABBIX AGENT ON OVERCLOUD-OVS
[redacted] Linux: High CPU
[redacted] : CLUSTER MEMBER NOT AVAILABLE BY
[redacted] : CLUSTER MEMBER NOT AVAILABLE BY
[redacted] : CLUSTER MEMBER NOT AVAILABLE BY
[redacted] : CLUSTER MEMBER NOT AVAILABLE BY
[redacted] : COMPONENT DOWN

SIGNALING

vSTP/SCP 6 ∑ 63

[redacted]

5 of 63 problems are shown

INTERCONNECT ∑ 14

[redacted] outofserv
[redacted] outofserv
[redacted] outofserv
[redacted] outofserv
[redacted] outofserv

PCC ∑ 48

[redacted] total success CHF CDR files stored, counte
[redacted] total success CHF CDR files stored, counte
[redacted] total success CHF CDR files stored, counte
[redacted] total success CHF CDR files stored, counte
[redacted] POZOR ! SNMP TIMEOUT END - CANCEL MA

DRA ∑ 28

[redacted] DIAMETER LINKSET FAULT
[redacted] DIAMETER PEER DEVICE FAULT
[redacted] DIAMETER PEER DEVICE FAULT
[redacted] DIAMETER LINKSET FAULT
[redacted] ANNUAL LICENSE FEE UNPAID AFTER THI

SOR ∑ 0

No data found.

MPS

OMP ∑ 0

No data found.

OTA ∑ 9

[redacted] file size exceeded 1500000000 bytes for /
[redacted] could not discover target for binary file=FI
[redacted] could not discover target for binary file=FI
[redacted] could not discover target for binary file=FI
[redacted] could not discover target for binary file=FI
[redacted] could not discover target for binary file=FI
[redacted] could not discover target for binary file=FI
[redacted] could not discover target for binary file=FI

WSMS/RBT ∑ 0

No data found.

TMM 32 ∑ 32

[redacted] applicationHeartBeatMissed: The application p
[redacted] sccpLoadShareSetAccessible: An SCCP load sh
[redacted] sccpLoadShareSetAccessible: An SCCP load sh
[redacted] sccpLoadShareSetInaccessible: An SCCP load
[redacted] sccpLoadShareSetInaccessible: An SCCP load
[redacted] sccpLoadShareSetInaccessible: An SCCP load
[redacted] sccpLoadShareSetAccessible: An SCCP load sh
[redacted] sccpLoadShareSetAccessible: An SCCP load sh

DPS

AVAS B2B ∑ 0

No data found.

AVAS F5 16 ∑ 16

[redacted] Disk partition /shared has only 3%
[redacted] Disk partition /shared has only 14
[redacted] PHONEHOME: Update Server unavailable
[redacted] bigipAgentStart
[redacted] HA daemon_heartbeat snmpd fail

AVAS LBS ∑ 0

No data found.

[redacted] ∑ 8

[redacted]

Kampaň - ČR	Posláno	Zbývá
[redacted]	[redacted]	[redacted]

TCTV/NPS

INAS ∑ 0

No data found.

OCS 68 ∑ 75

[redacted] ERROR: FOXActionHandle
[redacted] ERROR: FOXActionHandle
[redacted] ERROR: FOXActionHandle
[redacted] ERROR: FOXActionHandle
[redacted] ERROR: Communicatio
[redacted] ERROR: FOXActionHandler
[redacted] ERROR: FOXActionHandler
[redacted] ERROR: processUATBCall

TIV 15x ∑ 55

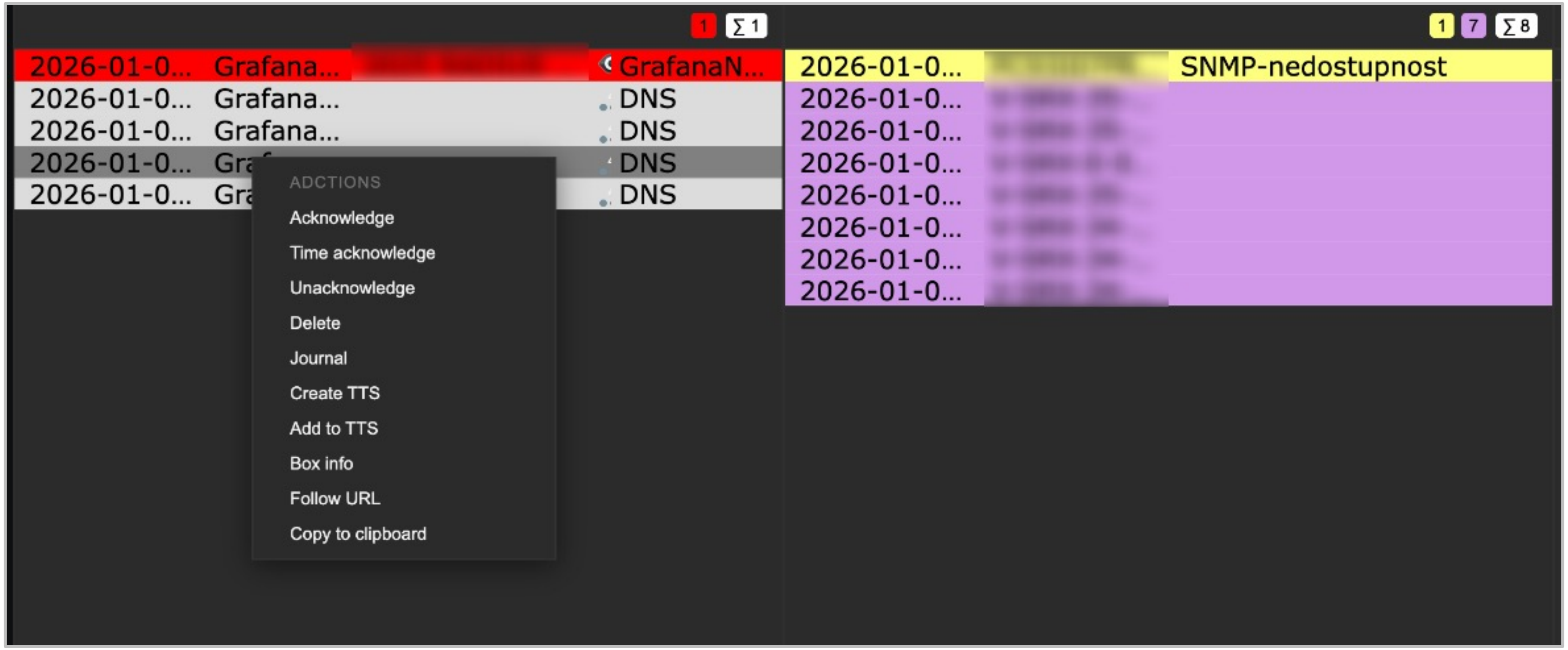
[redacted]

TCTV 112 ∑ 0

No data found.

Technical Solution in Zabbix

Zabbix Architecture – Custom scripts



1 ∑ 1

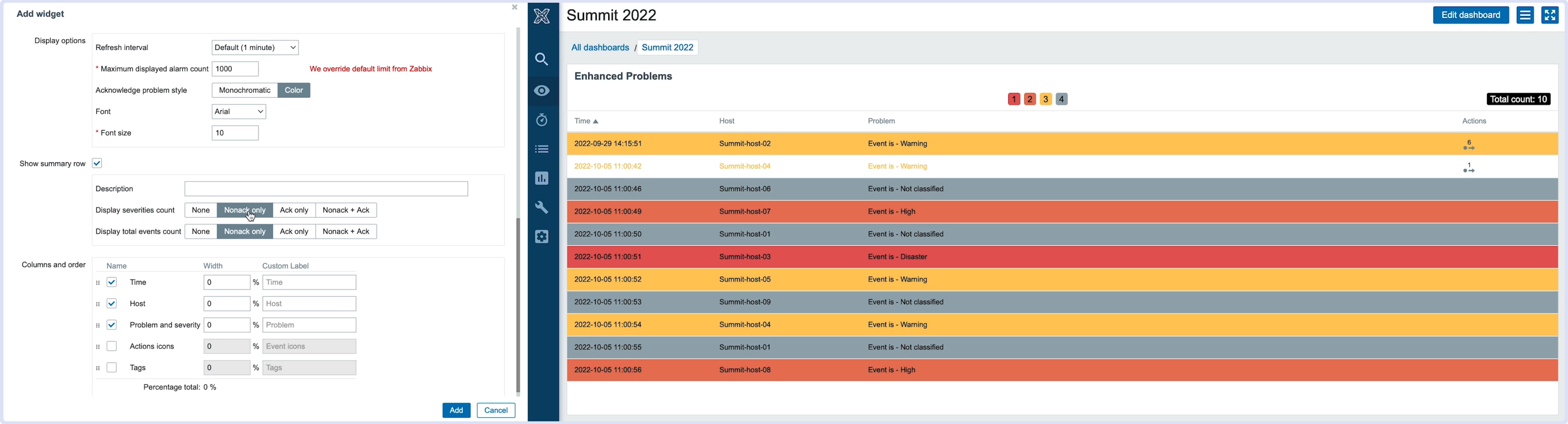
2026-01-0...	Grafana...	[redacted]	GrafanaN...
2026-01-0...	Grafana...		DNS
2026-01-0...	Grafana...		DNS
2026-01-0...	Gra		DNS
2026-01-0...	Gra		DNS

1 7 ∑ 8

2026-01-0...	[redacted]	SNMP-nedostupnost
2026-01-0...	[redacted]	
2026-01-0...	[redacted]	
2026-01-0...	[redacted]	
2026-01-0...	[redacted]	
2026-01-0...	[redacted]	
2026-01-0...	[redacted]	
2026-01-0...	[redacted]	

Technical Solution in Zabbix

- Based on built-in Problem widget
- New feature counter events by severities and total events with variations of Ack and Nonack options



Add widget

Display options

Refresh interval	Default (1 minute)	
* Maximum displayed alarm count	1000	We override default limit from Zabbix
Acknowledge problem style	Monochromatic [✓ Color]	
Font	Arial	
* Font size	10	

Show summary row ☑

Description	
Display severities count	None [✓ Nonack only] Ack only Nonack + Ack
Display total events count	None [✓ Nonack only] Ack only Nonack + Ack

Columns and order

	Name	Width		Custom Label
☑	Time	0	%	Time
☑	Host	0	%	Host
☑	Problem and severity	0	%	Problem
☐	Actions icons	0	%	Event icons
☐	Tags	0	%	Tags

Percentage total: 0 %

Summit 2022

All dashboards / Summit 2022

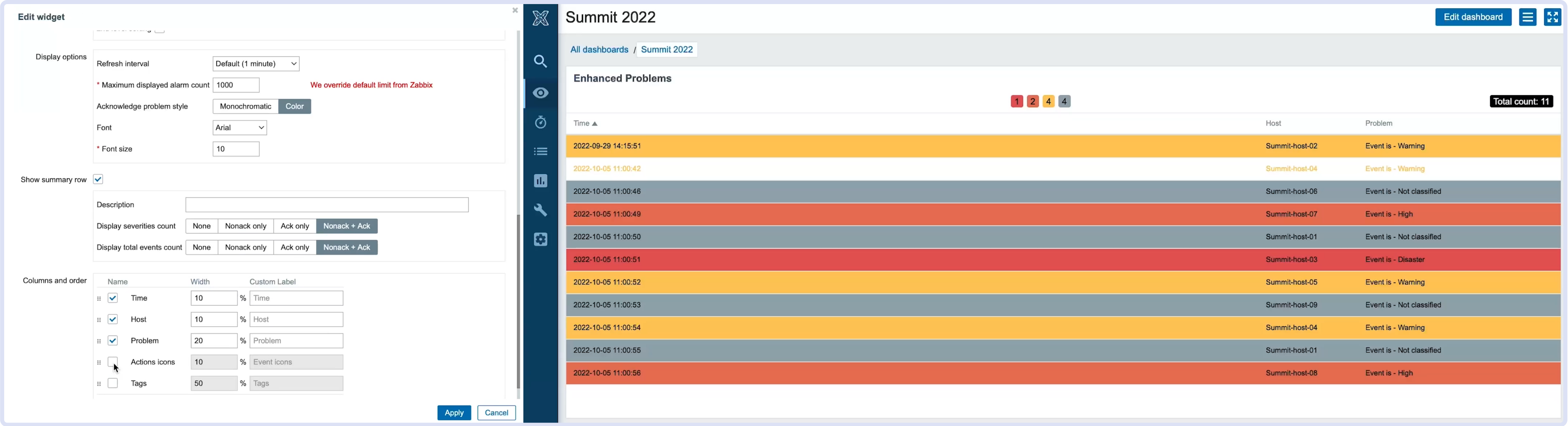
Enhanced Problems

1 2 3 4 Total count: 10

Time ▲	Host	Problem	Actions
2022-09-29 14:15:51	Summit-host-02	Event is - Warning	6
2022-10-05 11:00:42	Summit-host-04	Event is - Warning	1
2022-10-05 11:00:46	Summit-host-06	Event is - Not classified	
2022-10-05 11:00:49	Summit-host-07	Event is - High	
2022-10-05 11:00:50	Summit-host-01	Event is - Not classified	
2022-10-05 11:00:51	Summit-host-03	Event is - Disaster	
2022-10-05 11:00:52	Summit-host-05	Event is - Warning	
2022-10-05 11:00:53	Summit-host-09	Event is - Not classified	
2022-10-05 11:00:54	Summit-host-04	Event is - Warning	
2022-10-05 11:00:55	Summit-host-01	Event is - Not classified	
2022-10-05 11:00:56	Summit-host-08	Event is - High	

Technical Solution in Zabbix

- Based on built-in Problem widget
- New feature choose desired columns you need with custom order, column width and label



Edit widget

Display options

Refresh interval: Default (1 minute)

* Maximum displayed alarm count: 1000 — We override default limit from Zabbix

Acknowledge problem style: Monochromatic [✓ Color]

Font: Arial

* Font size: 10

Show summary row ☑

Description:

Display severities count: None | Nonack only | Ack only | [✓ Nonack + Ack]

Display total events count: None | Nonack only | Ack only | [✓ Nonack + Ack]

Columns and order

	Name	Width		Custom Label
☑	Time	10	%	Time
☑	Host	10	%	Host
☑	Problem	20	%	Problem
□	Actions icons	10	%	Event icons
□	Tags	50	%	Tags

Summit 2022

All dashboards / Summit 2022

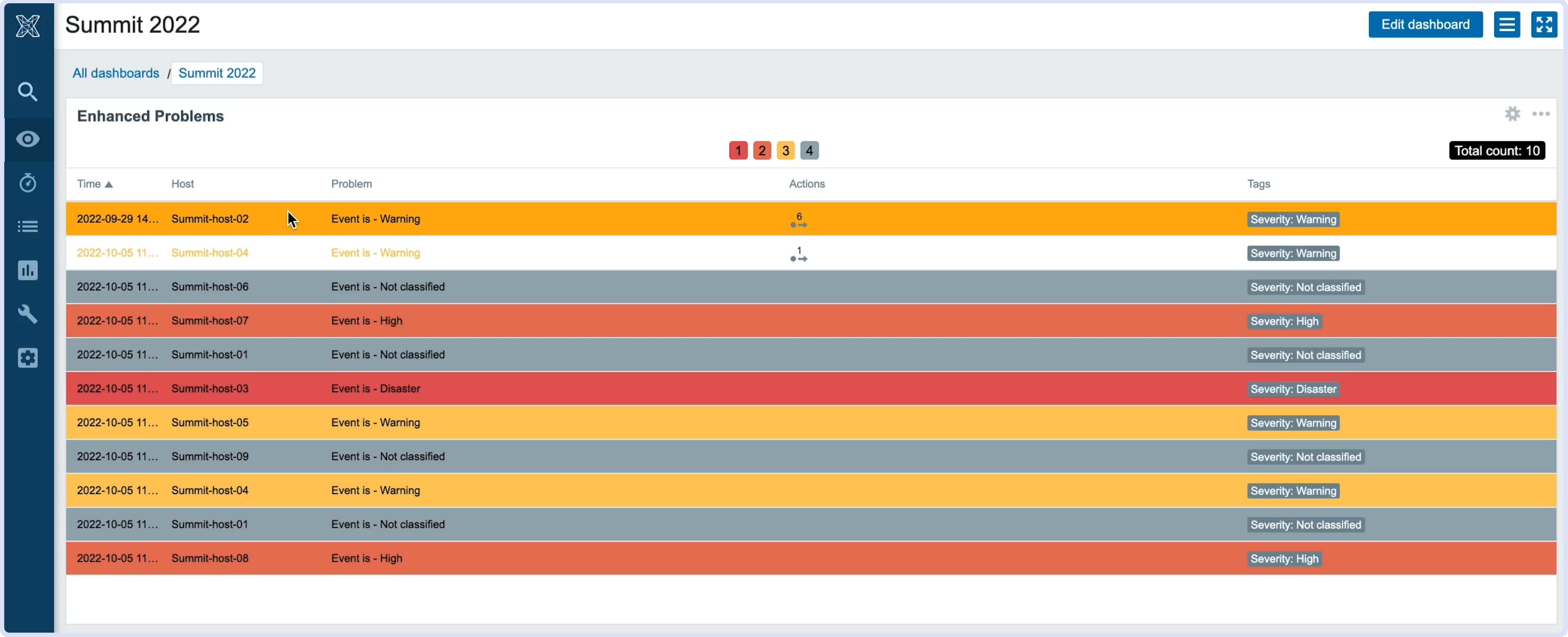
Enhanced Problems

1 2 4 4 — Total count: 11

Time ▲	Host	Problem
2022-09-29 14:15:51	Summit-host-02	Event is - Warning
2022-10-05 11:00:42	Summit-host-04	Event is - Warning
2022-10-05 11:00:46	Summit-host-06	Event is - Not classified
2022-10-05 11:00:49	Summit-host-07	Event is - High
2022-10-05 11:00:50	Summit-host-01	Event is - Not classified
2022-10-05 11:00:51	Summit-host-03	Event is - Disaster
2022-10-05 11:00:52	Summit-host-05	Event is - Warning
2022-10-05 11:00:53	Summit-host-09	Event is - Not classified
2022-10-05 11:00:54	Summit-host-04	Event is - Warning
2022-10-05 11:00:55	Summit-host-01	Event is - Not classified
2022-10-05 11:00:56	Summit-host-08	Event is - High

Technical Solution in Zabbix

- Provides modern user comfort - operator can select multiple events by combination of mouse dragging and mouse clicking within pressed CTRL or SHIFT keys
- Context menu is available on right-click by mouse and operator can easily make bulk operations



Enhanced Problems

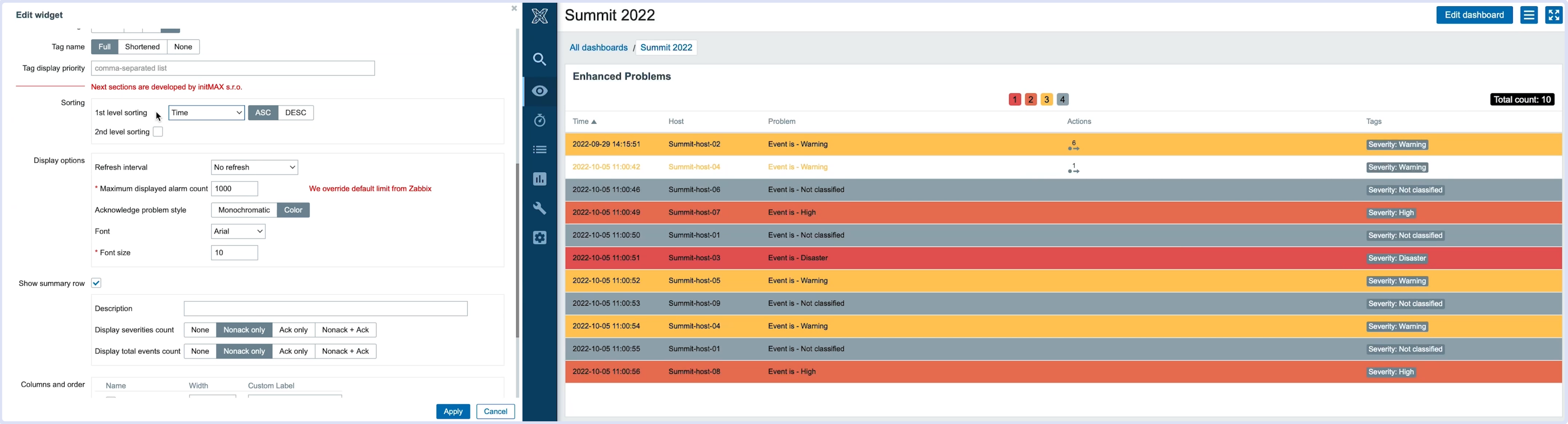
1 2 3 4

Total count: 10

Time ▲	Host	Problem	Actions	Tags
2022-09-29 14...	Summit-host-02	Event is - Warning	6	Severity: Warning
2022-10-05 11...	Summit-host-04	Event is - Warning	1	Severity: Warning
2022-10-05 11...	Summit-host-06	Event is - Not classified		Severity: Not classified
2022-10-05 11...	Summit-host-07	Event is - High		Severity: High
2022-10-05 11...	Summit-host-01	Event is - Not classified		Severity: Not classified
2022-10-05 11...	Summit-host-03	Event is - Disaster		Severity: Disaster
2022-10-05 11...	Summit-host-05	Event is - Warning		Severity: Warning
2022-10-05 11...	Summit-host-09	Event is - Not classified		Severity: Not classified
2022-10-05 11...	Summit-host-04	Event is - Warning		Severity: Warning
2022-10-05 11...	Summit-host-01	Event is - Not classified		Severity: Not classified
2022-10-05 11...	Summit-host-08	Event is - High		Severity: High

Technical Solution in Zabbix

- Multi-level sorting of events for every columns
- Ability to change ascending or descending direction for each level of sorting



Edit widget

Tag name [✓ Full] Shortened None

Tag display priority: comma-separated list

Next sections are developed by initMAX s.r.o.

Sorting
- 1st level sorting: Time [✓ ASC] DESC
- 2nd level sorting ☐

Display options
- Refresh interval: No refresh
- * Maximum displayed alarm count: 1000 — We override default limit from Zabbix
- Acknowledge problem style: Monochromatic [✓ Color]
- Font: Arial
- * Font size: 10

Show summary row ☑
- Description:
- Display severities count: None [✓ Nonack only] Ack only Nonack + Ack
- Display total events count: None [✓ Nonack only] Ack only Nonack + Ack

Columns and order

Name	Width	Custom Label

Summit 2022

All dashboards / Summit 2022

Enhanced Problems

1 2 3 4

Total count: 10

Time ▲	Host	Problem	Actions	Tags
2022-09-29 14:15:51	Summit-host-02	Event is - Warning	6	Severity: Warning
2022-10-05 11:00:42	Summit-host-04	Event is - Warning	1	Severity: Warning
2022-10-05 11:00:46	Summit-host-06	Event is - Not classified		Severity: Not classified
2022-10-05 11:00:49	Summit-host-07	Event is - High		Severity: High
2022-10-05 11:00:50	Summit-host-01	Event is - Not classified		Severity: Not classified
2022-10-05 11:00:51	Summit-host-03	Event is - Disaster		Severity: Disaster
2022-10-05 11:00:52	Summit-host-05	Event is - Warning		Severity: Warning
2022-10-05 11:00:53	Summit-host-09	Event is - Not classified		Severity: Not classified
2022-10-05 11:00:54	Summit-host-04	Event is - Warning		Severity: Warning
2022-10-05 11:00:55	Summit-host-01	Event is - Not classified		Severity: Not classified
2022-10-05 11:00:56	Summit-host-08	Event is - High		Severity: High

Example

- Every our example is freely available in our GIT repository
- https://git.initmax.com/initMAX-Public
- Source code is commented and provides examples

- Widget Header
  https://git.initmax.com/initMAX-Public/Zabbix-UI-Modules-Header-Widget
- Zabbix Compact Dashboard
  https://git.initmax.com/initMAX-Public/Zabbix-UI-Modules-Compact-Dashboard
- Enhanced Problems
  https://git.initmax.cz/initMAX-Public/Zabbix-UI-Widgets-Enhanced-Problems

5

Customer Satisfaction & Outcomes

Customer Satisfaction & Outcomes

Customer Satisfaction & Outcomes

- Small internal team fully operates the umbrella monitoring stack.
- Full in-house control: config changes, outages, upgrades — no vendor lock-in.
- NiFi logic enables new data sources/device onboarding with zero downtime.
- Upgrade in progress: **Zabbix 6.0** → **7.0**, incl. **history.push** + PostgreSQL improvements.
- Multiple department Zabbix instances feed the umbrella Zabbix (central monitoring hub).
- **Cost savings**: license-free platform, lower ops overhead, no unnecessary vendor spend.
- As initMAX: support, upgrades, performance tuning, plus training and custom integrations/widgets.
- **~80% lower TCO:** Zabbix + initMAX support vs. previous licenses + support.

Customer Satisfaction & Outcomes

Customer Satisfaction & Outcomes – Case Study

- We're in the final stage of publishing an **O2 video case study** with more project details – it will be available soon on our **LinkedIn** and **website.**
- If you'd like more webinars and updates, follow us on **LinkedIn.**

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