Text to speech alerts with Asterisk

Zabbix Conference Lightning Talk.

06 October 2018

OUTSCALE

Outscale, the Cloud French Touch.

- Outscale
  - IaaS Cloud Provider.
  - Software editor.
  - Dassault Systemes Group.
  - Iso27001 / Cisco, Netapp, Nvidia, Intel partner.
  - Worldwide platforms.
- The monitoring team:
  - Is deploying, supporting, improving monitoring tools.
  - We provide monitoring services to several teams : infrastructure, operation, QA, R&D…

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A few words about our infrastructure.

Zabbix-Proxies

Z Zabbix-Cloud POD.
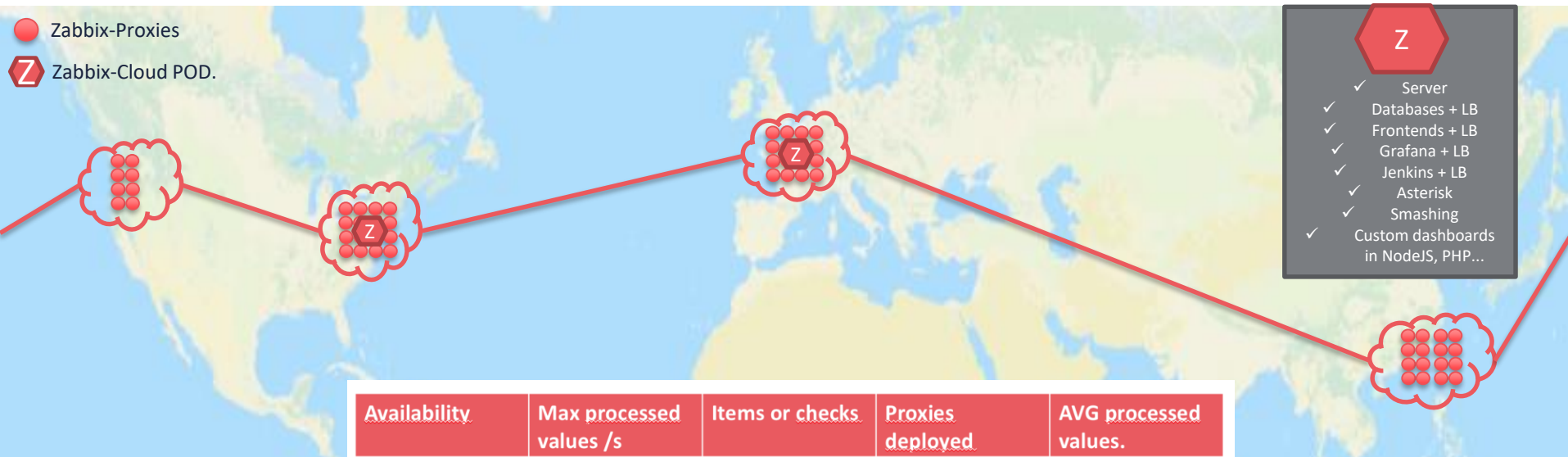
Z

✓ Server
✓ Databases + LB
✓ Frontends + LB
✓ Grafana + LB
✓ Jenkins + LB
✓ Asterisk
✓ Smashing
✓ Custom dashboards
   in NodeJS, PHP…

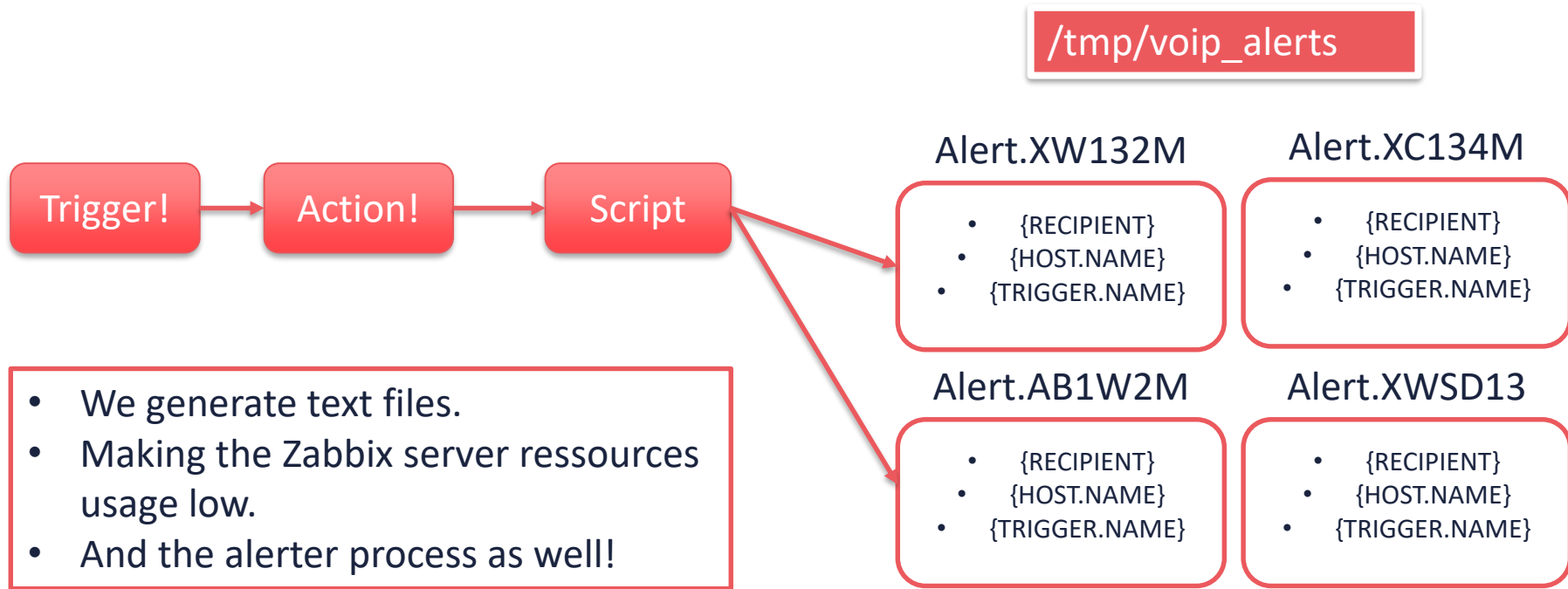| Availability	Max processed values /s	Items or checks	Proxies deployed	AVG processed values.
100%	100 000.	1 350 000+	100+	7000

AVG Bandwith on server.	Max tested processed alerts.	Amount of TV using Grafana dashboards.	Charge on the server.	DB size
25 Mbps.	Up to 30k	200+	Around 10% cpu	800 GB.

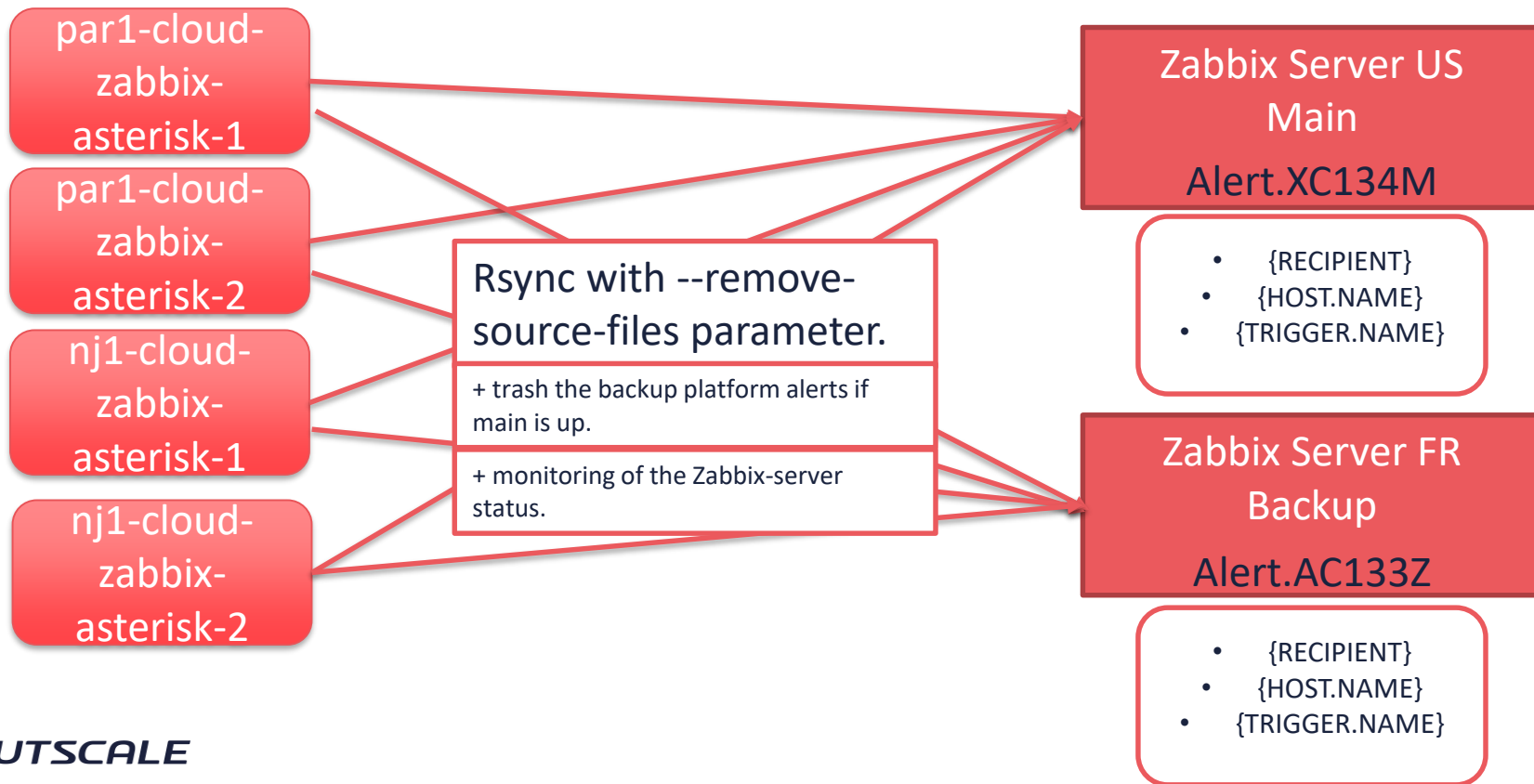OUTSCALE

Everything to wake up 24/24 7/7.

- Zabbix.
- Asterisk.
- Scripts + crontab.
- A SIP Trunk provider account.
- Grafana + Grafana-Zabbix - Optional -
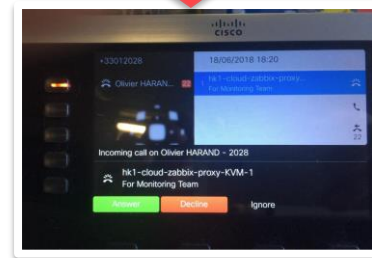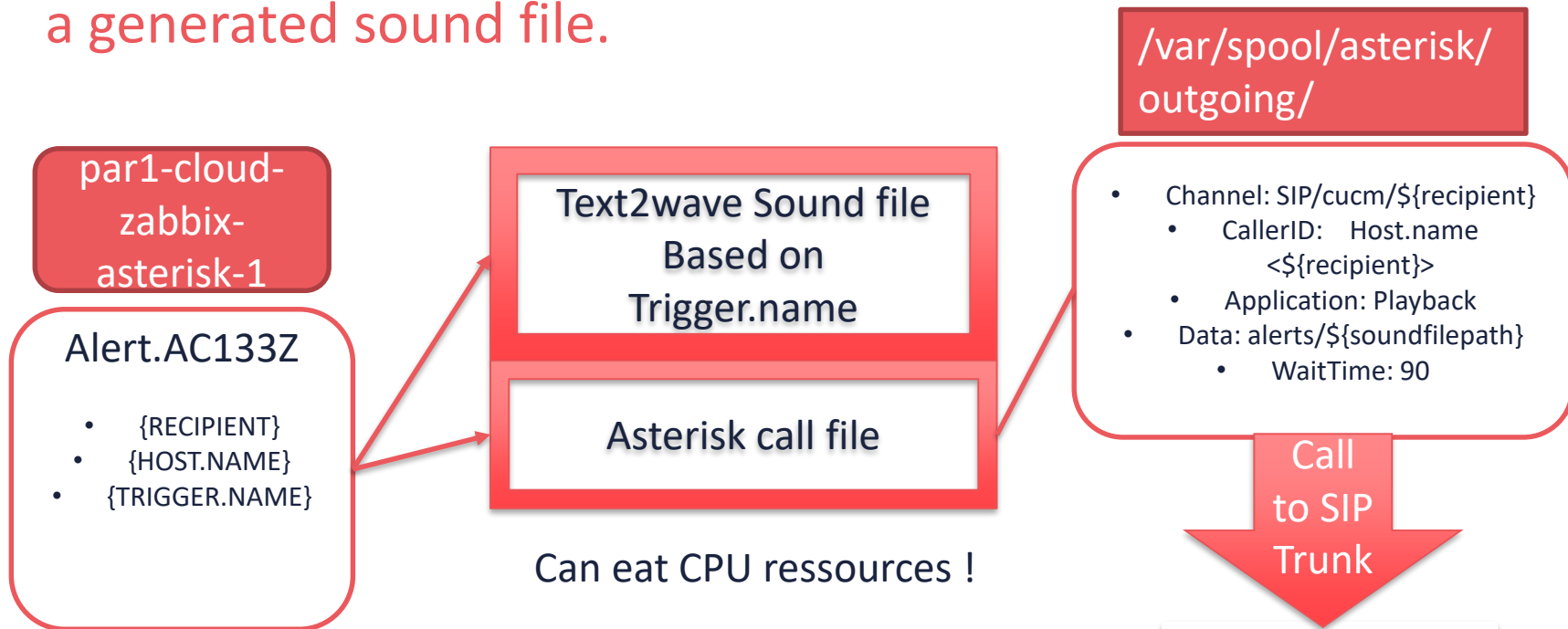- Jenkins jobs - Optional as well -

Hk2-cloud-zabbix-3 is unreachable!

Great coffee.

Computer fun at night.

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Step 1: Zabbix-Server producing alert files.

/tmp/voip_alerts

```
Trigger! → Action! → Script
```

Alert.XW132M
- {RECIPIENT}
- {HOST.NAME}
- {TRIGGER.NAME}

Alert.XC134M
- {RECIPIENT}
- {HOST.NAME}
- {TRIGGER.NAME}

Alert.AB1W2M
- {RECIPIENT}
- {HOST.NAME}
- {TRIGGER.NAME}

Alert.XWSD13
- {RECIPIENT}
- {HOST.NAME}
- {TRIGGER.NAME}

- We generate text files.
- Making the Zabbix server ressources usage low.
- And the alerter process as well!

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Step 2: Asterisk instances collecting the alerts..

par1-cloud-zabbix-asterisk-1

par1-cloud-zabbix-asterisk-2

nj1-cloud-zabbix-asterisk-1

nj1-cloud-zabbix-asterisk-2

Rsync with --remove-source-files parameter.

+ trash the backup platform alerts if main is up.

+ monitoring of the Zabbix-server status.

Zabbix Server US Main

Alert.XC134M

- {RECIPIENT}
- {HOST.NAME}
- {TRIGGER.NAME}

Zabbix Server FR Backup

Alert.AC133Z

- {RECIPIENT}
- {HOST.NAME}
- {TRIGGER.NAME}

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Step 3: For each alert, the Asterisk instance create a call and play a generated sound file.

/var/spool/asterisk/ outgoing/

par1-cloud-zabbix-asterisk-1

Text2wave Sound file Based on Trigger.name

Asterisk call file

Can eat CPU ressources !

Alert.AC133Z

- {RECIPIENT}
- {HOST.NAME}
- {TRIGGER.NAME}

- Channel: SIP/cucm/${recipient}
  - CallerID: Host.name
      <${recipient}>
  - Application: Playback
  - Data: alerts/${soundfilepath}
    - WaitTime: 90

Call
to SIP
Trunk

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Step 4: Optional additions.
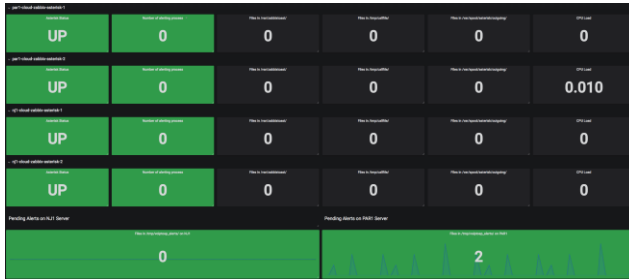
Real-time dashboard monitoring of the system, on all the way.
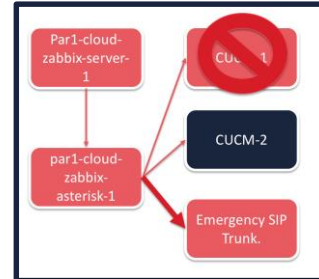
Multiple providers for VOIP.

Easy / automated jobs.

Notification redundancy using the DATA connectivity.

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