

Systematica

ZABBIXUnify

one dashboard to rule them all

Gabriele Armao

ZABBIX 2014
Conference

WHO AM I?



Gabriele Armao

System Administrator at Systematica

Zabbix Certified Trainer
since November 2012

Systematica

Systematica

Zabbix Premium Partner and Trainer

Zabbix is used for systems and applications monitoring (backup, logfile analysis, ...)

Over **150** customers monitored, **10** Zabbix servers, **56** proxies, **~1500** hosts, **~30000** items, **~15000** triggers.
~1000 NVPS, **4.5** GB/day, **600** GB (total db size)

www.gruppofinmatica.it

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BEFORE

Zabbix as service

*One Zabbix server to monitor
all our customers*

FULL
SERVICE

Customers loved Zabbix!

Every customer wanted
a local Zabbix installation



BUT

Every customer still wanted
to keep our IT pro-active service
monitoring (Operation Center)

AFTER

Many Zabbix
Server deployment



Many Zabbix Dashboards

*Difficult for our control room
to provide a monitoring service*

THE NEED



Can't use Zabbix master-slave configuration

Dropped in 2.4

Performance issues

Can't rely only on email notifications

Zabbix dashboard is not enough for our needs

No single point of view in case of many DCs or operation centers

No reports

THE PROBLEMS

THE SOLUTION



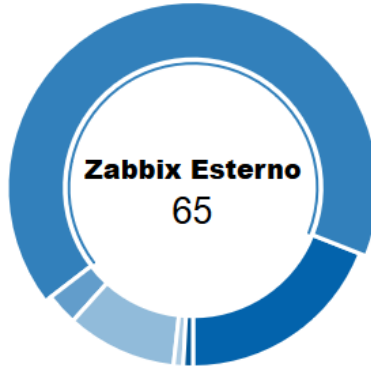
One NEW dashboard
to unify many
(via API)

Centralized view of
Active triggers & Trigger details
(latest data, past events)

Dashboard

- Dashboard
- Panel
- Zabbix Server
- All Alerts
- Reports
- Templates

Active Trigger per server



[View Details](#)

Customer Status

Filter

| Customer | Hosts with problems | Most recent trigger |
|----------|---------------------|------------------------|
| ... | 5 | last 6:22:04 |
| ... | 3 | last 1 day, 6:06:39 |
| ... | 3 | last 9:33:42 |
| ... | 2 | last 11 days, 1:19:37 |
| ... | 1 | last 19 days, 23:49:39 |
| ... | 1 | last 25 days, 3:12:30 |
| ... | 1 | last 17 days, 23:51:59 |
| ... | 1 | last 66 days, 1:37:27 |
| ... | 3 | last 6 days, 13:35:35 |
| ... | 1 | last 67 days, 18:53:48 |

| | | | | | |
|----------------|-----------------------|-------------|---|-----------------|-----|
| Zabbix Esterno | ACCCaratti_svrac01 | information | Nessun log Oracle ricevuto da ACCCaratti_svrac01 si consiglia controllo | 67d 7h 55m 26s | Yes |
| Zabbix Esterno | Proffavara_s-arianova | average | Zabbix agent su Proffavara_s-arianova irraggiungibile per 10 minuti | 101d 26s | No |
| Zabbix Esterno | Proffavara_Inxcont | information | Nessun log Oracle ricevuto da Proffavara_Inxcont si consiglia controllo | 130d 1h 20m 56s | Yes |
| Zabbix Esterno | orione | average | Spazio disponibile su C: < 1G - Attuale: 620.4 MB | 299d 3h 32m 54s | Yes |
| Zabbix Esterno | Proffavara_febo | warning | Zabbix agent su Proffavara_febo irraggiungibile per 5 minuti | 26s | No |
| Zabbix Esterno | Proffavara_00SR020 | warning | Carico CPU troppo alto su Proffavara_00SR020: 5.58 | 1m 18s | No |

(29/05/2014 15:12:56): audit non abilitato a livello di database, è richiesto un riavvio dell'istanza Oracle



Central template management

*Deploy templates to other Zabbix
Servers via XML import/export*

Dashboard

Panel

Zabbix Server

All Alerts

Reports

Templates

Template Management

| Master: Zabbix Esterno | Zabbix [Server Name] | Zabbix Interno | Zabbix [Server Name] | Zabbix [Server Name] |
|-------------------------------------|----------------------|----------------|----------------------|----------------------|
| Basic Checks | ✓ | ✗ Sync | ✗ Sync | ✓ |
| Backup Control | ✓ | ✗ Sync | ✗ Sync | ✓ |
| RC_Linux Apache checks | ✓ | ✗ Sync | ✓ | ✓ |
| RC_Linux OpenOffice checks | ✓ | ✓ | ✓ | ✓ |
| RC_Linux Pound checks | ✓ | ✗ Sync | ✓ | ✓ |
| RC_Linux Si4cs checks | ✓ | ✓ | ✓ | ✓ |
| RC_Linux Workflow checks | ✓ | ✓ | ✓ | ✓ |
| RC_Windows Oracle9ias checks | ✓ | ✗ Sync | ✗ Sync | ✓ |
| Rman_Control | ✗ Sync | ✗ Sync | ✗ Sync | ✗ Sync |
| RC_Linux Generic checks | ✗ Sync | ✗ Sync | ✗ Sync | ✗ Sync |



Additional features

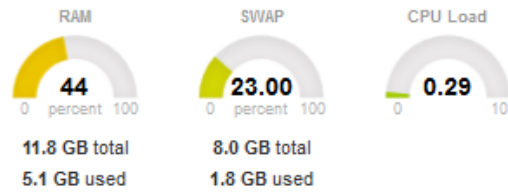
Custom graphs

Event correlation

Report!

- Dashboard
- Panel
- Zabbix Server <
- All Alerts
- Reports
- Templates

Host Performance



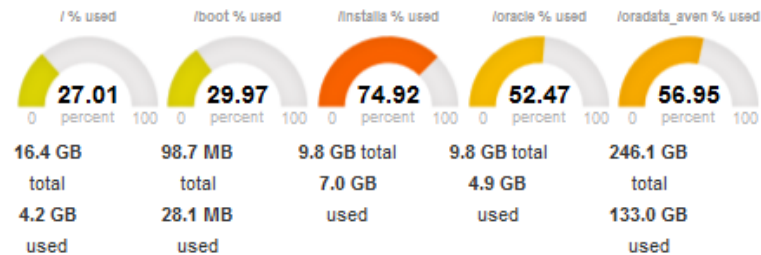
System Information

Uptime: 345 days,
23:41:45
Zabbix Agent Version:
2.2.1
Alarms/Day: 6

Active Alert

Troppi processi presenti su
re-ads-dbaven: 675

Volumes



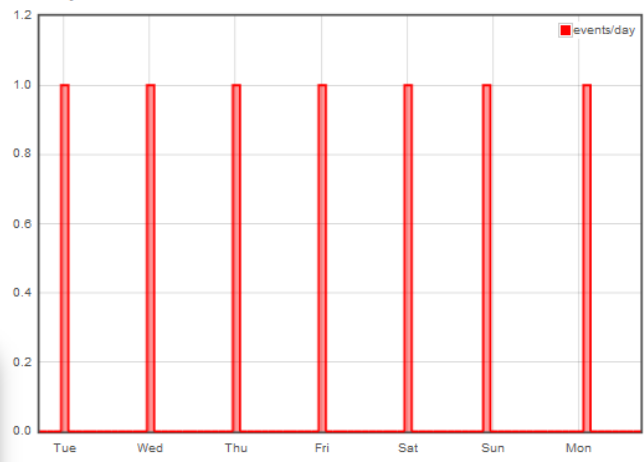
- [Dashboard](#)
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Trigger Details Spazio libero inferiore al 10% su /oracle/S7ADS/backup: 8.53 % (8.48 GB)

Trigger Info Latest Data Events Correlations

Dati
Zabbix Server:
 Zabbix Esterno
Host:
 _mercurio
Trigger function:
 { _mercurio:vfs.fs.size[/oracle/S7ADS/backup,pfree].last(0)}
 <10&{ _mercurio:vfs.fs.size[/oracle/S7ADS/backup,free].last(0)}<10G
Ultimi valori Items:
 Free disk space on \$1: 9100413952
Optional Trigger Description:

Weekly event distribution



- [Dashboard](#)
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Customers Panel

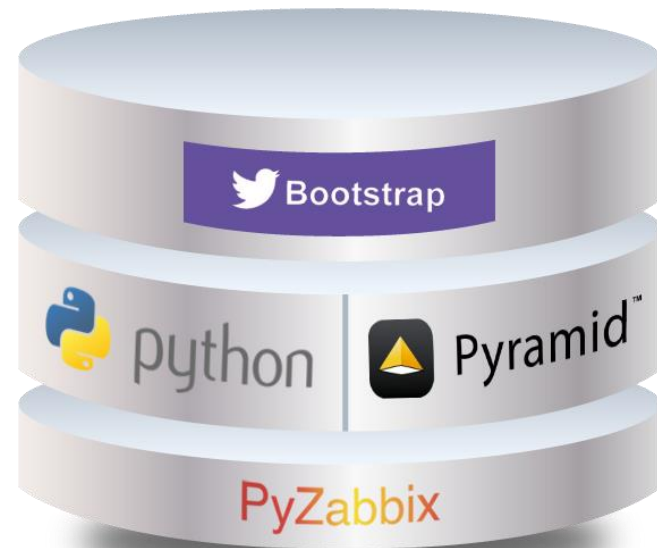
| | | |
|----------------------------------|---------------------------------|---------------------------------|
| 4 Trigger last 13:31:44 | 3 Trigger last 1 day, 6:13:03 | 3 Trigger last 9:40:06 |
| 1 Trigger last 17 days, 23:58:23 | 1 Trigger last 66 days, 1:43:51 | 3 Trigger last 6 days, 13:41:59 |
| 3 Trigger last 0:03:12 | 1 Trigger last 1 day, 6:13:03 | 1 Trigger last 1 day, 6:13:03 |
| 3 Trigger last 2:30:03 | 1 Trigger last 2:39:04 | 1 Trigger last 13 days, 2:08:23 |
| 4 Trigger last 10:18:37 | 1 Trigger last 37 days, 6:21:42 | 2 Trigger last 1 day, 6:13:03 |
| 1 Trigger last 0:30:07 | 2 Trigger last 25 days, 2:39:03 | |



Frameworks

Backend / Python (Pyramid)

Frontend / Twitter Bootstrap (SB Admin v2.0)



State of the art

Internal development: finished and in production

Public release: to be defined (Jan 2015)

Future improvements

Centralized configuration management

Add/Remove hosts

Add/Remove template association

Customer interface

Thank you!

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