

globo.com

a two-year case study

Who are we?

- One of major media player in Brazil
 - responsible for content delivery
- Numbers
 - 45M unique visitors/day
 - 8 major products
 - 43% Brazil audience (mobile/computer)
 - 3k physical devices (+3k VM's and growing fast)
 - 600k items, 160k triggers, 2k nvps

About this talk

- Technical challenges
 - and how we overcame them
- New tools
 - what we have developed
- Time for questions

About::our team

- 4(12) people
 - 80+% time dedicated to Zabbix
 - 3 Zabbix Certified Specialist's
 - dev + deploy + infra + Zabbix administration
- DBA team
- NGX Labs
 - developing custom tools
- 30 people on 24x7 NOC

Know your infrastructure

- Know what to monitor
 - how fast and how long you should keep data
- Define reasonable standards
 - ease Zabbix management
 - high/med/low/control update times
 - what trigger priority means

Know your infrastructure

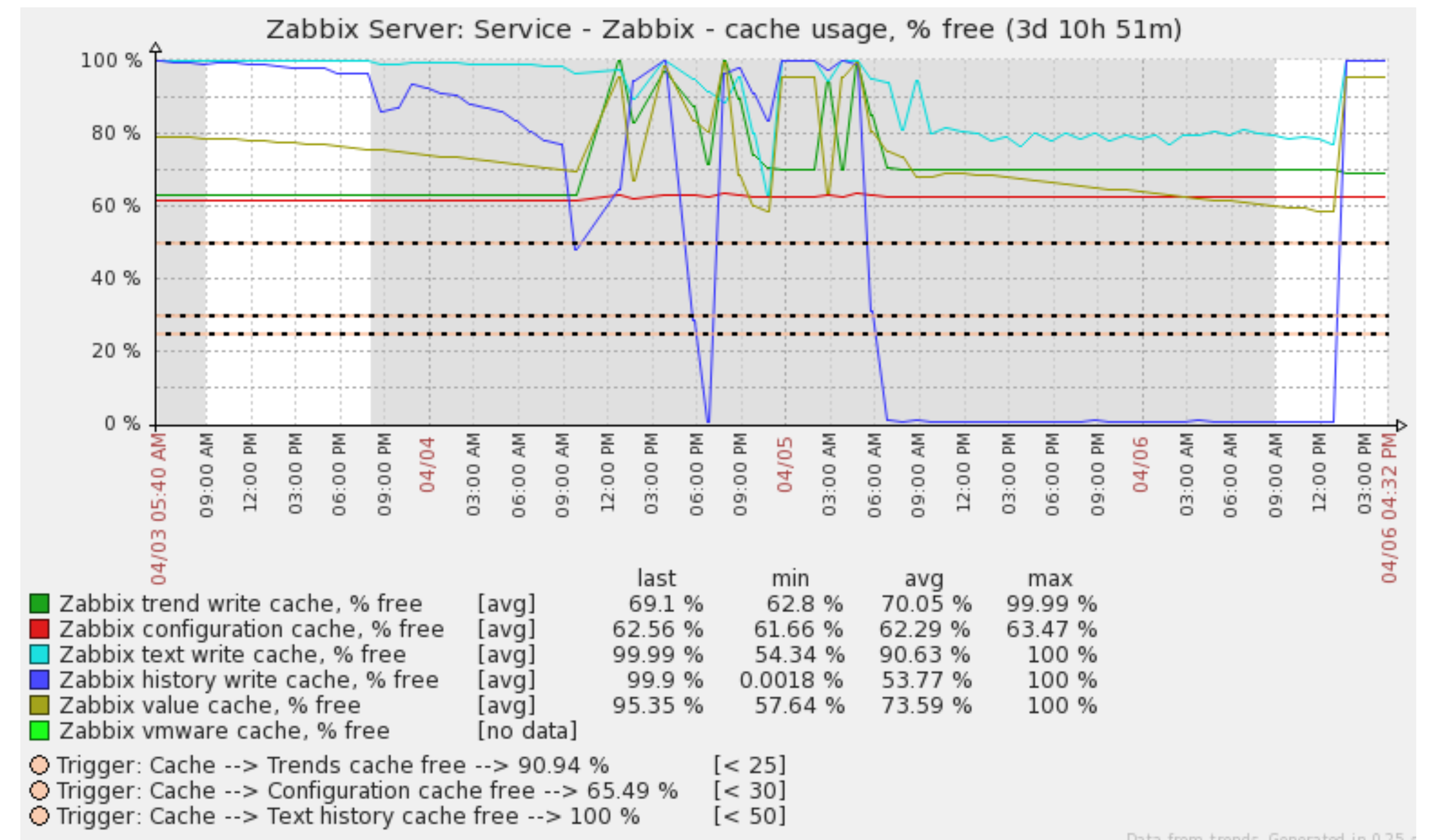
INFORMATION	* The environment is NOT affected * Alerts are temporary and do not have priority in treatment
WARNING	* The environment can be affected soon * The warnings should be treated with low priority
MEDIUM	* The environment is affected in some way or shows some instability * The warnings should be treated with medium priority
HIGH	* The environment is affected largely or services are unavailable * The warnings should be treated with high priority
DISASTER	* The environment is totally affected or essential business services are unavailable * The warnings should be treated with top priority

+ <u>Name</u>
+ General (5 Items)
+ Hardware - Storage (21 Items)
+ Hardware - System (34 Items)
+ Hardware - Temperature (117 Items)
+ ICMP (3 Items)
+ Services - Nagios Server (32 Items)
+ SO - Cpu (7 Items)
+ SO - Disk partitions (24 Items)
+ SO - Interfaces (37 Items)
+ SO - Load Average (3 Items)
+ SO - Memory (7 Items)

Source: Unirede

Know your infrastructure

- Plan Zabbix capacity ahead
- and then monitor it



Migration from legacy

- Can some consultancy help?
 - Unirede did
- What is crucial for your business?
- What do you need to plan your future?
 - "Everything" might not be a good answer!
- Talk to your customers!
 - synergy will help you get through
- We used (still use) Cricket and Nagios

Migrating from legacy::Cricket

- Cricket (RRD based)
- Import of historical data
- Choose carefully what you need
 - we chose only few services
 - trends data
- Challenges to send/sort data to Zabbix
 - migration took almost one month to complete

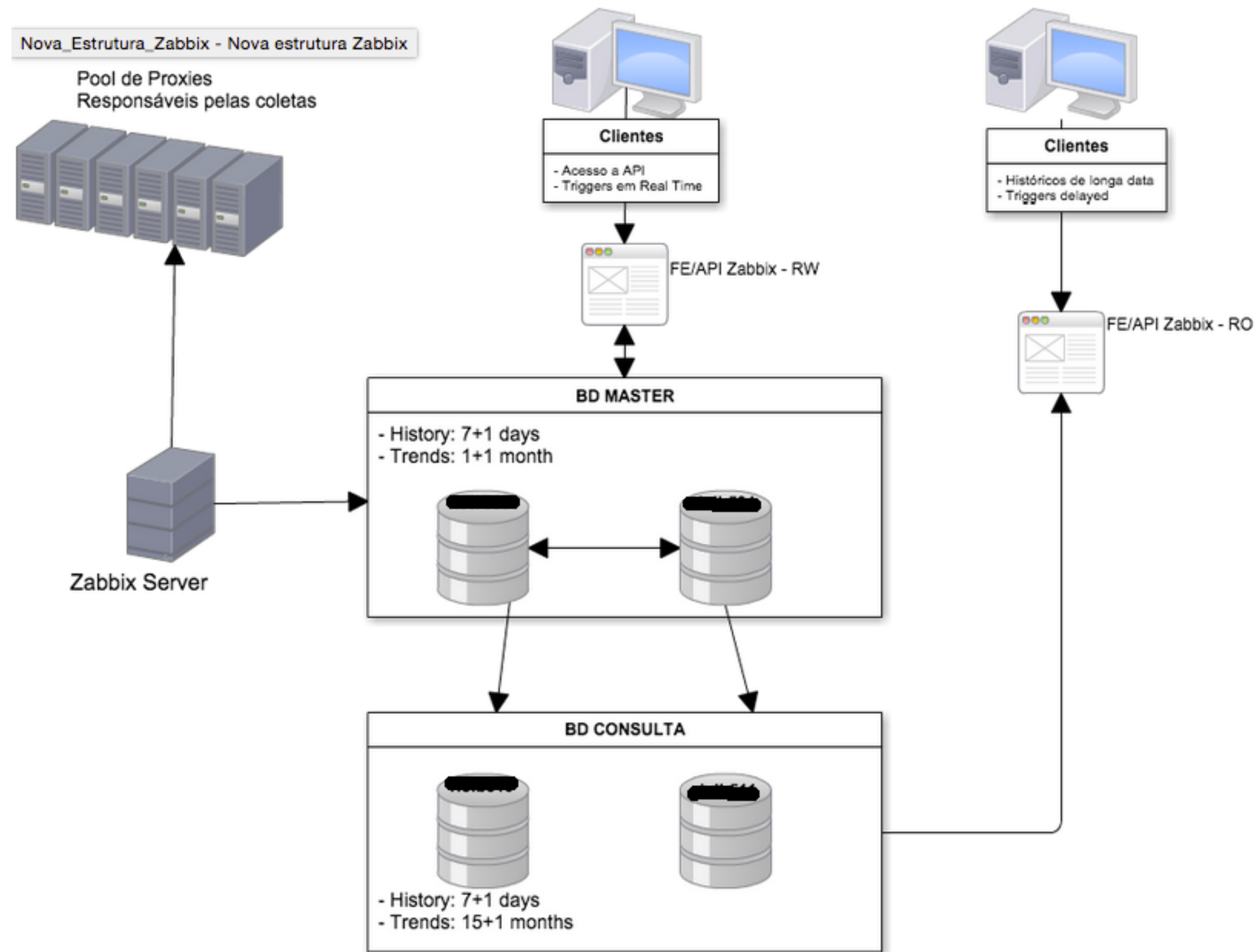
Migrating from legacy::Nagios

- Talk to each customer
 - make presentations, be present
 - (re)design each service template
 - teach them how to use the API and Frontend
 - no more ticket to CRUD for monitoring requests
- takes time, change is hard

Optimize::database

- Study alongside with your DBA
 - tune everything, everywhere
 - use read-replicas for large historical data, storage and user visualization needs
 - use partitions and forget about housekeeper

Optimize::database

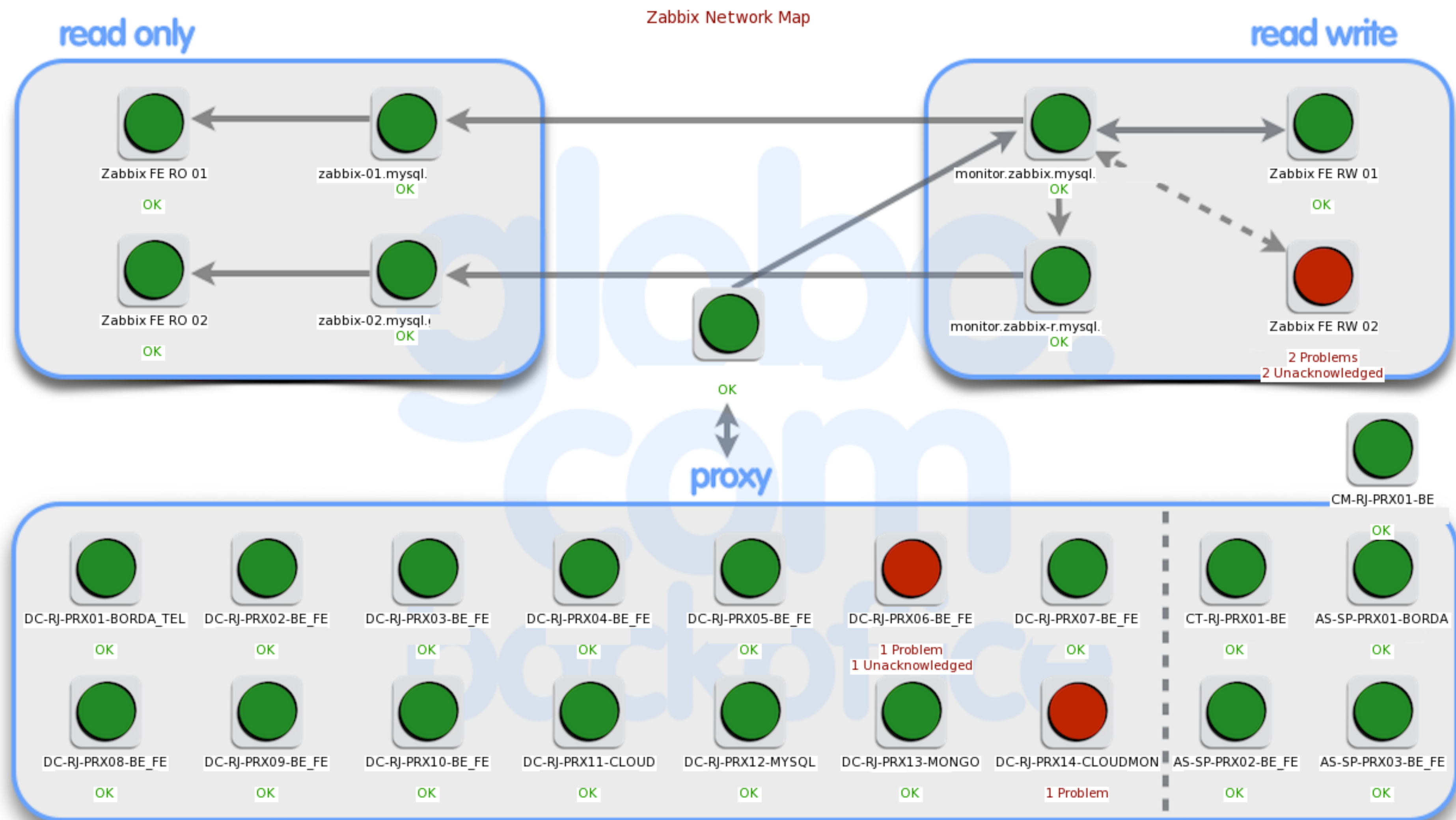


Infrastructure

- values

Status of Zabbix				
Parameter	Value	Details		
Zabbix server is running	Yes	server.zabbix[REDACTED]:10051		
Number of hosts (enabled/disabled/templates)	5893	5166 / 611 / 116		
Number of items (enabled/disabled/not supported)	589860	547180 / 27115 / 15565		
Number of triggers (enabled/disabled [problem/ok])	160976	158670 / 2306 [1776 / 156894]		
Number of users (online)	252	9		
Required server performance, new values per second	1807.87	-		

Infrastructure

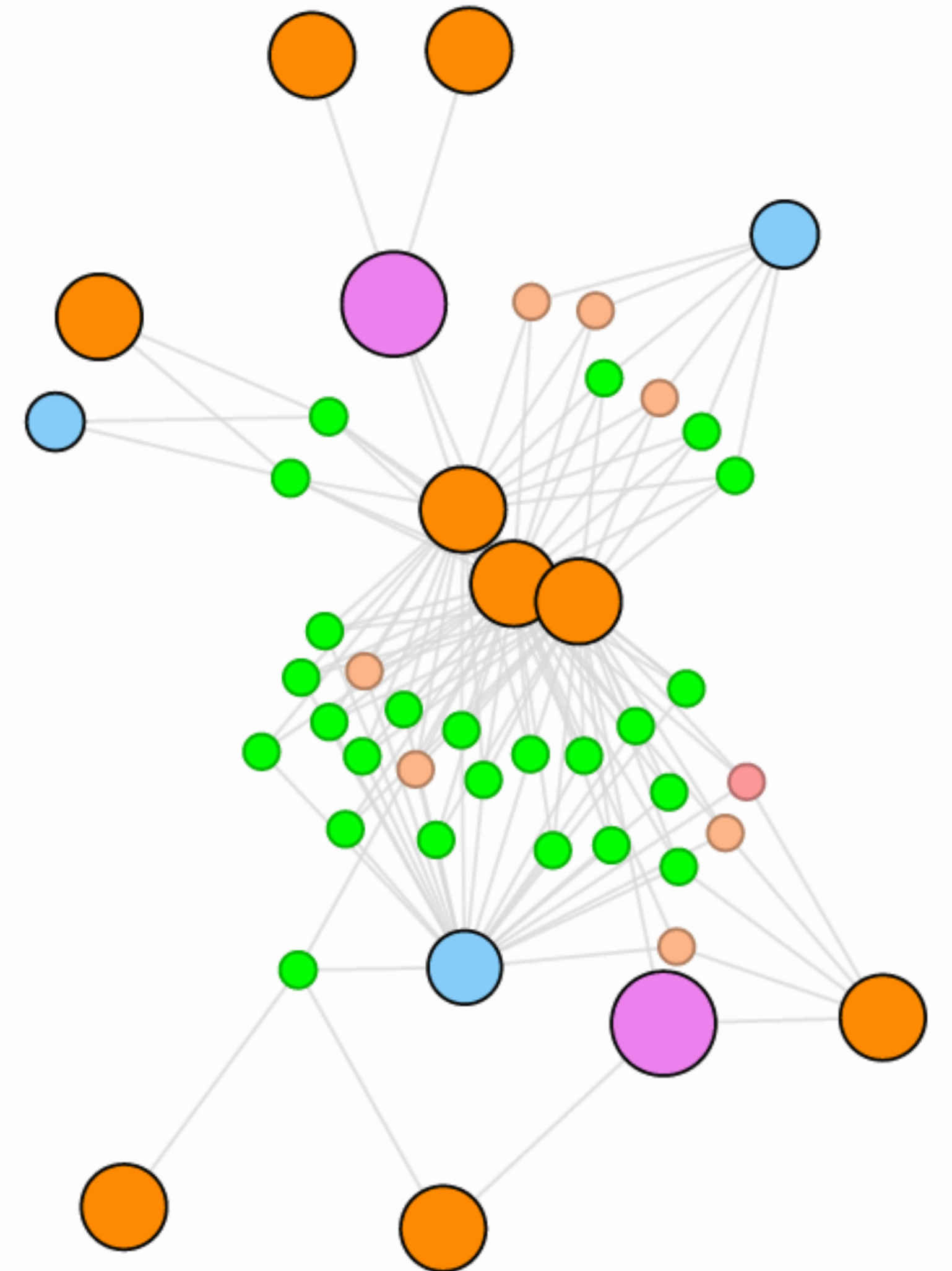


Integrations

- Why
 - third party tools and data sources
 - completes visualization and data correlation
 - help while debugging problems
 - automate everyday tasks
 - minimize human error
 - doc infrastructure
 - consolidates information

Integrations::graphix

- Graphix
 - Alternative LIVE views through network graphs
 - Faster and easier understanding of data
 - Triggers, Hosts, Templates, Proxies, etc can be crossed with external sources of data in Realtime and at the same screen.
 - Integrates data from Zabbix with ServiceNow (CMDB), Tsuru(PaaS) and Network Topologies

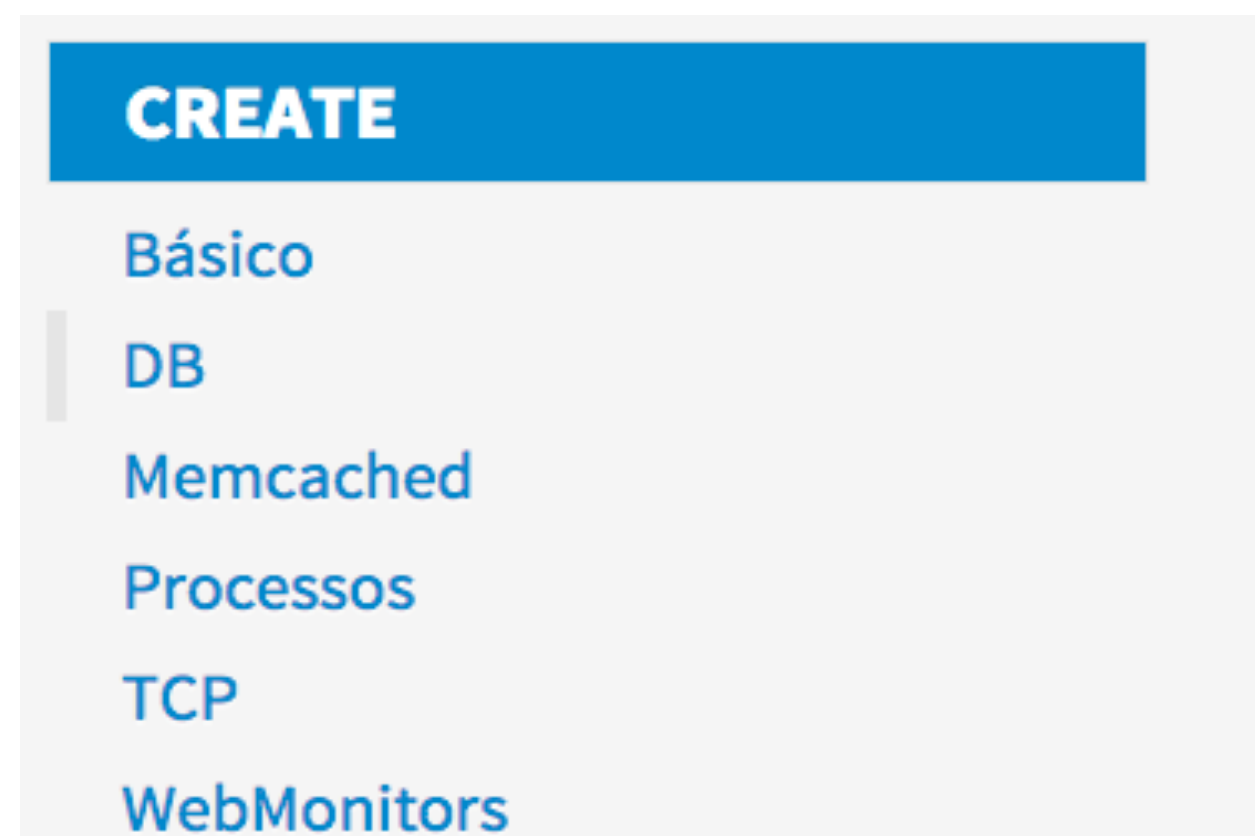


Integrations::cloudmon

- Cloudmon
 - manages Cloudstack VM's inside Zabbix
 - replicate VM's status (started=monitoring, halted=not monitoring, ...)
 - System VM's and VRouters are also monitored
 - replicate Cloudstack project as Zabbix host group
 - ease visualization, data consolidation, sums, etc
 - Based on Hyclops extension

Integrations::gbix

- Gbix
 - API and GUI/WebApp
 - faster api response through caching (eg: triggers)
 - custom methods (fewer steps to interact with api)
 - users who can't code are still able to do custom operations



Create - Básico

Cria monitoração básica de vitais para um host.

JSON-RPC

```
globo.createBasicMonitors
```

Integrations::macrosync

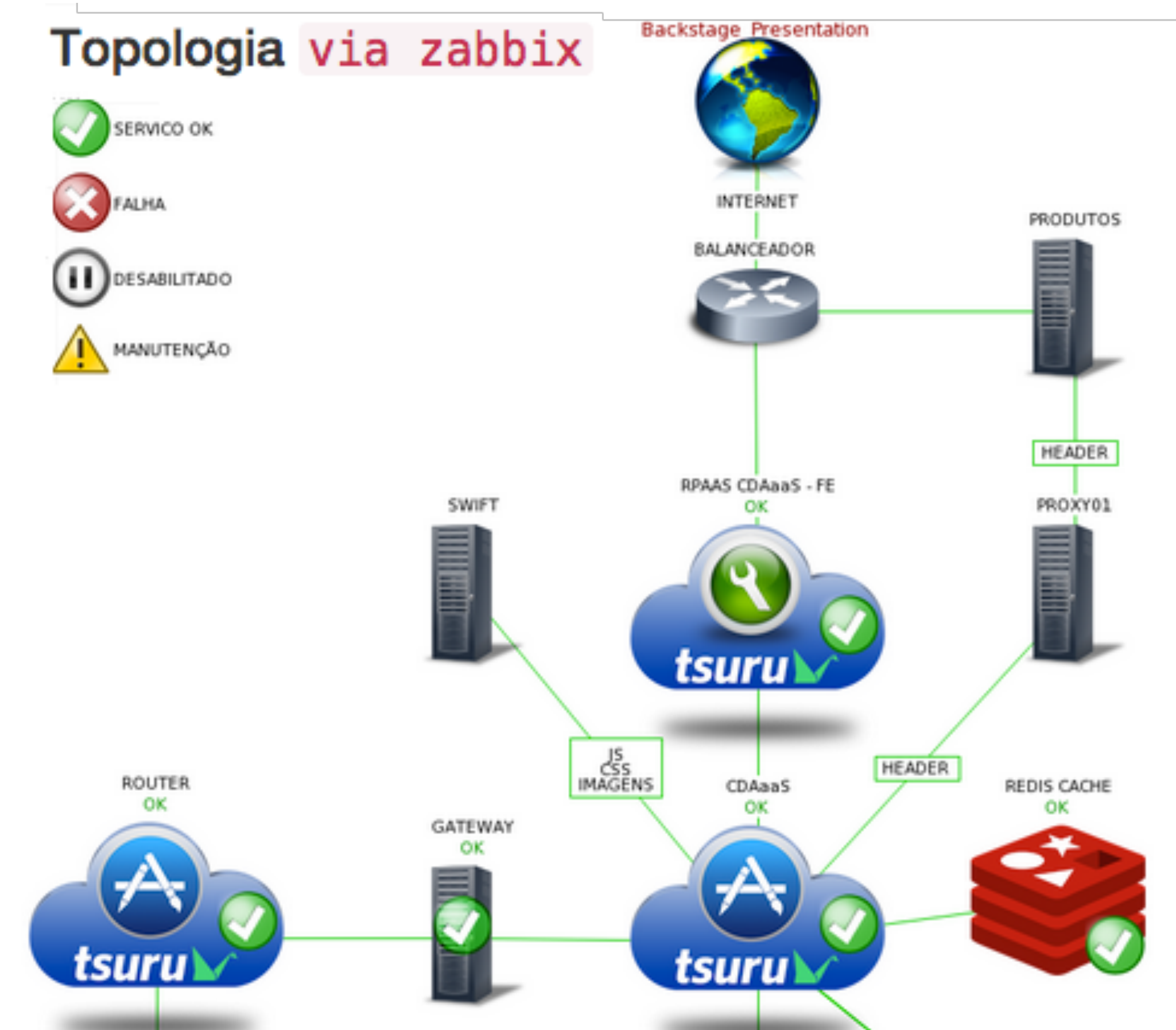
- Macrosync
 - Talks nicely with DBforBix
 - No need to edit DBforBix manually for each DB monitor that's gonna be created
 - Updates DBforBix config and reload automatically when changes are detected to Zabbix designated database hostgroup
 - Integrates with Gbix API

Integrations::discovery

- Discovery
 - Create "automagically" discovery rules
 - Distribute rules across available proxies
 - Region aware
 - Balance huge networks with many small ones
 - VLANs /24 /27
 - Integrate with Globo Network API
 - github.com/globocom/GloboNetworkAPI

Integrations::git

- Gitlab/Github
- Many internal project documentations and topology hosted
- Wow effect



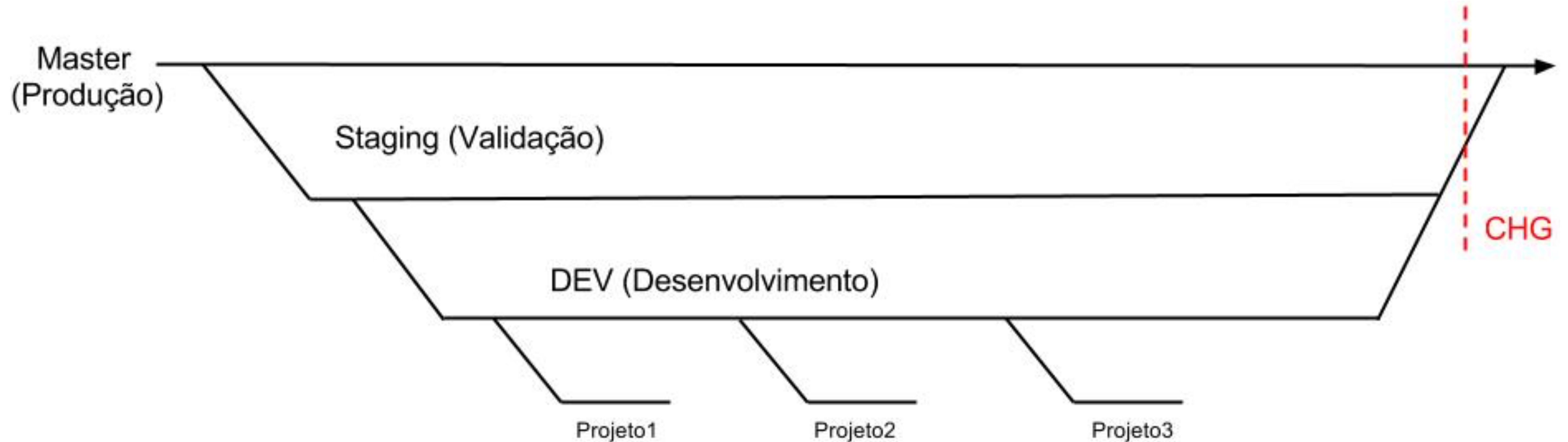
Templates

- Cisco
- F5 balancer
- Netapp storage
- http/https
- other vital stuff
 - hardware health
 - datacenter sensors

Deploy

- Git
 - Code your infrastructure
- Puppet
 - Manages configuration, rpm, etc
- Scripts
 - Faster interventions, debug
 - Script everything

Deploy



Questions?

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Thank you!