

ZABBIX



Retour d'expérience sur Zabbix
(par un dev qui déteste l'adminsyst)

slides CHATS!

retour d'xp -> facile + partage

gens peur faire confs -> mais non !

je suis pas un pro



C'est quoi le monitoring ?
C'est quoi zabbix ?

surveiller un parc de machine
vision d'ensemble
+ être prévenu



Context

railnova
peut de machines (comme ici)
zabbix overkill
mais en fait ça reste cool



Pourquoi zabbix ?

nagios/shinken -> long à apprendre
facile
doc de référence
ai exploré, recommandé par tout le monde
en gros staz voulait jouer avec zabbix



Architecture:

- ♥ server (+ IF web)
- ♥ agents
- ♥ (proxy)

maintenant explique comment ça marche

IF web facile à déployer sur apache, même moi y suis arrivé
je déteste apache

A fluffy, multi-colored cat (black, white, orange) is sleeping peacefully on a bed. The bed has light blue floral sheets. A dark blue and black patterned blanket is draped over the side. The cat is curled up, with its head near the top left and body extending towards the bottom right.

Principles:
♥ items
♥ triggers
♥ actions

très classique
TEMPLATES



Favourite graphs

Status of Zabbix



Parameter	Value	Details
Zabbix server is running	Yes	127.0.0.1:10051
Number of hosts (monitored/not monitored/templates)	46	4 / 0 / 42
Number of items (monitored/disabled/not supported)	508	458 / 0 / 50
Number of triggers (enabled/disabled)[problem/unknown/ok]	250	225 / 25 [22 / 0 / 203]
Number of users (online)	10	2
Required server performance, new values per second	14.89	-
PHP post max size	8M	16M is minimum size of PHP post
PHP max execution time	30	300 sec is a minimal limitation on execution time of PHP scripts
PHP max input time	60	300 sec is a minimal limitation on input parse time for PHP scripts
PHP timezone	no	Timezone for PHP is not set. Please set "date.timezone" option in php.ini.

Updated: 02:57:46

System status



Host group	Disaster	High	Average	Warning	Information	Not classified
Linux servers	0	7	12	3	0	0

Updated: 02:57:46

Host status



Host group	Without problems	With problems	Total
Linux servers	1	3	4

Updated: 02:57:46

Last 20 issues



Host	Issue	Last change	Age	Ack	Actions
Tiramisu	Lack of free swap space on Tiramisu	22 Nov 2012 02:34:08	23m 38s	No	-
Tiramisu	Low free disk space on Tiramisu volume /opt	21 Nov 2012 18:38:42	8h 19m 4s	No	-
Tiramisu	Low free disk space on Tiramisu volume /home	21 Nov 2012 18:38:38	8h 19m 8s	No	3



CPU Loads

Group **Linux servers** ▾ Host **all** ▾ Graph **CPU Loads** ▾

^ Filter ^

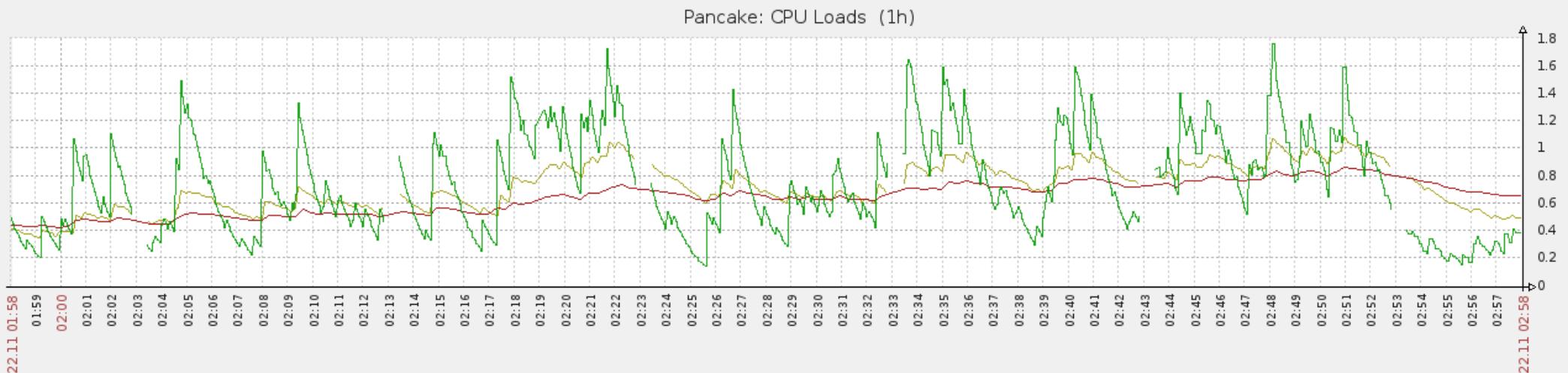
Zoom: **1h** 2h 3h 6h 12h 1d All

22.11.2012 01:58 - 22.11.2012 02:58 (now!)

<< **1d** 12h **1h** | **1h** 12h **1d** >>

01h 00m

(fixed)



	last	min	avg	max	
Processor load5	[avg]	0.49	0.35	0.72	1.08
Processor load15	[avg]	0.65	0.42	0.64	0.86
Processor load	[avg]	0.38	0.14	0.74	1.76

Data from history. Generated in 0.16 sec

vous pouvez définir les vôtres vous même
un est généré automatiquement pour tous les items

HOSTS

Group [Linux servers ▾](#)

Displaying 1 to 4 of 4 found

▼ Filter ▼

<input type="checkbox"/>	Name 	Applications	Items	Triggers	Graphs	DNS	IP	Port	Templates	Status	Availability
<input type="checkbox"/>	Donut	Applications (13)	Items (108)	Triggers (51)	Graphs (2)	donut.railnova.eu	0.0.0.0	10050	Template Linux	Monitored	   
<input type="checkbox"/>	Frangipane	Applications (12)	Items (102)	Triggers (44)	Graphs (4)	-	127.0.0.1	10050	Template Linux	Monitored	  
<input type="checkbox"/>	Pancake	Applications (14)	Items (195)	Triggers (139)	Graphs (4)	pancake.railnova.eu	127.0.0.1	10050	Template Linux	Monitored	 
<input type="checkbox"/>	Tiramisu	Applications (12)	Items (103)	Triggers (45)	Graphs (0)	tiramisu.railnova.eu	0.0.0.0	8888	Template Linux	Monitored	

[Export selected ▾](#) [Go \(0\)](#)

ITEMS

Displaying 51 to 100 of 195 found

▼ Filter ▼

Hosts list		Applications (14)	Triggers (139)	Graphs (4)	Host: Pancake	DNS: pancake.railnova.eu	IP: 127.0.0.1	Port: 10050	Status: Monitored	Availability: Available			
< Previous 1 2 3 4 Next >													
	Wizard	Description ↑		Triggers	Key		Interval	History	Trends	Type	Applications	Status	Error
<input type="checkbox"/>		Template_Linux:Incoming traffic on interface lo			net.if.in[lo,bytes]		5	7	365	Zabbix agent	Performance, Network	Active	
<input type="checkbox"/>		Template_Linux:Incoming traffic on interface eth1			net.if.in[eth1,bytes]		5	7	365	Zabbix agent	Performance, Network	Active	
<input type="checkbox"/>		Template_Linux:Maximum number of opened files		Triggers (1)	kernel.maxfiles		1800	7	365	Zabbix agent	OS	Active	
<input type="checkbox"/>		Template_Linux:Maximum number of processes		Triggers (1)	kernel.maxproc		1800	7	365	Zabbix agent	OS	Active	
<input type="checkbox"/>		Minutes since last point written on soapitest2		Triggers (1)	railnova.last_point_written.soapitest2		30	90	365	Zabbix agent	Railnova	Active	
<input type="checkbox"/>		Template_Linux:News (NNTP) server is running		Triggers (1)	net.tcp.service[nntp]		60	7	365	Zabbix agent	Services	Active	
<input type="checkbox"/>		Template_Linux:Number of processes		Triggers (2)	proc.num[]		30	7	365	Zabbix agent	Processes	Active	
<input type="checkbox"/>		Template_Linux:Number of running processes		Triggers (1)	proc.num[,run]		30	7	365	Zabbix agent	Processes	Active	
<input type="checkbox"/>		Template_Linux:Number of running processes zabbix_server		Triggers (1)	proc.num[zabbix_server]		60	7	365	Zabbix agent	Processes	Active	
<input type="checkbox"/>		Template_Linux:Number of running processes zabbix_agentd		Triggers (1)	proc.num[zabbix_agentd]		60	7	365	Zabbix agent	Processes	Active	
<input type="checkbox"/>		Template_Linux:Number of running processes apache		Triggers (1)	proc.num[httpd]		60	7	365	Zabbix agent	Processes	Active	
<input type="checkbox"/>		Template_Linux:Number of running processes inetd		Triggers (1)	proc.num/inetd		60	7	365	Zabbix agent	Processes	Active	
<input type="checkbox"/>		Template_Linux:Number of running processes mysqld		Triggers (1)	proc.num[mysqld]		60	7	365	Zabbix agent	Processes	Active	
<input type="checkbox"/>		Template_Linux:Number of running processes sshd		Triggers (1)	proc.num:sshd		60	7	365	Zabbix agent	Processes	Active	
<input type="checkbox"/>		Template_Linux:Number of running processes syslogd		Triggers (1)	proc.num:syslogd		60	7	365	Zabbix agent	Processes	Active	
<input type="checkbox"/>		Template_Linux:Number of users connected		Triggers (1)	system.users.num		60	7	365	Zabbix agent	OS	Active	
<input type="checkbox"/>		Number of waiting messages in rabbitmq queue		Triggers (1)	rabbitmq.queue.number_waiting_msg		10	90	365	Zabbix agent	Railnova	Active	
<input type="checkbox"/>		Template_Linux:Outgoing traffic on interface eth0			net.if.out[eth0,bytes]		5	7	365	Zabbix agent	Performance, Network	Active	
<input type="checkbox"/>		Template_Linux:Outgoing traffic on interface lo			net.if.out[lo,bytes]		5	7	365	Zabbix agent	Performance, Network	Active	
<input type="checkbox"/>		Template_Linux:Outgoing traffic on interface eth1			net.if.out[eth1,bytes]		5	7	365	Zabbix agent	Performance, Network	Active	
<input type="checkbox"/>		Overflowed quota on sim card 31682063776		Triggers (1)	railnova.simbilling.podsystem.sim.31682063776		7	365	Zabbix trapper	Simbilling	Active		
<input type="checkbox"/>		Overflowed quota on sim card 31682063778		Triggers (1)	railnova.simbilling.podsystem.sim.31682063778		7	365	Zabbix trapper	Simbilling	Active		

TRIGGERS

Group [Linux servers](#) ▾ Host [Pancake](#) ▾

Displaying 1 to 50 of 132 found

[[Show disabled triggers](#)]

Hosts list	Applications (14)	Items (195)	Graphs (4)	Host: Pancake	DNS: pancake.railnova.eu	IP: 127.0.0.1	Port: 10050	Status: Monitored	Availability: Available
----------------------------	-----------------------------------	-----------------------------	----------------------------	---------------	--------------------------	---------------	-------------	-------------------	-------------------------

1 | 2 | 3 | [Next >](#)

<input type="checkbox"/>	Severity	Status	Name ↗↑	Expression	Error
<input type="checkbox"/>	Warning	Enabled	Template Linux:/boot/vmlinuz has been changed on server {HOSTNAME}	{Pancake:vfs.file.cksum[/boot/vmlinuz].diff(0)}>0	
<input type="checkbox"/>	Warning	Enabled	Template Linux:/etc/inetd.conf has been changed on server {HOSTNAME}	{Pancake:vfs.file.cksum[/etc/inetd.conf].diff(0)}>0	
<input type="checkbox"/>	Average	Enabled	Template Linux:/etc/passwd has been changed on server {HOSTNAME}	{Pancake:vfs.file.cksum[/etc/passwd].diff(0)}>0	
<input type="checkbox"/>	Average	Enabled	Template Linux:/etc/services has been changed on server {HOSTNAME}	{Pancake:vfs.file.cksum[/etc/services].diff(0)}>0	
<input type="checkbox"/>	Warning	Enabled	Check restart for Postgresql	{Pancake:log[/var/log/postgresql/postgresql-8.4-main.log,"u une demande d'arr","UTF-8",100].diff(0)}>0	
<input type="checkbox"/>	Information	Enabled	Template Linux:Configured max number of opened files is too low on {HOSTNAME}	{Pancake:kernel.maxfiles.last(0)}<512	
<input type="checkbox"/>	Information	Enabled	Template Linux:Configured max number of processes is too low on {HOSTNAME}	{Pancake:kernel.maxproc.last(0)}<256	
<input type="checkbox"/>	Average	Enabled	Template Linux:Email (SMTP) server is down on {HOSTNAME}	{Pancake:net.tcp.service[smtp].last(0)}=0	
<input type="checkbox"/>	Average	Enabled	Template Linux:FTP server is down on {HOSTNAME}	{Pancake:net.tcp.service[ftp].last(0)}=0	
<input type="checkbox"/>	Information	Enabled	Template Linux:Host information was changed on {HOSTNAME}	{Pancake:system.uname.diff(0)}>0	
<input type="checkbox"/>	Information	Enabled	Template Linux:Hostname was changed on {HOSTNAME}	{Pancake:system.hostname.diff(0)}>0	
<input type="checkbox"/>	Average	Enabled	Template Linux:Lack of free memory on server {HOSTNAME}	{Pancake:vm.memory.size[free].last(0)}<10000	
<input type="checkbox"/>	High	Enabled	Template Linux:Lack of free swap space on {HOSTNAME}	{Pancake:system.swap.size[free].last(0)}<100000	
<input type="checkbox"/>	High	Enabled	Template Linux:Low free disk space on {HOSTNAME} volume /	{Pancake:vfs.fs.size[/,pfree].last(0)}<10	
<input type="checkbox"/>	High	Enabled	Template Linux:Low free disk space on {HOSTNAME} volume /home	{Pancake:vfs.fs.size[/home,pfree].last(0)}<10	
<input type="checkbox"/>	High	Enabled	Template Linux:Low free disk space on {HOSTNAME} volume /opt	{Pancake:vfs.fs.size[/opt,pfree].last(0)}<10	
<input type="checkbox"/>	High	Enabled	Template Linux:Low free disk space on {HOSTNAME} volume /tmp	{Pancake:vfs.fs.size[/tmp,pfree].last(0)}<10	
<input type="checkbox"/>	High	Enabled	Template Linux:Low free disk space on {HOSTNAME} volume /usr	{Pancake:vfs.fs.size[/usr,pfree].last(0)}<10	
<input type="checkbox"/>	High	Enabled	Template Linux:Low free disk space on {HOSTNAME} volume /var	{Pancake:vfs.fs.size[/var,pfree].last(0)}<10	
<input type="checkbox"/>	High	Enabled	Template Linux:Low number of free inodes on {HOSTNAME} volume /	{Pancake:vfs.fs.inode[/,pfree].last(0)}<10	
<input type="checkbox"/>	High	Enabled	Template Linux:Low number of free inodes on {HOSTNAME} volume /home	{Pancake:vfs.fs.inode[/home,pfree].last(0)}<10	

	Trigger = "Pancake:Sim card 31682063803 has overflowed" Trigger = "Pancake:Sim card 31682063814 has overflowed" Trigger = "Pancake:Sim card 31682063825 has overflowed" Trigger = "Pancake:Sim card 31682063835 has overflowed"		
<input type="checkbox"/> Lack of free memory	Trigger = "Donut:Lack of free memory on server {HOSTNAME}" Trigger = "Pancake:Lack of free memory on server {HOSTNAME}"	Send message to Group "Railnova Reponse Team"	Enabled
<input type="checkbox"/> Load is too heavy	Trigger = "Template_Linux:Processor load is too high on {HOSTNAME}" Trigger = "Pancake:Sshd is not running on {HOSTNAME}"		Disabled
<input type="checkbox"/> No more free space on tiramisu	Trigger = "Tiramisu:Low free disk space on {HOSTNAME} volume /" Trigger = "Tiramisu:Low free disk space on {HOSTNAME} volume /home"	Send message to Group "Railnova Reponse Team"	Enabled
<input type="checkbox"/> Not enough space on home or root	Trigger = "Donut:Low free disk space on {HOSTNAME} volume /" Trigger = "Donut:Low free disk space on {HOSTNAME} volume /home" Trigger = "Pancake:Low free disk space on {HOSTNAME} volume /" Trigger = "Pancake:Low free disk space on {HOSTNAME} volume /home"	Send message to Group "Railnova Reponse Team"	Enabled
<input type="checkbox"/> One server is unreachable	Trigger = "Donut:Server {HOSTNAME} is unreachable" Trigger = "Pancake:Server {HOSTNAME} is unreachable" Trigger = "Tiramisu:Server {HOSTNAME} is unreachable"	Send message to Group "Railnova Reponse Team"	Enabled
<input type="checkbox"/> Passwd files changed	Trigger = "Donut:/etc/passwd has been changed on server {HOSTNAME}" Trigger = "Pancake:/etc/passwd has been changed on server {HOSTNAME}" Trigger = "Tiramisu:/etc/passwd has been changed on server {HOSTNAME}"	Send message to Group "Railnova Reponse Team"	Enabled
<input type="checkbox"/> Postgres has restarted	Trigger = "Pancake:Check restart for Postgresql"	Send message to Group "Railnova Reponse Team" Send message to Group "Railnova Reponse Team"	Enabled
<input type="checkbox"/> Some sim cards are overflowing.	Trigger = "Pancake:Too long time since last point written on soapitest2" Trigger = "Pancake:There are some sims cart that are overflowing"		Disabled
<input type="checkbox"/> Too long time since last point written on blogistics_demo	Trigger = "Pancake:Hostname was changed on {HOSTNAME}"		Disabled
<input type="checkbox"/> Too long time since last point written on DBs	Trigger = "Donut:Too long time since last point written on blogistics_demo" Trigger = "Donut:Too long time since last point written on europorte" Trigger = "Donut:Too long time since last point written on nshispeed_demo" Trigger = "Pancake:Too long time since last point written on soapitest2" Trigger = "Donut:Too long time since last point written on vfli_demo" Trigger = "Donut:Too long time since last point written on soapitest3"	Send message to Group "Railnova Reponse Team"	Enabled
<input type="checkbox"/> Too long time since last point written on nshispeed_demo	Trigger = "Pancake:FTP server is down on {HOSTNAME}"		Disabled
<input type="checkbox"/> Too long time since last point written on soapitest2	Trigger = "Donut:Low free disk space on {HOSTNAME} volume /home"		Disabled
<input type="checkbox"/> Too long time since last point written on soapitest3	Trigger = "Pancake:vmlinuz has been changed on server {HOSTNAME}"		Disabled
<input type="checkbox"/> Too long time since last point written on vfli_demo	Trigger = "Pancake:Low number of free inodes on {HOSTNAME} volume /usr"		Disabled
<input type="checkbox"/> Too much items waiting in rabbitmq queue	Trigger = "Donut:WEB (HTTP) server is down on {HOSTNAME}"		Disabled

[Enable selected](#) ▾ [Go \(0\)](#)

History: Configuration of triggers > Dashboard > Custom graphs > Latest events > Configuration of actions

CONFIGURATION OF ACTIONS

Action	
Name	<input type="text"/>
Event source	Triggers <input type="button" value="▼"/>
Enable escalations	<input type="checkbox"/>
Default subject	<input type="text"/> {TRIGGER.STATUS}: {TRIGGER.NAME}
Default message	<input type="text"/> Trigger: {TRIGGER.NAME} Trigger status: {TRIGGER.STATUS} Trigger severity: {TRIGGER.SEVERITY} Trigger URL: {TRIGGER.URL} <input type="button" value="▲"/> <input type="button" value="▼"/>
Recovery message	<input type="checkbox"/>
Status	Enabled <input type="button" value="▼"/>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	
Action conditions	
Type of calculation	AND / OR <input type="button" value="▼"/> (A) and (B)
Conditions	(A) <input type="checkbox"/> Trigger value = "PROBLEM" (B) <input type="checkbox"/> Maintenance status not in "maintenance"
<input type="button" value="Delete selected"/>	
New condition	
Trigger	<input type="button" value="▼"/> = <input type="button" value="▼"/> <input type="button" value="Select"/>
<input type="button" value="Add"/> <input type="button" value="Cancel"/>	

Action operations		
<input type="checkbox"/>	Details	Action
No operations defined		
Edit operation		
Operation type	Send message <input type="button" value="▼"/>	
Send message to	User group <input type="button" value="▼"/>	<input type="button" value="Select"/>
Send only to	- all - <input type="button" value="▼"/>	
Default message <input checked="" type="checkbox"/>		
<input type="button" value="Add"/> <input type="button" value="Cancel"/>		

Action

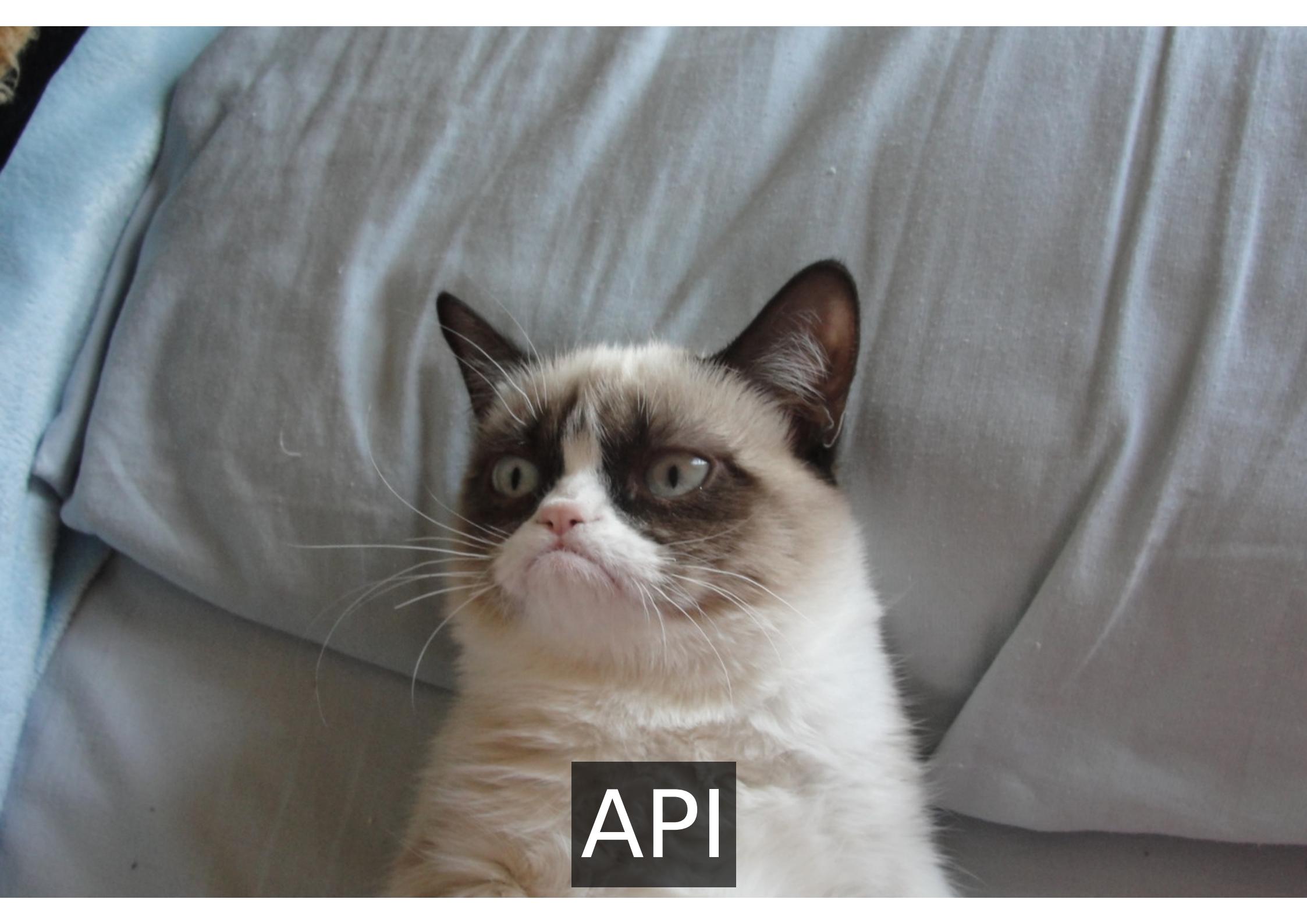
Name	Generique alertes
Event source	Triggers
Enable escalations	<input type="checkbox"/>
Default subject	{TRIGGER.STATUS}: {TRIGGER.NAME}
Default message	Trigger: {TRIGGER.NAME} Trigger status: {TRIGGER.STATUS} Trigger severity: {TRIGGER.SEVERITY} Trigger URL: {TRIGGER.URL}
Recovery message	<input type="checkbox"/>
Status	Enabled

Save **Clone** **Delete** **Cancel**

Action conditions

Type of calculation	AND / OR	(A) and (B) and (C)
	(A)	<input type="checkbox"/> Trigger value = "PROBLEM"
Conditions	(B)	<input type="checkbox"/> Maintenance status not in "maintenance"
	(C)	<input type="checkbox"/> Trigger severity >= "Average"

New **Delete selected**

A close-up photograph of a fluffy, light-colored cat with dark brown or black markings on its face and ears. The cat has large, expressive eyes and is looking slightly upwards and to the right. It appears to be resting on a soft, grey fabric surface.

API

cool

json rpc

putain de frustrant

```
from zabbix_api import ZabbixAPI

zabbix = ZabbixAPI(server="https://chezmoi.com/zabbix/")
zabbix.login("Admin", "zabbix")

all_items = zabbix.item.get({"output": "extend"})

my_host_id = zabbix.host.get({"output": "extend",
                             "search": {"host": "Pancake"}})["hostid"]

zabbix.item.create({"key_": "my.item.that.I.love",
                    "description": "I love cats",
                    "hostid": my_host_id,
                    "value_type": "2"})
```



Bilan

cool, très content
facile à mettre en place
doc pu
api super frustrante
clickodrome, scale ?



Merci ! Questions ?