

Zabbix Server Health Check

The Documentation of creating Zabbix server health check and sending the data through the telegram.

The references:

[Zabbix server external check configuration](#)

[Resolving The information type trigger automatically in Zabbix](#)

The start point is writing a bash script to give data from the server that Zabbix is running on it, the example script looks like this:

```
health_check.sh
1 #!/bin/bash
2
3
4 host_name="Hostname: $HOSTNAME"
5 echo "$host_name"
6
7 up_time="System Uptime Days/(HH:MM): $(uptime | awk '{print $3,$4}' | cut -f 1 -d,)"
8 echo "$up_time"
9
10 logged_in_user="Logged In users : $(who)"
11 echo "$logged_in_user"
12
13 ram_usage=$(free -h | grep total && free -h | grep Mem:)
14 echo "$ram_usage"
15
16 swap_usage=$(free -h | grep total && free -h | grep Swap:)
17 echo "$swap_usage"
18
19 zombie="zombie: $(ps aux | awk {'print $8'}|grep -c Z) "
20 echo "$zombie"
21
22 disk_usage=$(df -h | grep 'Filesystem\|/dev/sda*')
23 echo "$disk_usage"
24
25 cpu=$(top -bn1 | head | grep "%Cpu(s):")
26 echo "$cpu"
27
```

Note: You should put the script in Zabbix external scripts path(you can find yours in `zabbix_server.conf` file), but usually it is `/usr/lib/zabbix/externalscripts`.

Next step is creating an item in Zabbix in your desired host, The example item looks like this:

* Name

Health Check

Type

External check

* Key

health_check.sh

Select

* Host interface

127.0.0.1 : 10050

Type of information

Text

* Update interval

0

Custom intervals

Type	Interval	Period	Action
Flexible	Scheduling	m0-59	Remove
Add			

* History storage period

Do not keep history

Storage period

90d

New application

Applications

-None-

Populates host inventory field

-None-

Description

Enabled

☒

Update

Clone

Check now

Clear history and trends

Delete

Cancel

Note: The type of item must be external check so you can use your script.

Note: Type of information must be Text.

Note: set your custom interval based on your needs.

For more information About custom intervals visit:

--- [Zabbix custom intervals documentation.](#)

Next step is configuring a trigger for the item we created, the example trigger looks like this:

The screenshot shows the Zabbix trigger configuration page. The 'Name' field is 'Zabbix Server Health Check Info'. The 'Operational data' field is empty. The 'Severity' is set to 'Information'. The 'Expression' field contains the Zabbix expression: `{test:health_check.sh.strlen()}>0 and {test:health_check.sh.nodata(10)} = 0`. Below the expression field is a link to the 'Expression constructor'. The 'OK event generation' section has 'Expression' selected. The 'PROBLEM event generation mode' is set to 'Multiple'. The 'OK event closes' section has 'All problems if tag values match' selected. The 'Tag for matching' is 'Health'. The 'Allow manual close' checkbox is checked. The 'URL' field is empty. The 'Description' field is empty. The 'Enabled' checkbox is checked. At the bottom are buttons for 'Update', 'Clone', 'Delete', and 'Cancel'.

* Name: Zabbix Server Health Check Info

Operational data:

Severity: Not classified **Information** Warning Average High Disaster

* Expression: `{test:health_check.sh.strlen()}>0 and {test:health_check.sh.nodata(10)} = 0` Add

[Expression constructor](#)

OK event generation: Expression Recovery expression None

PROBLEM event generation mode: Single **Multiple**

OK event closes: All problems **All problems if tag values match**

* Tag for matching: Health

Allow manual close: ☒

URL:

Description:

Enabled: ☒

Update Clone Delete Cancel

Note: The used expression in picture checks that the given data's length is not 0 and then use the `nodata()` function to resolve the trigger automatically after 10 seconds that the trigger runs to **PROBLEM** state.

Note: Problem event generation mode should be set to **Multiple**, so we can generate multiple triggers even if the last triggers are not resolved(for short time repetitive triggers.)

Note: you can enable manual close if you want to be able to close the trigger your self and not automatically.

The next Step is configuring an action to send the data to a media that you want to send your health check through it. Example media looks like this:

The screenshot shows the Zabbix configuration interface for a trigger named "Health Check". The "Conditions" section is active, showing a new condition: "Trigger" equals "Test server: Zabbix Server Health Check Info". The "Enabled" checkbox is checked. At the bottom, there are buttons for "Update", "Clone", "Delete", and "Cancel".

Navigation tabs: Action, Operations, Recovery operations, Update operations

* Name: Health Check

Conditions

Label	Name	Action
Trigger	equals	Test server: Zabbix Server Health Check Info

New condition: Trigger equals Test server: Zabbix Server Health Check Info

Enabled: ☒

* At least one operation, recovery operation or update operation must exist.

Buttons: Update, Clone, Delete, Cancel

And the operation:

The screenshot shows the Zabbix configuration interface for the "Health Check" operation. The "Operations" section is active, showing a default message: "Health check started at {EVENT.TIME} on {EVENT.DATE} Host: {HOST.NAME} {ITEM.VALUE}". The "Pause operations for suppressed problems" checkbox is checked. Below, there is a table of steps with one step: "Send message to users: Admin (Zabbix Administrator) via Telegram script". At the bottom, there are buttons for "Update", "Clone", "Delete", and "Cancel".

Navigation tabs: Action, Operations, Recovery operations, Update operations

* Default operation step duration: 1h

Default subject: Information: {EVENT.NAME}

Default message: Health check started at {EVENT.TIME} on {EVENT.DATE} Host: {HOST.NAME} {ITEM.VALUE}

Pause operations for suppressed problems: ☒

Operations

Steps	Details	Start in	Duration	Action
1	Send message to users: Admin (Zabbix Administrator) via Telegram script Send message to user groups: Zabbix administrators via Telegram script	Immediately	Default	Edit Remove

* At least one operation, recovery operation or update operation must exist.

Buttons: Update, Clone, Delete, Cancel

Note: Because the trigger type is INFORMATION there is no need for a recovery operation.

Note: You can send the message to your defined media.

For creating a Telegram Media Type you can use these docs:

[The Github Repo of building telegram media in Zabbix.](#)

[My guide to how to set up the telegram media in Zabbix based on Zabbix in telegram
GitHub repository](#)