Receiving Zabbix notifications via Signal

An alternative to WhatsApp
whoami

Nathan Liefting

• IT (Zabbix) consultant
• Zabbix trainer
• Network engineer
How did it start?

Alternatives

• Telegram (400 million active users)
• Signal (50 million active users)
• Other media

• Smoke signals
• Snail mail
Getting alerts in one application

- Zabbix sends alerts (hopefully not that many)
- Signal offers an API

Profit!

Note: Signal forces us to provide phone number. And you don’t want to use your own phone number!
Let’s get started.

• Prerequisites / used setup:
  • Zabbix 5.2
  • CentOS8

• All phone numbers must include the country calling code, i.e. the number must start with a "+" sign:

Example: +1929377125
Installation of Signal-CLI

Open your terminal, make sure you’ve got sufficient permissions and download the package:

```bash
export VERSION="0.7.3"
wget https://github.com/AsamK/signal-cli/releases/download/v"${VERSION}"/signal-cli-"${VERSION}".tar.gz
```

Extract and make symlinks:

```bash
sudo tar xf signal-cli-"${VERSION}".tar.gz -C /opt
sudo ln -sf /opt/signal-cli-"${VERSION}"/bin/signal-cli /usr/local/bin/
```
Register against Signal

As ‘Zabbix’ user we will call Signal-cli and register our phone number:

```
runuser -l zabbix -c 'signal-cli <NUMBER> register'
```

Within a few seconds, you will receive a text message at this phone number:

Back to the terminal and finish the registration:

```
runuser -l zabbix -c 'signal-cli <NUMBER> verify <CODE>'
```
Sending messages from the terminal

After the registration, test if you’re able to send a message from your terminal:

signal-cli -u <number> send -m "Test registration" <receiver>

Hopefully, you will see something like this:

Perfect! We’re almost done here.
Zabbix alert script

• Since we are using Signal-CLI we have to comply with their format. Meaning we need an alert script to meet those requirements

Create a new script in /usr/lib/zabbix/alertscripts/

vim /usr/lib/zabbix/alertscripts/signal.sh

#!/bin/bash
signal-cli -u '<number>' send -m "$1" $2

Set the correct permissions:
chmod 700 /usr/lib/zabbix/alertscripts/signal.sh
chown zabbix:zabbix /usr/lib/zabbix/alertscripts/signal.sh
Frontend setup

• Time to build our own mediatype:

Navigate to Administration | Media types
And click on “create media type”

• **Name**: Signal
• **Type**: Script
• **Script name**: signal.sh
• **Script parameters**: 
  {ALERT.MESSAGE}
  {ALERT.SENDTO}

Do not forget to create ”message templates”.
You can use the defaults!
Navigate to Administration | Users or just edit your user profile

Second tab (“media”) and add a new media there with the following settings:

Note: Of course you should replace ‘<RECEIVER>’ with your own phone number
Configure or reconfigure your actions

Navigate to Configuration | Actions

Find the action you always use and click on tab “operations” within it.

You should adjust “Send only to” to reflect “Signal”

If you have “-All-” configured, it should work already
Testing

• Or wait till you’ve got a real problem

• Create a host
• On that host, item of type “Zabbix trapper”
• On that item trigger: if last value>1

• Make sure the host is matched by your action!
Result:

Problem started at 14:42:20 on 2021-01-18
Problem name: testing
Host: test
Severity: Not classified
Operational data: 5
Original problem ID: 2708699
Wrap up

• Download Signal-cli
• Register your phone number
• Create Zabbix alertscript
• Configure Zabbix mediatype, media and action in the frontend
• Test

• Profit!
Need a recap?

No problem!
Check out the blog post:

https://blog.zabbix.com/
• How to setup and work with Zabbix monitoring
• Working to keep Zabbix structured
• Making sure to maintain Zabbix performance overtime
• From start to finish, from installation to API.

• Please leave an Amazon review, we’d love to read them!

https://www.amazon.com/gp/product/B08NX17XT8
Thank you

Questions?