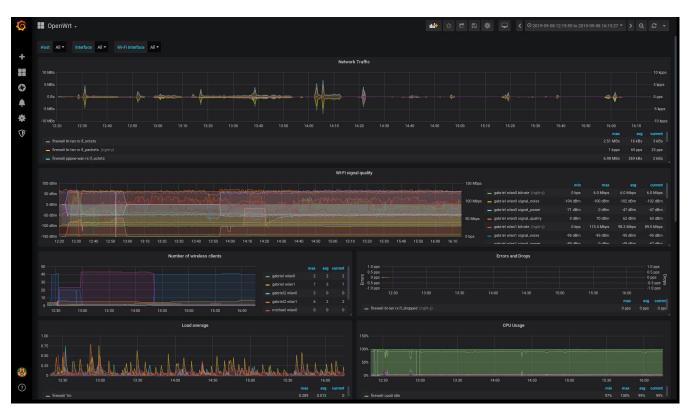
# onitoring OpenWrt with collectd, InfluxDB and Grafana

BY CHRIS — 9 SEPTEMBER, 2019 — FEDORA, FOSS

In my previous blog post I showed how to set up InfluxDB and Grafana (and Prometheus), please see that post on how to configure them. This is how I configured my OpenWrt devices to provide monitoring and graphing of my network.

OpenWrt includes support for collectd (and even graphing inside Luci web interface) so we can leverage this and send our data across the network to the monitoring host.



OpenWrt stats in Grafana

# Install and configure packages on OpenWrt

Log into your OpenWrt devices and install the required packages.

```
opkg update
opkg install luci-app-statistics collectd collectd-mod-cpu \
collectd-mod-interface collectd-mod-iwinfo \
collectd-mod-load collectd-mod-memory collectd-mod-network collectd-mod-
/etc/init.d/luci_statistics enable
/etc/init.d/collectd enable
```

Next, log into your device's OpenWrt web interface and you should see a new *Statistics* menu at the top. Hover over this and click on *Setup* so that we can configure collectd.

Add the *Hostname* field and enter in the device's hostname (or some name you want).

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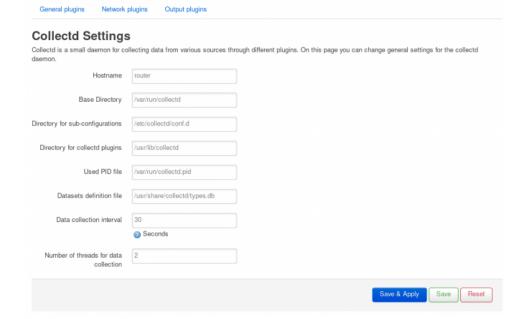
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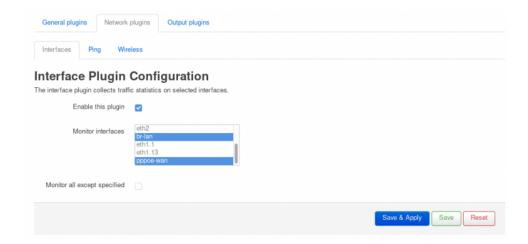
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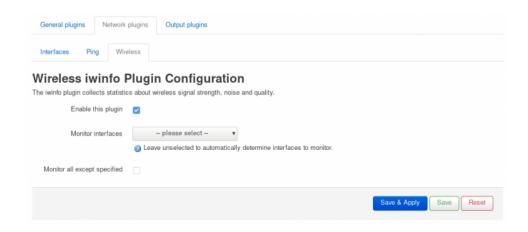
Click on *General plugins* and make sure that *Processor*, *System Load*, *Memory* and *Uptime* are all enabled. Hit *Save* & *Apply*.



Under *Network plugins*, ensure *Interfaces* is enabled and select the interfaces you want to monitor (lan, wan, wifi, etc).



Still under *Network plugins*, also ensure *Wireless* is enabled but don't select any interfaces (it will work it out). Hit *Save & Apply* (I don't bother with the *Ping* plugin).



Click on *Output plugins* and ensure *Network* is enabled so that we can stream metrics to InfluxDB. All you need to do is add an entry under *server interfaces* that points to the IP address of your monitor server (which is running InfluxDB with the collectd listener enabled). Hit *Save & Apply*.

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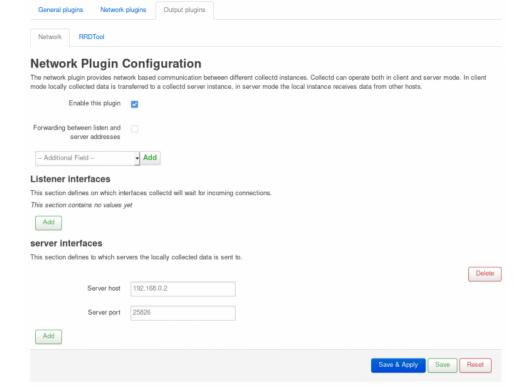
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Finally, you can leave *RRDTool* plugin as it is, or disable it if you want to (it will stop showing graphs in Luci if you do, but we're using Grafana anyway and you'll have less load on your router). If you do enable, it make sure it is writing data to tmpfs to avoid wearing our your flash (this is the default configuration).

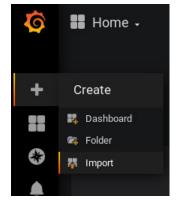
That's your OpenWrt configuration done!

# Loading a dashboard in Grafana

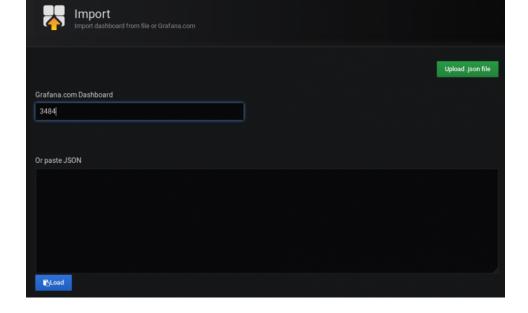
Still in your web browser, log into Grafana on your monitor node (port 3000 by default).



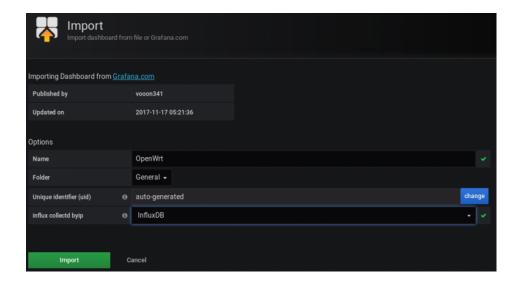
Import a new dashboard.



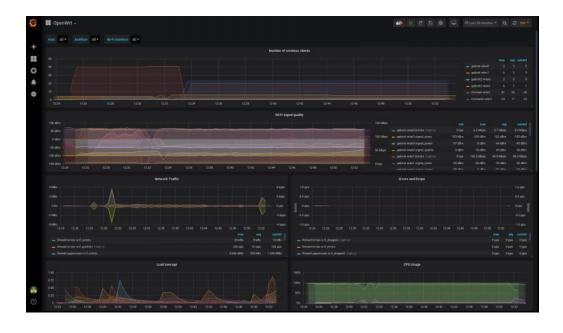
We will use an existing dashboard by contributor vooon341, so simply type in the number 3484 and hit *Load*.



This will download the dashboard from Grafana and prompt for settings. Enter whatever *Name* you like, select *InfluxDB* as your data source (configured in the previous blog post), then hit *Import*.



Grafana will now go and query InfluxDB and present your dashboard with all of your OpenWrt devices.



OpenWrt also supports a LUA Prometheus node exporter, so if you wanted to add those as well, you could. However, I think collectd does a reasonable job.

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