

T.I.G. Stack for OPNsense Firewall

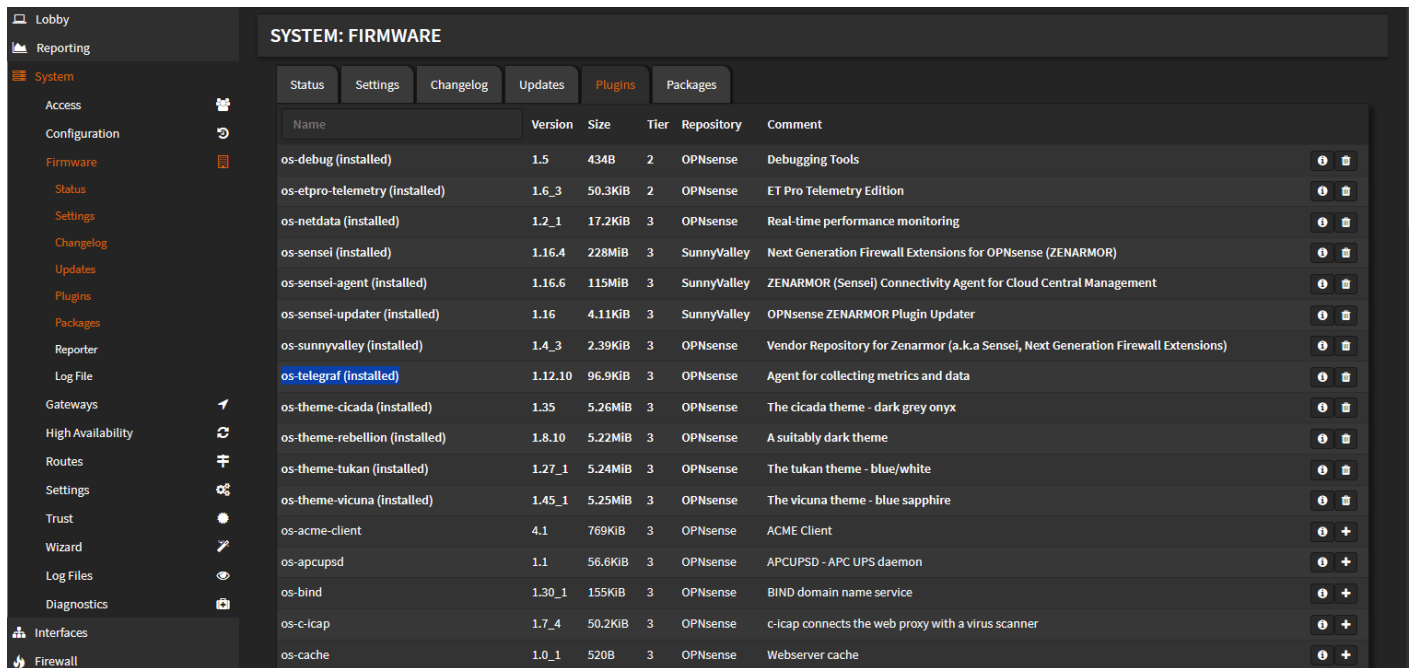
Telegraf Agent + InfluxDB + Grafana stack to build dashboard from for my OPNsense Firewall & Router

- [Telegraf Agent --> InfluxDB](#)
- [The Dashboard](#)

Telegraf Agent --> InfluxDB

With my influxDB + Grafana connection already set up, I just need to create an OPNsense bucket in my InfluxDB container and connect it to a Telegraf agent to my OPNsense set-up.

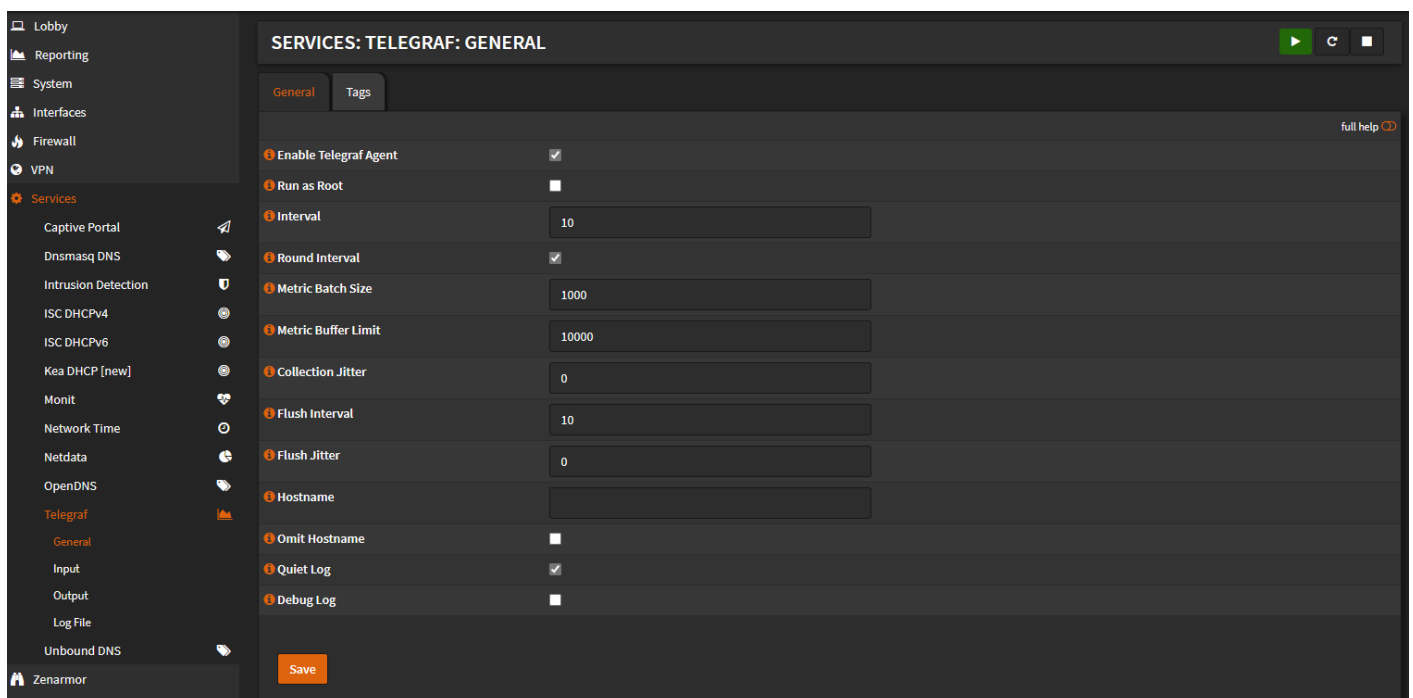
First, download the Telegraf plug in to your OPNsense machine. Navigate to System ---> Firmware ---> Plug-Ins and download Telegraf:



The screenshot shows the OPNsense web interface, specifically the 'SYSTEM: FIRMWARE' section under the 'Plugins' tab. A list of installed plugins is displayed with columns for Name, Version, Size, Tier, Repository, and Comment. The 'os-telegraf (installed)' plugin is highlighted in blue.

Name	Version	Size	Tier	Repository	Comment
os-debug (installed)	1.5	434B	2	OPNsense	Debugging Tools
os-etpro-telemetry (installed)	1.6_3	50.3KiB	2	OPNsense	ET Pro Telemetry Edition
os-netdata (installed)	1.2_1	17.2KiB	3	OPNsense	Real-time performance monitoring
os-sensei (installed)	1.16.4	228MiB	3	SunnyValley	Next Generation Firewall Extensions for OPNsense (ZENARMOR)
os-sensei-agent (installed)	1.16.6	115MiB	3	SunnyValley	ZENARMOR (Sensei) Connectivity Agent for Cloud Central Management
os-sensei-updater (installed)	1.16	4.11KiB	3	SunnyValley	OPNsense ZENARMOR Plugin Updater
os-sunnyvalley (installed)	1.4_3	2.39KiB	3	OPNsense	Vendor Repository for Zenarmor (a.k.a Sensei, Next Generation Firewall Extensions)
os-telegraf (installed)	1.12.10	96.9KiB	3	OPNsense	Agent for collecting metrics and data
os-theme-cicada (installed)	1.35	5.26MiB	3	OPNsense	The cicada theme - dark grey onyx
os-theme-rebellion (installed)	1.8.10	5.22MiB	3	OPNsense	A suitably dark theme
os-theme-tukan (installed)	1.27_1	5.24MiB	3	OPNsense	The tukan theme - blue/white
os-theme-vicuna (installed)	1.45_1	5.25MiB	3	OPNsense	The vicuna theme - blue sapphire
os-acme-client	4.1	769KiB	3	OPNsense	ACME Client
os-apcupsd	1.1	56.6KiB	3	OPNsense	APCUPS.D - APC UPS daemon
os-bind	1.30_1	155KiB	3	OPNsense	BIND domain name service
os-c-icap	1.7_4	50.2KiB	3	OPNsense	c-icap connects the web proxy with a virus scanner
os-cache	1.0_1	520B	3	OPNsense	Webserver cache

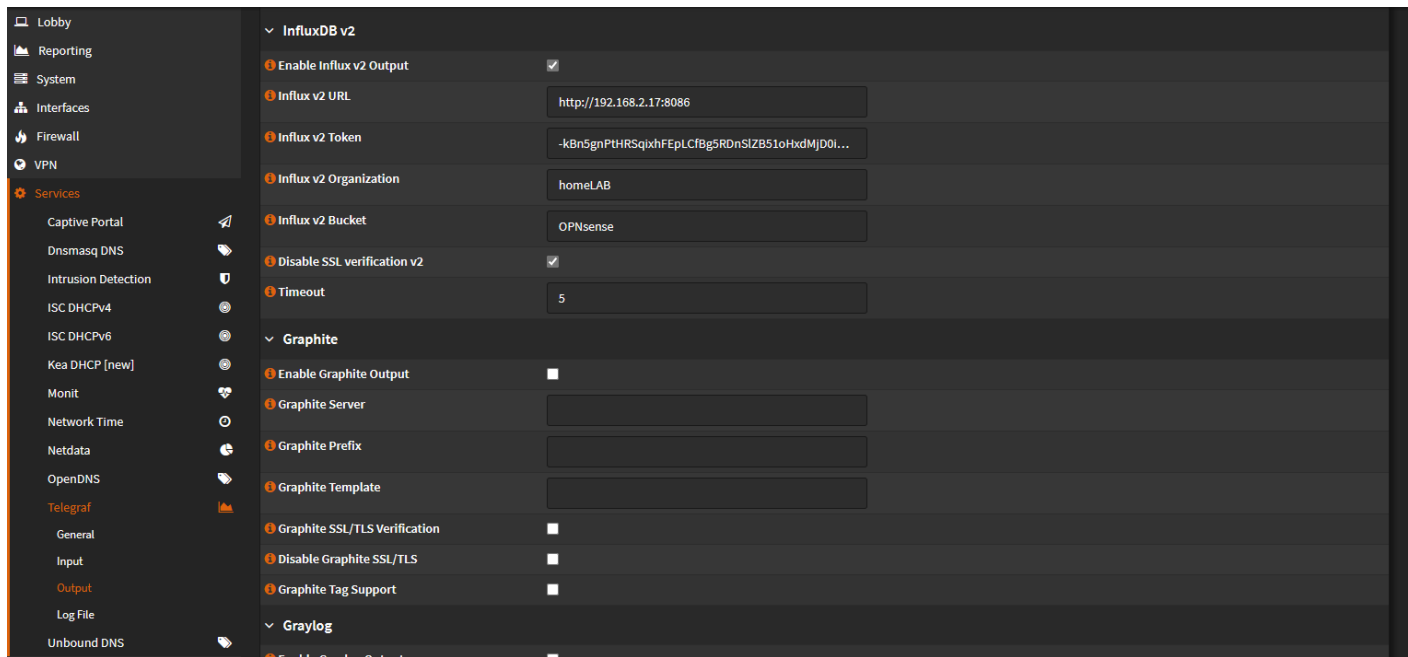
Once installed, navigate to Services ---> Telegraf ---> General and enable the agent:



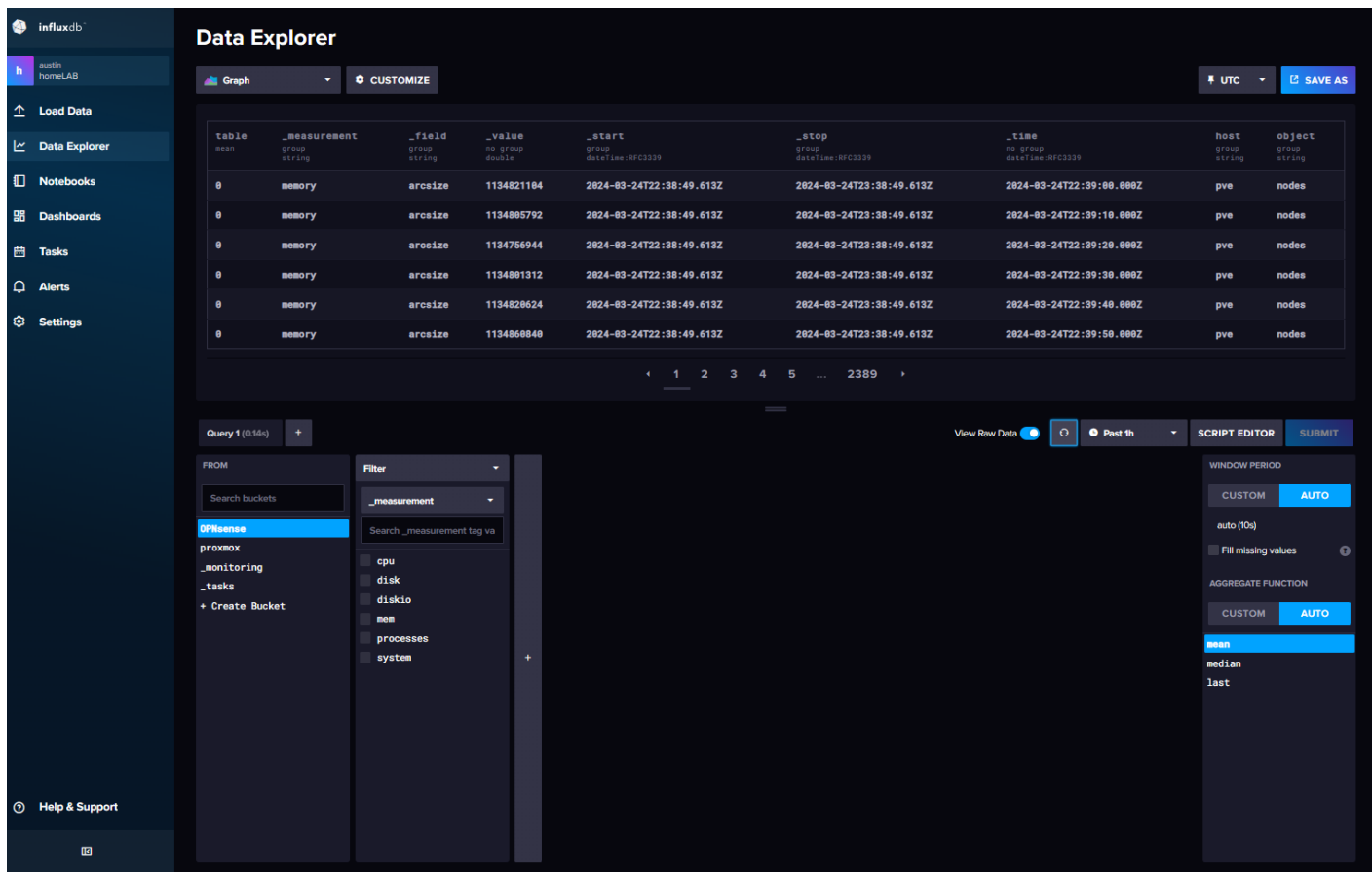
The screenshot shows the OPNsense web interface, specifically the 'SERVICES: TELEGRAF: GENERAL' configuration page. The 'General' tab is selected, and the 'Enable Telegraf Agent' checkbox is checked. Other configuration options include 'Run as Root', 'Interval', 'Round Interval', 'Metric Batch Size', 'Metric Buffer Limit', 'Collection Jitter', 'Flush Interval', 'Flush Jitter', 'Hostname', 'Omit Hostname', 'Quiet Log', and 'Debug Log'. A 'Save' button is visible at the bottom.

Option	Value
Enable Telegraf Agent	<input checked="" type="checkbox"/>
Run as Root	<input type="checkbox"/>
Interval	10
Round Interval	<input checked="" type="checkbox"/>
Metric Batch Size	1000
Metric Buffer Limit	10000
Collection Jitter	0
Flush Interval	10
Flush Jitter	0
Hostname	
Omit Hostname	<input type="checkbox"/>
Quiet Log	<input checked="" type="checkbox"/>
Debug Log	<input type="checkbox"/>

Save settings, then navigate to Telegraf ---> Output. Enable and enter connection information for your InfluxDB2 container:



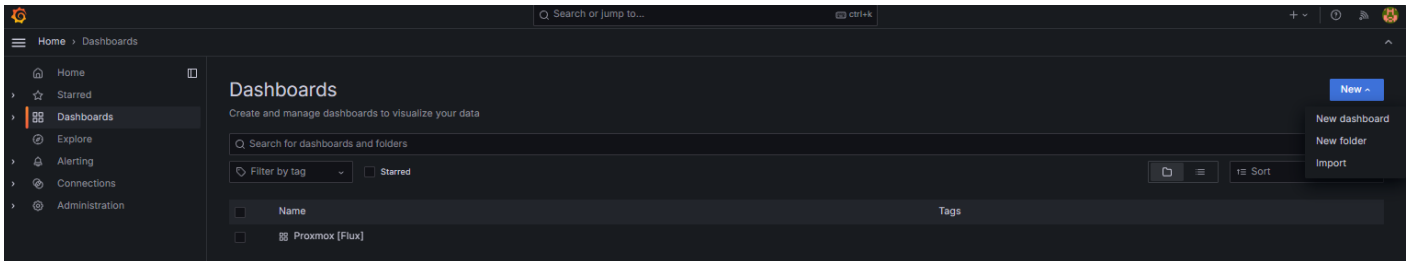
Save settings, then navigate to your influxDB2 GUI and select your bucket to confirm you're receiving data:



All set, you can now start building your dashboard with Grafana!

The Dashboard

In Grafana, either load a template or build your own custom dashboard by navigating to Home ---> Dashboards ---> New:



Given that OPNsense was forked from PfSense, you can either find PfSense dashboards and configure variables accordingly, use OPNsense templates, or just build your own dashboard. I used [OPNsense Metrics](#). Load the dashboard and configure however you'd like!



~ Network

Network Rate In

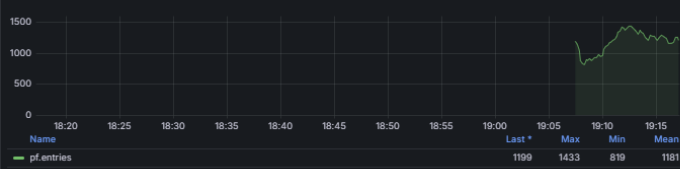


Network Rate Out



~ Firewall

State Table Usage



State Table Detail

