Network Management as a Service (NMaaS)

NMaaS application portfolio

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GÉANT Network Management as a Service (NMaaS)
Infoshare

November 25th 2020

www.geant.org

NMaaS Tools portfolio

18 applications available in the marketplace

Oxidized	Bastion	**perfSONAR** Central Management
LibreNMS	Statping	
NAV	**SPA Inventory**	**WiFiMon**
Prometheus	Debian repository	InfluxDB
Grafana		Jenkins
Booked	ELK Stack	

On the roadmap

NMaaS Tools Portfolio: Oxidized

Oxidized is a simple open-source device **configuration backup tool** exposing a web-based GUI
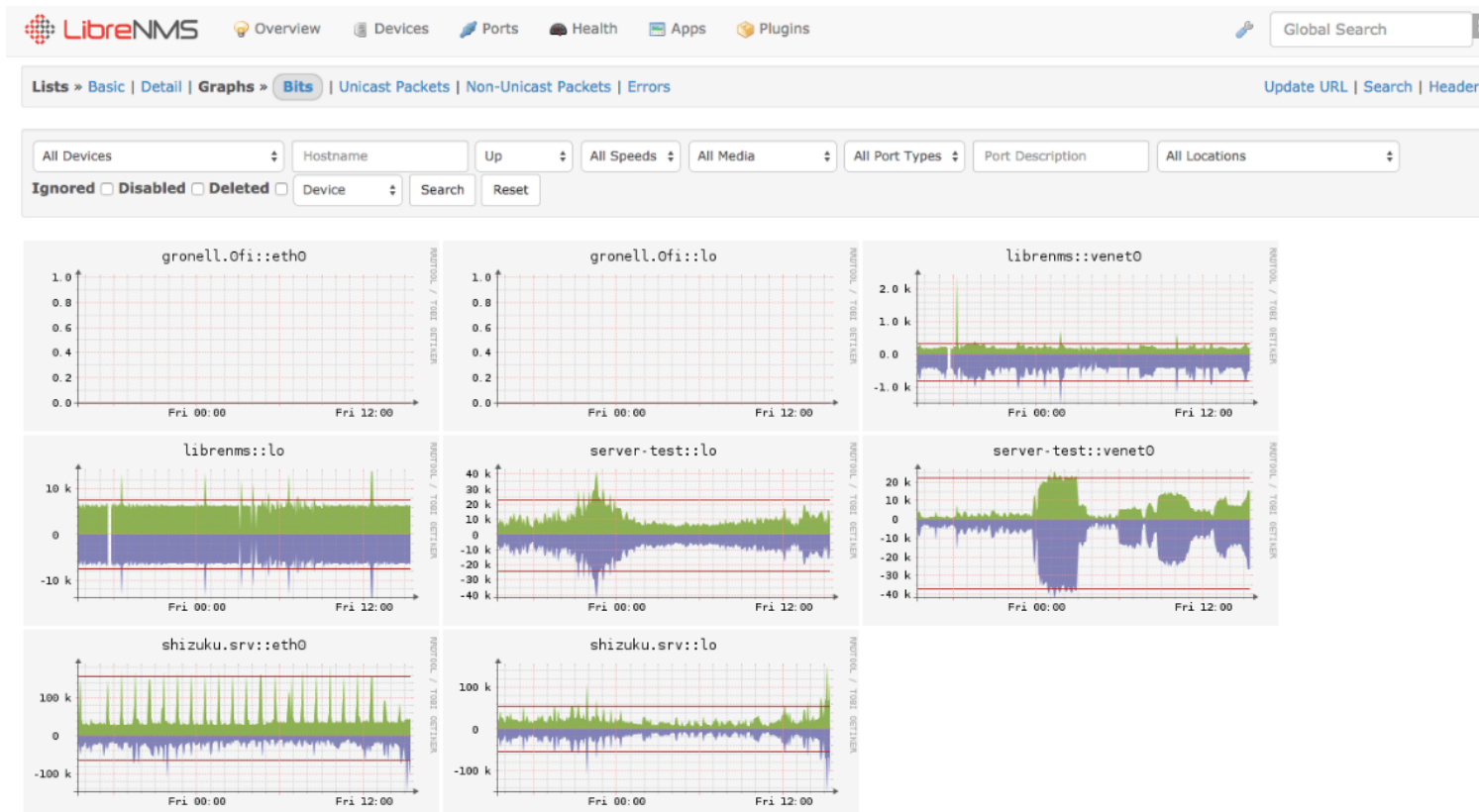
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NMaaS Tools Portfolio: LibreNMS

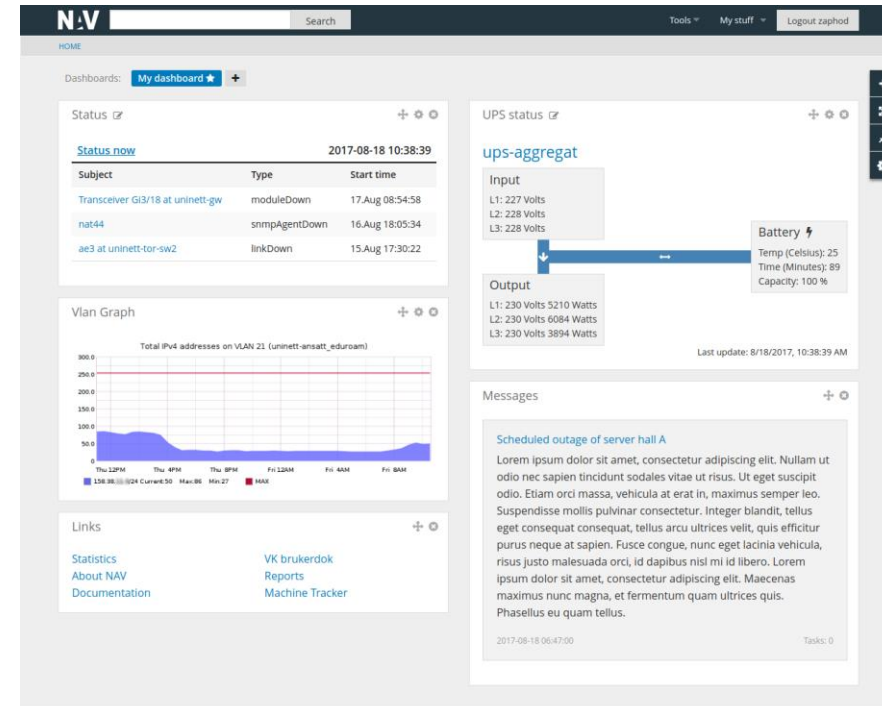**LibreNMS** is an auto-discovering **SNMP based network monitoring** system which includes support for a wide range of network hardware and operating systems

NMaaS Tools Portfolio: NAV

Network Administration Visualized (NAV) is an **advanced software suite** to monitor large computer networks.

It automatically discovers network topology, monitors network load and outages, and can send alerts on network events by e-mail and SMS.

NMaaS Tools Portfolio: Prometheus

Prometheus is an open-source systems **monitoring and alerting toolkit** with time series database

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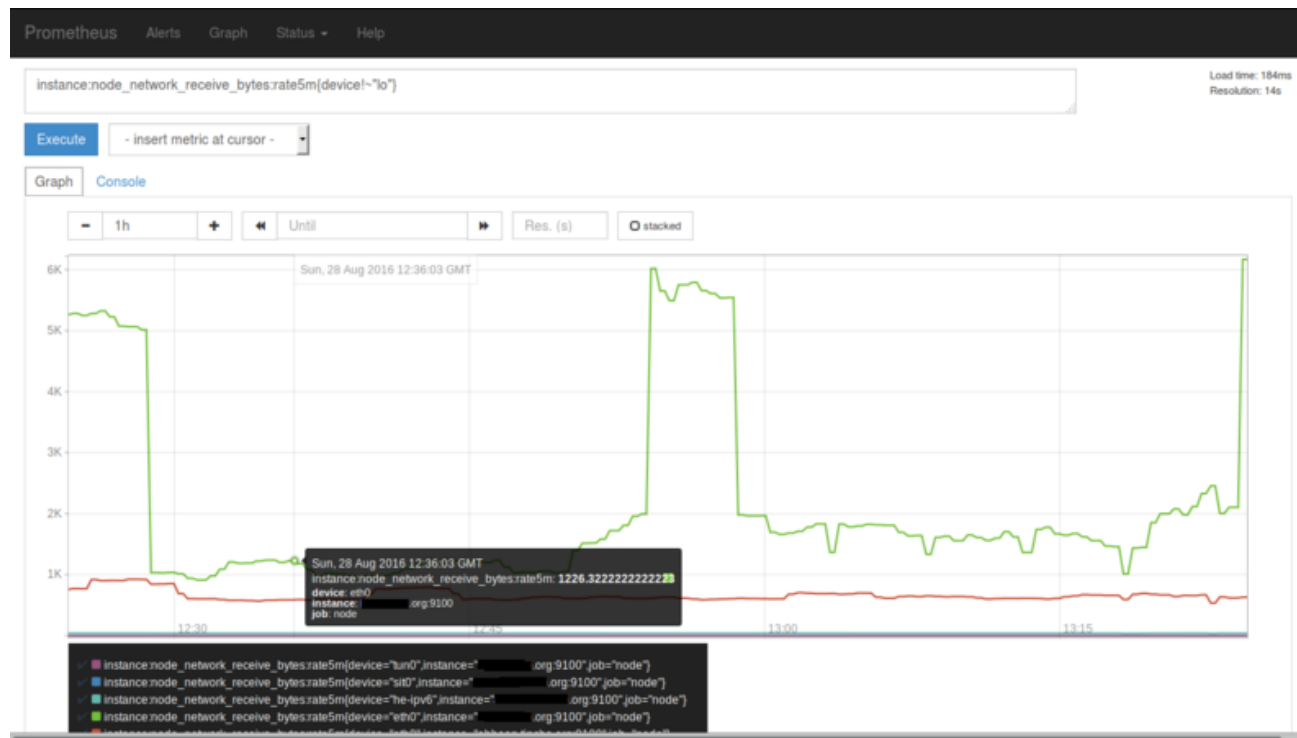
NMaaS Tools Portfolio: Grafana

Grafana is an open source, feature rich **metrics dashboard** and graph editor for Graphite, Elasticsearch, OpenTSDB, Prometheus and InfluxDB

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NMaaS Tools Portfolio: Bastion and Debian repository

Bastion is an Ubuntu-based server deployed in a customer domain has VPN access to all the monitored devices

Debian repository is a Reprepro-based tool for **managing APT repositories**

https://wiki.debian.org/DebianRepository

# NMaaS Tools Portfolio: perfSONAR Central Management

pSConfig Web Admin
Web-based UI for perfSONAR administrators to define and publish MeshConfig/pSConfig meshes

MaDDash
Tool for collecting large amounts of inherently **two-dimensional data** and presenting it in visually useful ways

Esmond
System for collecting, storing, visualizing and analysing large sets of time series data

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NMaaS Tools Portfolio: WiFiMon

WiFiMon is a WiFi network monitoring and performance verification system
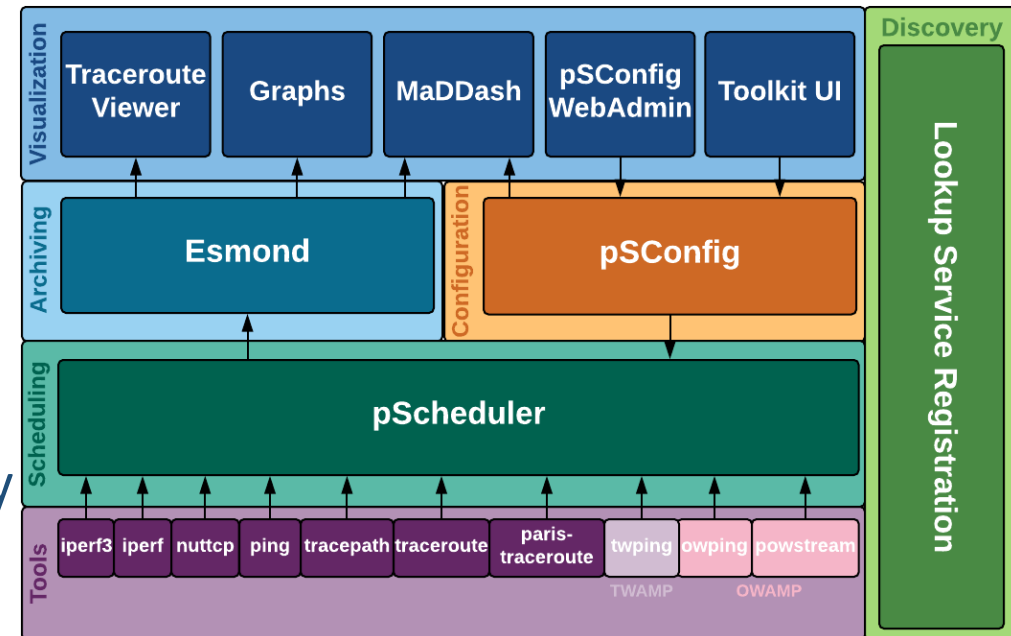
NMaaS Tools Portfolio: SPA Inventory

SPA Inventory is a database for storing information about topology resources and service instances that offers TMF Open APIs for standardised access
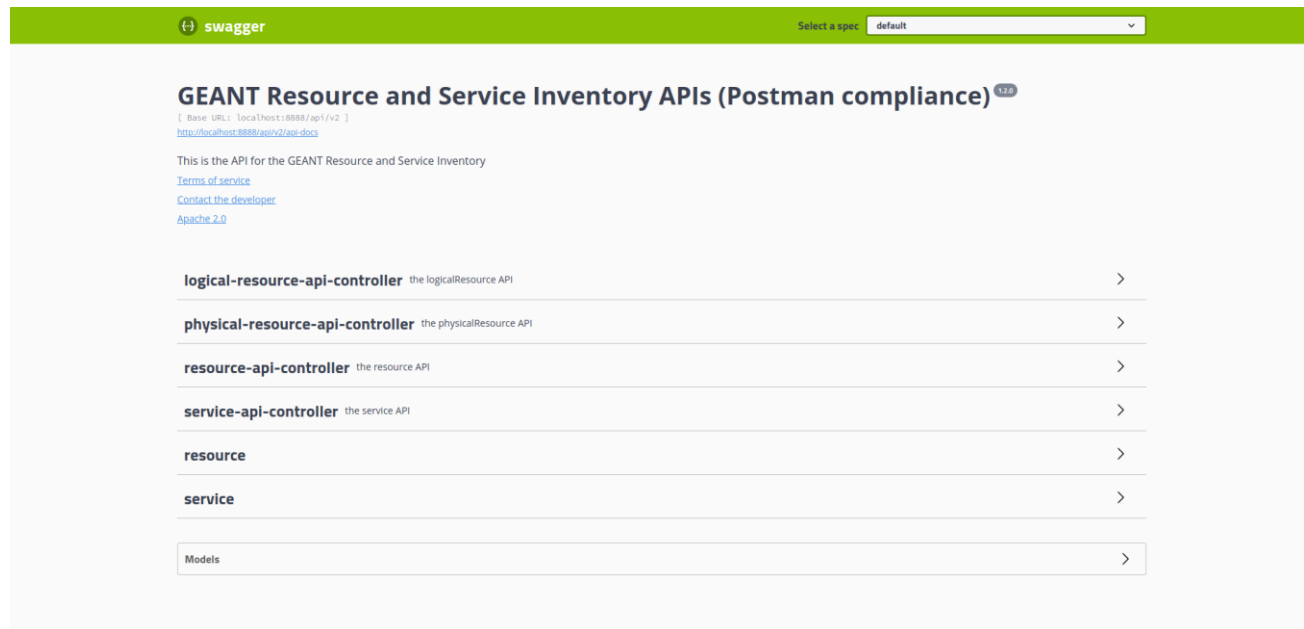
NMaaS Tools Portfolio: Statping

Statping is an easy to use Status Page for websites and applications

NMaaS Tools Portfolio: Booked

Booked is a web-based **calendar and resource scheduling system** that allows administered management of reservations on any number of resources

NMaaS Tools Portfolio: InfluxDB and Jenkins

InfluxDB is an open-source time series database (TSDB) developed by InfluxData

https://www.influxdata.com/products

Jenkins is a self-contained, open source **automation server** which can be used to automate all sorts of tasks related to building, testing, and delivering or deploying software
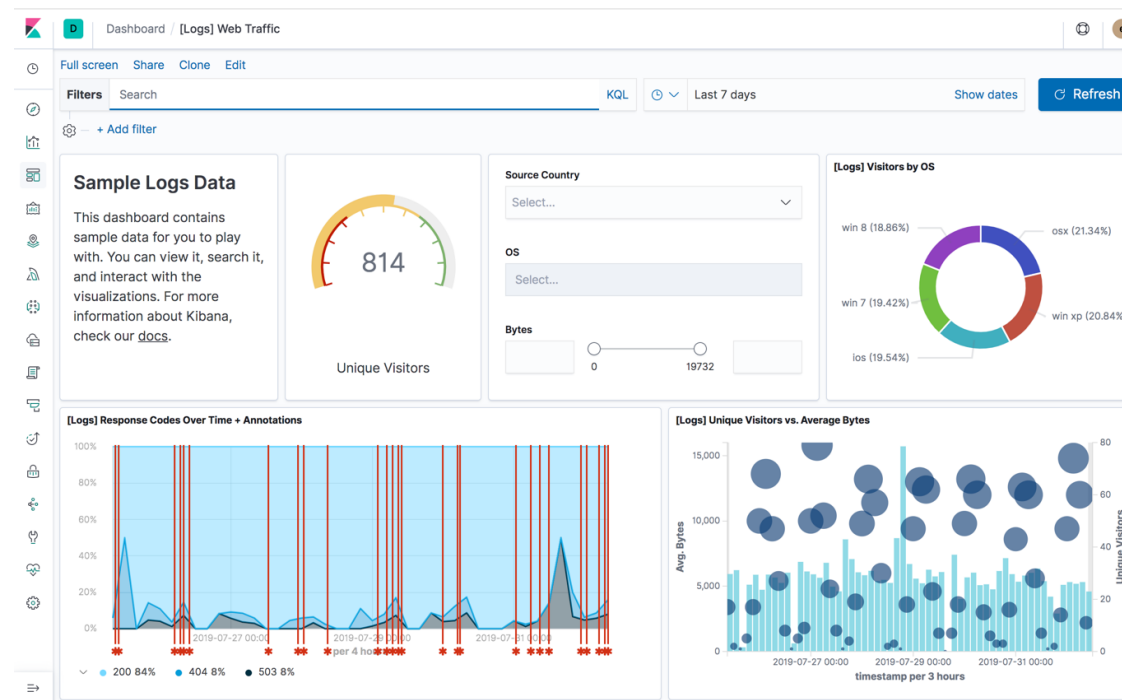

https://www.jenkins.io

NMaaS Tools Portfolio: ELK Stack

ELK is the acronym for three open source projects

- **Elasticsearch** – database with search and analytics engine

- **Logstash** – data processing and transformation pipeline

- **Kibana** – user interface for data visualisation

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Addition of new tools

- **Possible** based on user request
- Requirements
  - Docker image(s)
  - Helm chart
  - Metadata and information about the application

Thank you

Any questions?

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