Network Management as a Service (NMaaS)

*NMaaS application portfolio*

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GÉANT Network Management as a Service (NMaaS)
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www.geant.org
NMaaS Tools portfolio

18 applications available in the marketplace

- Oxidized
- LibreNMS
- NAV
- Prometheus
- Grafana
- Booked

Bastion
Statping
SPA Inventory
WiFiMon
Debian repository
InfluxDB
ELK Stack
Jenkins

On the roadmap

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NMaaS Tools Portfolio: Oxidized

Oxidized is a simple open-source device configuration backup tool exposing a web-based GUI

https://github.com/ytti/oxidized
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.

http://www.librenms.org
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

https://prometheus.io
NMaaS Tools Portfolio: Grafana

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

https://grafana.com
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

https://www.perfsonar.net
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

https://statping.com
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](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](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
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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