



Network Management as a Service (NMaaS)

NMaaS GÉANT production service

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GÉANT Network Management as a Service (NMaaS)
Infoshare

November 25th 2020

www.geant.org

Who is using NMaaS?

- **NRENs**

- CYNET
- HEANET
- PSNC

- **End institutions**

- Franja Malgaja Primary School / ARNES
- University of Murcia / RedIRIS

- **GÉANT Project teams**

- Performance Measurement Platform (PMP)
- RARE project
- MP-LS domain
- perfSONAR development team

- **Tool developers**

- perfSONAR
- WiFiMon
- SPA Inventory

- *Ongoing discussion*

- FAU
- GrNet
- GRENA
- LITNET
- RENATER Regional Network



Is NMaaS reliable?

- **Kubernetes cluster**
 - **Node redundancy:** 3x master, 8x worker and 2 route reflectors
 - In case of a worker failure services are spawned on different worker (**minimum downtime**)
 - NMaaS tools data kept in **external *persistent volumes***
- **Data stored in a CEPH cluster**
 - **Components redundancy:** 3x monitor, 2x metadata server, 12x OSD (over multiple physical servers)
 - **Data replication**
- **Backup strategy in place**
 - Scheduled VM backups
 - Additional file and directory backups

Is NMaaS secure?

- **Client-to-Site VPN** – secure user web-access to the UI of deployed NMaaS tools
- **Site-to-Site VPN** – secure data exchange between the devices being monitored and NMaaS tools running in the cloud
- **Routing and firewall** settings on a central PfSense Firewall VM

Set up based on domain name and IP addresses of monitored devices provided by the user



NMaaS service offering

- Offered with no additional costs
- Funding allocated for at least the duration of GN4-3 (till the end of 2022)
 - Continuously enhanced (new software release v1.4.0 scheduled for mid-December)
- NMaaS Portal (production): <https://nmaas.eu>
 - Sandbox instance: <https://nmaas.geant.org>
- Contact e-mail address of the NMaaS team: **nmaas@lists.geant.org**

Thank you

Any questions?

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