Network Management as a Service (NMaaS)

NMaaS GÉANT production service

Łukasz Łopatowski

GN4-3 WP6T3 – NMaaS Team Leader

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Infoshare

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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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