



Exploring nmaas Platform Use Cases

Beyond network and service monitoring

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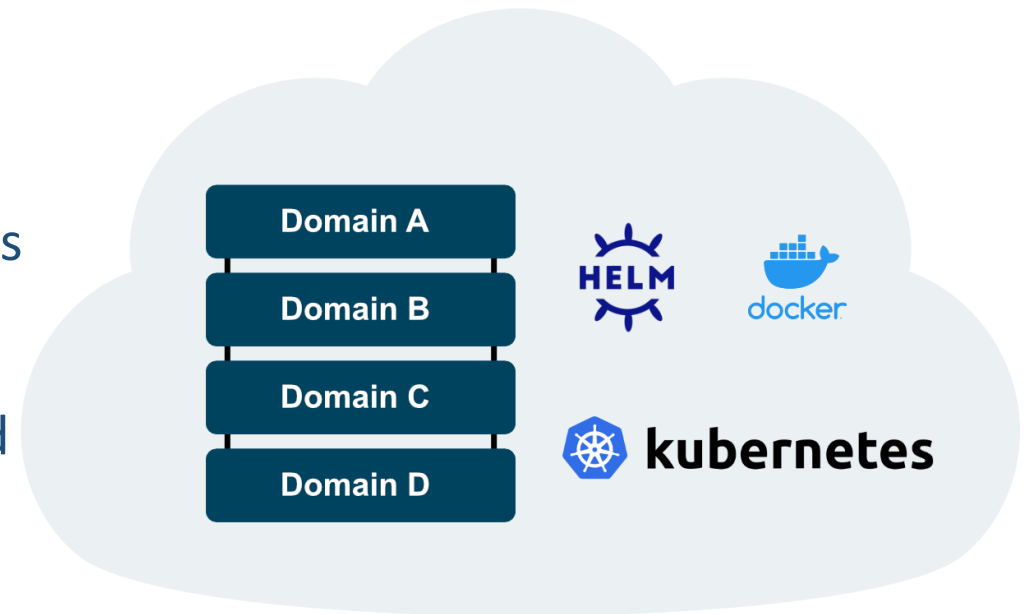
Agenda

- nmaas Use-Cases Overview
- (demo) Active Monitoring in EdgePL project
- (demo) nmaas service Dashboards with Metrics
- (demo) Educational exercises at scale with vLAB
- (demo) Web Service Health Monitoring and Backups in PCSS
- (demo) AI-assisted operations via MCP Server
- Contribute to the application catalogue
- Feature requests and what's next

nmaas Platform

nmaas is an open-source platform for orchestrated deployment of applications in a cloud environment

- Kubernetes-based infrastructure
- Multi-tenant architecture
- Simple application deployment and upgrade
- Wide and easily extendable portfolio of applications
- GitOps for application instance configuration
- Easy troubleshooting via integrated log viewing and interactive command execution



Source code available at <https://gitlab.software.geant.org/nmaas>

nmaas Use-Cases

- nmaas as versatile orchestration platform
- Support for multiple use-cases by providing software features and applications
- Currently supported use-cases on top a common code base:
 - **nmaas for Virtual NOC** (originally referred to as NMaaS - Network Management as a Service)
 - **nmaas for Virtual Lab** (online hands-on exercises in an education context)
 - **nmaas Metrics** (data crawling, analysis, and visualization toolkit)
 - **nmaas ActiveMon** (perfSONAR-based active network measurements)





Active Monitoring in the EdgePL Project

Demonstration



Service Dashboards and Metrics

Demonstration



Educational Exercises at Scale with vLAB

Demonstration



Web Service Health Monitoring and Backups in PCSS

Demonstration



AI Assisted Operations with nmaas MCP

Demonstration

What would you like to see on nmaas? (Application edition)

What would you like to see on nmaas? (new features)

Conclusion and Future Plans

- nmaas as an open-source multi-cluster application orchestration platform
- Versatile and adaptable to different use-cases
- Remote cluster support enabling new use cases
 - Distributed Active Monitoring
 - Sharing GPU resources on Edge nodes
- Continuous evolvement of the application portfolio
- Extending nmaas with generative AI
 - nmaas MCP, new application addition





Thank You

Documentation
Contact the nmaas team

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