Network Management as a Service (NMaaS)

NMaaS concept, architecture and deployment

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GN4-3 WP6T3 – NMaaS Team Leader

GÉANT Network Management as a Service (NMaaS) Infoshare

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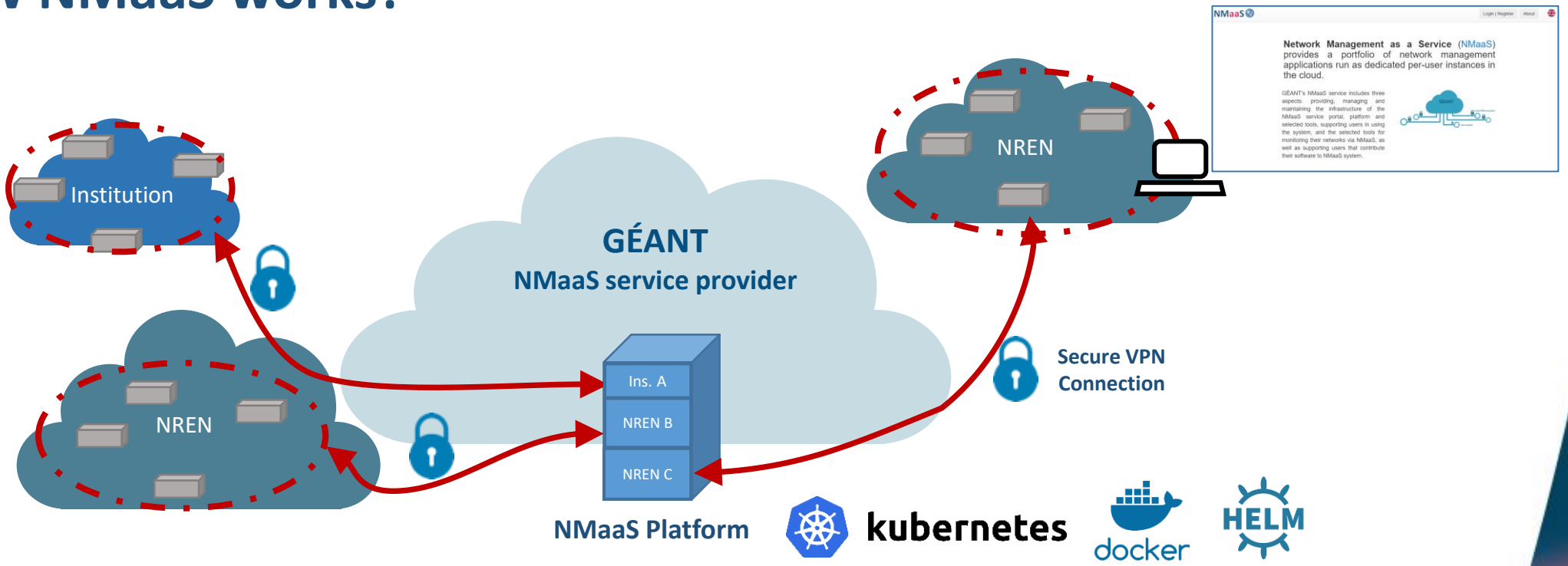
How NMaaS works?



Shared **cloud platform** managed by the GÉANT Project

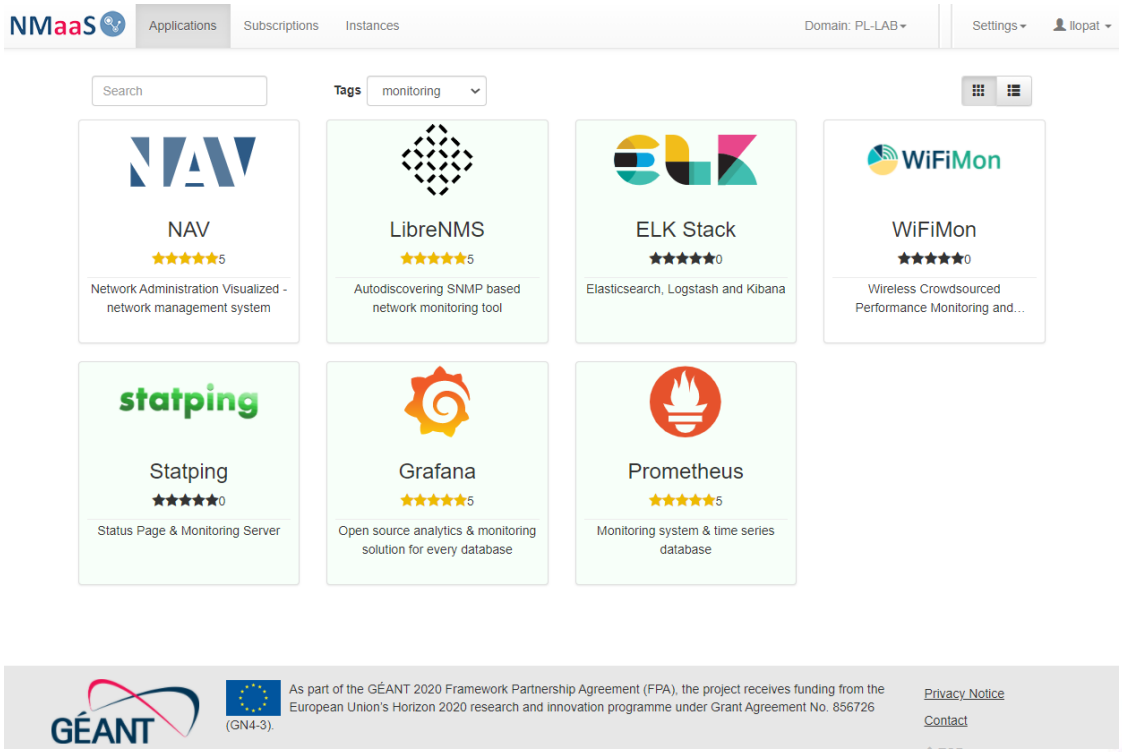
Each user gets an **isolated** tenant environment connected over a **VPN** to his network

Tool deployment and access via a **web portal**

NMaaS solution

Goals

- Easy to install and use
- Easily extendable with more tools
- Federated login eduGAIN



NMaaS solution

Software components

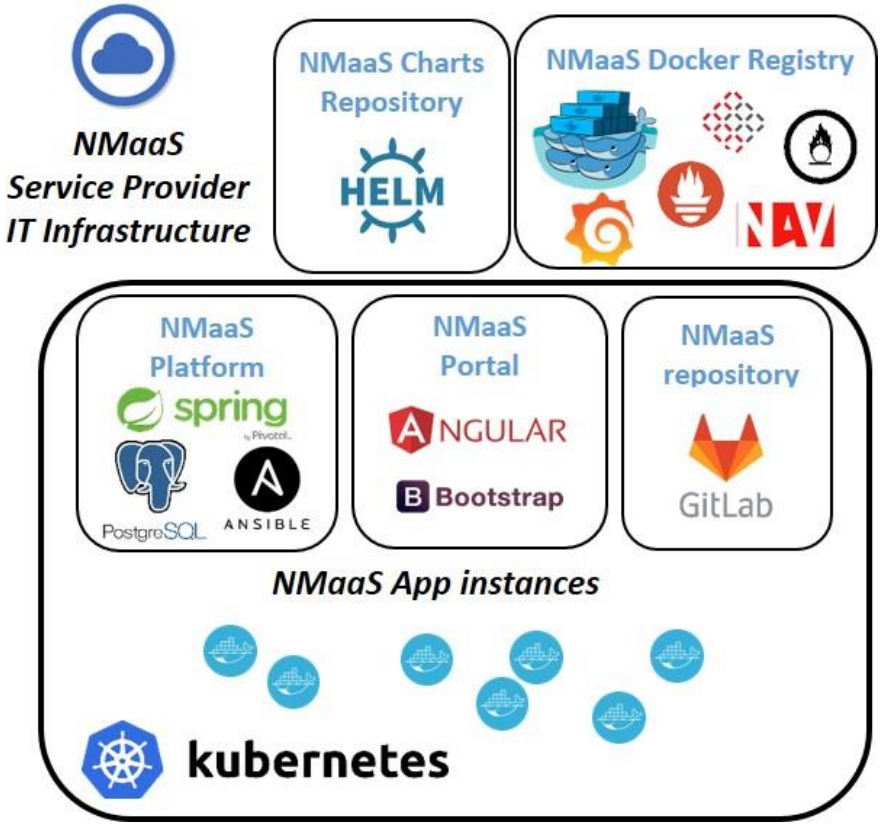
- NMaaS Platform
  - Domain and user management
  - Tool deployment process orchestration
- NMaaS Portal
  - Web-based user front-end

Tools (packaged applications)

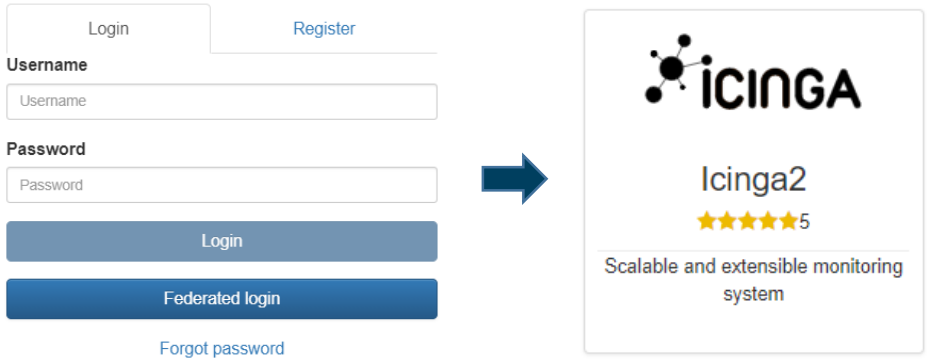
- Docker images
- Helm charts

Infrastructure

- Kubernetes
- VPN
- Networking



NMaaS tool deployment process



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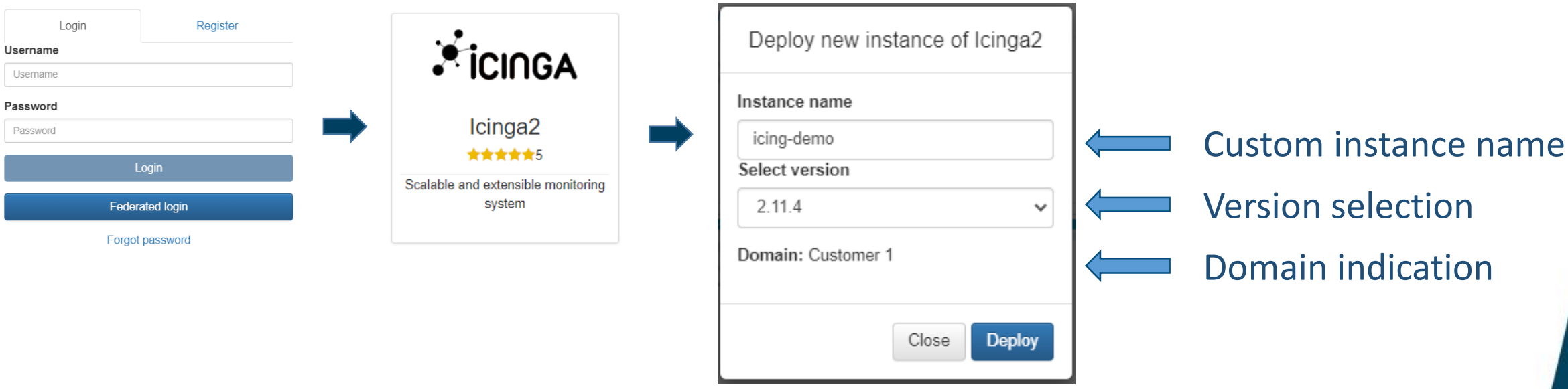

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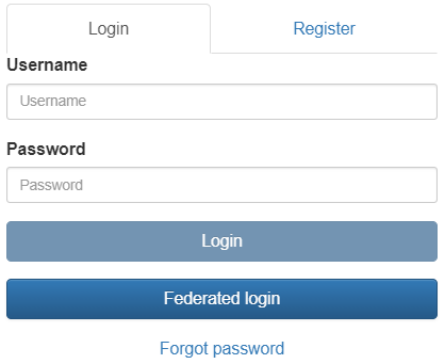

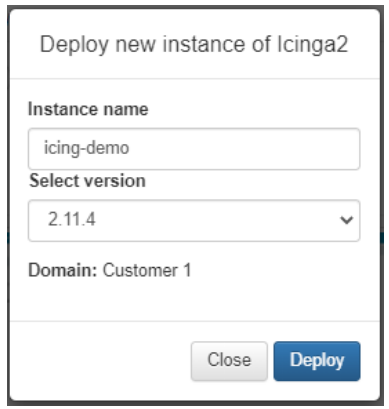

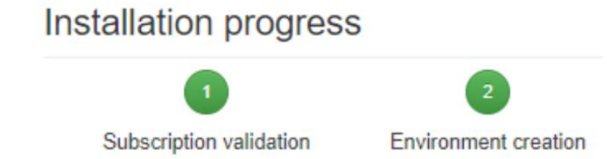

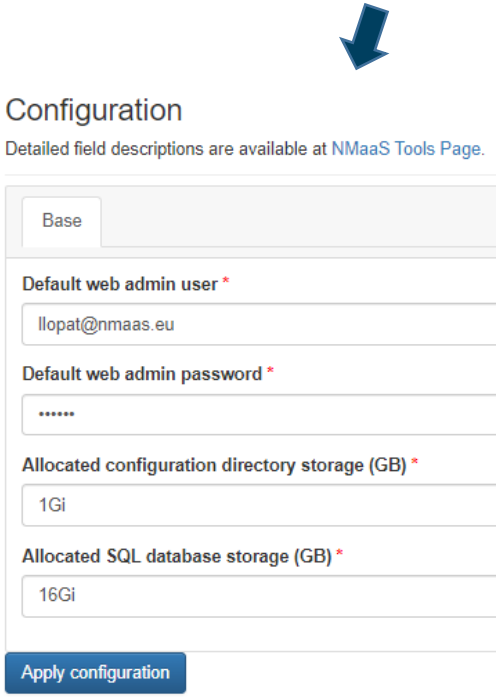

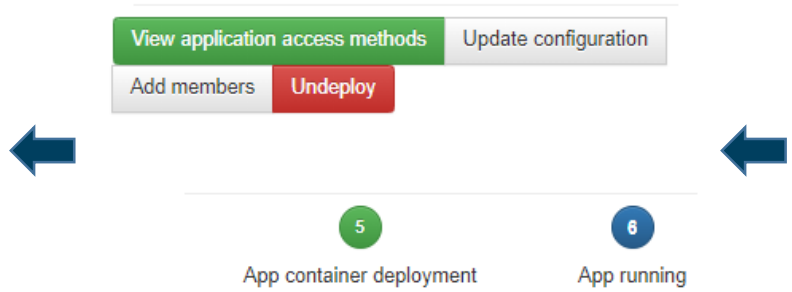

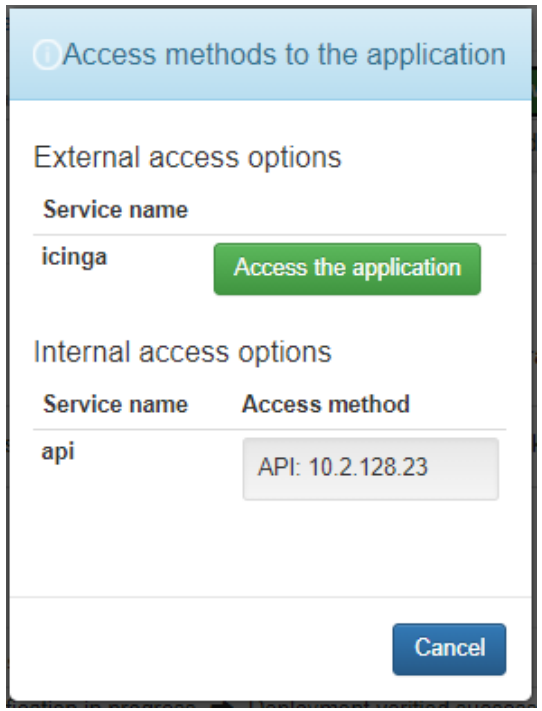

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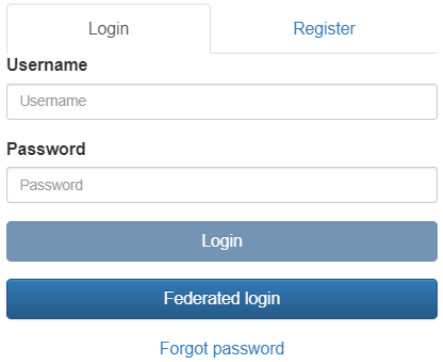

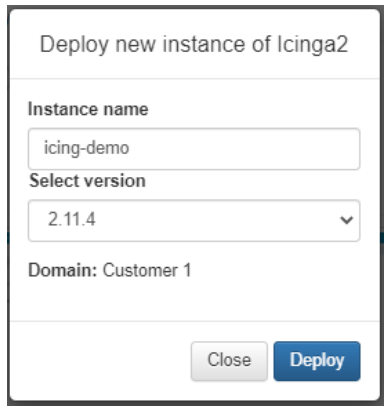

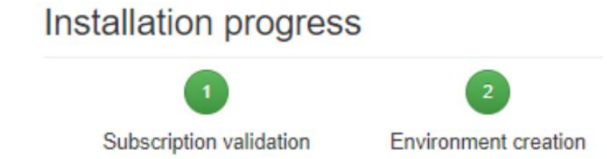

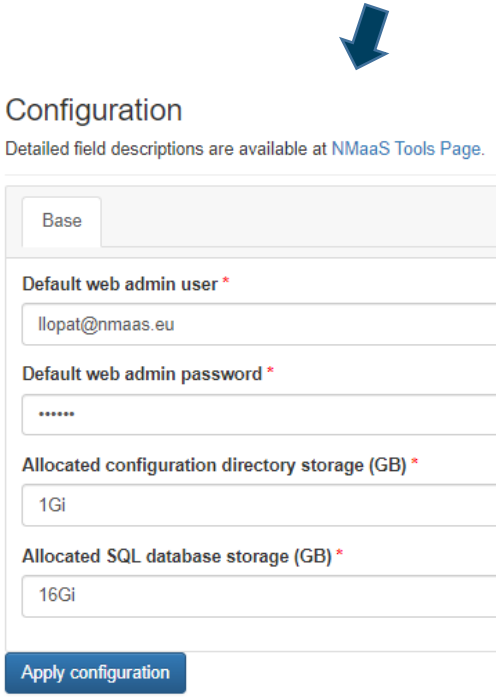

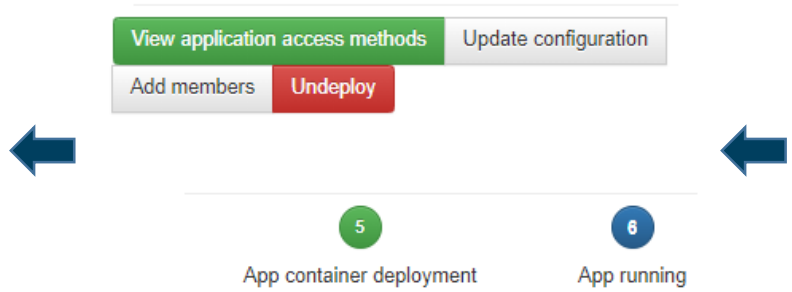

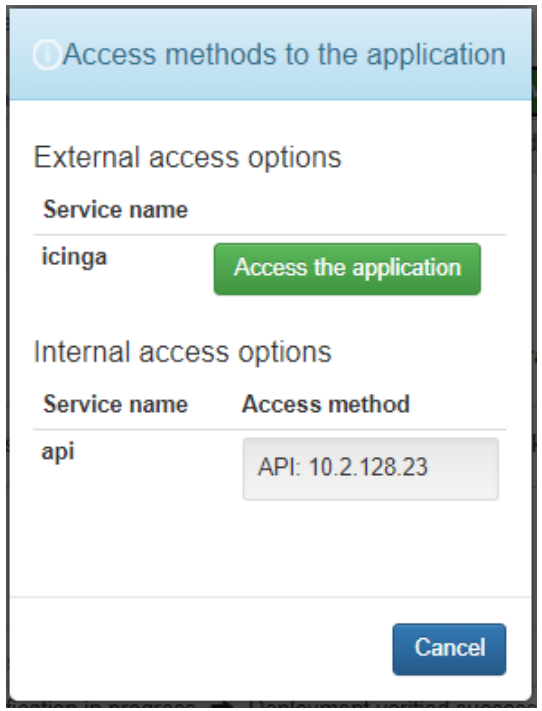

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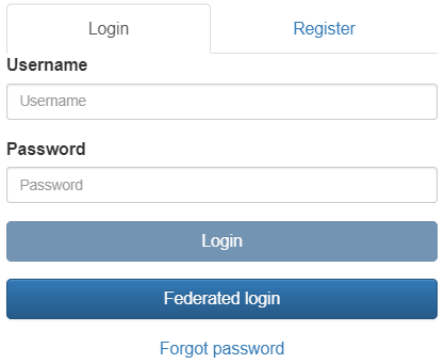
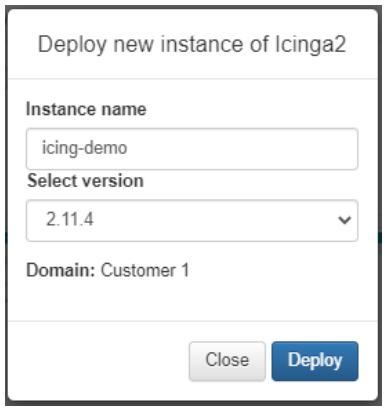
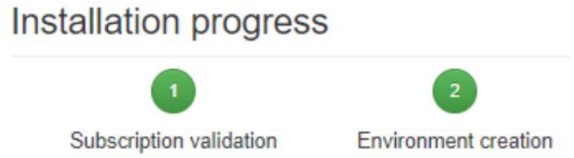
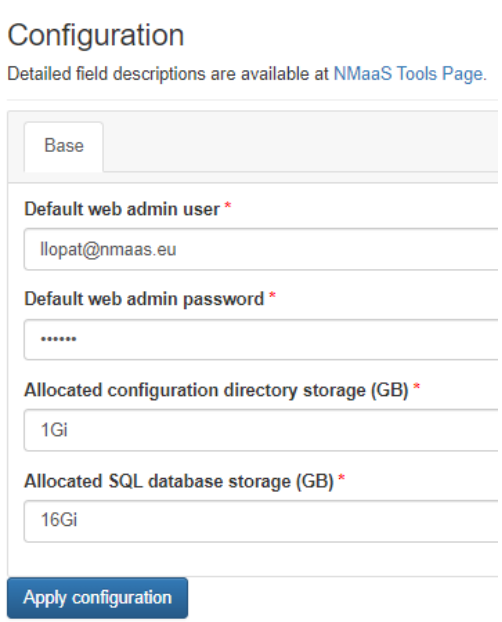
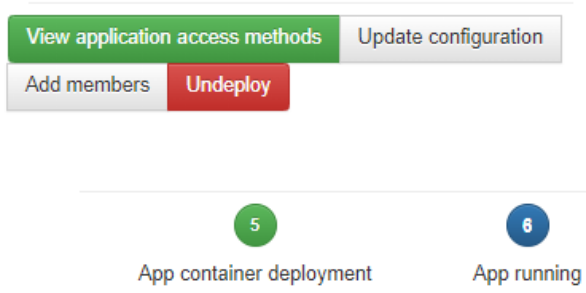
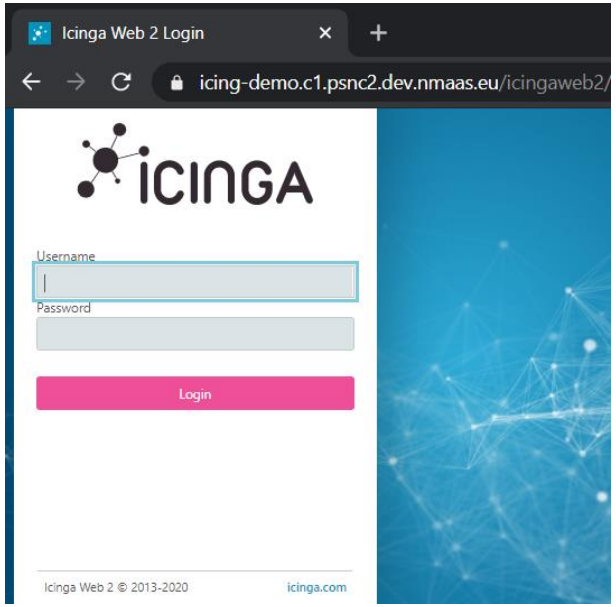




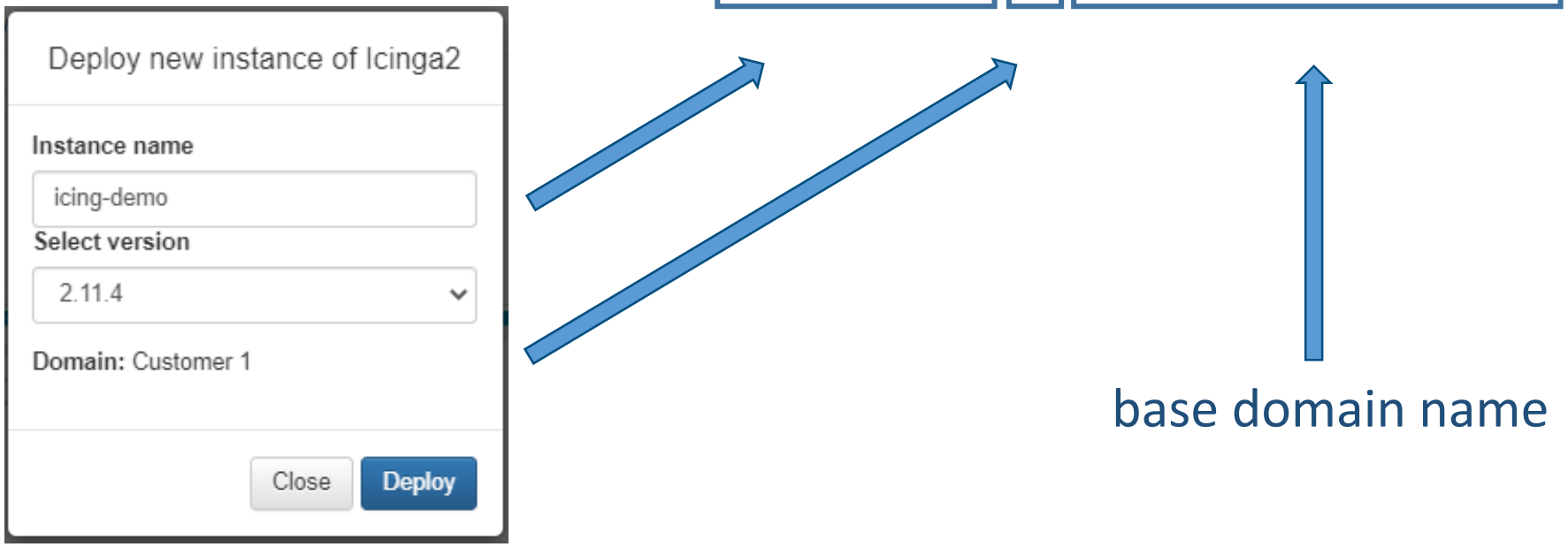






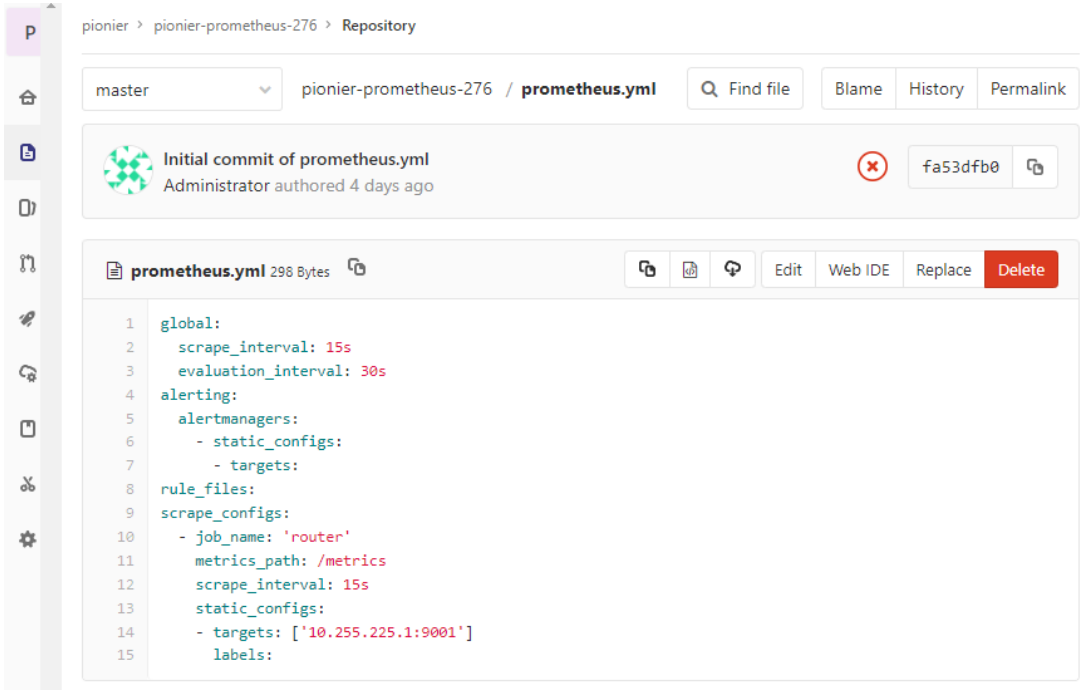


NMaaS tool instance access



NMaaS tool instance configuration process

- Dedicated **git repository** created for tool instance
- Configuration files **populated with custom data** entered by the user
- SSH key based user access to clone, **commit and push configuration changes**
- **Automated tool configuration reload** triggered by push action (depends on the tool)



Thank you

Any questions?

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