

Community Cloud activities report and planning

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8th SIG-CISS meeting – Reykyavik (and online)

POV: You operate a Community Cloud

- 2021: Community Clouds point of view not fully represented in the discussions around the GÉANT Cloud Forum and GÉANT CTO workshop, more oriented towards procured cloud services
 - GARR gathered the NRENs which are operating Community Clouds to produce a document stating the Community Clouds operators point of view:

<https://gn4-3.workplace.garr.it/sh/X5t>

Community Clouds for NRENs

- Document available at: <https://gn4-3.workplace.garr.it/sh/X5t>
- Community Clouds: an open model of Cloud services based on open source software deployed on the NRENs hardware
- Authors/Contributors (11 NRENs):
 - AARNet (Australia)
 - CESNET (Czech Republic)
 - CSC/Funet (Finland)
 - GARR (Italy)
 - GRNET (Greece)
 - KIFU (Hungary)
 - PSNC (Poland)
 - RENATER (France)
 - SUNET (Sweden)
 - SURF (Netherlands)
 - SWITCH (Switzerland)



Community Clouds Drivers

- European Digital Sovereignty / European data space
 - data storage and processing independence from non-European entities
- Interoperability / Data sharing issues
- vs Hyperscalers growth
 - vs Regulatory issues
 - See Cloud Act vs GDPR, Shrems II, Privacy Shield (Plus)
 - <https://www.ncsc.nl/documenten/publicaties/2022/augustus/16/cloud-act-memo>

Community Clouds Value

- Personally Identifiable Information (PII) sensitive use cases
 - Use cases with strict requirements (e.g. medical research)
- International collaboration use cases
 - Institutions leveraging community clouds can share their data among them without restrictions/lock ins
- NRENs high speed networks leverage
- Fostering of know-how on cloud technologies
 - In a world of converged cloud-network technologies

Community Clouds federation?

The interest of NRENs operating Community Clouds is to **evaluate the advantages and feasibility of federating the Community Clouds**

- focusing on cloud platforms' technological aspects
- breaking data silos models
- fostering interoperability between Community Cloud services

Community Clouds for NRENs – Lines of Action

- **Define a Community Cloud AAI common framework**
 - common practices on user registration, authentication and authorization
 - eduGAIN
 - AARC Blueprint Architecture
- **Creation of a “Community Cloud Toolkit”**
 - high level, implementation independent, architectural blueprint
 - interoperability and compliance to AAI and security principles
 - tools and documentation aimed at NRENs and institutions who wish to set up a Community Cloud at their premises, with a highly automated, open and federated approach

Community Clouds for NRENs – Lines of Action

- **Prototype the operation of service federation of Community Cloud infrastructures**
 - consider initially key services like videoconferencing, to thereafter encompass other cloud services
- **Ensure that knowledge and tools are exchanged** between NRENs on security topics
- Work collectively on a comprehensive **open source accounting platform** for Community Clouds, targeting the current and emerging infrastructural cloud technologies and adaptable to different workflows

GÉANT strategy alignment

The GÉANT strategy 2021-2026 document resonates with the “Community Clouds for NRENs” approach:

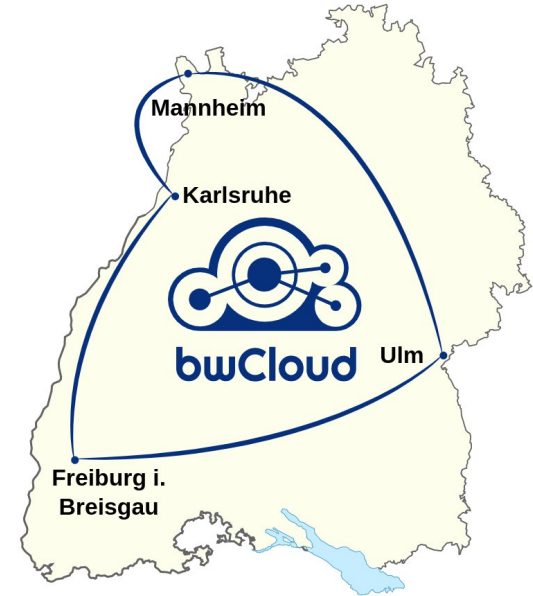
- Offering open and innovative infrastructures
- Collaborating and sharing knowledge
- Prefer community supplied services to commercially procured services
- Continuous development of the existing infrastructure and assessment of new technologies

GÉANT strategy 2021-2026: https://about.geant.org/wp-content/uploads/2021/12/GEANT_Association_Strategy_2021-2026.pdf

Community Clouds at TNC22

At TNC22 in Trieste we had the 7th SIG-CISS meeting and a Community Clouds BoF meeting

- SIG-CISS
 - Presentations from GRNET and GARR, CS3Mesh4EOSC and OCRE projects
- Community Clouds BoF
 - Baden-Württemberg cloud federation model, featuring brokerage by DFN
 - https://www.bw-cloud.org/en/bwcloud_scope/infrastructure
 - Distributed/federated DNS service proposal
 - Disaster recovery use case



SIG-CISS Liasons on Community Clouds topics

- GN5-1
 - No effort to develop/foster community clouds
 - WP4 Task 4 - Above-Net-Services Strategic Planning
 - Strategy Forum including community cloud topics
- GÉANT Community Committee
 - Liason on cloud topics
- Cloud Service Delivery Managers Forum

Thank you

<https://cloud.garr.it>

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