16th Special Interest Group
  on Cloud Interoperable Software Stacks (SIG-CISS)

Joint ICSC-INFN-GÉANT Workshop on Federated Storage and Data management infrastructure

Introduction to the SIG-CISS

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Public (PUB)

GN5-2

Welcome
Everybody
to SIG-CISS n. 16 !

A **Workshop jointly co-organised by ICSC, INFN and GÉANT**
devoted to Data Management and
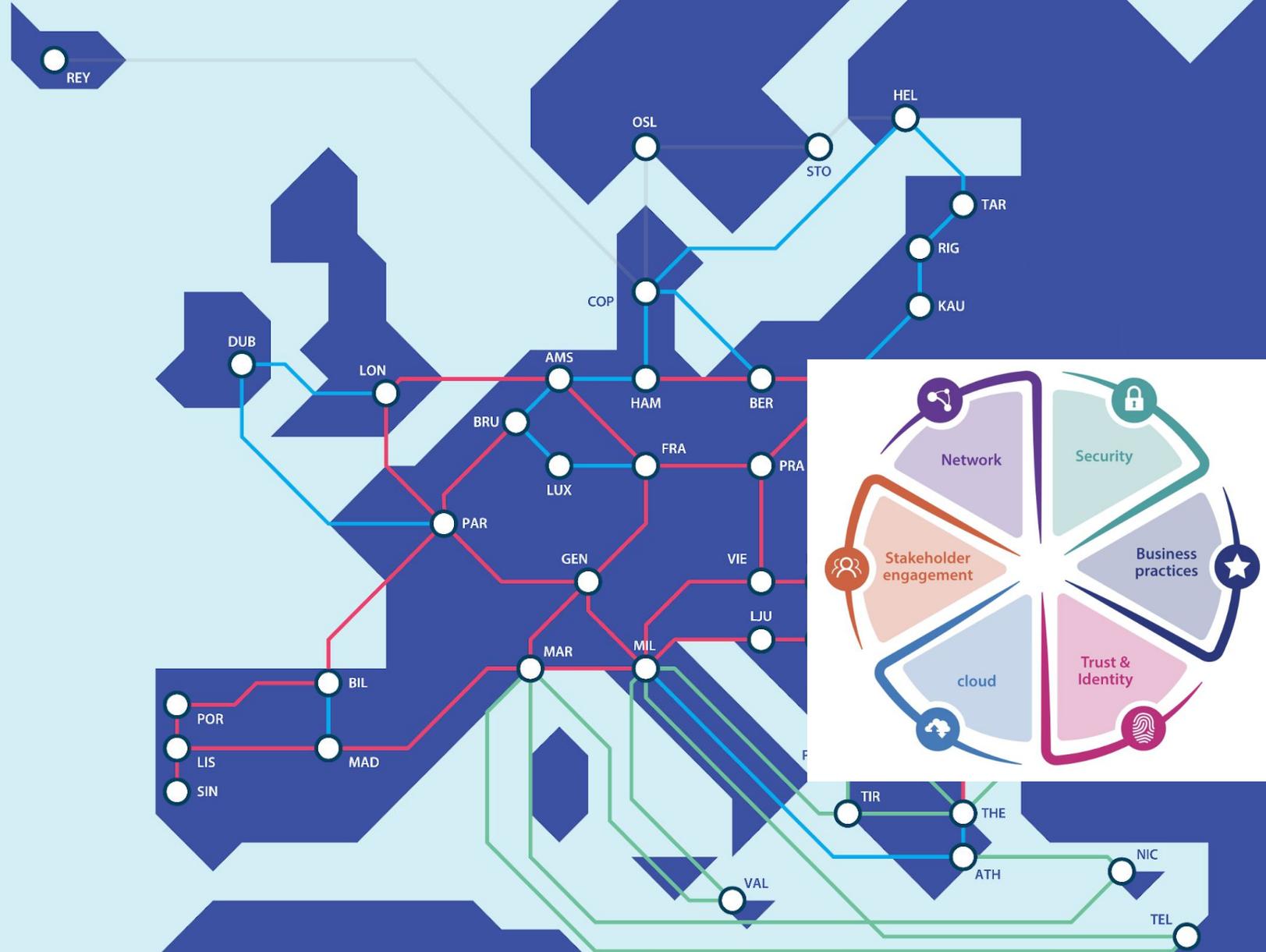## Federated Storage within the Community

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GÉANT Vision

To collaborate to deliver the infrastructures and services that enable the R&E community to excel.

GÉANT Community Programme:

https://community.geant.org

- **Gathering and exchanging experiences, ideas and knowledge** on the development, deployment, testing and standardisation of cloud infrastructure software stacks, platforms and workflows

- To **share deployment and operations best practices** about all the pillars of the cloud infrastructure

- Be the **primary community forum** in the confluence of computing, storage and networking

- Leverage the existing focus groups including **CS3** (CERN) on sync&share and storage and **OSO** (SWITCH) on Infrastructure-as-a-service and OpenStack operations

- To **improve awareness of software and hardware solutions available on the market** and infrastructures, platforms and services provided by NRENs in the area of (federated) cloud computing, IaaS, PaaS, SaaS, data storage, management, automation and big data, and act as a launch pad for joint procurements and/or brokering thereof as appropriate and necessary

- To **help identify current and future requirements and workflows** of the scientific/academic community related to computing, storage, data management infrastructure, platforms, services and applications as well as preparing NRENs to address these needs

- Disseminate about local developments and specific technical solutions and feedback them upstream to the main branch of open source projects

- Leverage the critical mass of the Research and Education community to steer and lobby/provide useful feedback to all key stakeholders around us:

  - Large open-source Cloud IT projects and platforms
  - European Commission and the EU regulations impacting on the providers and consumers of Cloud services in the Academia
  - Large public cloud providers

- Support and adopt interoperable solutions based on community adopted standards, enabling to scale up and integrate multi-domain resources

- To provide an interface among operators and owners of the cloud computing and storage infrastructure (IT experts) and the actual users i.e. individuals, academic institutions, communities and collaborations (domain experts), that enables mutual understanding of needs and capabilities as well as challenges and opportunities

- To define, stabilise and promulgate mutually agreed upon APIs as exported by NREN cloud stacks, preferably globally recognised APIs that cloud users can rely on to build their use case upon, and be guaranteed that their use case will in fact work, and be as portable as possible among NRENs

https://wiki.geant.org/display/CISS/SIG-CISS+Home

- **Cloud services** for the R&E community

- **Interoperable software stacks** implementing cloud services
  - OpenStack

- **Hybrid cloud** approaches
  - Integrating private and public cloud to enable flexibility and response to peak demand

- **User Experience**
  - Integration with AAI solutions and user management

- **New** storage platforms, cloud implementations, hardware

- Integration/Interoperability with key R&E community initiatives
  - EOSC Nodes , e-Infrastructures

- Trusted Research Environments and handling sensitive data

❏ How do NRENs implement **Infrastructure-as-Code**   (Munich, March 2025)
❏ **Trusted Research Environments** for handling sensitive data
❏ How to the NREN community implement **hybrid Cloud Use Cases** (Trieste, June 2023)
❏ NRENs building cloud (several times)
❏ **Openstack challenges and issues**, common approaches, solutions (Reykjavik, September 2023)
❏ Liaising with other GN5-2 WPs and tasks about plans / strategy / goals
❏ Updates from key projects and initiatives (e.g. CS3, CS3MESH4EOSC..)

1. Keep **focussing on our user community** and keep adopting their perspective
   a. On the things that work for us and for our users
2. Thrive to provide them with the means to carry out excellent scientific research:
   a. User Experience first
   b. Provide them with **seamless cross-domain, cross-infrastructure, high capacity, secure services**
3. **Collaborate, share, exploit synergies** to the best we can, at all levels:
   a. We are the still the lucky minority here, the few ones not to be profit-driven in a world of huge GAFAM commercial competitors all around us
4. Maintain our free, critical, independent spirit, basing our **user-centric focus and interoperable standards**
5. **Keep an eye on emerging trends i**n IT and the Cloud domain specifically
6. Probably focus more on **Security** than what we've done so far
7. **Lobby together** towards the other stakeholders:
   a. Would there ever be a free pan-European market for R&E digital services

Next SIG-CISS (17th)

- Hybrid - March 16, 2026 - co-located with **CS3 2026 conference**
  https://www.usit.uio.no/english/about/events/cs3
  https://indico.cern.ch/event/1601837/ **Oslo, March 17-19 2026**

- Considering the possibility to pick one of the following topics

  - How do we implement Security to protect our infrastructure, services and users

  - Artificial Intelligence in action to secure, optimise and customize cloud services

  - Providing services to EOSC Nodes / Federation developments

  - HPC / EuroHPC

  - Introspective SIG session: updating our charter / model our interactions with stakeholders around us / plan

- We could organise a joint SIG with other SIGs from the Community Programme:
  - E.g. SIG-AI,   SIG-DHD, SIG-ISM

- Any other ideas ?

Confidential

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Thank You

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