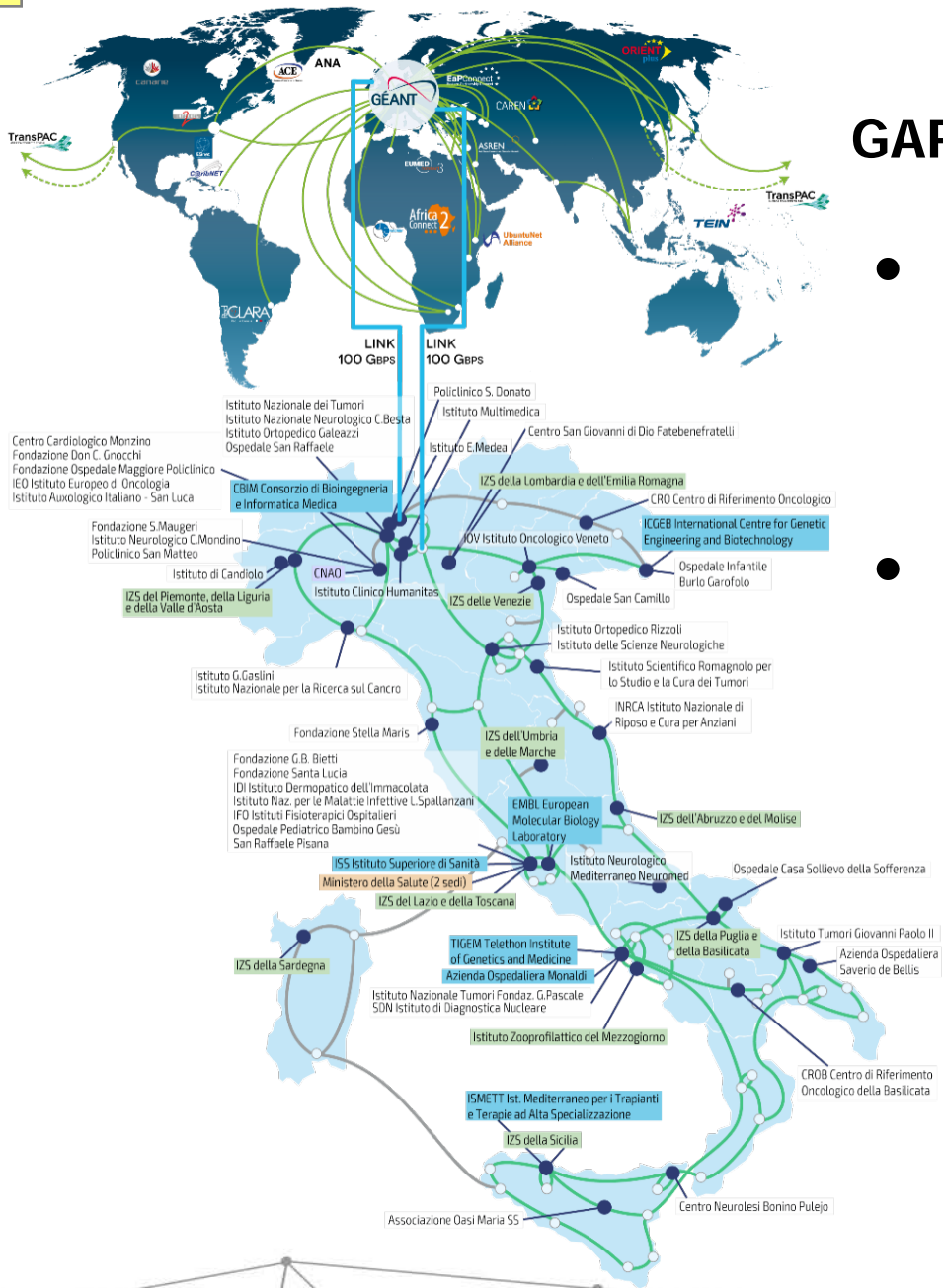


Lightning Talk e-Health in practice in Italy GARR and the biomedical community

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GÉANT eHealth Baselining Meeting, January 27 - 2021



GARR biomedical community

- University hospitals (research funded by the Ministry of Education and Research)
Mostly connected with optical links
- Institutes funded by the Ministry of Health (since 2006)
Mostly connected with optical links
 - **50 IRCCS** (biomedical scientific institutes)
 - **10 IZS** (Veterinary research institutes)

Collaborations

European Projects

DECIDE

The project (2010 - 2013, FP7 Program) focused on Alzheimer early diagnosis through the processing of diagnostic images and the access of large shared databases.

ELIXIR IIB (Infrastruttura Italiana di Bioinformatica): ELIXIR is a European Research Infrastructure for biological data in the field of “life sciences” and their translational activities

Mind-Bot (2020 -2023, EU project) study to improve mental health of Cobot (Collaborative Robot) workers.

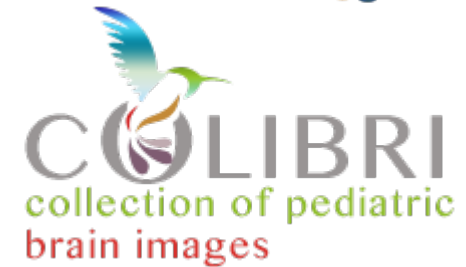
Italian Projects

COLIBRÍ

The project (2013 - 2016) among 19 Italian institutes (hospitals, university hospitals and scientific institutes), aims at improving the diagnosis accuracy of rare pediatric disease

INNI

The project (2015 - 2016) The Italian Neuroimaging Network Initiative (INNI), validates new MRI biomarkers to be used as predictors and/or evidence for Multiple Sclerosis



GARR services

www.servizi.garr.it



RETE E ACCESSO



CLOUD E APPLICAZIONI



SICUREZZA



VIDEOCONFERENZA

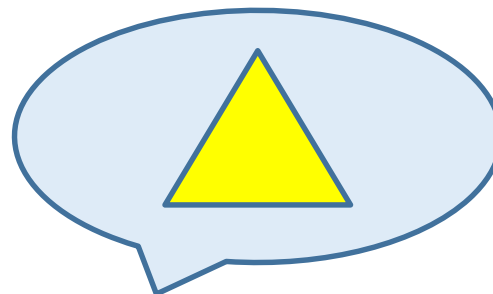


IDENTITÀ E MOBILITÀ



SUPPORTO

A work in progress



The challenge:

- new technology
- uncertainty
- trust
- sensitive data

A tailored service: IdP in the Cloud

In order to address the need of the biomedical community to easily access GARR AAI and EduGAIN, we virtualised the identity provider and provided a Trust & Identity service plug-and-play.

Main Benefits:

- No need for Identity Provider and Identity Management systems on premises
- The Identity Management System is constantly updated with data of researchers
- Access to NREN services reserved only to researchers



Computing and Storage

In addition to small-scale personal accounts, GARR offers:

- virtual Data Centre: a “project” on our OpenStack IaaS; “admin” control resources and adds other cloud users as “members”, also from other institutions
- ‘DaaS’ (Deployment as a Service): simplified application deployment based on Juju (<https://jaas.ai>), allows user to focus on high-level functionality rather than low-level service setup and configuration
- container platform (kubernetes): also provides access to some GPUs

GARR operates a Federated Cloud: GARR constituents are encouraged to participate by providing competences and/or resources (OpenStack “regions”, sharing authN server)

GARR Cloud Platform

The GARR Cloud Platform offers cloud services to the Italian academic and research community. GARR coordinates a federation of clouds, located in national datacenters owned by members of the GARR community, which participate to the federation by sharing resources and services.

The GARR cloud allows creating and managing Virtual Machines (IaaS) as well as deploying cloud applications (DaaS).

[Go to the dashboard](#)

Virtual Machines

The GARR Cloud delivers **virtual machines** running in the data centers of the GARR Federated Cloud connected through the GARR high speed fiber network. The GARR Cloud provides tools for self provisioning computing resources and deploying applications and services, enabling scaling from single instances to clusters of integrated and load-balanced cloud computing.

See [Cloud Compute](#) for additional details.



Cloud Apps

Set up and launch applications and services on the cloud platform, by self-provisioning, i.e. without having to deal directly with the VMs dedicated to the services.

- Applications
- Services

See [Cloud Services](#) for additional details.



Virtual Datacenter

A **Virtual Datacenter** consists of a set of virtual resources (vCPUs, memory, storage, networking) assigned to an administrator, who can manage them by creating VMs and deploying services to them. The administrator can also create projects and users and enable them to use the resources in a project.

See [Virtual Datacenter](#) for additional details.

Watch this video for a quick introduction to these concepts.



GARR
cloud



Objective of the baselining: Q1

Which topics of relevance for eHealth are also of relevance for GÉANT?
(primarily identified as Network, Cybersecurity and T&I)

During the lifetime of our collaboration (2006-2021) we've been receiving requests for **training opportunities** cloud services and T&I (virtual organisation, attribute provider, ...)

Ensuring that servers containing users' data are managed in Italy and that there are no third-party organisations managing their data.



Objective of the baselining: Q2

Which topics are already well covered?

- Videoconference services
- IdPintheCloud (an example of tailored service for this community)
- Cloud services
- Network security: effectiveness of a direct contact with technical staff
- Transparency in the use of our resources (public stats on the use of public networks)



Objective of the baselining: Q3

Are there any gaps which might deserve further investigation?

- Are we using the same “terms of use” for cloud services ?
- Have you ever received requests for a repository to host public biomedical dataset ?
- We received some requests about multifactor authentication. Does any of us have experience on that or have a real case to share ?

Thank you for your attention

Further information:

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