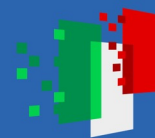




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GARR Services

Ettore Tamiro – GARR-Planning

Bologna, 26 Giugno 2024

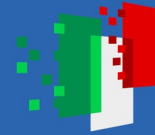
Workshop TeRABIT



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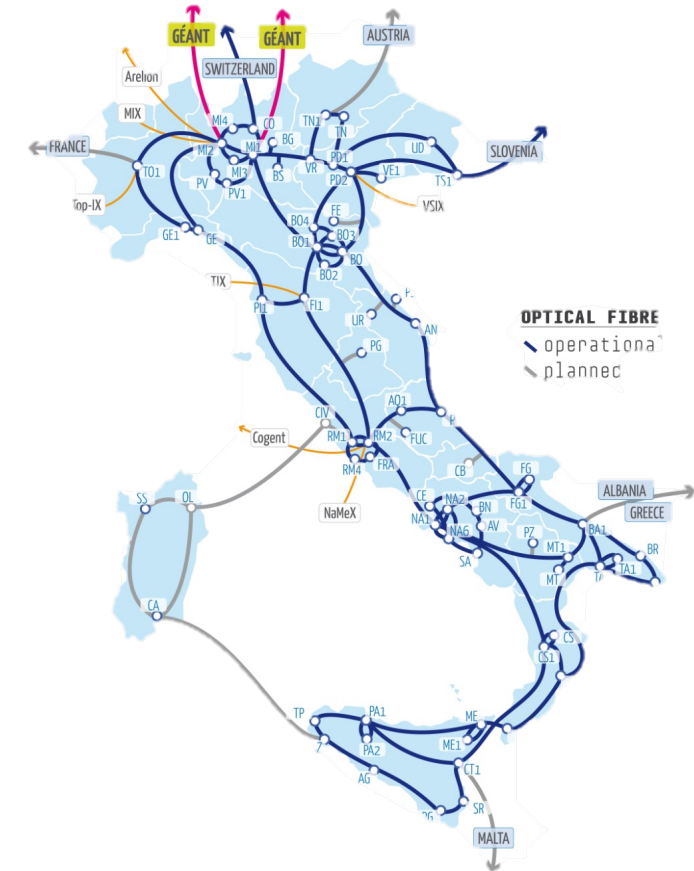
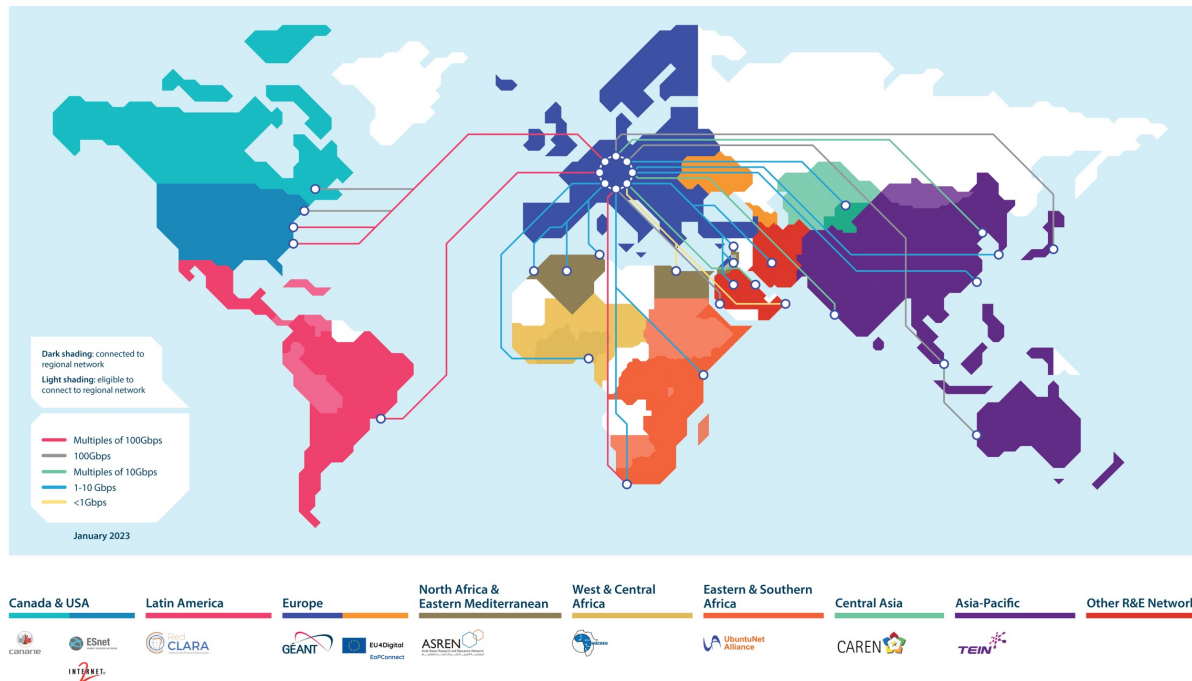


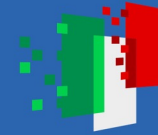
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GARR and its characteristics

Italian Legislative Decree n. 218 of 25 November 2016 art. 10 paragraph 5, defining GARR as "the only national research network and part of the GEANT European research network".





- ➔ **2x300G GÉANT**
- ➔ **300G LHCONE (VPN)**

CERN – CNAF
1,6 T Optical VPN

- ➔ **100G MIX**
- ➔ **100G NAMEX**
- ➔ **30G Arelion-Cogent**
- ➔ **10G-1G-1G TOPIX-TIX-VSIX**

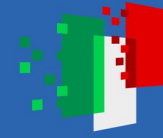
- ➔ **100G Peering Microsoft**
- ➔ **200G Peering Google**
- ➔ **200G Peering Amazon**



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GARR-T: Access Network

Increased capacity for end user services





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GARR Services

RETE & ACCESSO



SICUREZZA INFORMATICA



IDENTITÀ & MOBILITÀ



CLOUD & APPLICAZIONI

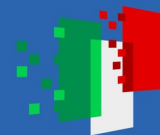


VIDEOCONFERENZA & MULTIMEDIA



FORMAZIONE



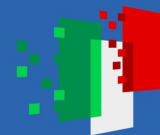


noc@garr.it

Network Operations Center (NOC)

- **Manages** the network from the operational point of view
- **Solves** network outages
- **Works together** with the **APM** in order to deliver GARR Services and to keep site connectivity at its best





<https://gins.garr.it>

GARR Integrated Networking Suite (GINS)

Set of tools used for:

- **Diagnosing** and tracing network and service outages
- **Publishing** online statistics for both the backbone and the individual organisations.



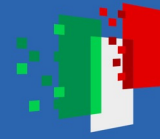
GARR
GINS



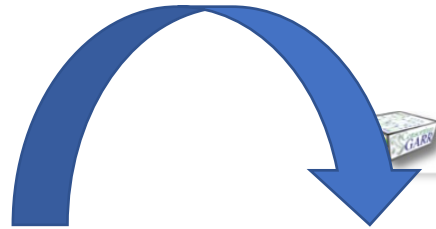
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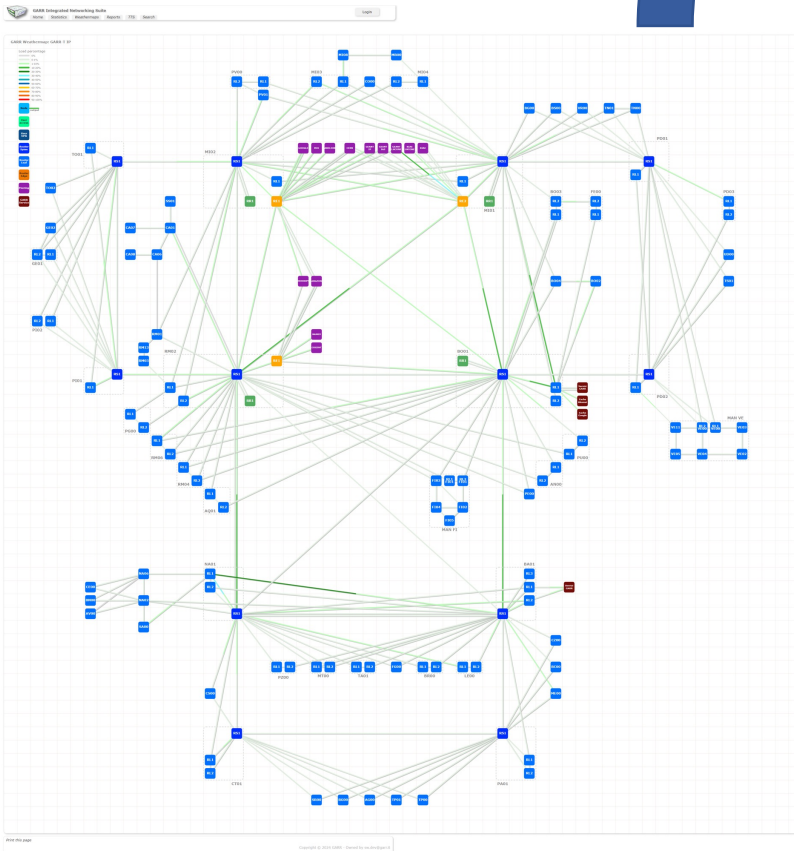


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GARR Integrated Networking Suite

Home Statistics Weathermaps Reports TTS Search

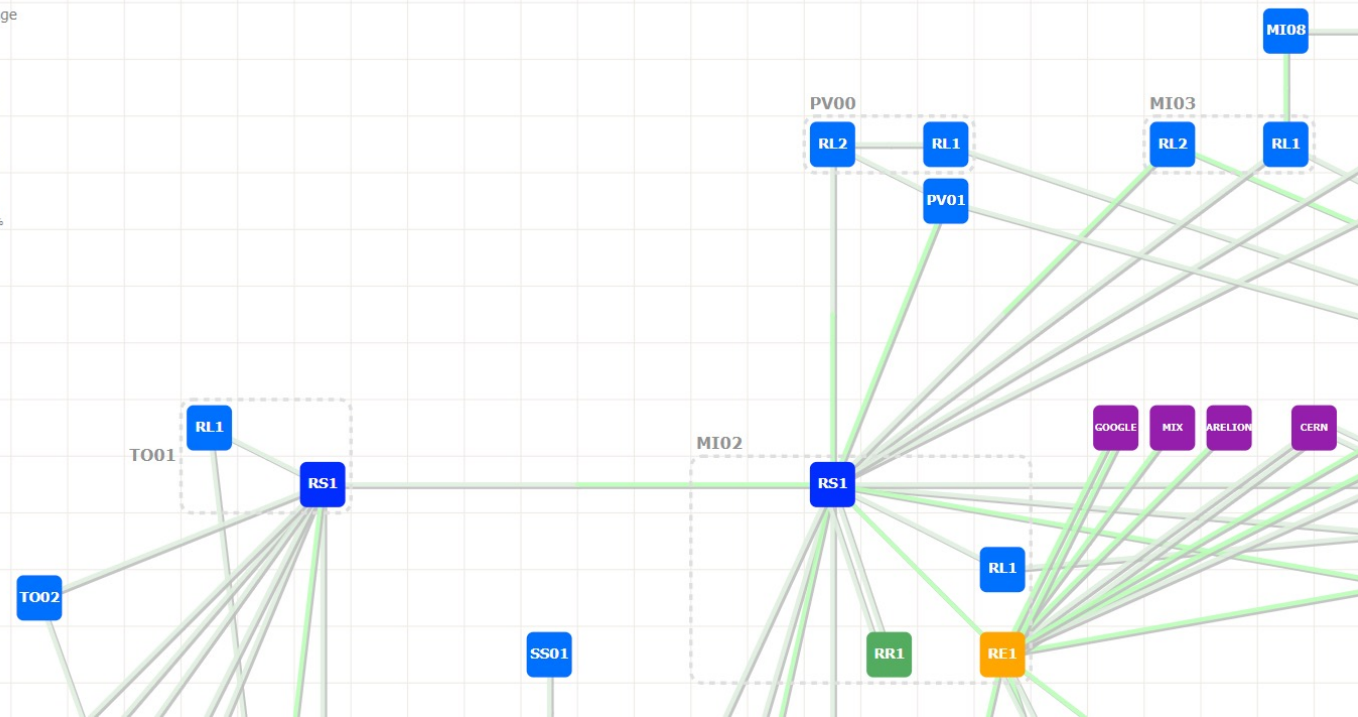


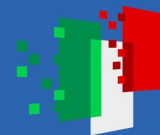
GARR Weathermap: GARR-T IP

Load percentage



- Node output
- User access
- User VPN
- Router Spine
- Router Leaf
- Router Edge
- Peering
- GARR Service





www.lir.garr.it & www.nic.garr.it

Local Internet Registry (LIR)

- **Assignes public** IPv4 and IPv6 networks to users
- **Offers** a secondary DNS service needed for the registration of a “.it” domain

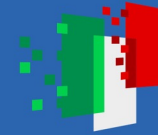
Network Information Centre (NIC)

- **Offers** a registration service for “.it” and “.eu” domain names

GARR
LIR

DNS
SECONDARIO

GARR
NIC

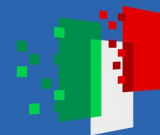


www.cert.garr.it

Computer Emergency Response Team (CERT)



- **Assists** users in the management of computer security incidents and in the implementation of prevention and mitigation measures.



www.cert.garr.it

Repetitive Scans on Demand (SCARR)

- **Runs** vulnerability tests on end-user's machines

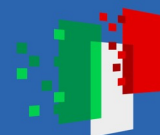




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terabit

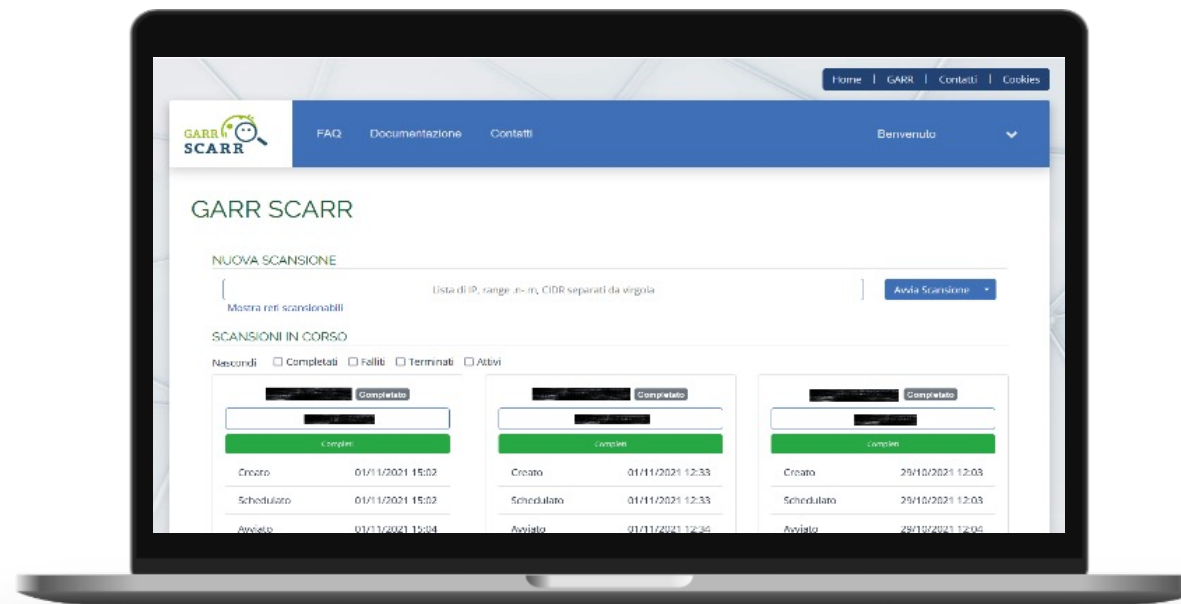
www.cert.garr.it



Network scans



Scheduling



Real time scan
monitoring



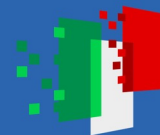
Report



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garr-ca@garr.it



Certification Service

GRANTS digital certificates for free, both in the personal and server version

www.idem.garr.it

IDentity Management (IDEM)

Simplifies the management of credentials so that users can have all the benefits of a single password to remember. IDEM is part of international federation **EduGAIN** and in this way makes thousands of resources accessible worldwide. The development and management of eduGAIN are financed through the GÉANT project and team members are technologists from GARR, PSNC, RENATER, DFN, SURF, SRCE, RENAM, CESNET, JISC, GRNET, KIFU, SWITCH, AMRES.

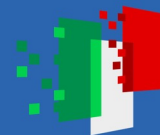




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<https://gbox.garr.it/>



Personal Storage: (GARRbox)

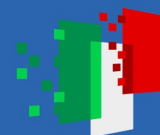
Personal Cloud for file storage and sharing, designed specifically for the Italian research and education community. It enables data synchronization among different devices and the resource sharing with other users.



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<https://meet.garr.it>

Videoconferencing tools

Suite of tools for web meetings and webinars.

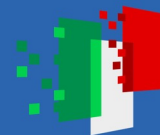




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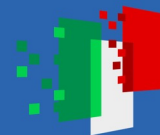


www.eduroam.it



WiFi in mobility (Eduroam)

Wireless access to all teachers, students, researchers in Europe and around the world with the same credentials used in their usual place of work.



<https://filesender.garr.it>



FILESENDER

File transfer (filesender)

Sending files up to 100GB in size using emails. It is accessible also by users not connected to GARR by issuing a voucher



Upload Ospiti I miei trasferimenti Il mio profilo Aiuto Informazioni Privacy Esci

Trascina i tuoi file qui

Rimuovi tutto Seleziona i file

Da :

A :

Oggetto (opzionale) :

Messaggio (opzionale) :

Crittografia file (funzionalità sperimentale)

Data di scadenza:

- Avvisami quando scade
- Avvisami al termine del caricamento
- Avvisami al download
- Inviarmi un rapporto quando scade
- Consenti ai destinatari di ricevere email complete per il download

Includimi tra i destinatari

Mostra un link invece di inviare mail

L'utente deve accedere a GARR Filesender per scaricare i file.

Accetto i termini e le condizioni di questo servizio [Mostra/Nascondi]

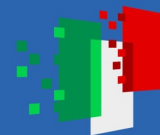
Invia



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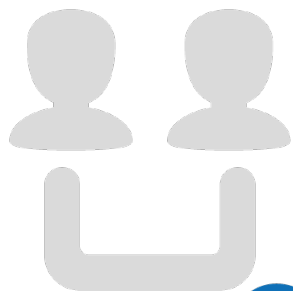
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planning@garr.it



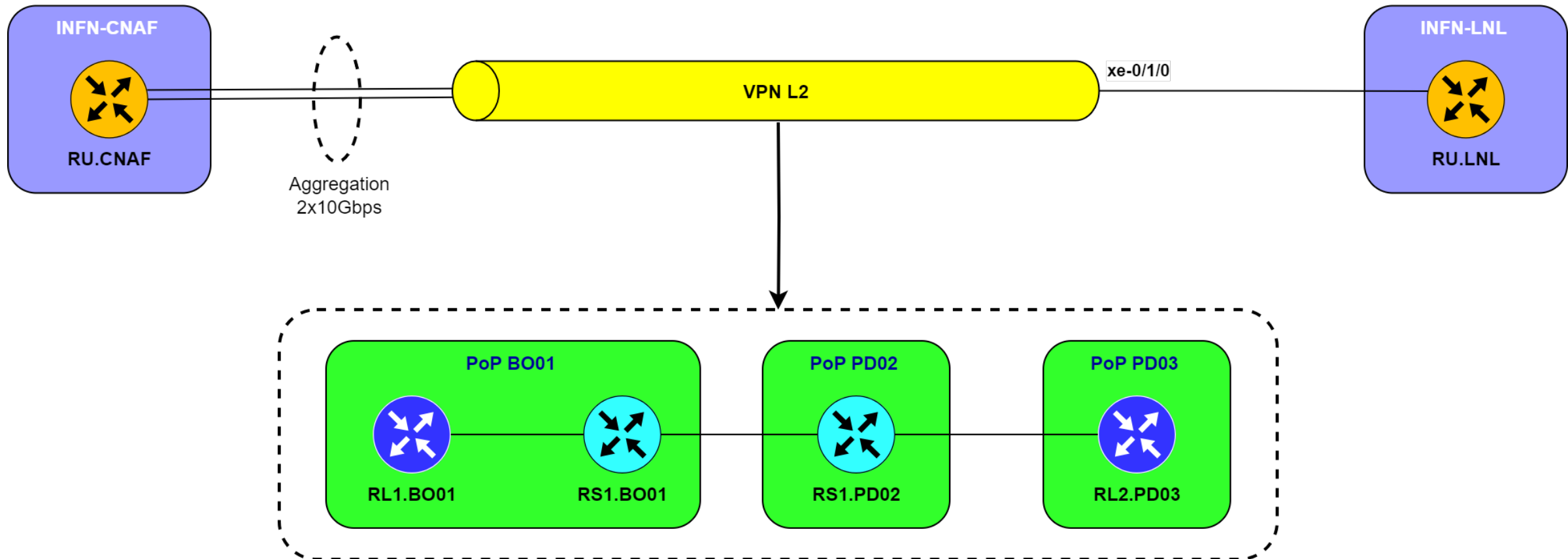
GARR
CONNETTIVITÀ
DEDICATA

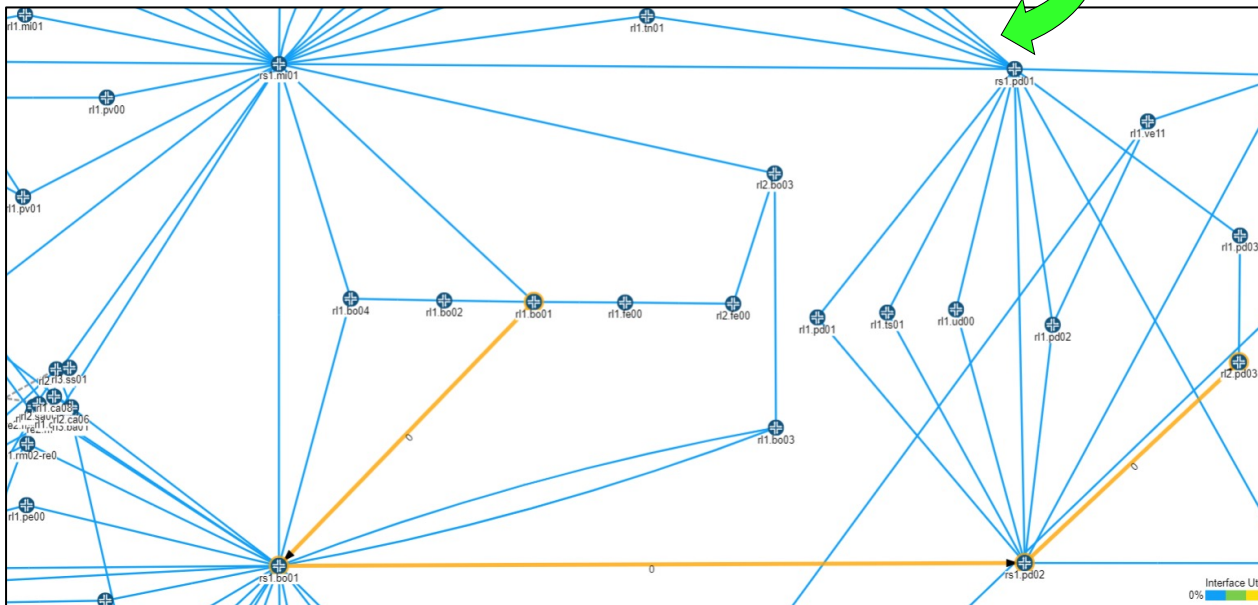
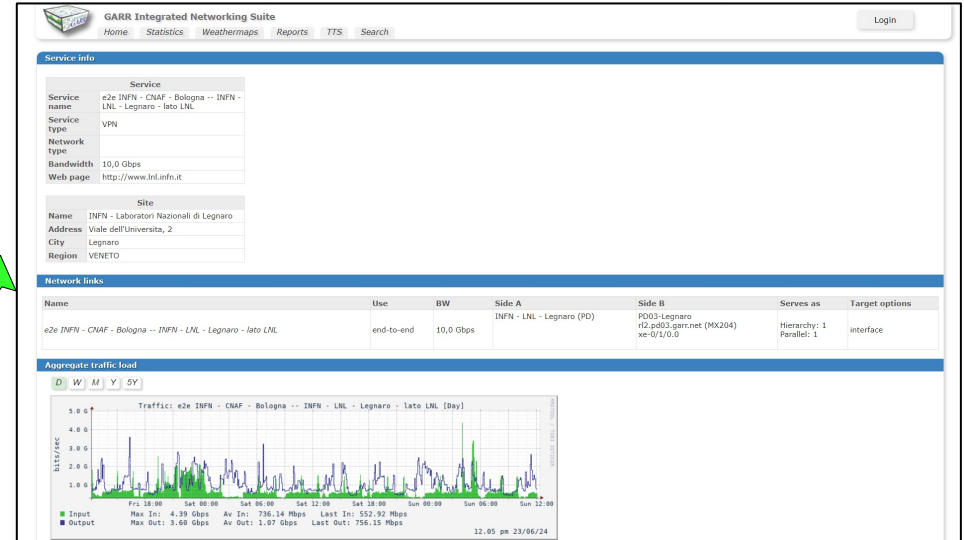
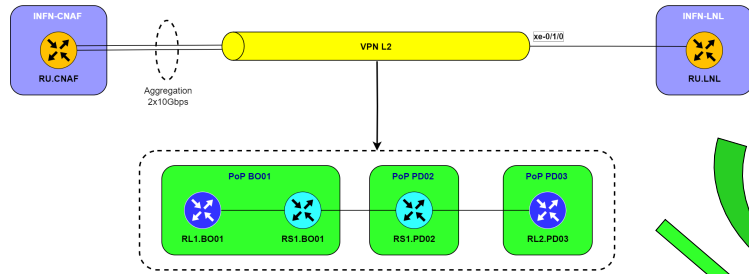
Dedicated connectivity

end-to-end connectivity services to establish direct physical or virtual connections between two or more locations.



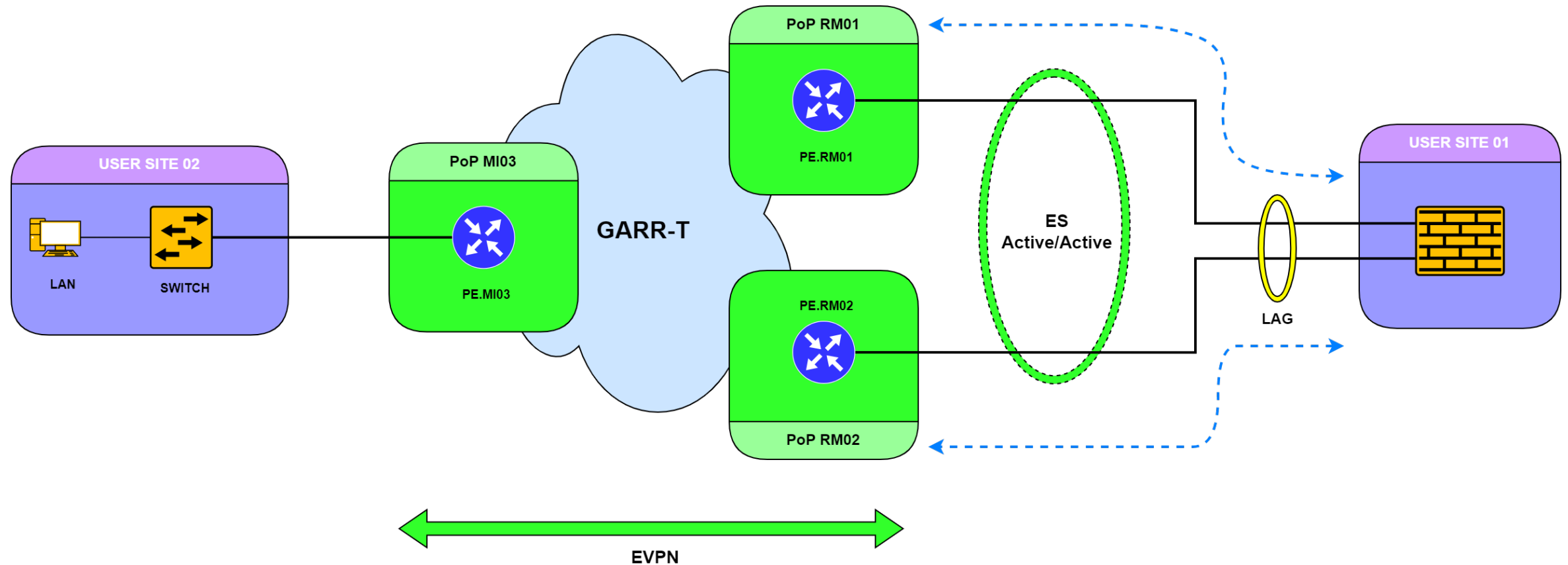
VPN CNAF-LNL







EVPN Active/Active

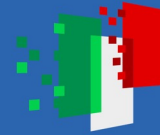




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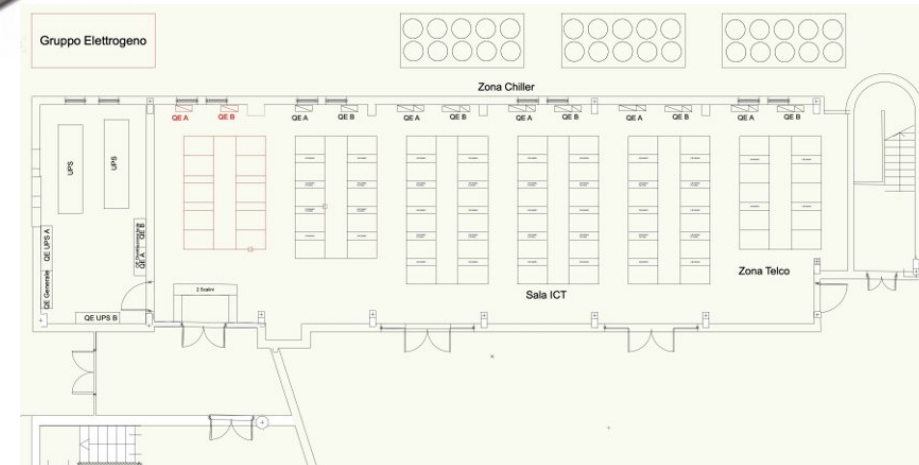
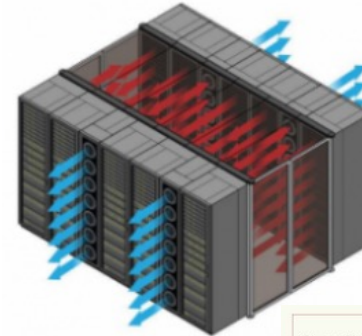
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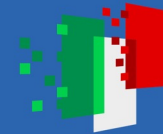


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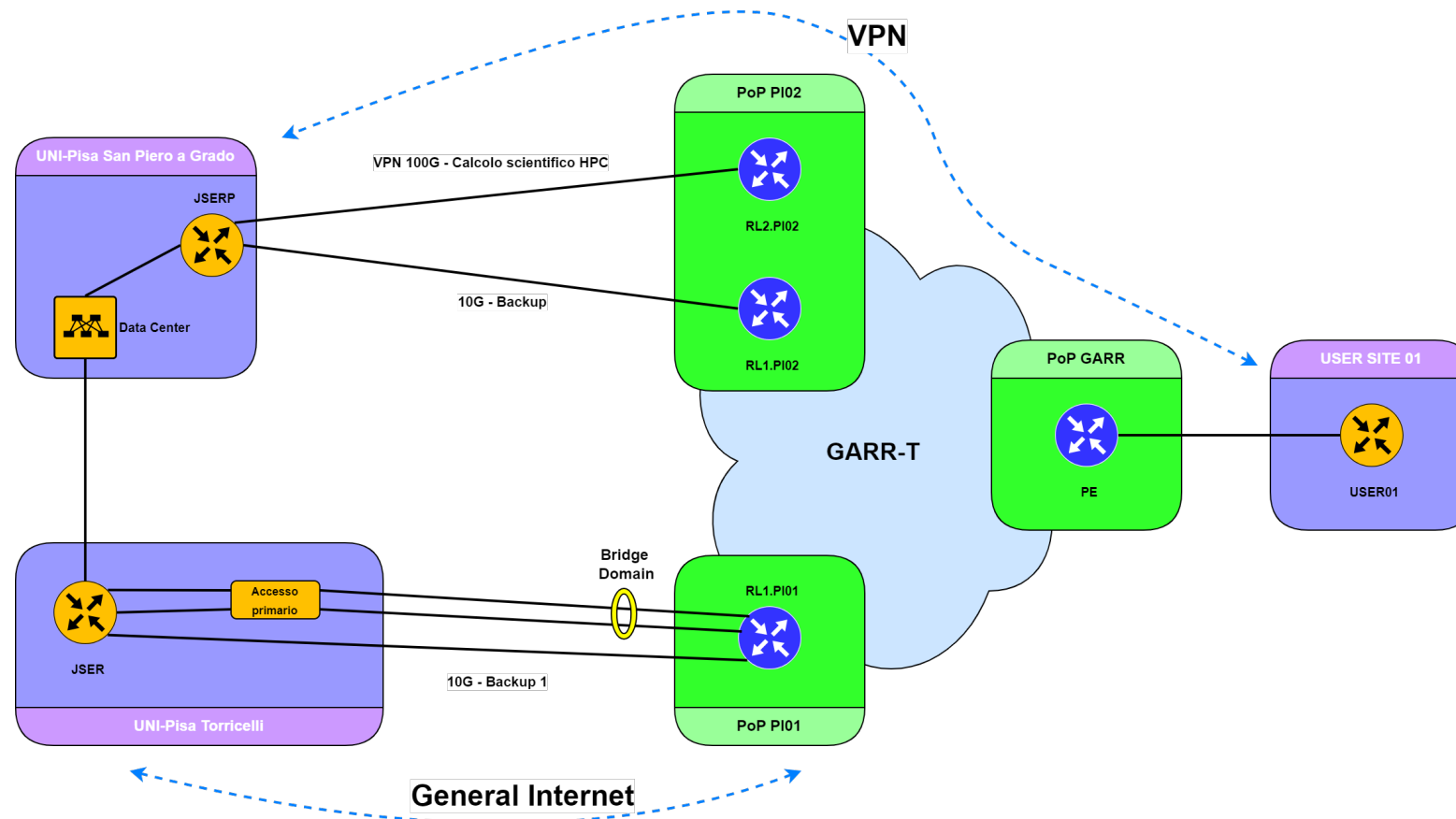


UNI-Pisa Data Center San Piero a Grado





Collegamento Data Center UNI-Pisa San Piero a Grado

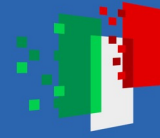




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Thank you

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