GÉANT General Overview

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Cloud and Digital Services

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www.geant.org

To support collaboration and development amongst researchers, the dissemination of information & knowledge, and provide access to a portfolio of services and infrastructure resources:

Runs a membership association for Europe's National Research & Education Networks (NRENs)
GÉANT Association

Coordinates and participates in EC-funded projects
Under Horizon 2020 the financial instrument for implementing the Innovation Union, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness

Operates a pan-European e-infrastructure
GÉANT network

Manages a portfolio of services for research & education
EduX

Organises and runs community events & working groups
TNC, task forces & special interest groups

GÉANT

Membership Association

GÉANT Association supports and represents over 40 NRENs across Europe.

Together they support over 10,000 institutions and 50 million academic users.
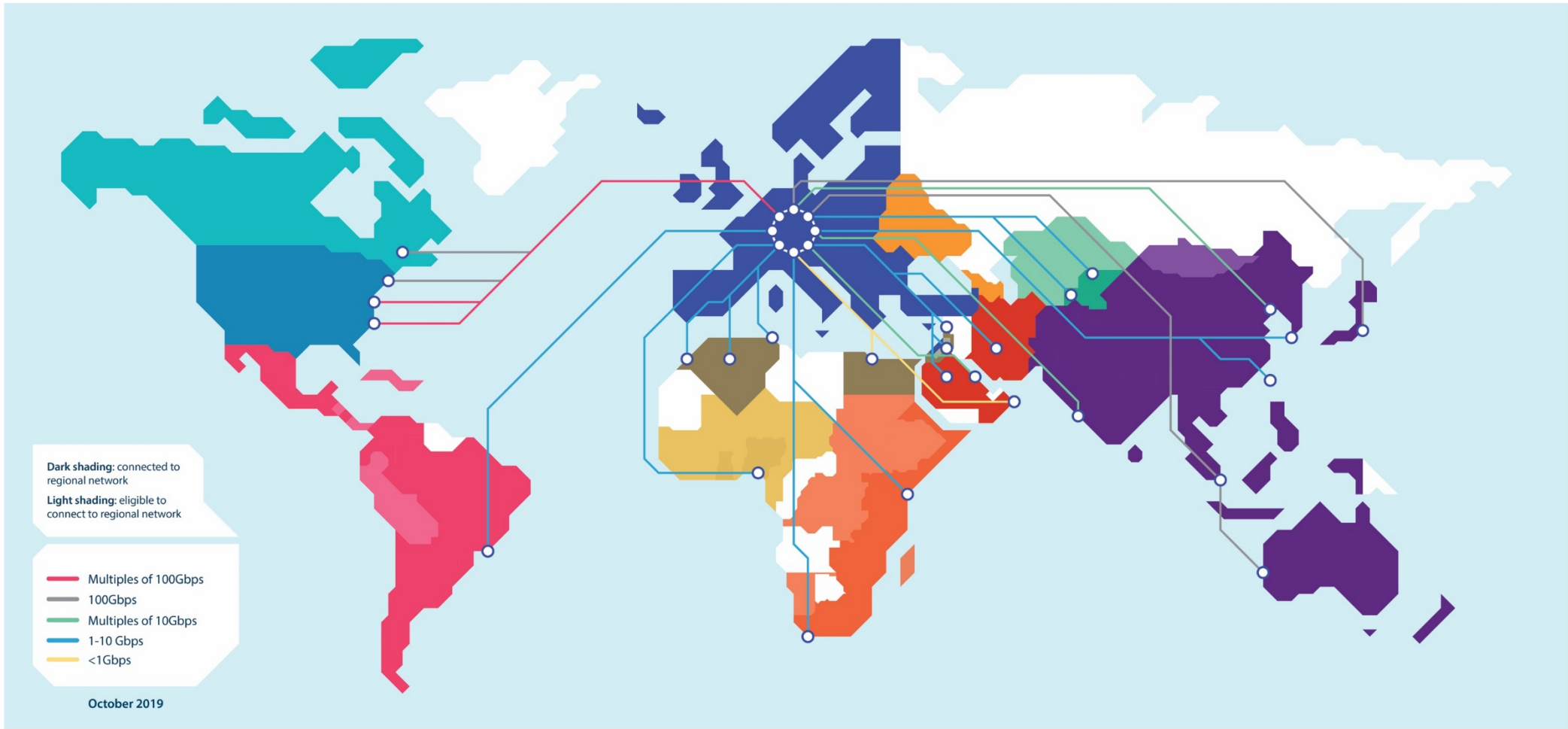
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Network

A separate ultra-high-speed internet, only for research & education

Robustness
Over 1,000 terabytes of data are transferred every day via the GÉANT IP backbone.

Total reliability
99.999% average monthly access availability.

> **"Today it would not be possible to work without the network that GÉANT and the NRENs have provided."**
> CMS experiment, Large Hadron Collider (LHC)

Efficient operations
The dedicated GÉANT Operations Centre ensures 99% of cases are reported within 15 minutes of any outage being detected, leading to rapid resolution.

Services
A wide range of services including IP and dedicated circuits, testbeds and virtualised resources, authentication and roaming, monitoring and troubleshooting, advisory and support services.

Trust, Identity & Security

Supporting users and enabling secure access to services

eduroam - secure global roaming access service _**250+ million authentications per month**_ in 101 territories

eduGAIN - interconnects identity federations around the world, simplifying access to content, services and resources ~ 3500 identity providers accessing services

InAcademia - Lightweight student validation service

eduTEAMS - Making managing virtual teams easy

Trusted Certificate Service – delivering cost-effective digital certificates.
In partnership with digicert

Cloud Services

Cloud services offer NRENs and Institutions improved flexibility and the ability to access a wider range of services and technologies to support their users;

- Infrastructure as a Service

- File Storage & Sync

- Collaboration

- Real-time Communications

- E-learning and Education

- Software as a Service

Cloud Connectivity

GÉANT works with major Cloud Service Providers to enable interconnectivity facilities (shared or per project) to support high performance cloud services

https://clouds.geant.org/

Outsourced clouds

In-house clouds

GÉANT

Scientific user groups we liaise with

Physical Sciences
Exploring the universe, e.g.
SKA, JIVE, NEXPReS, LIGO-VIRGO and CERN,
Neutrino observation (KM3NET)

Earth and Environmental Sciences
Earth observation, climate monitoring,
sustainable development, e.g. EUMETSAT,
Copernicus, ESA, Group on Earth
Observation, WMO

e-Infrastructures
e.g. PRACE, EGI, EUDAT, EOSC-hub,
HelixNebula)

Social Sciences
Music, art, language, e.g.
CLARIN, ASTRA, LoLa

Health and Food
Pharmaceutical research, e.g.
EMBL-EBI, Human Brain Project

Energy
Nuclear power, fusion energy
research, e.g. ITER

Thank you

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