GÉANT: Building Connections

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To empower R&E with an open, innovative, and trusted information ecosystem

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 with connections to all regions of the world
GÉANT network

Manages a portfolio of services for research & education
EduX

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

Membership Association

GÉANT Association supports and represents 38 NRENs and NORDUnet across Europe.

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

GÉANT EC Projects

GEANT2020 FPA GNx Projects

1. GÉANT2020 FPA
2. GN4-3
3. GN4-3N

EOSC Projects

4. EOSC-Enhance
5. EOSC Future
6. EOSCsecretariat.eu
7. OCRE

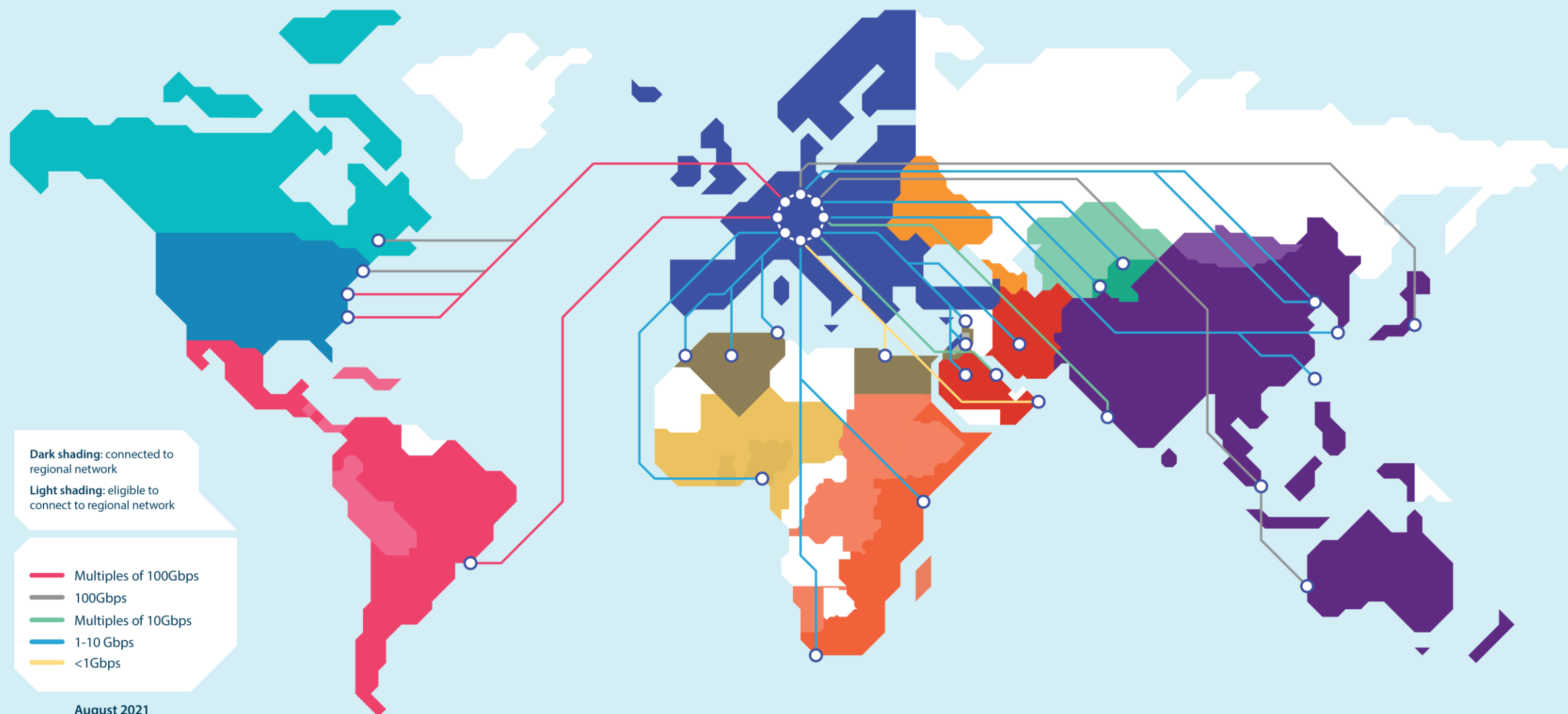**T&I Projects**

8. NGI_TRUST
9. EDSSI
10. EDSSIL2

Other Connectivity Projects

11. Fed4FIREplus
12. CLONETS-DS
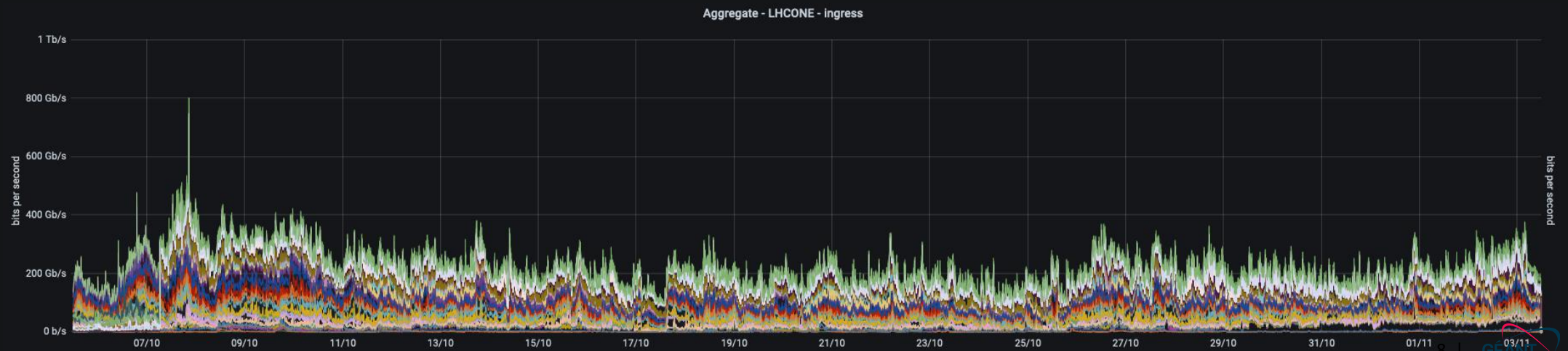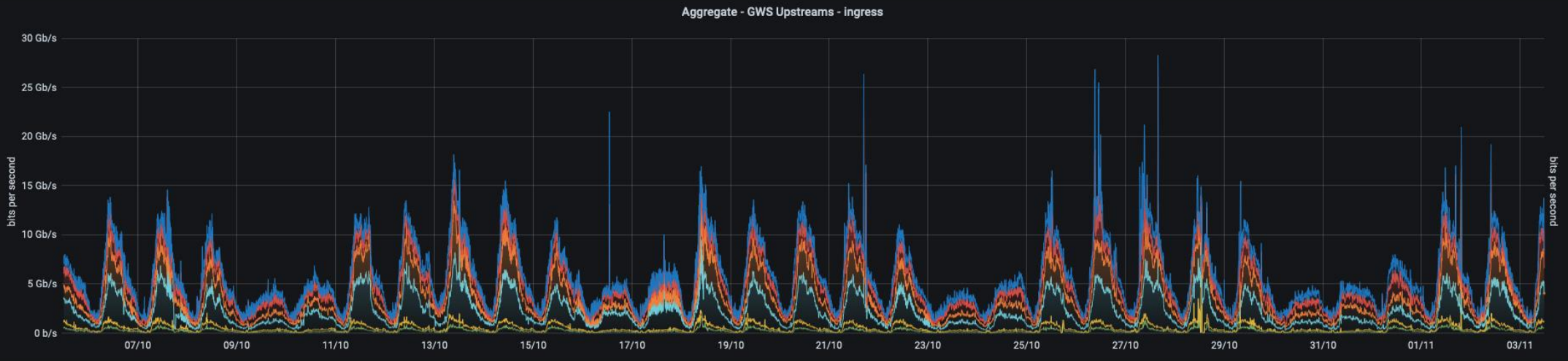13. BELLA-S1
14. HPC-GIG
15. PRACE-6IP

International Projects

16. EaPConnect2
17. AfricaConnect3
18. EUMEDConnect3

Dark shading: connected to regional network

Light shading: eligible to connect to regional network

Multiples of 100Gbps
100Gbps
Multiples of 10Gbps
1-10 Gbps
<1Gbps

August 2021

Not all traffic is equal

Aggregate - GWS Upstreams - ingress

Aggregate - LHCONE - ingress

GÉANT Services

Network

GÉANT IP

GÉANT Plus

GÉANT Lambda

GÉANT Guaranteed Bandwidth

GÉANT Open

GWS

L3VPN

MD-VPN

Commercial Peering

ExpressRoutes

Network Support

Operations Centre

perfSONAR

perfSONAR PMP

WiFiMon

NMaaS

Software Tools e.g. BRIAN

Security

FoD

RTBH (Remote Trigger to Black Hole)

DDoS C&A

TCS

TRANSITS

eduVPN

Trust & Identity

eduroam

eduGAIN

eduTEAMS

InAcademia

FaaS

Registry Services

Cloud & RTC

IaaS+ Framework
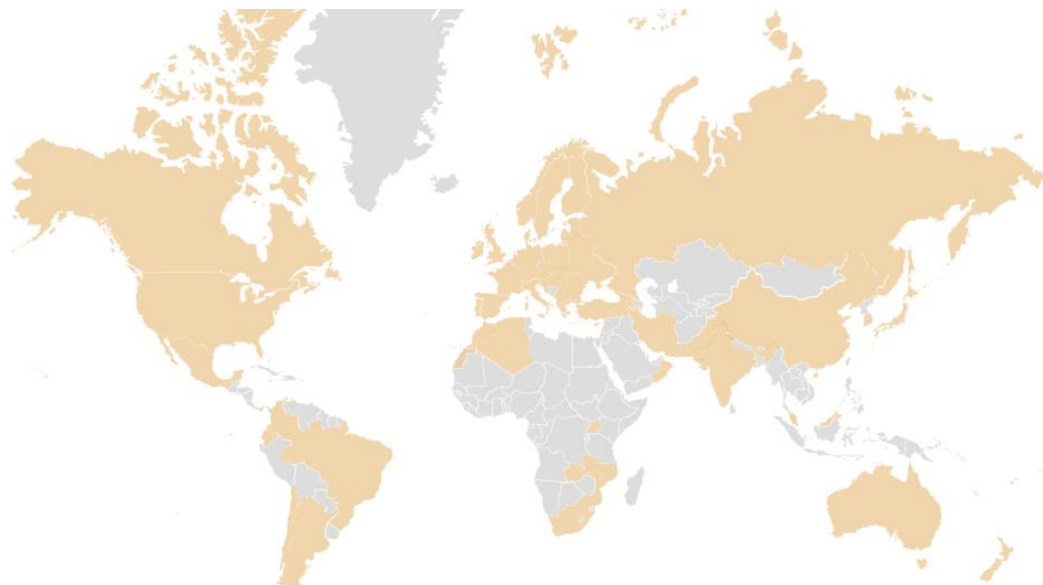
eduMEET

Filesender

eduGAIN, one identity worldwide

Enabling secure Single Sign On services to global research and educational resources

Federated identities enable users to access a wide range of services using their account managed by their 'home' institution

- Improves access
- Improves security
- Reduces management overhead and costs.

May 2022:

75 Federations active

8426 entities

4868 Identity Providers

3558 Service Providers

eduGAIN.org

National Research and Education Networks - Sharing

- One NREN per country (non-profit)

- Whatever you build nationally

- Will be multiplied internationally by the community of NRENs

- Every service an NREN delivers adds to the value for all NRENs

- Every user an NREN connects adds to the value for all NRENs

- NRENs are necessary but also give a great return on investment

- GÉANT is there to make sure they are all connected and able to share

Recommendations for Azerbaijan

Create	Create one network for Research and Education • Use the expertise of AZScienceNet
Invest	Invest in that network nationally • And benefit from the international community through GÉANT
Use	Use the services available in the GÉANT community • And not only the network
Prepare	Prepare for the end of the EAPConnect program • Make sure funding at national level is available to become a full cost share member of GEANT

Thank You

Any questions?