

Το νέο ευρωπαϊκό δίκτυο GÉANT και η θέση του ΕΔΕΤ

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Συμπόσιο Ψηφιακής Τεχνολογίας "20 χρόνια ΕΔΕΤ"

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Εθνική Βιβλιοθήκη της Ελλάδος στο Κέντρο Πολιτισμού Ίδρυμα Σταύρος Νιάρχος

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Περιεχόμενα

- Ο οργανισμός ΓΕΑΝΤ
- Το έργο ΓΕΑΝΤ / ΓΕΑΝΤ2020 FPA
- Το νέο ευρωπαϊκό δίκτυο ΓΕΑΝΤ και η θέση του ΕΔΕΤ
- T&I υπηρεσίες
- Community events, TFs/SIGs
- Εικόνα του ΕΔΕΤ όπως το βλέπουν το ΓΕΑΝΤ και τα άλλα NREN στην Ευρώπη



GÉANT: what we do



Membership association for Europe's National Research & Education Networks (NRENs)



Coordinate and participate in EC-funded projects



Operate a pan-European e-infrastructure: the GÉANT network



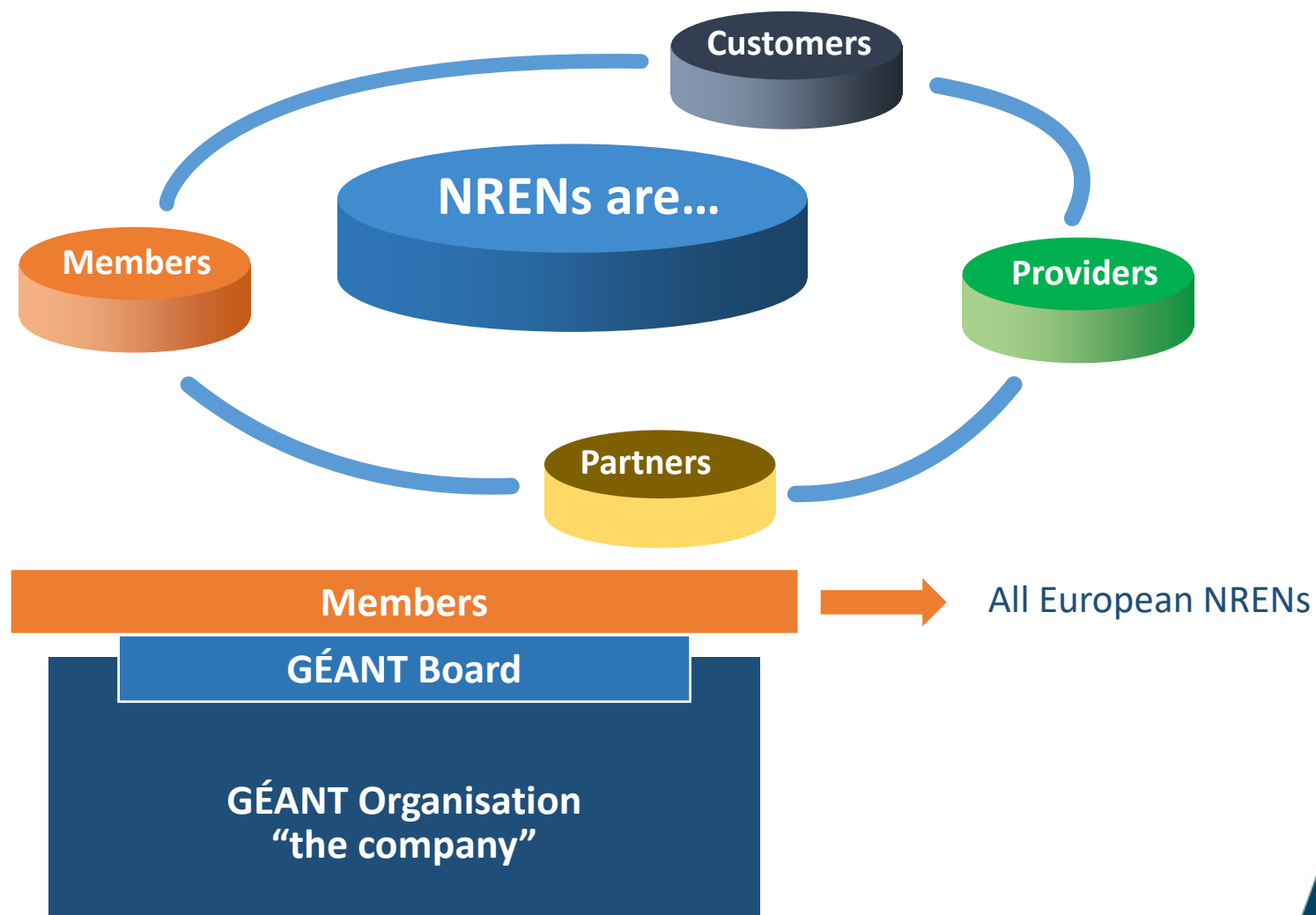
Manage a portfolio of services for research & education: eduroam, eduGAIN, eduTEAMS, etc.



Organise and run community events & working groups: TNC, Task forces, Special Interest Groups



Governance: Member Driven





Network Services

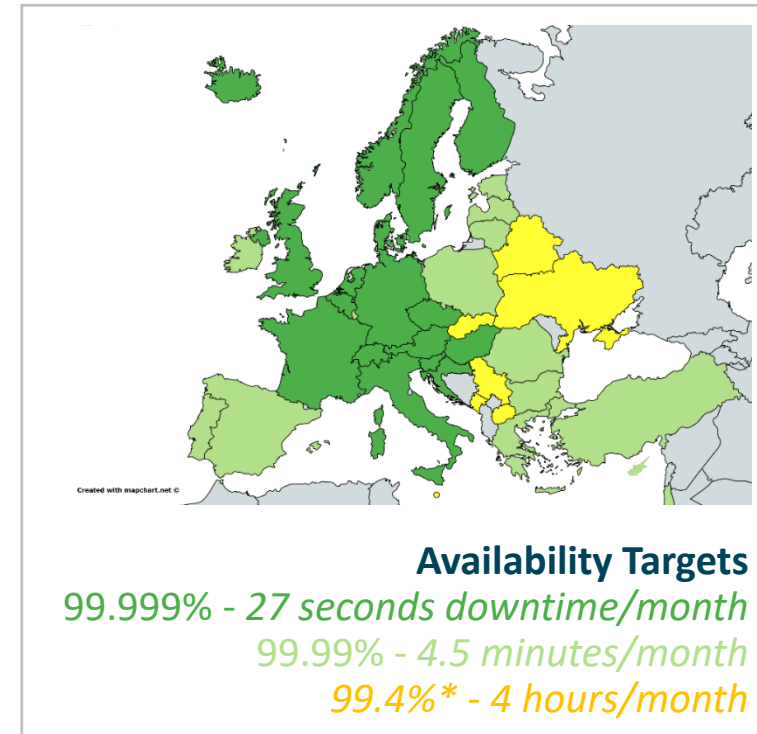
GÉANT Network Services

Any to Any: GÉANT IP

Private Networks: GÉANT VPN

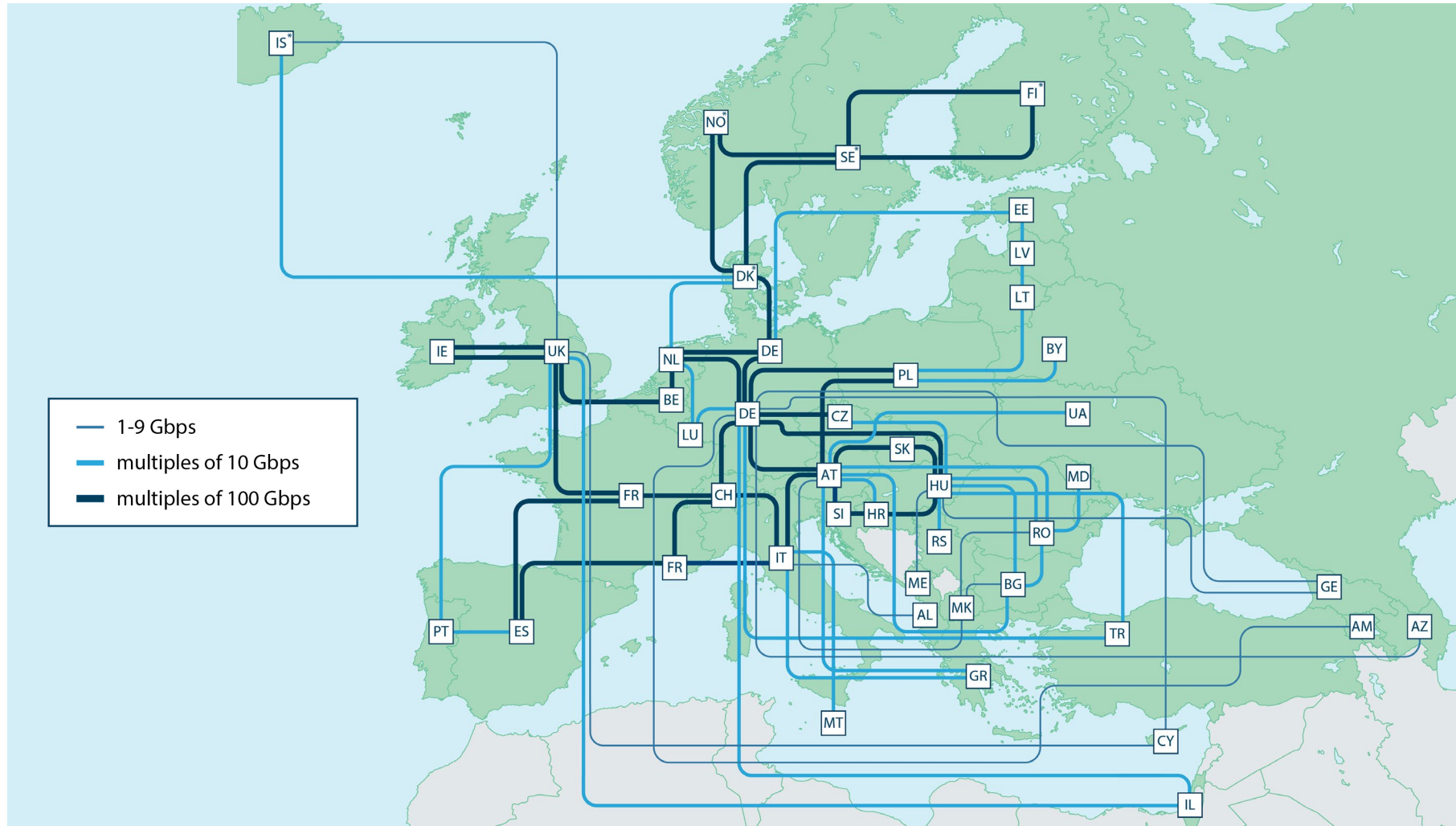
Dedicated Performance: GÉANT Point-to-Point

Connecting: GÉANT Open



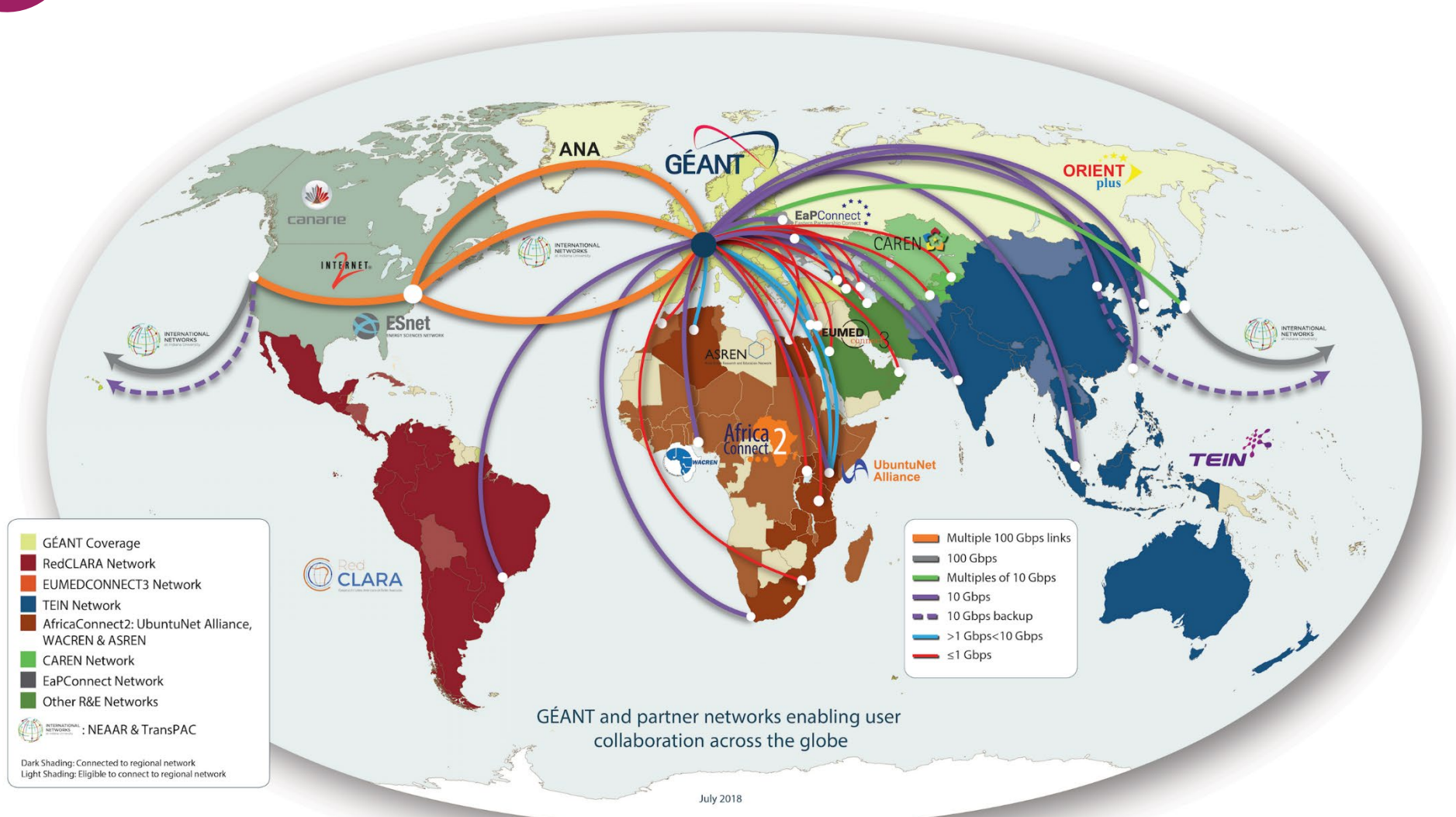


The European Network





Global Connectivity

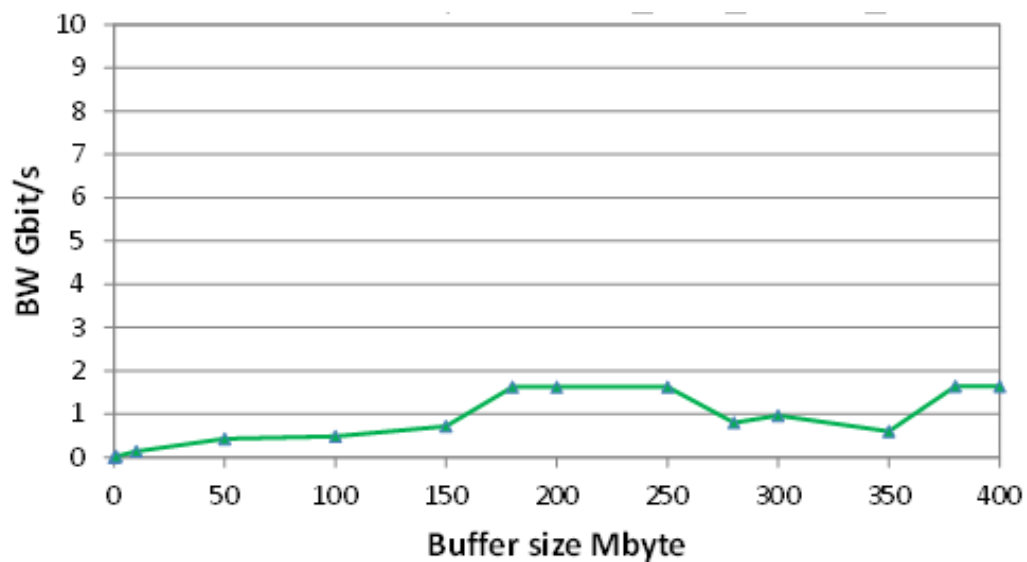




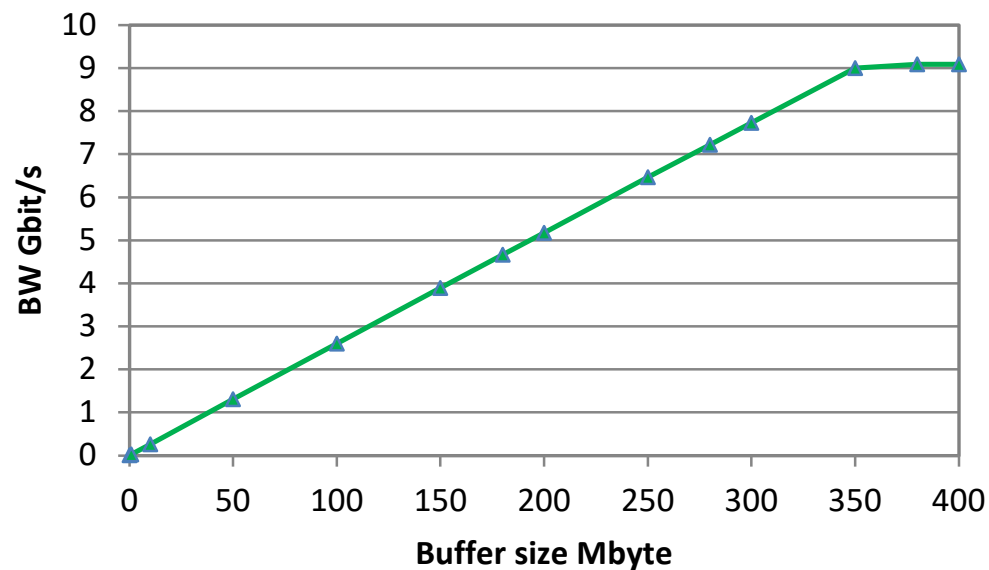
Proof Point: London to Canberra

10 Gigabit TCP performance - Public vs R&E

Public Internet



GÉANT, R&E partners



GÉANT FPA

GN4-1
(12 months)

GN4-2/Bella
(32 months)

GN4-3 / GN4-3N
(48 months)

Today's Fibre Network

Shorter term contracts
Other countries on (sometimes
expensive) leased lines

**CURRENT FIBRE
NETWORK**

Legend

- Commercial DF
- Commercial Spectrum
- Commercial Leased
- NREN DF
- NREN Spectrum
- NREN Leased



NETWORK PROPOSAL

All IRU or NREN links
All spectrum (NREN) or Fibre (NREN, commercial)

Dublin – IRU on 400G capacity

Non Recurring Cost for this network: 48 M€



Evolution: Network Technology Challenges

Exponential growth in network traffic

- Nearly 50% year on year growth
- Traffic doubles every 18 months (so x 50 over 10 years?)
- Need cost effective ways to support the traffic growth

Increase space, power efficiencies

Decrease dependence on single vendor solutions?



Other Projects

GÉANT is a trusted European Commission (EC) partner in many global collaboration projects and initiatives through our special relationship with the European Union.



European
e-infrastructure
projects



Trust & identity
projects



Network
projects



Collaborative
projects





Trust, Identity & Security

Supporting users and enabling secure access to services



eduroam - secure global roaming access service **250+ million authentications per month** in 89 territories



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



AARC project – collaborating with e-infrastructures, research collaborations, libraries & federations to share policies, architectures, training materials & pilots that avoid re-inventing the authentication & authorisation wheel



REFEDs – supporting identity federations worldwide



Trusted Introducer – services for security and incident response teams

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



BRINGING THE CLOUD TO THE GROUND

40 European National Research and Education Networks (NRENs) collaborate in their association GÉANT to make cloud services accessible: easy and safe to use for 10,000 institutions and 50 million users.

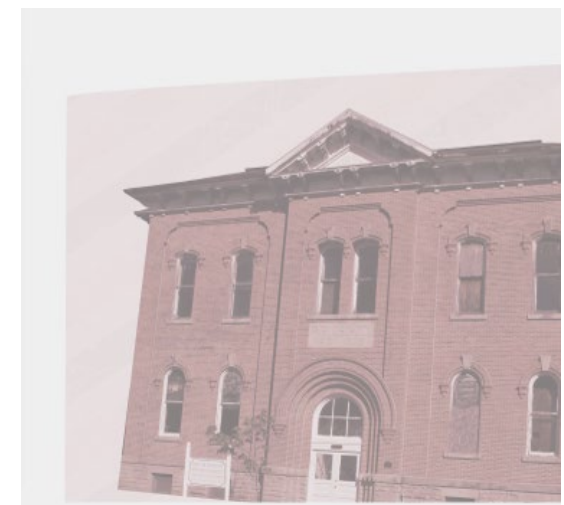
Unique cloud portfolio:
ready-to-use, legally compliant agreements with leading cloud providers.
Discounts, technical integration (network and single sign-on).



GÉANT, CERN, RHEA & Trust-IT
will drive adoption of commercial digital services
in the European research community (2019 – 2021)

Investigate the community's needs and aggregate demand.
Organise a pan-European tender.
List services in the European Open Science Cloud Catalogue
Enable federated access to these services

Stimulate adoption by the research community:
9.5 million euro available for cloud adoption





Community events & clusters

GÉANT invests in the research and development of network architectures, technologies and paradigms to develop into the services, processes, tools and network capabilities of tomorrow.



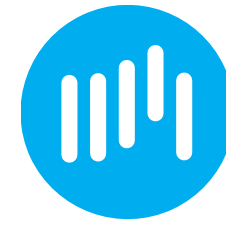
Community
Conference



Special Interest
Groups and
Task Forces



Research
Programmes



Service
Development

Συμβολή του ΕΔΕΤ

- Το ΕΔΕΤ έχει συμβάλει χρόνια τώρα στο πανευρωπαϊκό ΓΕΑΝΤ
 - με την ενεργή συμμετοχή τόσο στην διοίκηση GEANT με τον πρώην πρόεδρο NREN PC (2004-2012),
 - αλλά κυρίως στην τεχνική συμβολή μεγάλων ομάδων και στελεχών από ΕΔΕΤ και φορείς.
- Παροχή υπολογιστικών υπηρεσιών (~oceanos global & eduGAIN to support Europe-wide users)
- Χρήση ZEUS για τις εκλογές του Διοικητικού Συμβουλίου του ΓΕΑΝΤ
- Το ΕΔΕΤ είναι δραστήριο και σε τομείς, όπως το HPC, EOSC, cloud με τα δικά του datacenters.
- Συμβολή σε άλλα διεθνή έργα
 - EOSCpilot (ΓΕΑΝΤ third party)
 - EOSC-hub partner
 - Up2U partner

Σας ευχαριστώ!

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