



GÉANT2 PR briefing: **Point-to-Point Services**

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TF-PR Network Meeting

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GÉANT2 P2P: Your Own Information Superhighway



Connect. Communicate. Collaborate



MATTMAGIC.COM





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The IP Network

- GÉANT2 provides a shared IP network for most R&E traffic
 - Shared connections (bandwidth not guaranteed)
 - Over-provisioned (sufficient for most users)
 - Routed (protection is automatic in the case of failure)
 - Routed (latency is undetermined)



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Point-to-Point (P2P)

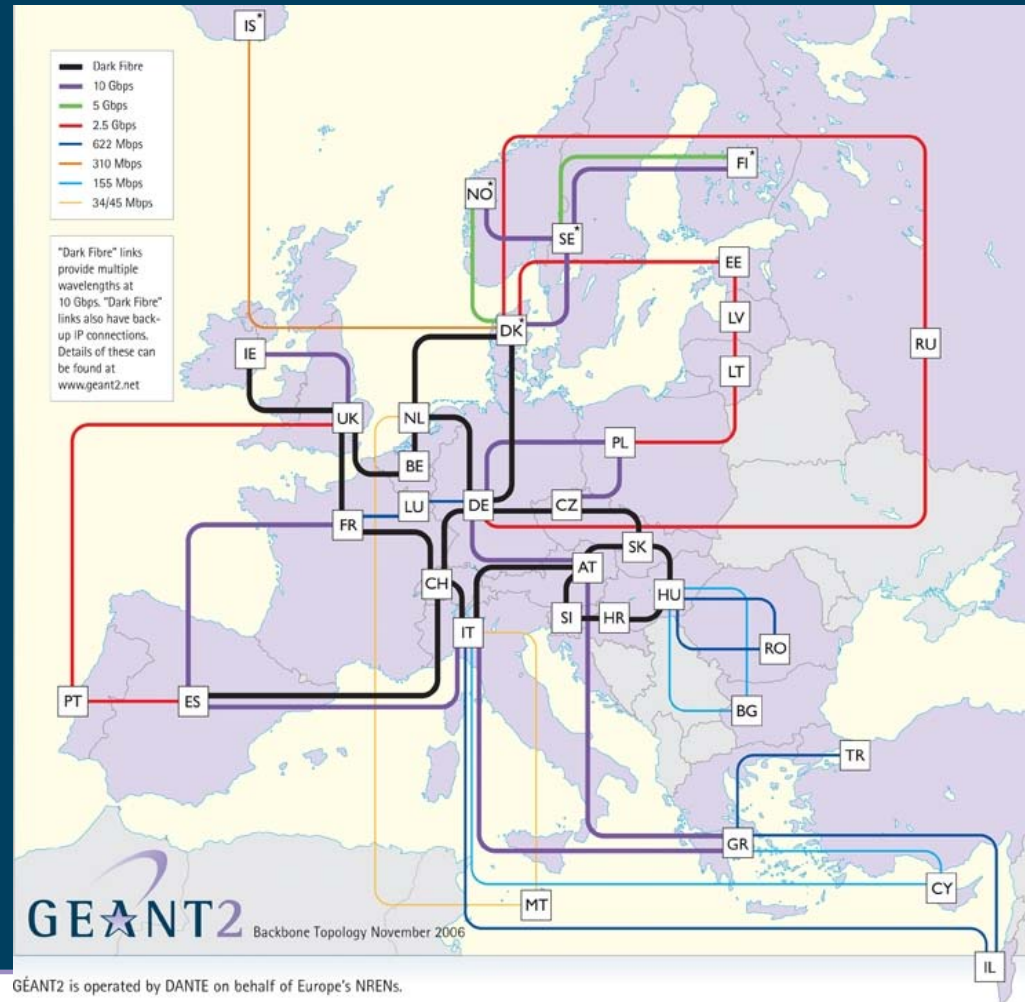
- GÉANT2 can provision P2P circuits especially for particular projects
 - Dedicated, guaranteed bandwidth
 - Protection is not automatic
 - Benefits not just for the user –frees up space for everyone else.



Where is P2P possible?

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- ACOnet (Austria)
- ARNES (Slovenia)
- BELNET (Belgium)
- CARNet (Croatia)
- CESNET (Czech Republic)
- DFN (Germany)
- GARR (Italy)
- HEAnet (Ireland)
- NIIF (Hungary)
- NORDUnet (Nordic region)
- RedIRIS (Spain)
- RENATER (France)
- SANET (Slovakia)
- SURFnet (Netherlands)
- SWITCH (Switzerland)
- UKERNA (United Kingdom)



GEANT2 is operated by DANTE on behalf of Europe's NRENs.



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Flavours of P2P

- GÉANT +
 - 10 Gbps of pre-provisioned, switched P2P circuits
 - Can be split into ~ 9 x 1 Gbps if desired
 - Pre-paid: no further charge to use
 - Can be provisioned quickly (no components to order)
 - Flexible switching possible



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Flavours of P2P

- 10Gbps Circuits:
 - Very inexpensive compared to commercial sector (€20K per NREN)
 - Significant lead time (14 weeks) – order early

- Transatlantic
 - Circuits can be configured on two routes (PAR-NY & FRA –NY)

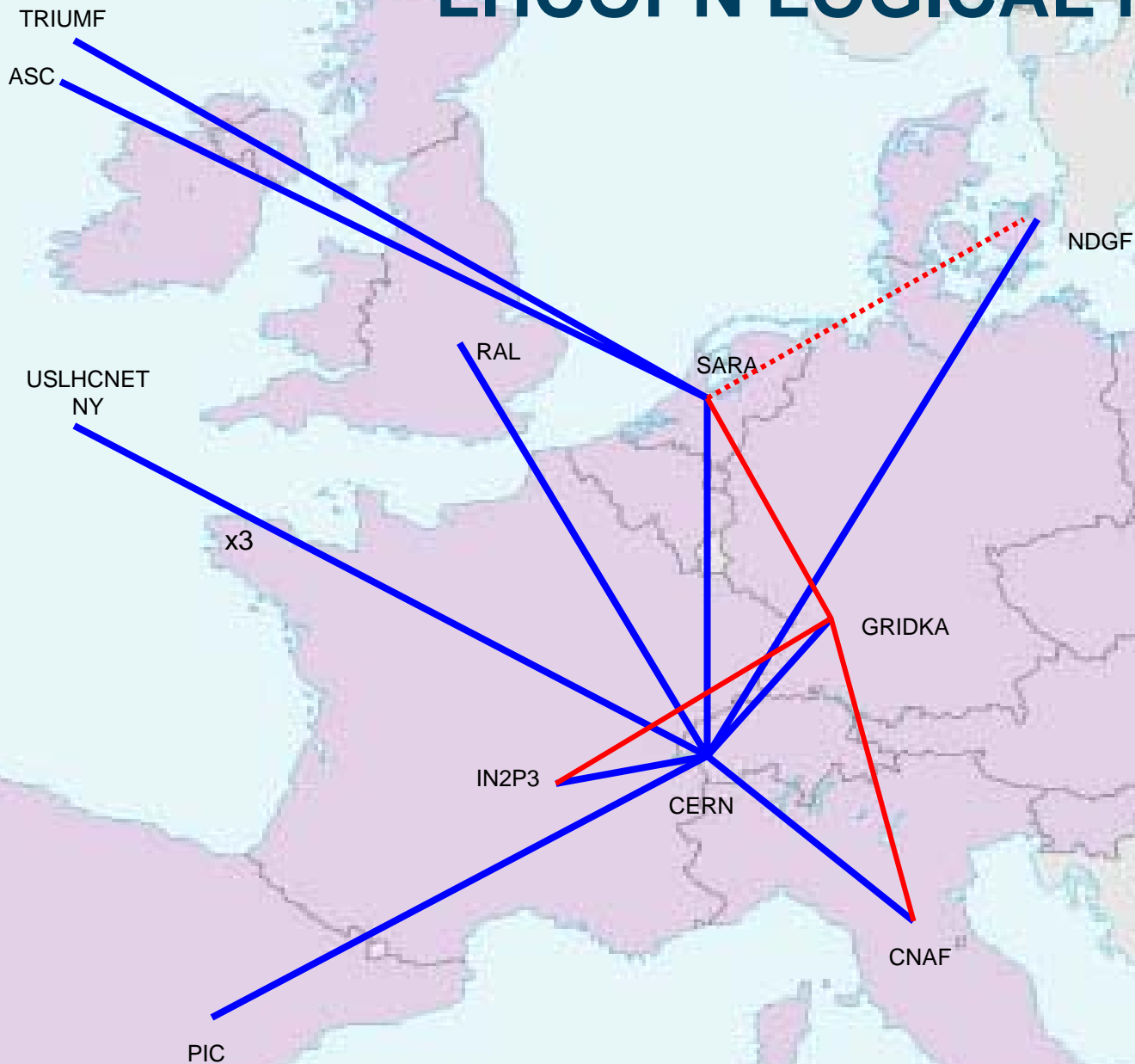
GÉANT2 P2P Circuits: Status Update



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- 19 x P2P Circuits Ordered
- 11 x European P2P Circuits delivered:
 - 10 x 10Gbps
 - 1 x GE
- 2 x transatlantic circuits delivered
- More orders welcome –particularly for GÉANT+ circuits!

LHCOPN LOGICAL MAP





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Other P2P users...

- DEISA –a large supercomputing grid
 - EXPRoS –radio-astronomy on a global scale (soon)
 - EMBL (planned)
 - What others?
-
- Particularly keen to see GÉANT+ uptake
 - Only one GEth circuit configured so far



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How do users order?

- Via the NRENs
- Who in NREN orders? Usually through your APM –your contact point with DANTE
- Form at: <http://intranet.geant2.net/server/show/nav.922>
- Questions on P2P? Email john.chevers@dante.org.uk
- What are your ordering procedures?



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How to promote?

- Guide for NRENs in development for GÉANT2 intranet
- Can re-publish on your websites/own publications
- How do you promote special services?
- Who is the audience?
- Level of understanding?



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Workshop

- Split into 3 groups
- Question: Your NREN is deploying an optical network. How do you promote to the user?
 - Who is the target audience?
 - What do they need to know?
 - How do you communicate?



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For discussion

- What other users could benefit from P2P?
- What are your ordering procedures?
- What's the national picture for P2P services?
- How do you promote these special services?
- How do we make optical networking “sexy” to the user?