

GÉANT Updates
TN-NGN Meeting
10th -11th May, Amsterdam

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GÉANT Backbone Circuits

- AT-SI upgrade: 622M => 2.5G; date 16 February
- HR-HU upgrade: 622M => 2.5G; date 26 March
- AT-DE upgrade: 2.5G => 10G; date 30 March
- HR-SI new link 2.5G; date 19 Feb
- GR-IT upgrade: 622M =>2.5G; date 22th April
- GR-DE: upgrade 622M => 2.5G; date 28th April

GÉANT Access Circuits Upgraded



- RENATER
 - From 2.5G POS to 10G
- ARNES and CARnet upgrades
 - From 622M POS to 2.5G (limited to 1.2G)
- FCCN upgrade
 - From 622M POS to 2.5G (limited to 1.2G)
- LATnet upgrade
 - From 34M E3 to 155M POS

GÉANT Access Circuits Planned

- DFN

- From 2.5G POS to 10G; planned for early May

- SWITCH

- From 2.5G POS to 10GE; planned for early May

EUMEDCONNECT Infrastructure

- Eumed PoP in Catania, Italy
 - Operational 10th May
 - Cisco 7513 router, borrowed from GARR
- EUMEDCONNECT-GÉANT interconnection
 - Catania-Milan 155M; date 10th May
- Eumed PoP in Cyprus, Nicosia
 - Planned, July

EUMEDCONNECT Access Circuits

New NRENs already connected:

- ARN (Algeria) => 45M
- Marwan (Morocco) => 34M

NRENs planned to be connected:

RFR (Tunisia) => 45M; planned for end of May

MoHE (Syria) => 8M; date TBC

EUN (Egypt) =>45M; date TBC

Other items in Y4 Roadmap

Layer2 VPNs

- We have successfully tested various scenarios using different encapsulation for *Martini L2-circuits*.
 - **cisco-hdlc** (CE : juniper-juniper, CE: juniper – cisco, CE: cisco-cisco)
 - **Ethernet** (CE : juniper-juniper, CE: juniper – cisco, CE: cisco-cisco)
 - **Ethernet-vlan** (CE : juniper-juniper, CE: juniper – cisco, CE: cisco-cisco)-
using a vlan for IP traffic and one or more separate vlan for L2-circuits
 - **frame-relay** (CE : juniper-juniper, CE: juniper – cisco, CE: cisco-cisco)-
using a dlci for IP traffic and one or more dlci for L2-circuits
 - ppp: not yet tested

[In all our test regarding encapsulation the P and the PE routers were Juniper's]

L2-VPN inter-domain

- Successful tests involving inter-domain L2-VPN scenarios.
 - Many scenarios with Cisco P, PE, CE and Juniper P,PE,CE [Cisco drawback is that doesn't support LSP stitching].
- With the involvement of DFN and GARR implementing the first 'real' signalled L2-VPN in GÉANT crossing 3 domains: DFN- GÉANT - GARR
 - The L2-VPN will be between Bologna and Karlsruhe
 - It will use Ethernet-vlan over MPLS
 - There are 2 LSP stitching point at the GÉANT border routers and 6 LSPs involved.

Premium IP Management

- Premium IP service implemented using DiffServ EF PHB
- Admission Control and Policing currently done on the GEANT boundary routers
- Operational procedure defined (SEQUIN)
- Service management is done manually
- Service set up, maintenance and termination is done by phone calls and emails => Need for automation

Utilisation

- Operational for APM usage in April
- Check Premium IP reservation levels on each intermediate link along the path
- Take into account all active reservation during the given time period => Display the available Premium IP capacity
- Automated email notification to:
 - User / DANTE - Premium IP team / NOC

