



WFO@Géant

Updates on our IP/MPLS migration

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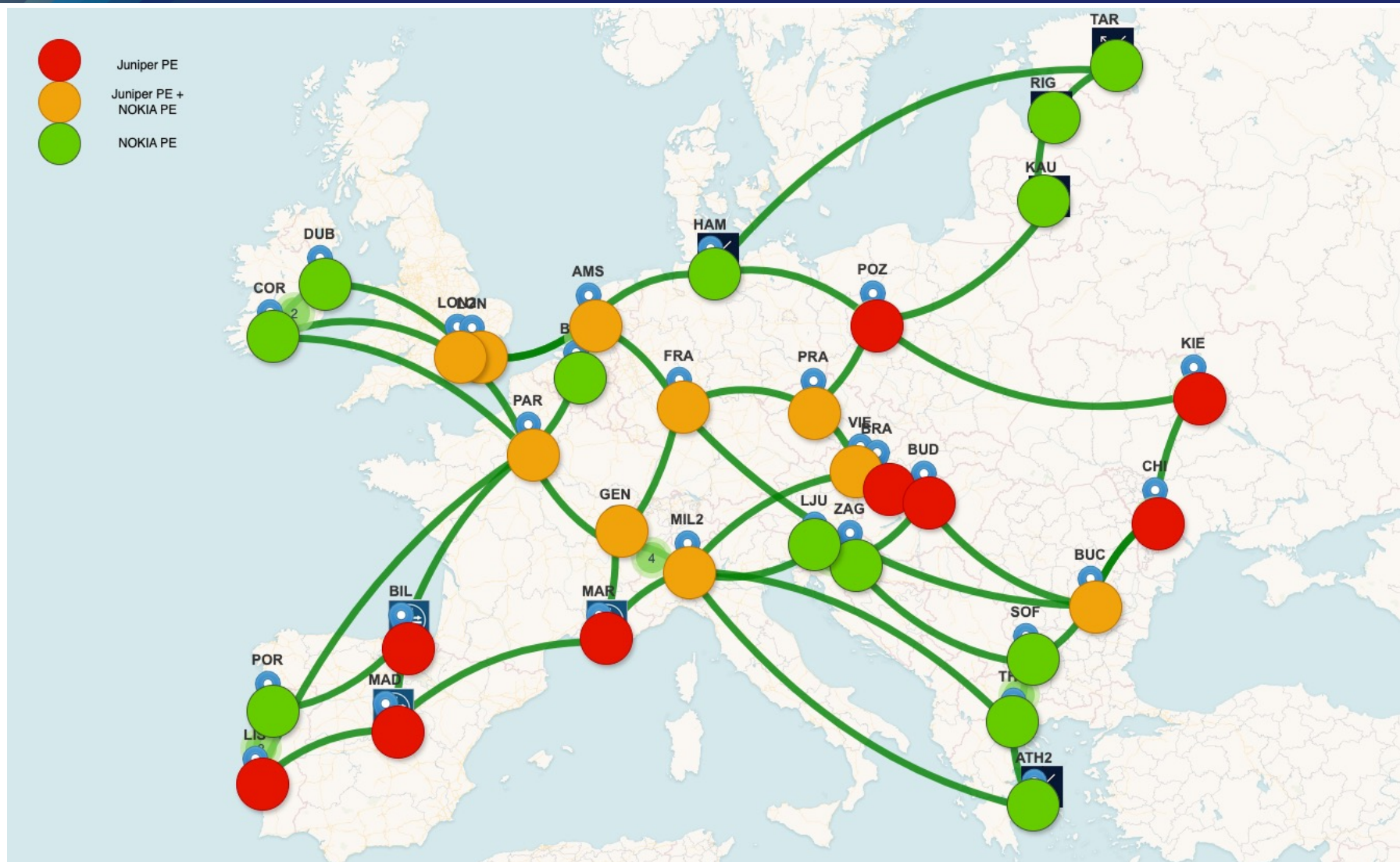
WFO User meeting
9 June 2025

Public

IP/MPLS Migration

- PHASE1: (Concluded)
 - Install Nokia as P and move geographical connectivity in bigger sites (SR7)
 - Promote P routers to PE so to be ready to accept services
 - Center -> Edge
- PHASE2: (Ongoing)
 - Install smaller sites (SR2se) and get the router online as PE
 - Migrate services and core-links site by site
 - Edge -> Center
- Bonus:
 - Some users are already connected to Nokia via GAP even if the site is not migrated

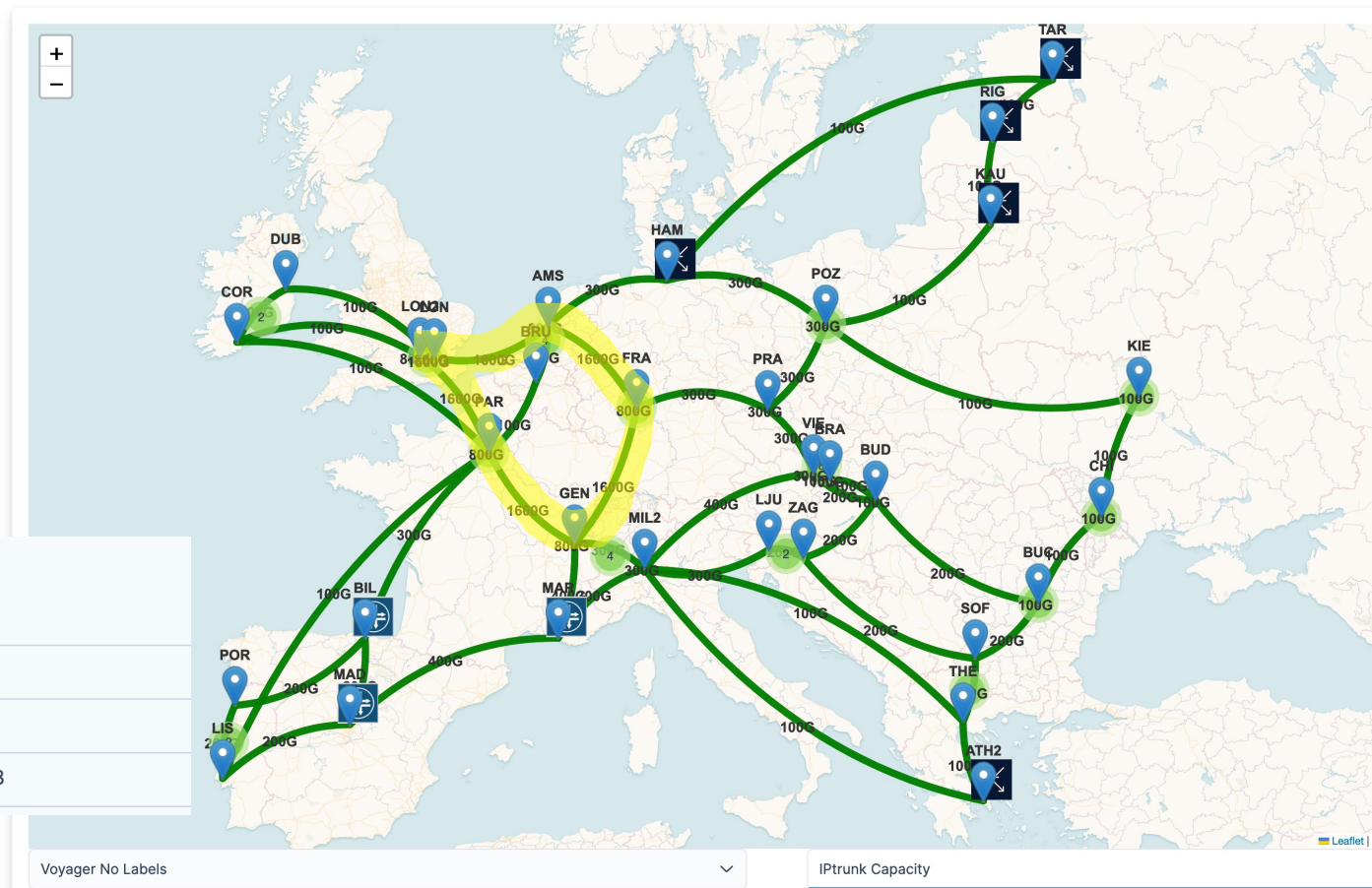
Current status



Current actual status

Other things happened

- AMS-FRA-GEN-PAR-LON is now 1.6T
- All normal operations on core-links happen only via GAP
- Introduced service versioning for core-links

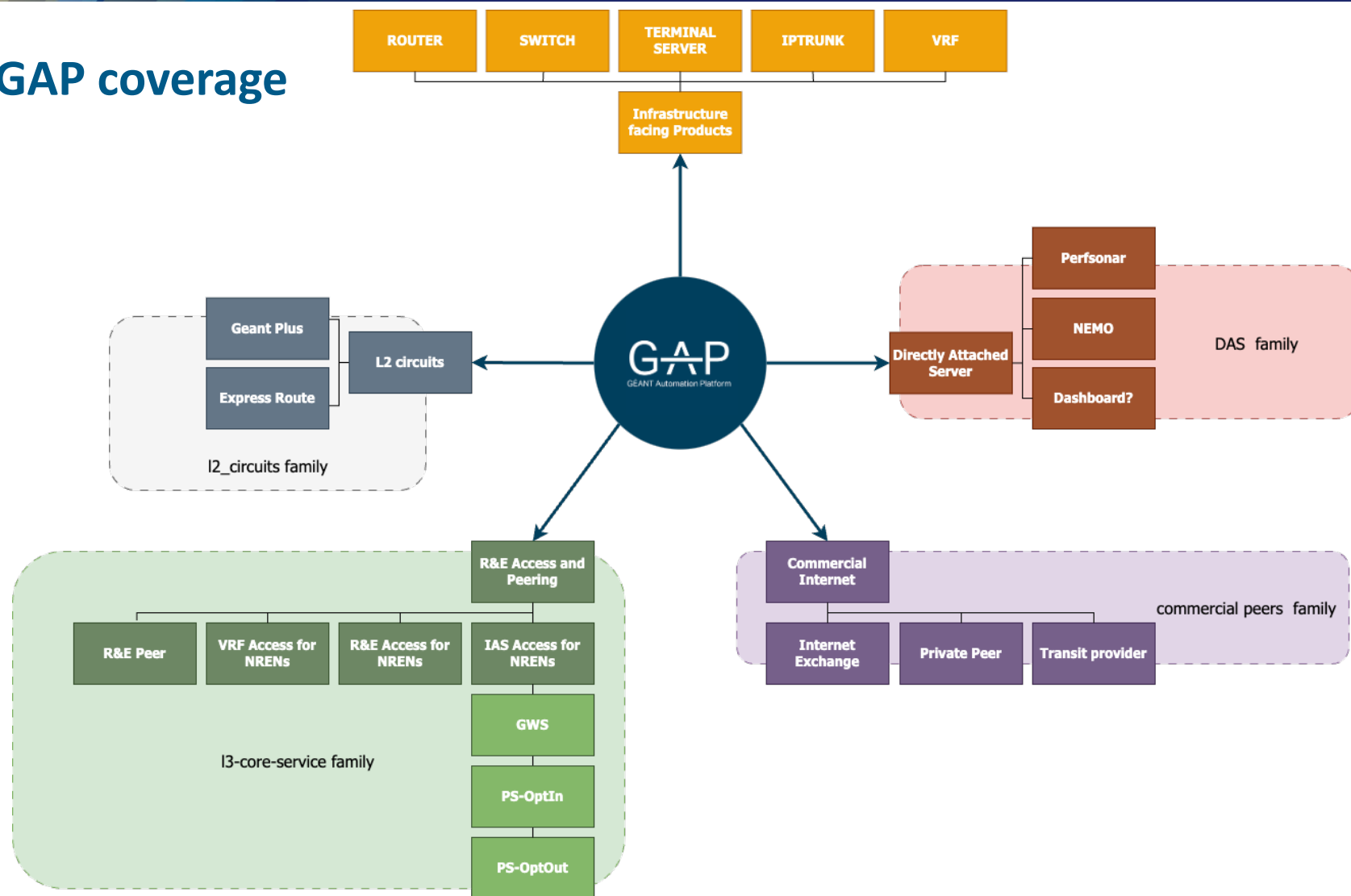


IptrunkBlock

IptrunkBlock

Gs Id	GS-00099
Iptruck Config Version	2.0
Iptruck Description	IP-TRUNK-RT0-DUB-TO-RT1-DUB

GAP coverage



Migration process

- Config parsing + refinement
- Pre-checks

- Verification workflows
- Fixes for exceptions etc...



- Physical/cabling
- Order of operations
- Exceptions

- Post-checks per service with Moodi
- GOAT is on standby

Some of the results

Router rt0.ham.de.geant.net ⚡

[Actions](#) ▾active out-of-sync[Service configuration](#) [General](#) [Workflows](#) [Related subscriptions](#)☒ Hide terminated subscriptions

ID	Description	Status	In sync	Customer	Tag	Start date ↓
7e9da9b8	Edge Port lag-23 on rt0.ham.de.geant.net, DTN PROJECT, GA-50069	active	✓	DTN PROJECT	EP	5/12/2025
64db0283	Edge Port lag-22 on rt0.ham.de.geant.net, PIONIER, GA-01892	active	✓	PIONIER	EP	5/12/2025
494e6e7a	Edge Port lag-21 on rt0.ham.de.geant.net, NORDUNET, GA-01893	active	✓	NORDUNET	EP	5/12/2025
1958acb7	Edge Port lag-20 on rt0.ham.de.geant.net, DFN, GA-01894	active	✓	DFN	EP	3/6/2025
dfb400c1	VRF LHCONE - 20965	active	✓	GEANT	VRF	1/28/2025
3b8505b1	IP trunk HAM TAR, GS-02348	active	✓	GEANT	IPTRUNK	6/24/2024
a386cc46	IP trunk HAM POZ, GS-02339	active	✓	GEANT	IPTRUNK	6/24/2024
5c89fa8c	IP trunk AMS HAM, GS-00010	active	✓	GEANT	IPTRUNK	6/20/2024

Rows per page: 15 ▾

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Edge Port lag-21 on rt0.ham.de.geant.net

active in-sync[Service configuration](#) [General](#) [Workflows](#) [Related subscriptions](#)

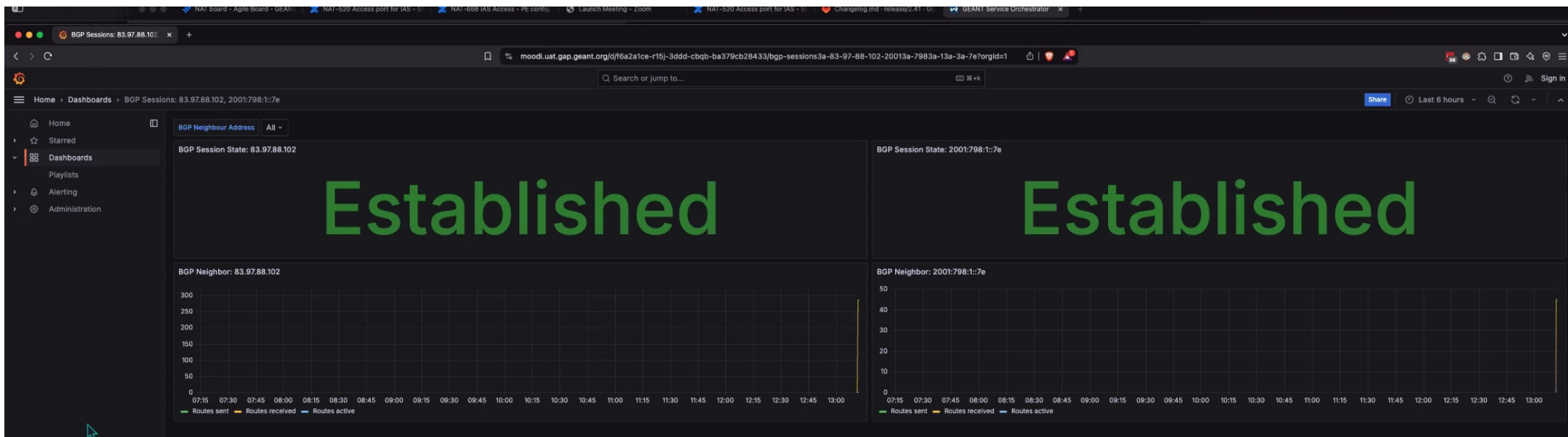
ID	Description
23b765cc	GEANT Plus - 31498
6057dd03	GEANT Plus - 424046
fbcdf8ca	GEANT Plus - 124047
63d08b31	GEANT Plus - 414414
b4c15ef9	LHCOne service for NORDUNET
317d135f	GEANT IP service for NORDUNET
f3a7dbeb	GEANT Plus - 121095
aace754b	GEANT Plus - 324049
5b6b9dc6	GEANT Plus - 240011
988a5f7d	GEANT Plus - 324050
5963761d	GEANT Plus - 220641
20ee801a	GEANT Plus - 123048
bff19c5d	GEANT Plus - 424050
7f95c5b1	GEANT Plus - 624045
ab943d34	GEANT Plus - 414003

active	✓	NORDUNET	G_IP	5/12/2025
active	✓	GEANT	G_PLUS	5/12/2025
active	✓	GEANT	G_PLUS	5/12/2025
active	✓	GEANT	G_PLUS	5/12/2025
active	✓	GEANT	G_PLUS	5/12/2025
active	✓	GEANT	G_PLUS	5/12/2025
active	✓	GEANT	G_PLUS	5/12/2025
active	✓	GEANT	G_PLUS	5/12/2025
active	✓	GEANT	G_PLUS	5/12/2025
active	✓	GEANT	G_PLUS	5/12/2025



Integration with Moodi

- Starts at the beginning of the Workflow
- Per service – Moodi targets GNMlc subscriptions that do not exist yet
- No reference data yet...
- Ends at the end of the workflow



LSO can now do more!

- Ansible is not ideal to pass data back to orchestrator (RC + Output) but sometimes you need values
- Now LSO can launch arbitrary executables and get back structured data 😊:
 - Exactly what we needed for pre-checks
 - We can trigger more things!



Lightweight Service Orchestrator

Things we want to improve ASAP

- **Massive migration:** all the services (at least L2pipes) insisting on an EP should be migrated together in one step
- **Easier/more structured import:**
 - Still very manual due to config nouances
 - Impossible to delegate (for now)
 - Should expose pre-checks to Moodi
- **Better search in GUI:**
 - Don't know exactly how to approach it :-/

Migrate Layer 2 Circuit ⚡

[↶ Retry](#)[✖ Abort](#)[i](#) GÉANT Plus

Status	Current step	Customer	Started by	Started on	Last update	Related subscriptions
COMPLETED	Done	GEANT	James Pearce	5/27/2025, 11:48:08 AM	5/27/2025, 11:51:51 AM	GÉANT Plus - 410002



For us this is just the start...

- **Operations:**
 - Expand coverage of standard changes
 - Automated diagnosis
- **Technology transition:**
 - ST
 - New tooling can follow the same receipt (GOAT)
 - AI/ML
 - Modern infrastructure
- **User Experience:**
 - Self-service
 - Exceptions management





Thank You

Any questions?

www.geant.org

Colour palette

Primary

Hex | #004461

Hex | #EE426D

Teal is the lead primary colour, its neutrality providing a strong background for accent and secondary colours.

Crimson is the accent primary colour, its brightness providing a strong contrast to the teal and a lead for the secondary colours.

Secondary

Hex | #F4E200

Hex | #3C51A2

Hex | #0ABBC2

Hex | #1AAA88

The secondary colours have been selected to complement the primary colours. These secondary colours should be used sparingly and only used in addition to, and where they will not interfere with the primary colours.

Best practice

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1

Less is more

Aim for one slide per minute of presentation (maximum!)

2

Clear message

Keep your messages concise, try not to overload your slide

3

Use photos

Use images to maximise impact

4

Ask for help

Add notes to request any diagrams, illustrations or photos

Typography

Slide Titles = 28pt Bold

Sentences = 24pt Regular. See Slide 4.

Paragraphs = 18pt Regular (never less). See Slide 2.

Captions = 14pt Regular. See Slide 6.



Icon set

