



## GP4L updates & uses cases

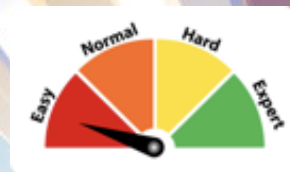
GN5-1 – Work Package 6/Task 2

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GP4L Technical Leader

# Agenda

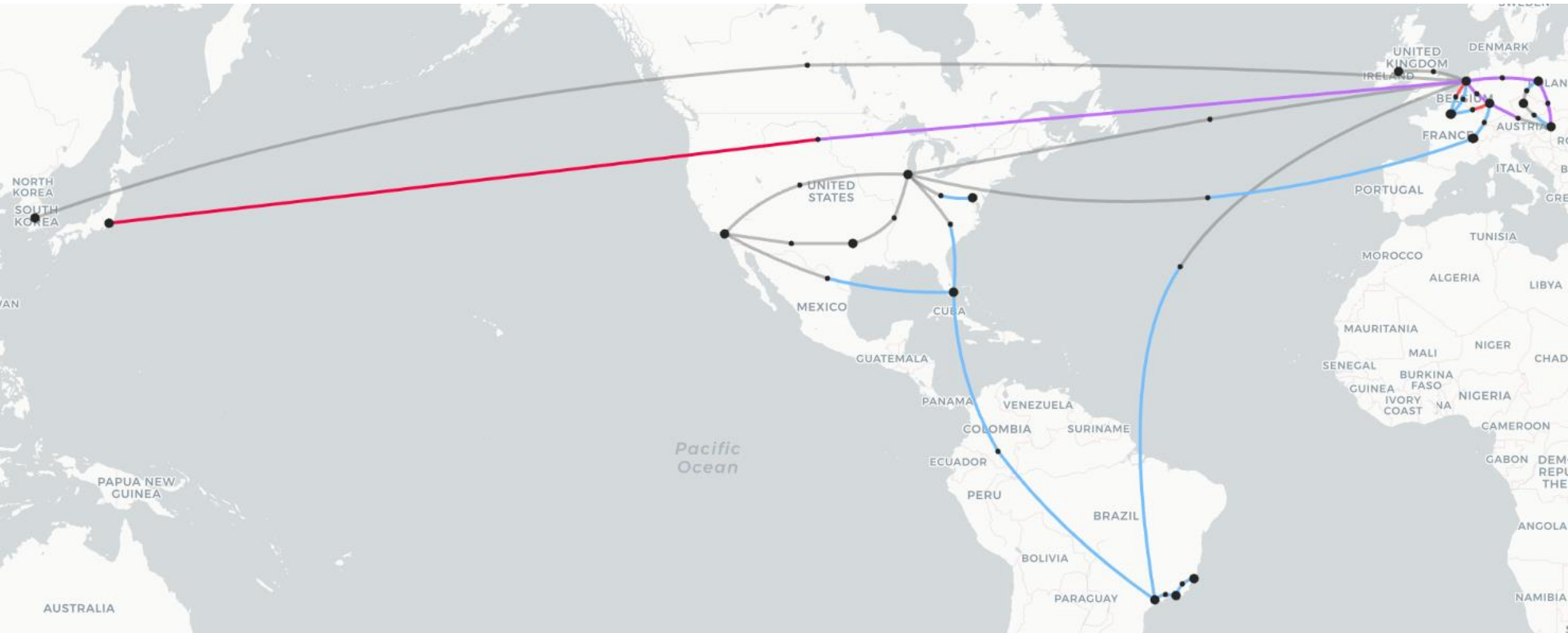
- What happened since APAN-55 ?
  - Initial cooperation with Nepal REN
  - New developments:
    - GP4L extension
    - nodes, network features, network management etc.
- Demo(S) & Discussions
- Final words



# Liaison with GN5-1 WP6-T2 platform – Global P4 Lab



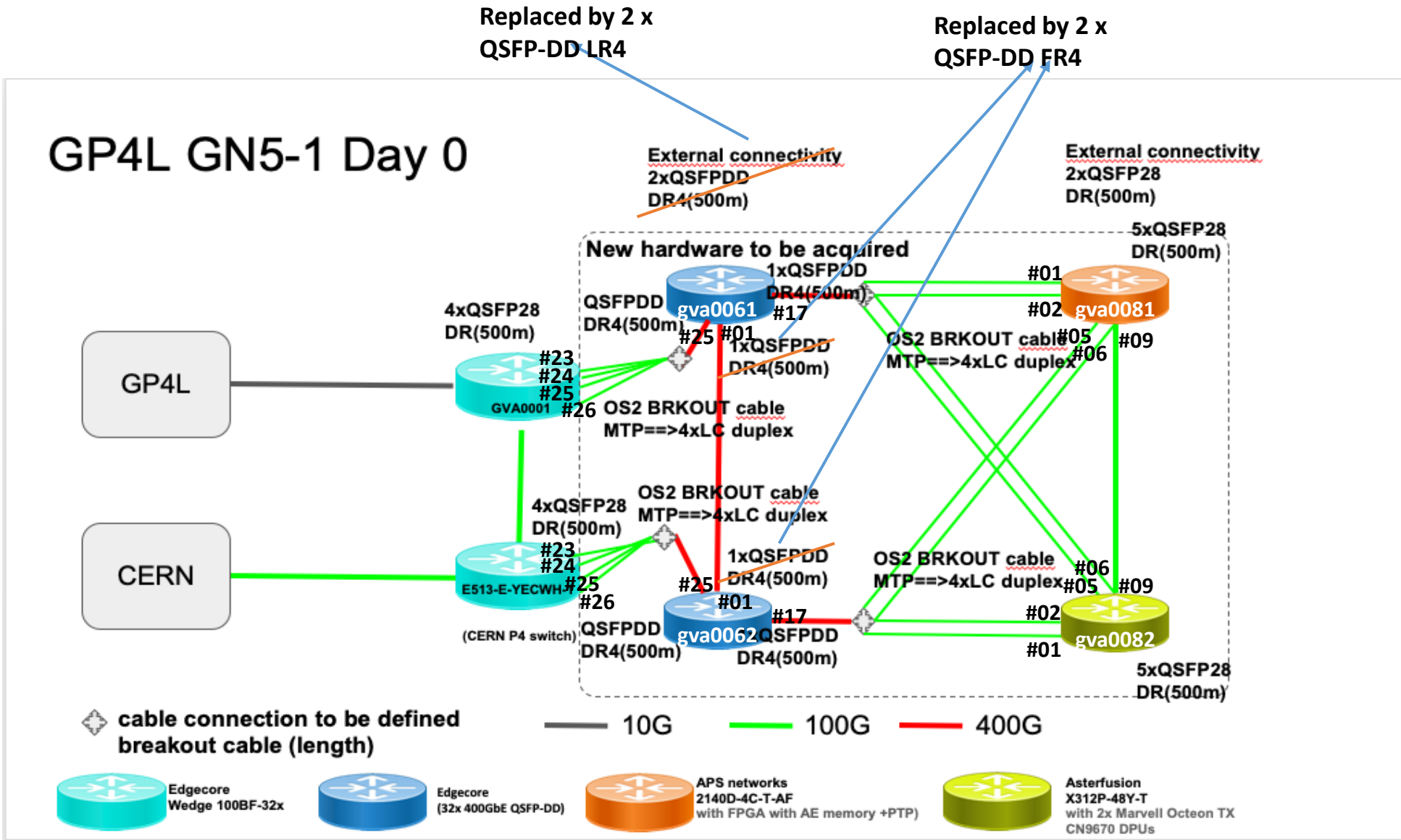
- August 2023





# GP4L extension @ CERN in Geneva

## GP4L GN5-1 Day 0



# Initial cooperation with Nepal REN \*



## Software Defined Network

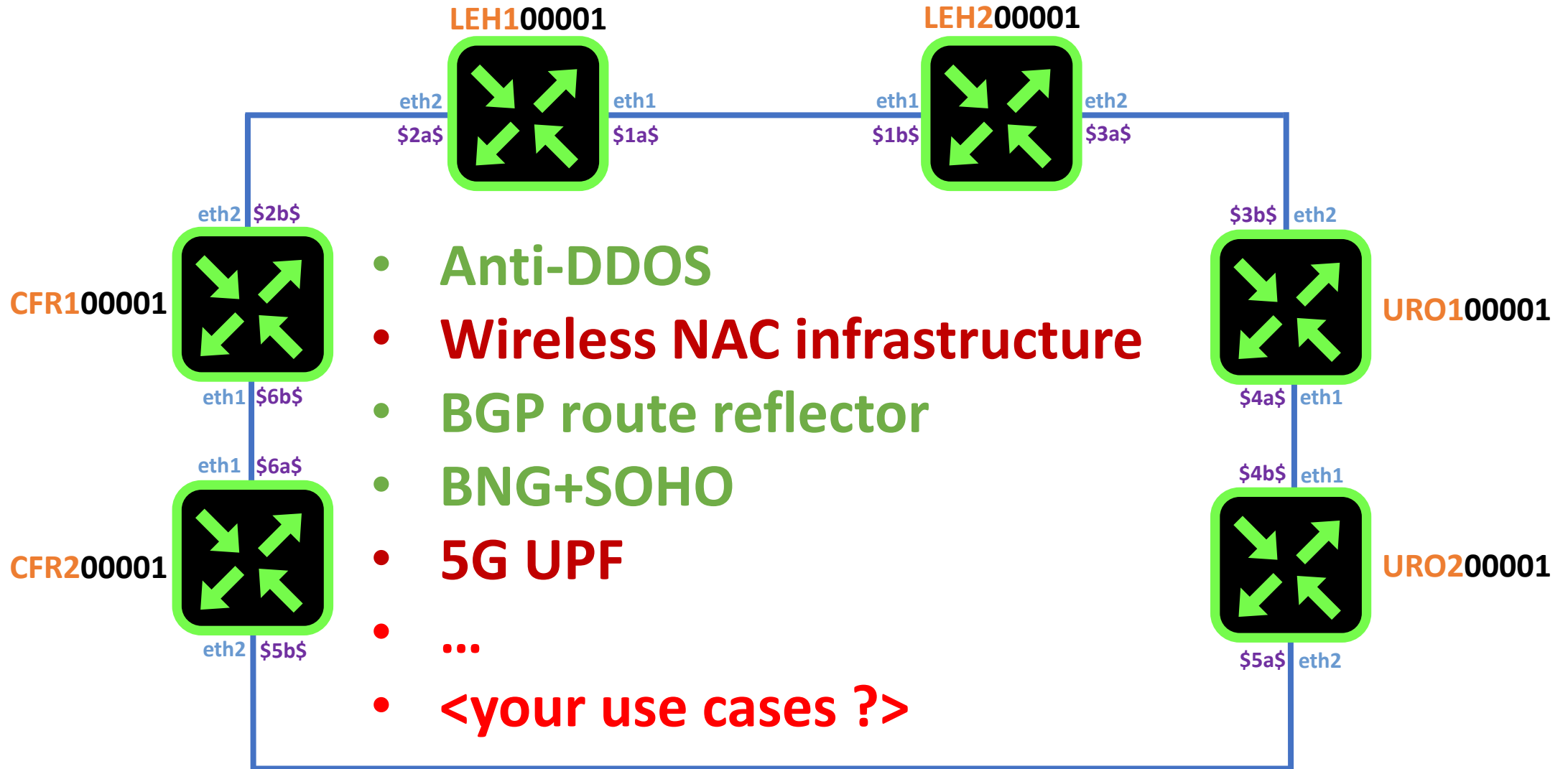


Example



\* With the courtesy of Pan S. Shakya / Nepal REN

## CRIANN / SYVIK-2: Regional network + anti-DDOS use case



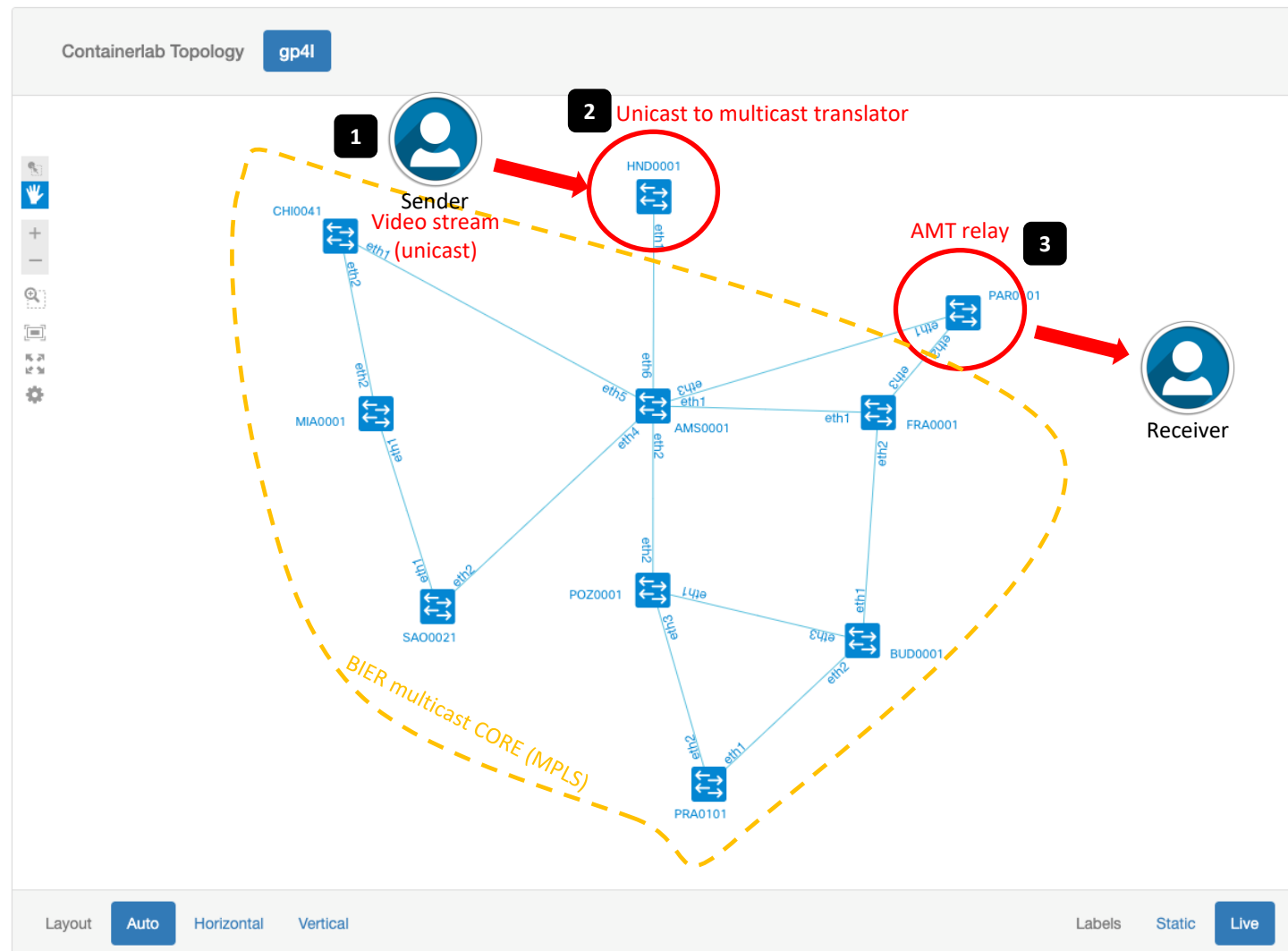
## Use case: Next gen multicast with RARE !

- BIER MPLS core
- AMT-relay
- (AMT=Automatic Multicast Tunnel)
- Unicast → Multicast translator

...

Missing piece of the puzzle ?

**(S,G) advertisement !**  
**(Application software?)**



# GP4L update & use cases

**Questions  
Discussions  
Ideas ?**

**Quick demo(S) !**

**1- Digital twin**

**2- Multicast**

**(YT - Broadcast yourself !)**



## Final words: next steps ...

- **Digital twin**

- Network topology
  - Network inventory
  - Network configuration
- Routing information
  - BGP-LS
  - BMP

- **Network automation**

- Leverage workflow engine
- Tool chain updated automated and updated on a daily basis

- **Network application**

- Multicast with BIER
- BGP-CT (Classful Transport) demos



# Homework for the audience 😊

## Will you accept the challenge ?



- **Install VLC-4 (nightly tested with 20221101-0411)**

On MAC INTEL → [https://artifacts.videolan.org/vlc/nightly-macos-x86\\_64/20221101-0411/](https://artifacts.videolan.org/vlc/nightly-macos-x86_64/20221101-0411/)  
 alias vlc='/Applications/VLC.app/Contents/MacOS/VLC' (in your .bashrc)

- **Can you answer the questions below ?**

- **Where is next TNC-24 ?**

- `vlc amt://62.40.109.31@232.123.91.52:1234 --amt-relay 62.40.109.31`

- **If you attend TNC-24, what should you consider visiting ?**

- `vlc amt://62.40.109.31@232.123.104.124:1234 --amt-relay 62.40.109.31`

- **Where is next GÉANT Symposium ?**

- `vlc amt://62.40.109.31@232.123.61.111:1234 --amt-relay 62.40.109.31`

- **Please provide answers to via email to:**

- [rare-users@lists.geant.org](mailto:rare-users@lists.geant.org)



# Thank You

[www.geant.org](http://www.geant.org)



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