



Vienna Internet exchange

**vix.at**



Vienna Internet eXchange

# VIX Update 2025

Monika Schneider

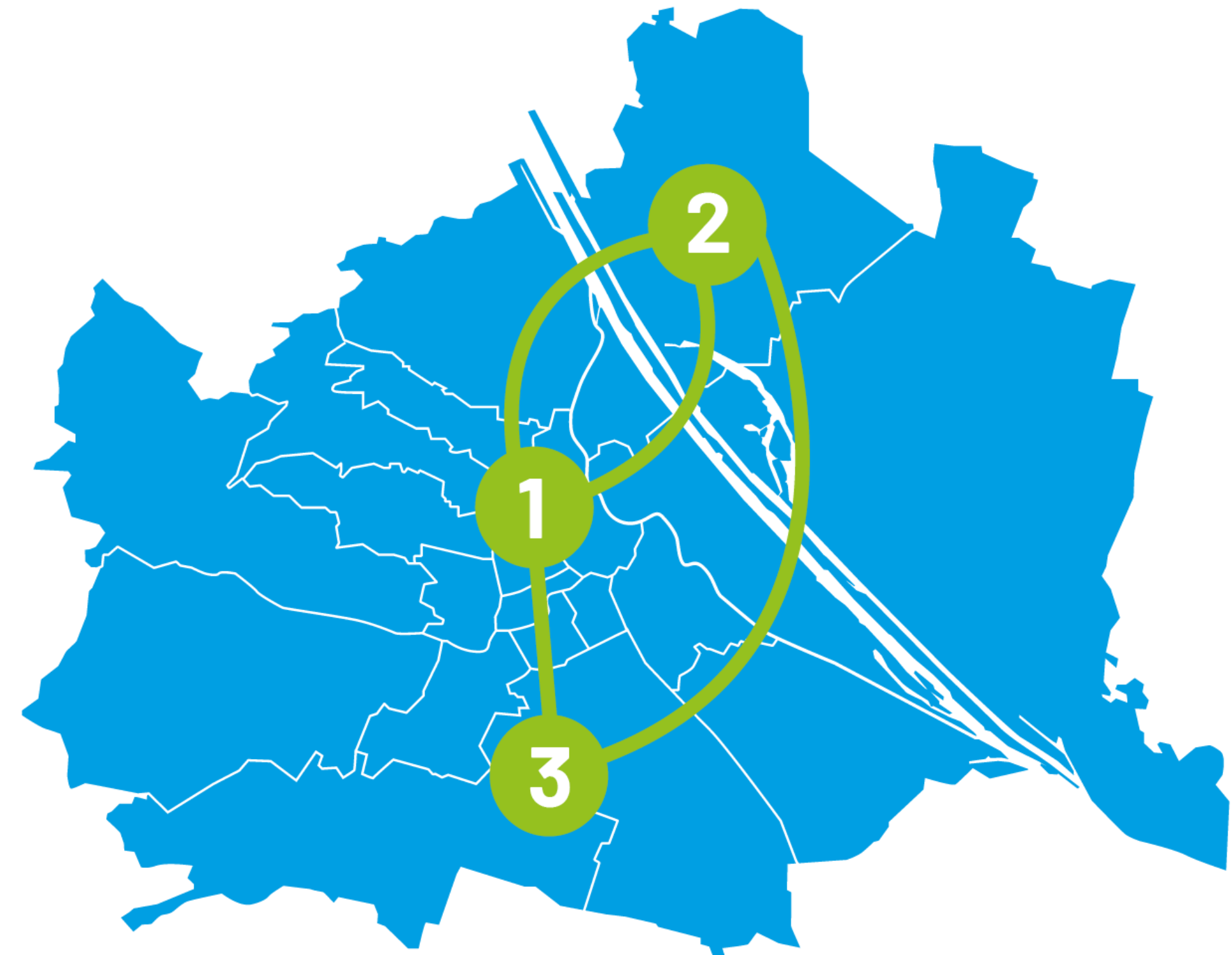
[monika.schneider@univie.ac.at](mailto:monika.schneider@univie.ac.at)



## VIX Triangle Topology

# > The Vienna Internet eXchange (VIX)

- Since 1996
- ~170 national and international participants
- 3 locations – redundantly interconnected



1

VIX1 – UniVie

2

VIX2 – Digital Realty

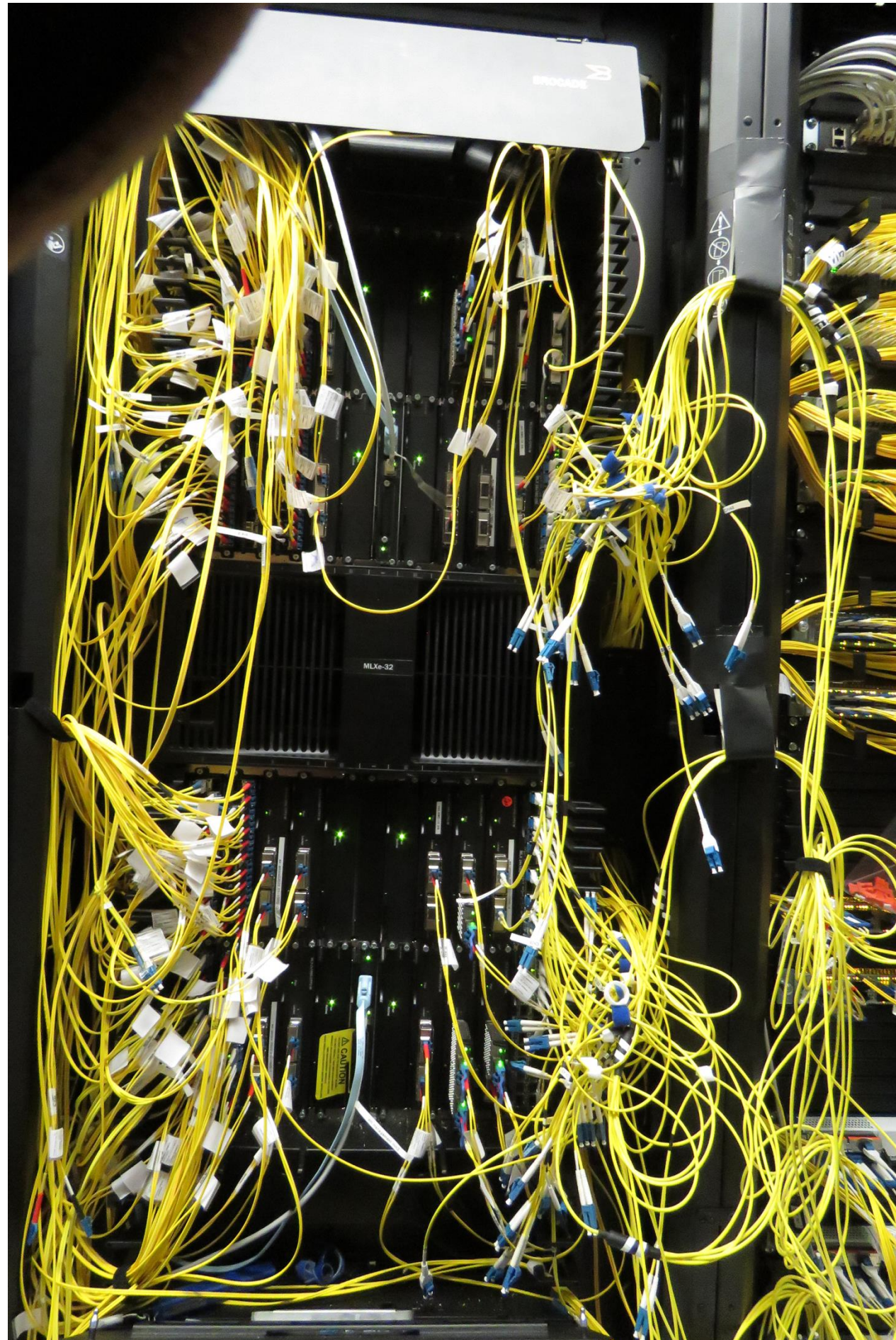
3

VIX3 – NTT





# ➤ Last major upgrade 2020/21



Brocade  
Chassis  
to  
Arista  
Pizzabox

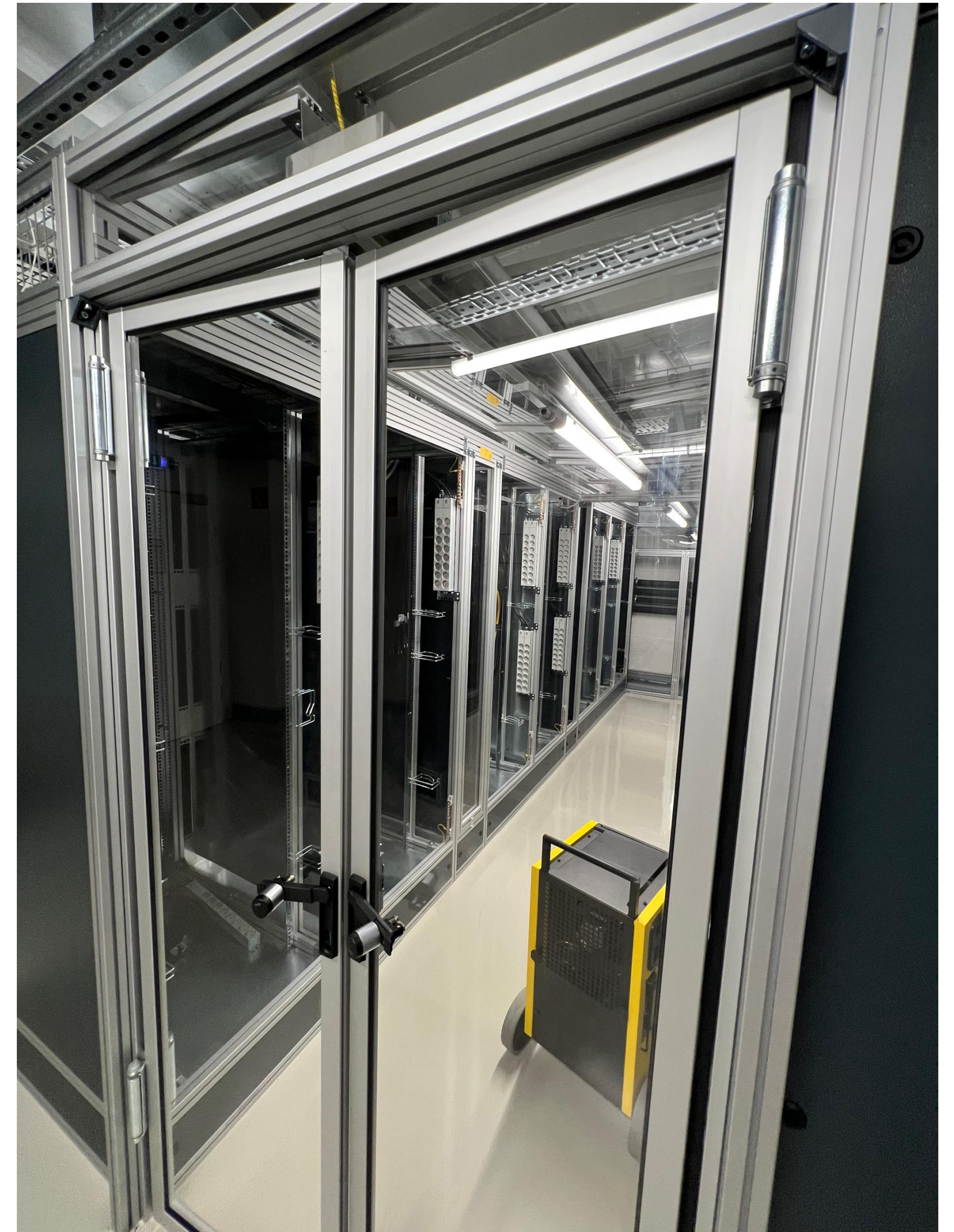






# > Further Upgrades

- 400G core-upgrade VIX2 march 2022
- 01/2024: new system room VIX1







## > Current core (since 2022)

- VIX1: Arista DCS-7280CR3-32P4-F
- VIX2: Arista DCS-7280DR3-24-F
- VIX3: no core



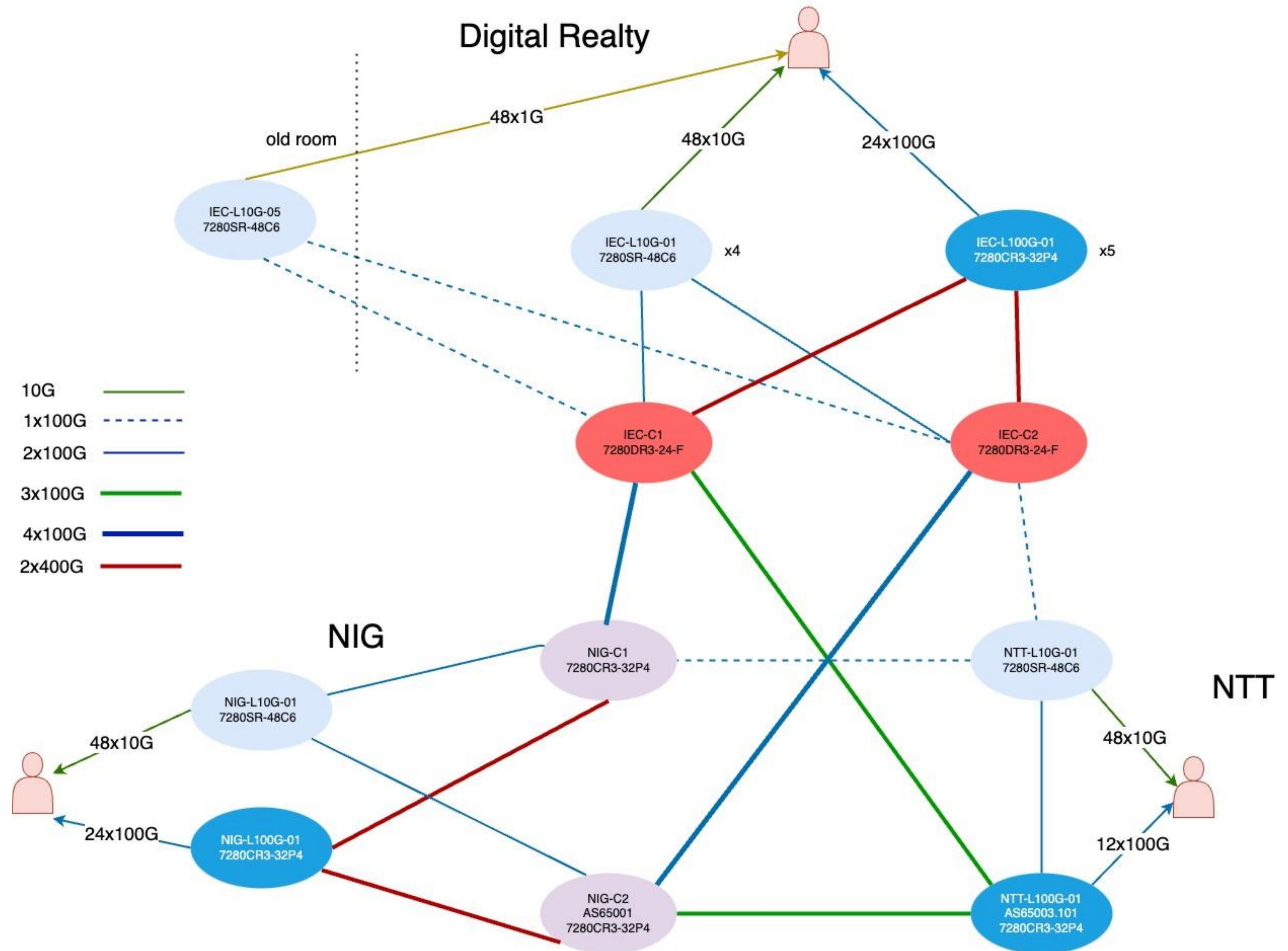
*Arista 7280CR3-32P4*



*Arista 7280DR3-24*



# Current core layout







## > Current Location Interconnect

- Active WDM (Infinera Groove G30)
- 4  $\lambda$  per MPO-cable (breakout cable)
- Transponder 2x200G to 4x100G)
- Amplifier NTT - DR







## > New Location Interconnect

- Passive WDM
- 400G-QSFP-DD ZR+ high power tunable DWDM:
  - Tests: works fine, no amplifier needed
  - Arista: only certain ports + „transceiver power ignore“







## > New core

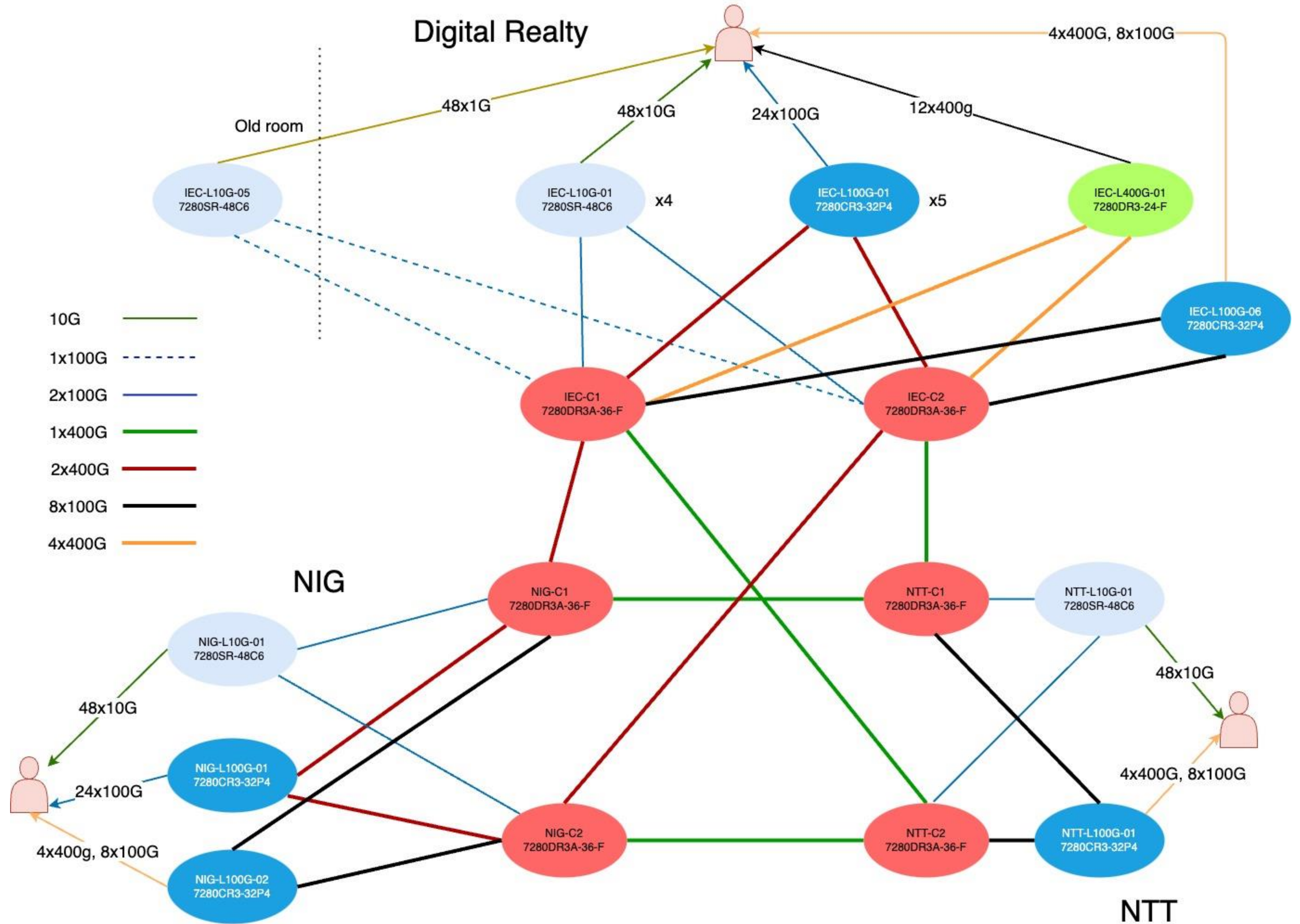
- All locations: Arista DCS-7280DR3A-36-F  
36x400GbE QSFP-DD
- Delivery planned: 02/2025
- Actual delivery: 02/28/2025







# New core layout

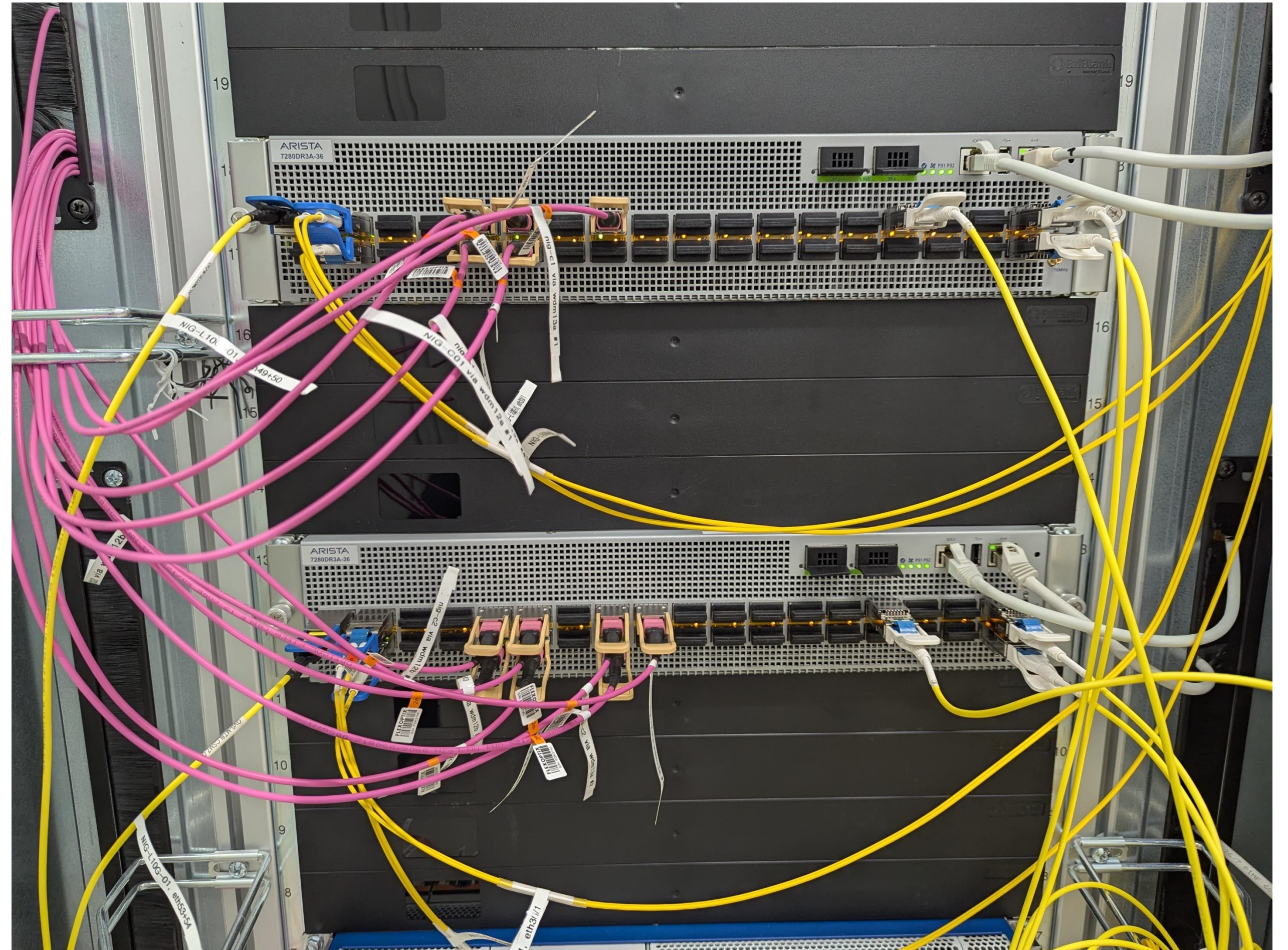






# ➤ Upgrading process

- Sequence:
  - Core Swap at NIG - done
  - Core Swap at DR - partly done
  - Core installation at NTT - in preparation
  - Swap of WDM equipment
- new cores: 2 HU
  - VIX2: new rack







## ➤ **Downsides** and **future**

- No medium faster than 400G on new boxes
- Lots of uplinks needed
- Reduce 10G switches
- Stronger cores
- Move from QSFP28-LR4 to LR





## > VIX Prices

- To be found at: <https://www.vix.at/en/participants-partners/how-to-join-vix/costs>

3 Gbps (10GBASE-LR)	300 EUR per month
10 Gbps (10GBASE-LR)	400 EUR per month
30 Gbps (100GBASE-LR)	800 EUR per month
100 Gbps (100GBASE-LR)	1600 EUR per month
400 Gbps (400GBASE-LR)	4400 EUR per month





Vienna Internet eXchange

**> Thank you!**

VIX Team  
[admin@vix.at](mailto:admin@vix.at)  
[www.vix.at](http://www.vix.at)  
+43 1 4277/14030