

# LHC Science

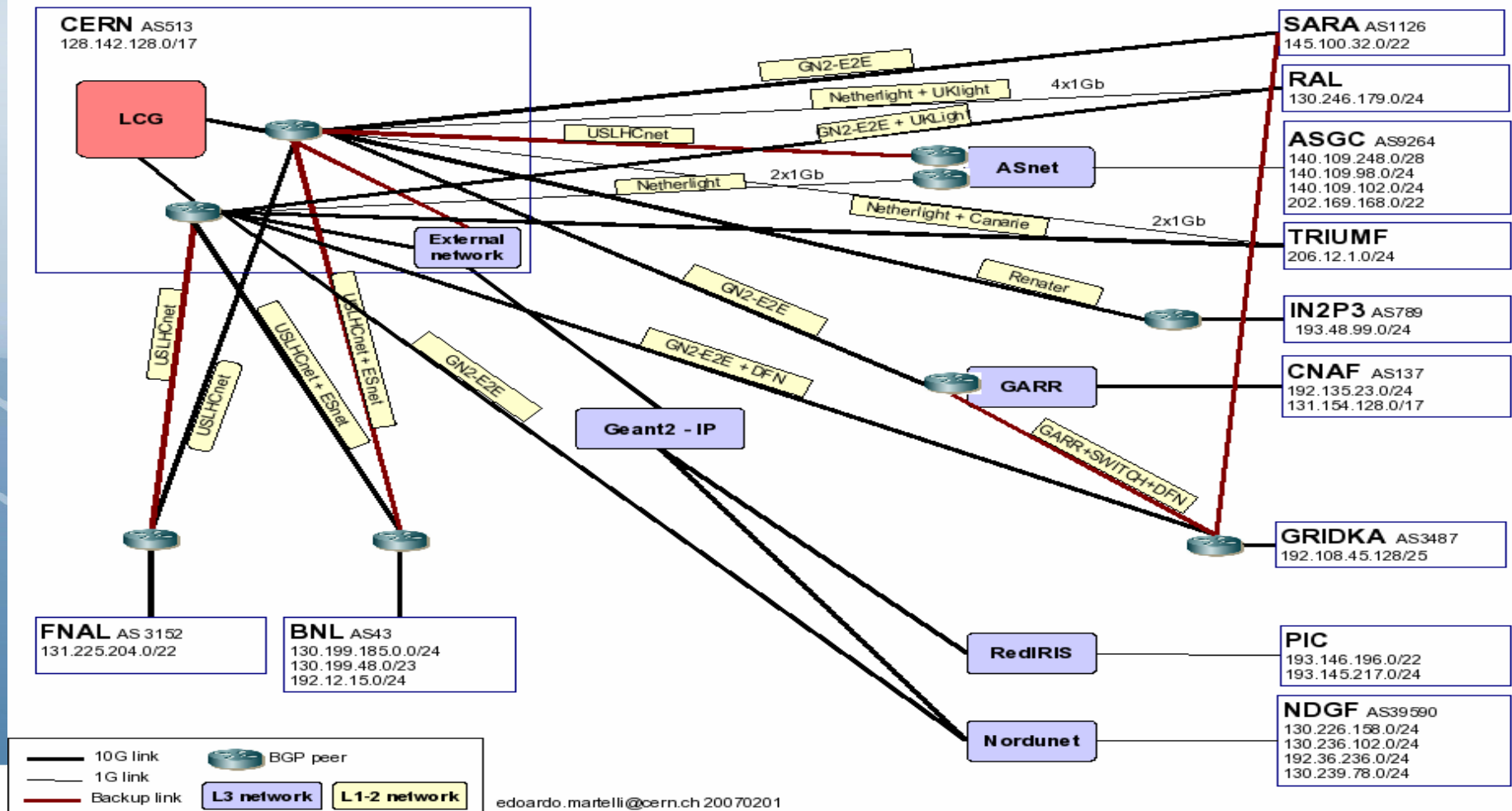
LHC-T3 workshop  
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# LCH Compute Model Implications

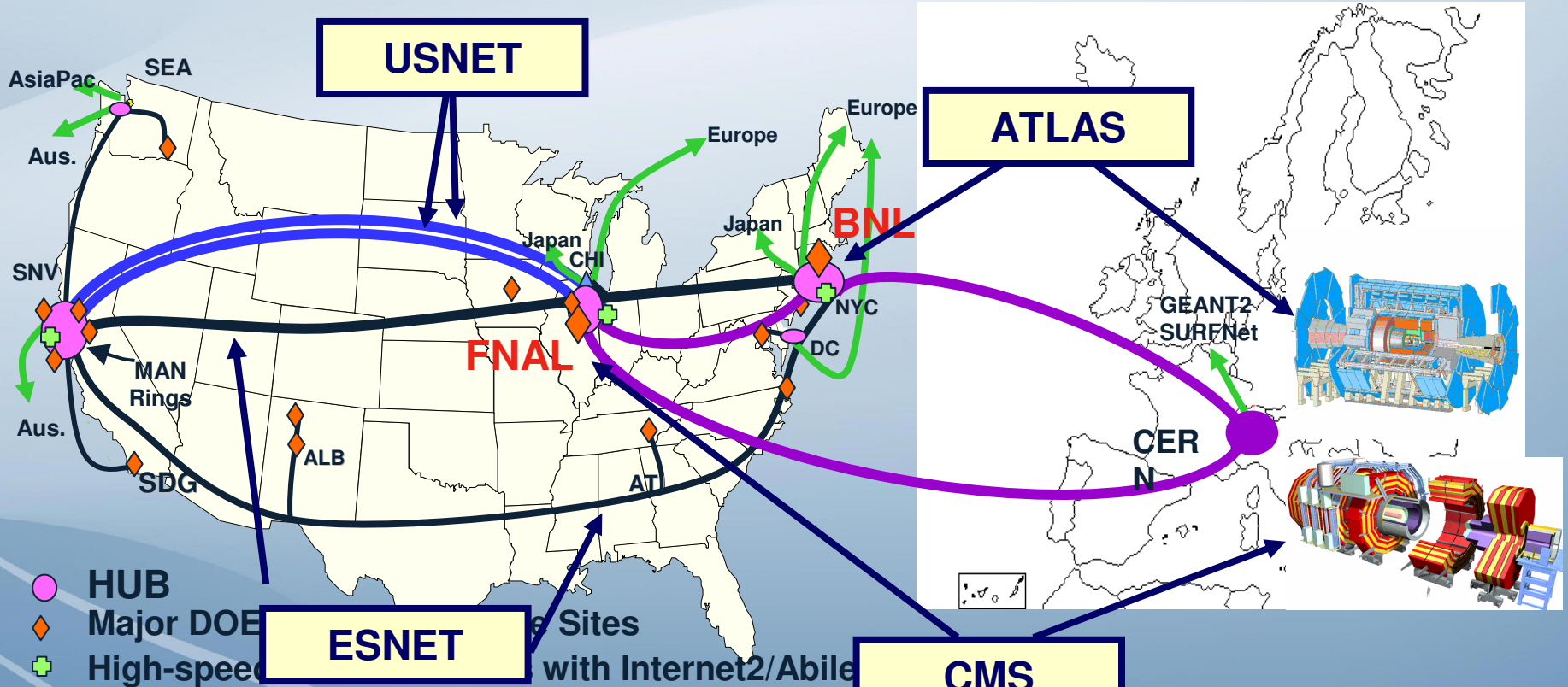
- Movement between T1 & T0 centers will be handled by LHC-OPN infrastructure
- Movement between T2 & T1 centers
  - Different models for ATLAS & CMS
  - Can use existing IP networks or new circuit based infrastructures
- Movement between T3 and other centers
  - Different models
  - What's driving demand

# LHCOPN Network

## LHCOPN – current status



# US LHCNet



- HUB
- ◆ Major DOE Sites
- ⊕ High-speed with Internet2/Abilene
- Production IP ESnet core, 10 Gbps enterprise IP transport
- USNet 10 Gbps circuit based transport. (DOE funded project)
- Major international
- LHCNet Data Network (10 Gb/s)
- 10Gb/s
- ≥ 2.5 Gb/s

◆ Connections to ESnet Hubs in New-York and Chicago  
 ◆ Redundant "light-paths" to BNL and FNAL  
 ◆ Redundant 10 Gbps peering with Abilene  
 ◆ Access to USNet/HOPI for R&D

Courtesy: Dan Nae

# LHC Compute Models

- Tiers of ATLAS compute model
  - Shawn McKee
- CMS compute model
  - Matt Crawford

