



Enabling Grids for E-science

# EGEE-SA2 & LCG support

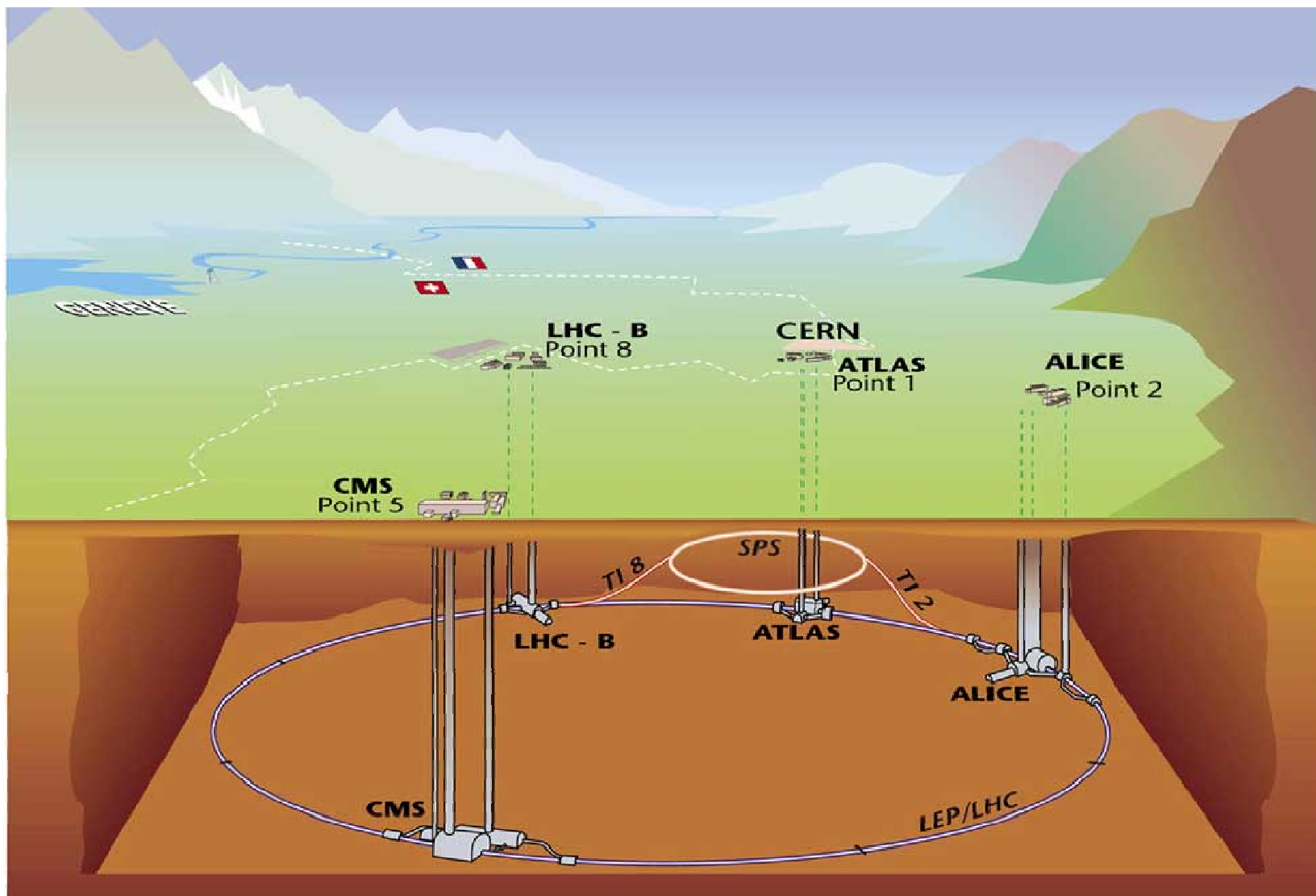
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*SA2 Kickoff , Paris 2008-05-16*

[www.eu-egee.org](http://www.eu-egee.org)



- **LCG/LHC/EGEE: The context**
- **LHCOPN**
- **Work done, assessment and ongoing**



## LHC project

Physics Experiments

Accelerator

Finance

Technical inspection & safety

...

## IT

LCG – LHC computing Grid

Dedicated network infrastructure:  
LHCOPN  
DF

NorduGrid

GridPP

...

OSG

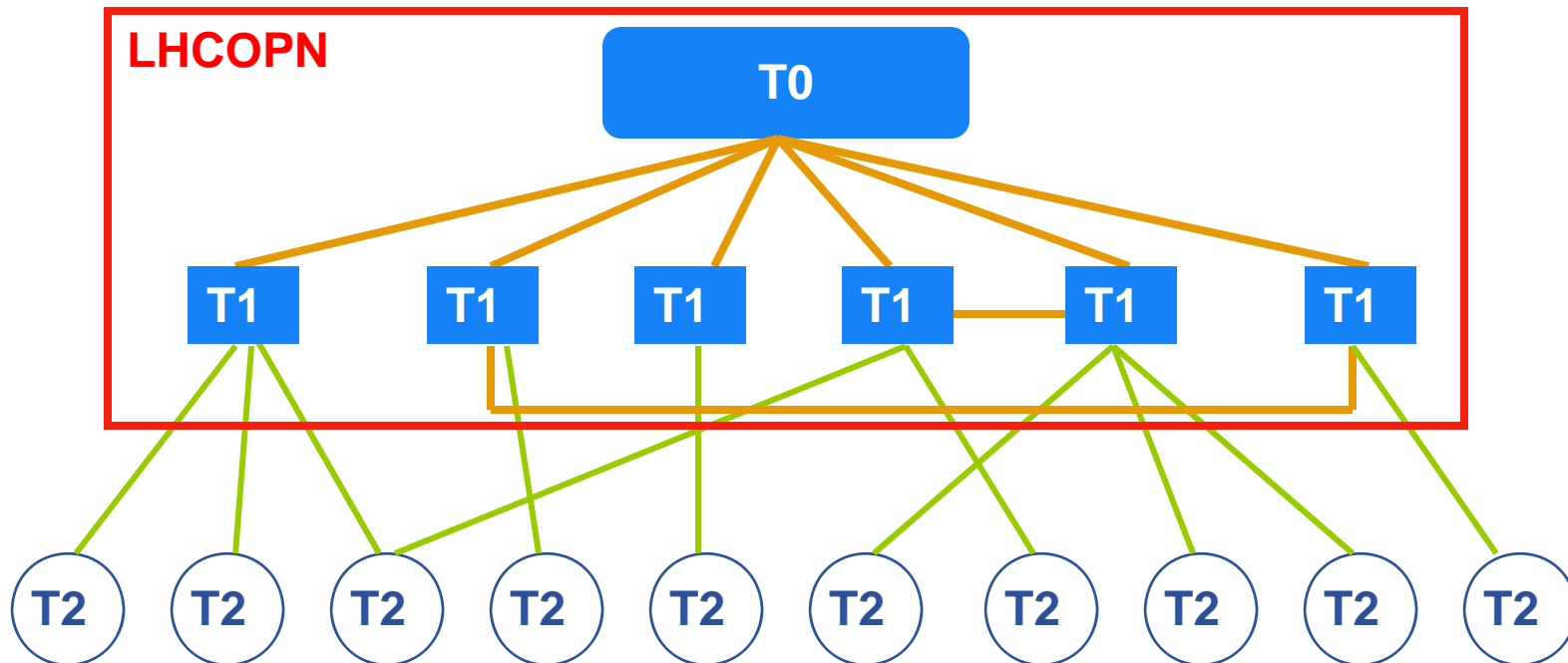
EGEE

Shared network infrastructure  
(NRENs, IP ...)

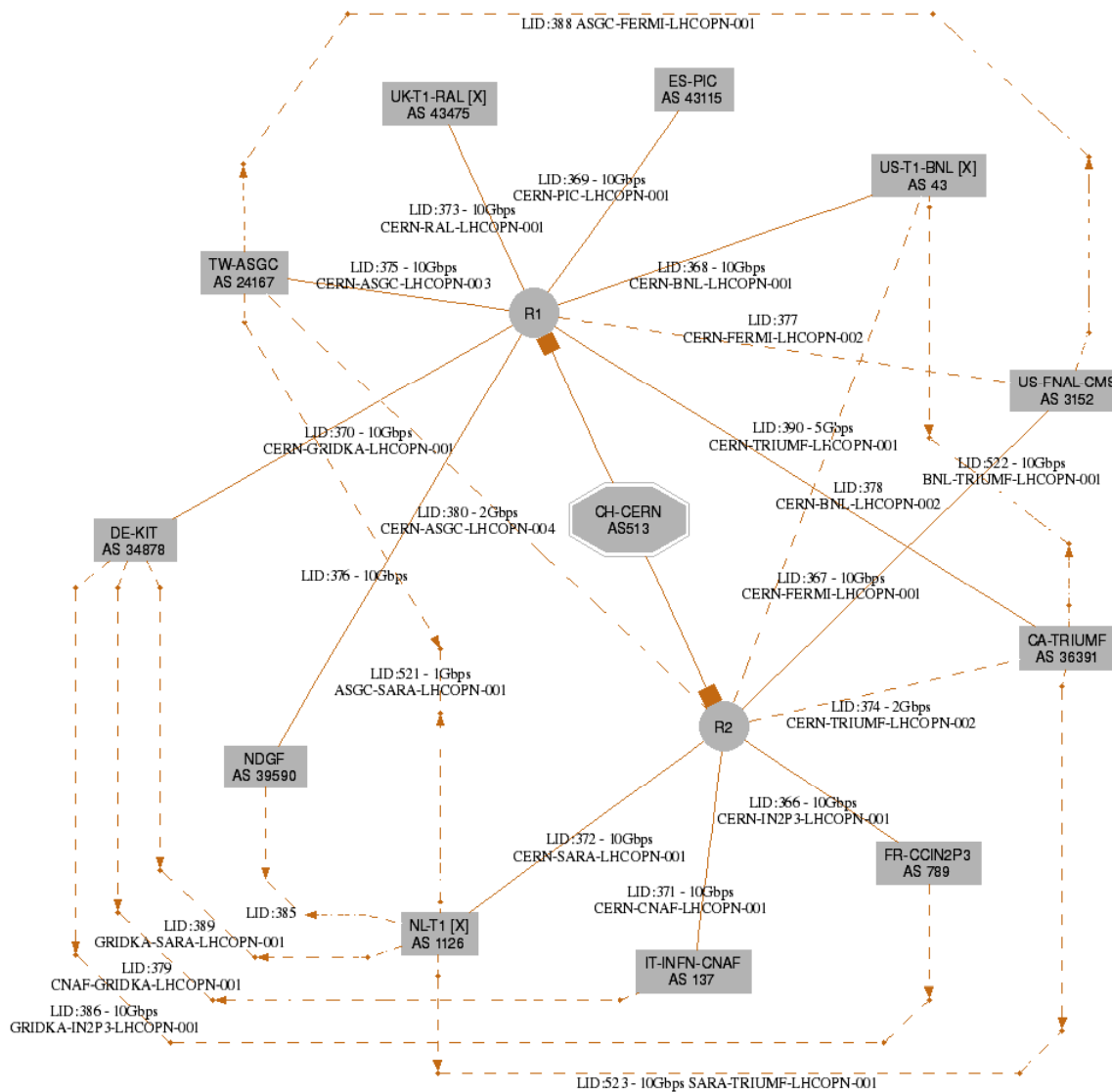
- **EGEE needs to have strong relationships with LCG**
  - Monitoring
  - Data exchange
  - Operations
  - ...
  
- **Federated model**
  - Formalized exchange between all entities instead of doing things again

- **15PB/year from CH-CERN**
  - T0 → T1 ~4Gb/s expected
  - T1 → T1 ~5Gb/s expected
  - + Data duplicated & simulation
  
- **Expected availability**
  - 99% = max 3.65 days down yearly
  - Endorsed by sites
  
- **Shared bandwidth within public networks not suitable**
  - L3 VPN hard to set up

- LHC optical private network



- Link 11 T1s resource centers
- Built with Dark Fibers (GÉANT2, NRENs...)

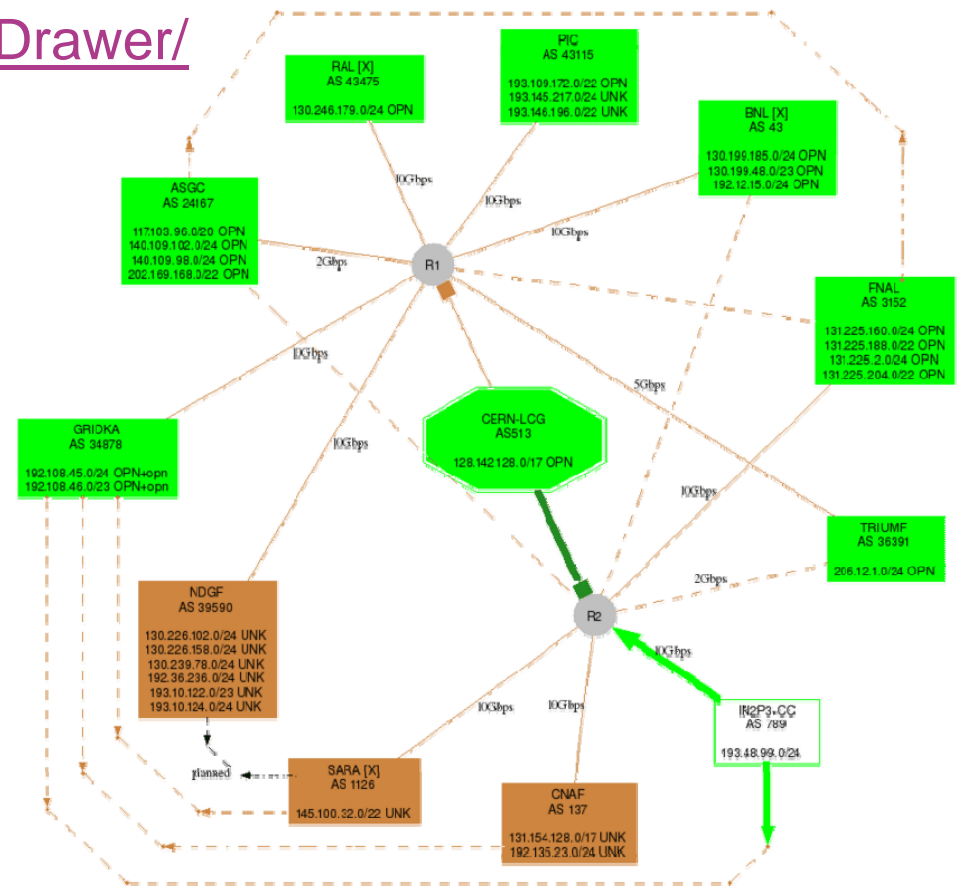
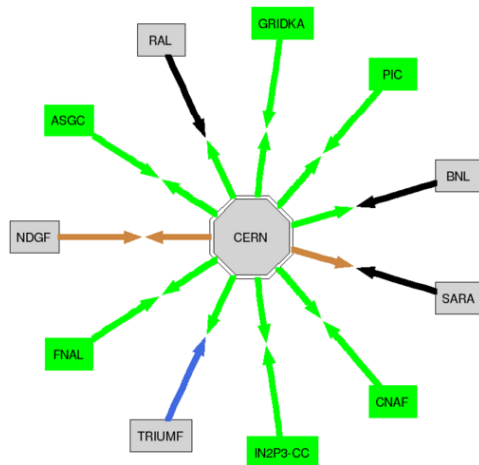




- Define accurately responsibilities of each actors
- Ensure a problem resolution is not delayed by an unsuitable operational model
- Ensure the LHCOPN is correctly monitored
- Set up communication channels with the EGEE Grid
  - scheduled downtimes, incidents etc.
- **EGEE project main user of the LHCOPN**
  - Definitely a key resource for the project

- **L3 Monitoring**

- Home made BGP monitoring & rendering
- Assess service delivered to the Grid
- <https://ccenoc.in2p3.fr/ASPDDrawer/>



- **Help defining some processes**
  - Particularly E2ECU with DANTE (Mathieu)
- **Procedures for the LHCOPN**
  - Mathieu initiated the LHCOPN operational handbook
  - Also the LHCOPN operational WG

- **Drawbacks**

- L3 monitoring
  - Not yet covering the whole LHCOPN
  - From FR-CCIN2P3
  - Initially only a temporary palliative thing?
- Not many relations with LCG
  - Few working groups of interest for SA2
  - Mainly focused on the LHCOPN
    - *Operational model not yet in place*

- **Achievements**

- SA2 now an active actor for the LHCOPN
- Good involvement into WLCG monitoring WG

- **Usage of GGUS to handle LHCOPN troubles**
  - Heavy works done by EGEE-SA1
- **Help designing a suitable operational model**
  - Then document & implement it
  - **Very hard to have agreement on it**
    - Lot of entities involved
    - but seems converging a little bit now
  - Role of the ENOC to be clearly defined
- **Takes advantage of the federated model**
  - Give ... and take
  - Use that to drive sustainability

- **LCG support currently focused on supporting the LHCOPN**
  - Operational model
    - Things should be driven by sustainability
      - = *Not too many key tasks should be done by EGEE*
    - Currently strong involvement into the operational set up, but should have a lighter role next (Jan-2009?)
  
- **LCG support should and will be wider**
  - Formalized exchanges, Grid interaction...
  - Working groups etc.
  
- **LCG support no longer a dedicated task within SA2**
  - Now integrated into task TSA2.2 (Support for the ENOC)

**Question/Comment?**