

# LHCOPN operations and Grid interactions

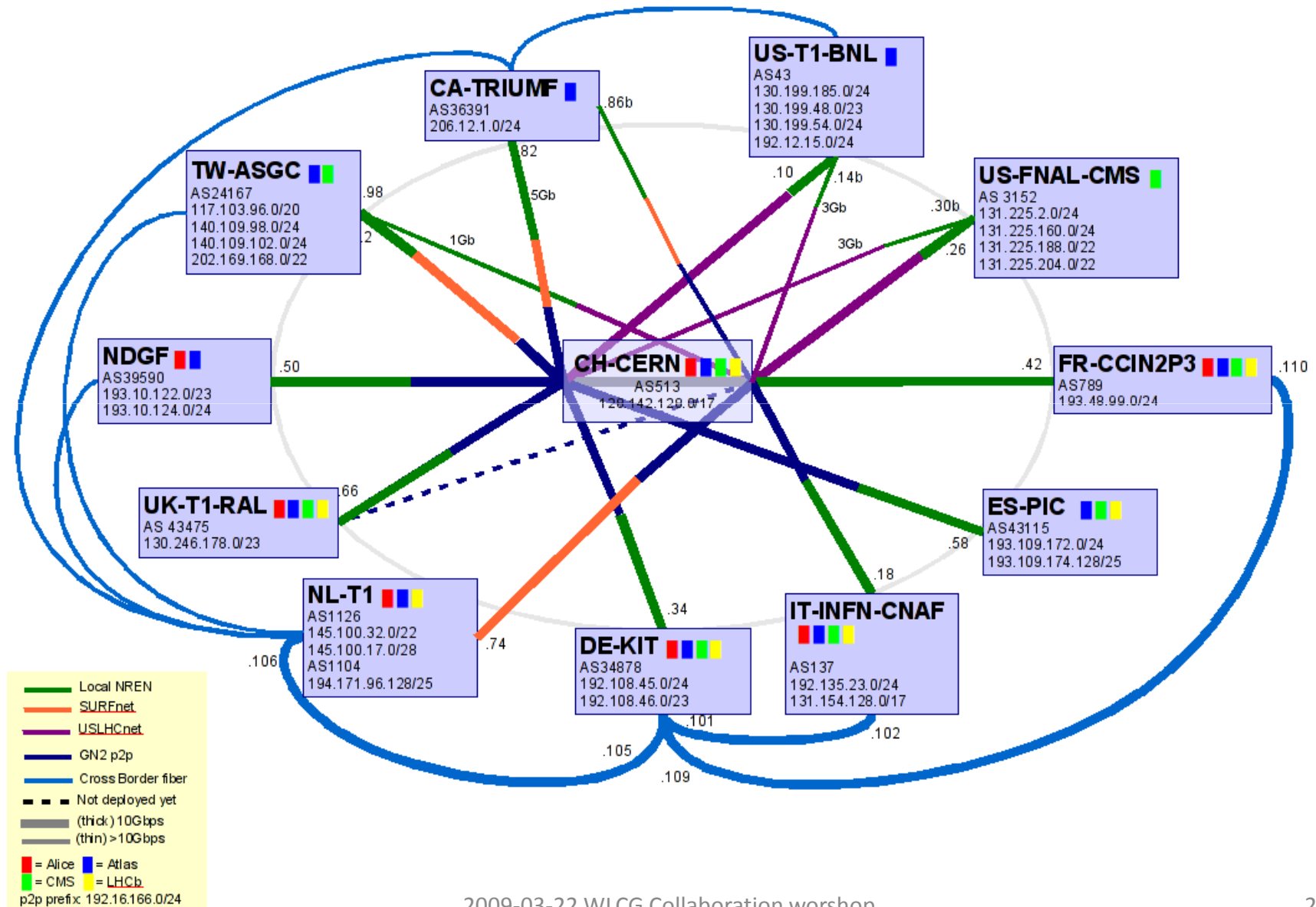
WLCG collaboration workshop, Praha, 2009-03-22

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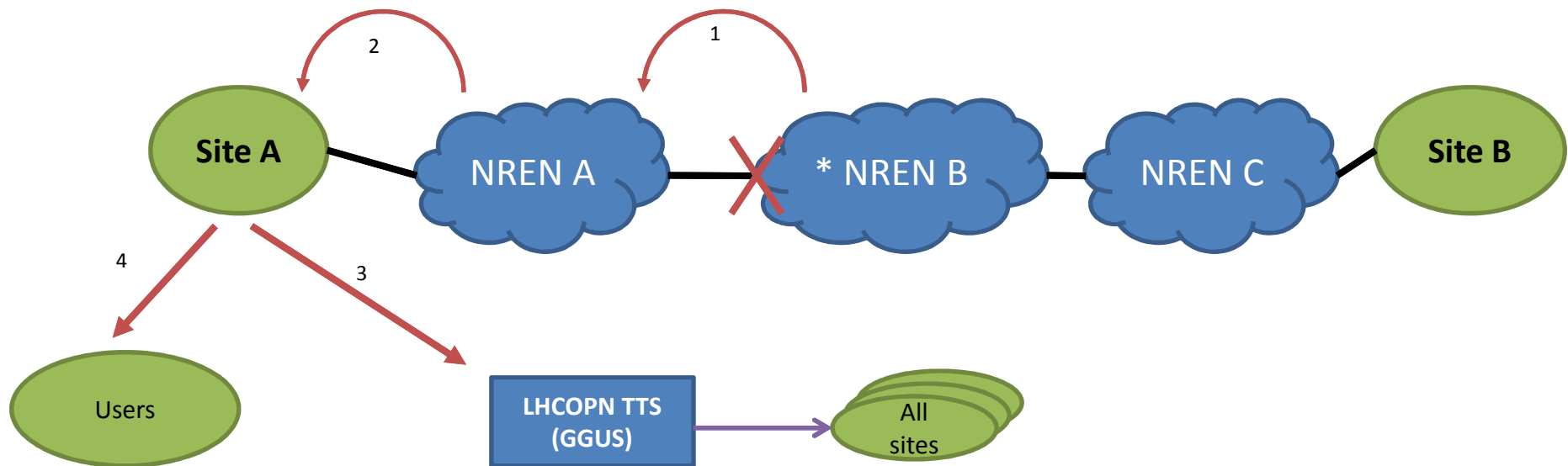
# Network infrastructure status



Courtesy of Edoardo Martelli – CERN – 2009-01-30

# Network ops model

- Federated with key responsibilities on T1s
  - On top of what currently exists
- Information centralised (twiki & GGUS)



# Information repository shared

You are here: [TWiki](#) > [LHCOPN Web](#) > [WebHome](#)

## LHCOPN

LHCOPN - Large Hadron Collider Optical Private Network

**Technical information**

- Overall network maps (L2, L3)
- IP addresses
- Per site implementation details
- Naming convention and links IDs
- Technical contacts

**Operations**

- Proposed LHCOPN operational model
- Sample use cases of the operational model
- Proposed regular backup test process
- Contacts for operations
- Private twiki area for Operations (TTS access, change management DB etc.) - Authentication required

**Monitoring**

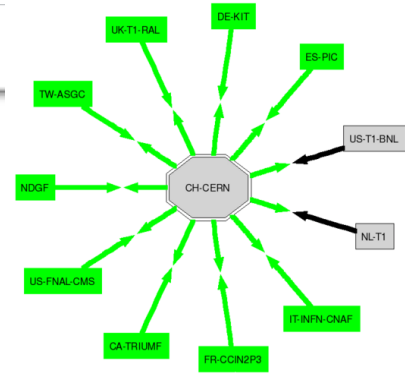
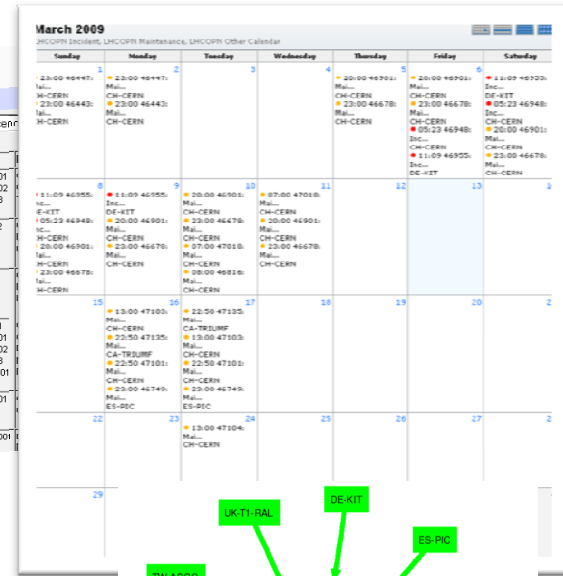
- LHCOPN traffic statistics
- LHCOPN traffic statistics - Old page
- Looking Glass from: CH-CERN (queries to R01LC0 and R02LC0 for the LHCOPN) - FR-CCIN2P3 -

LHCOPN Tickets in GGUS

LHCOPN - Dashboard

Show all tickets in status any assigned to any ordered how descen

ID	Status	Prob Start	Prob End	Category	Problem	Assigned to	LinkID
47135	assigned	2009-03-16 22:50	2009-03-17 05:00	ML2	Connect	CA-TRIUMF	CERN-TRUMF-LHCOPN-001 CERN-TRUMF-LHCOPN-002 CERN-ASOC-LHCOPN-003
47104	assigned	2009-03-24 13:00	2009-03-24 17:00	ML2	Connect	CH-CERN	CERN-FERMIL-LHCOPN-002 CERN-ENL-LHCOPN-001
47103	assigned	2009-03-16 13:00	2009-03-17 17:00	ML2	Connect	CH-CERN	CERN-FERMIL-LHCOPN-001 CERN-ENL-LHCOPN-002
47101	assigned	2009-03-16 22:50	2009-03-17 05:00	ML2	Connect	CH-CERN	CERN-SARA-LHCOPN-001 CERN-TRUMF-LHCOPN-002 CERN-ASOC-LHCOPN-003 CERN-GRIDKA-LHCOPN-001
47018	solved	2009-03-10 07:00	2009-03-11 08:28	ML2	Connect	CH-CERN	CERN-TRUMF-LHCOPN-001
46920	solved	2009-03-00 11:09	2009-03-09 00:00	ML2	Connect	DE-HIT	ORIDEKA-SARA-LHCOPN-001

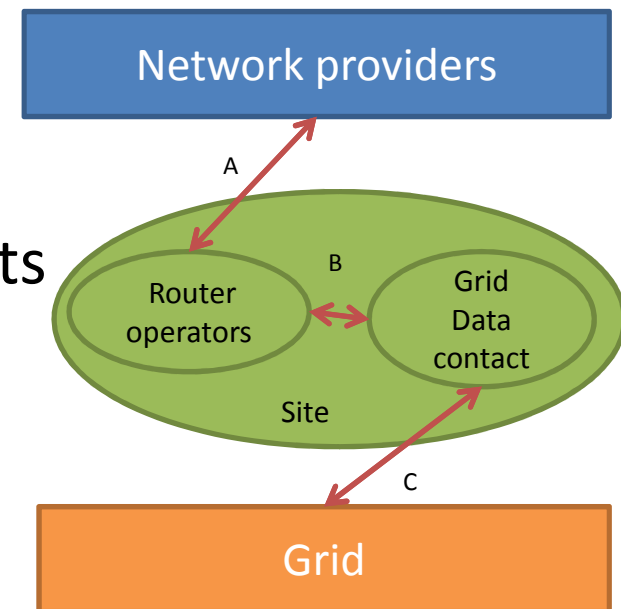


- Global web repository
  - <https://twiki.cern.ch/twiki/bin/view/LHCOPN/>
- Trouble ticket system
  - GGUS helpdesk: <https://ggus.org/lhcopn>
  - Planning: <https://ccenoc.in2p3.fr/LHCOPN/webcalendar/>
- Monitoring
  - <https://ccenoc.in2p3.fr/ASPDrawer/>
    - Official for year 2009
  - Incoming Perfsonar solution based on DANTE appliances > 2009

ET-00	SI-00	TI-00	OT-00	EO-00	RO-00	VO-00	BO-00	PO-00	FO-00	SO-00	TO-00	RS-00	VS-00	shar	tasos	mas	tm
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# Network operations status

- Currently in trial period with 4 sites
  - Improvement process ongoing
  - Final production mode to be reached on 2009-08
- Links with Grid world
  - Not yet formalised
  - Foreseen through Grid data contacts
    - It is a role - one per site
    - Having service view
    - Linking to users and projects



# Proposed Grid interactions (1/2)

## A. Daily operational workflow

- Scheduled and unscheduled outages – what to practically do?
  - Try to also avoid overlap of network events & Grid events
- Each site is responsible – No central entity

### → Use simple existing things in place

- Existing tools, processes and communication channel to be used
  - EGEE broadcasting tools etc.
- Grid data contacts could also report in the daily WLCG phoneconf when needed
  - <https://twiki.cern.ch/twiki/bin/view/LCG/WLCGOperationsMeetings>
  - Can be done offline: e-mails, reading minutes etc.
    - But phone turned on when needed
  - Key point: VOs and experiments are reached here

# Proposed Grid interactions (2/2)

## B. Upper level and long term interactions

- Regular problems, improvement and change requests, global assessment of the service delivered etc.

→ A LHCOPN representative could be the exchange point between LHCOPN and Grid

- Report to Grid from quarterly LHCOPN network ops phoneconf
  - Global view of infrastructure and ops
  - Quality assessment, key incident report etc.
- Import items from Grid on the agenda
- Write conclusions into some quarterly reports

# Conclusion

- Network ops converging to something working
- Proposed Grid interactions
  - Daily
    - Sites to use existing tools and processes
    - Grid data contact to act on daily WLCG phoneconf when required
  - Quarterly
    - LHCOPN representative to globally exchange with Grid world
- To be briefly documented and endorsed by actors