

Computing for LHC / LCG

Status in Switzerland

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Situation in Switzerland

We are in process of

- setup **ONE SINGLE national Tier-2 centre at CSCS in Manno** to serve all 3 experiments (Atlas, CMS, LHC); setup in stages

Status : prototype hardware present (see below),
software implementation in progress (see below)

- **contribute resources to the LCG** core team in terms of 3 FTE

Status:

- two persons deployed to CERN since Fall 2002:
 - Derek Feichtinger (funded by PSI/ETHZ)
 - Frederik Orellana (funded by Universities, employed by U.Geneva)
- resources for one person from CSCS not (yet) available; promised by CSCS in 2002; waiting for answers ...





Status of Step-1

□ Participation in phase-1 of LCG1 :

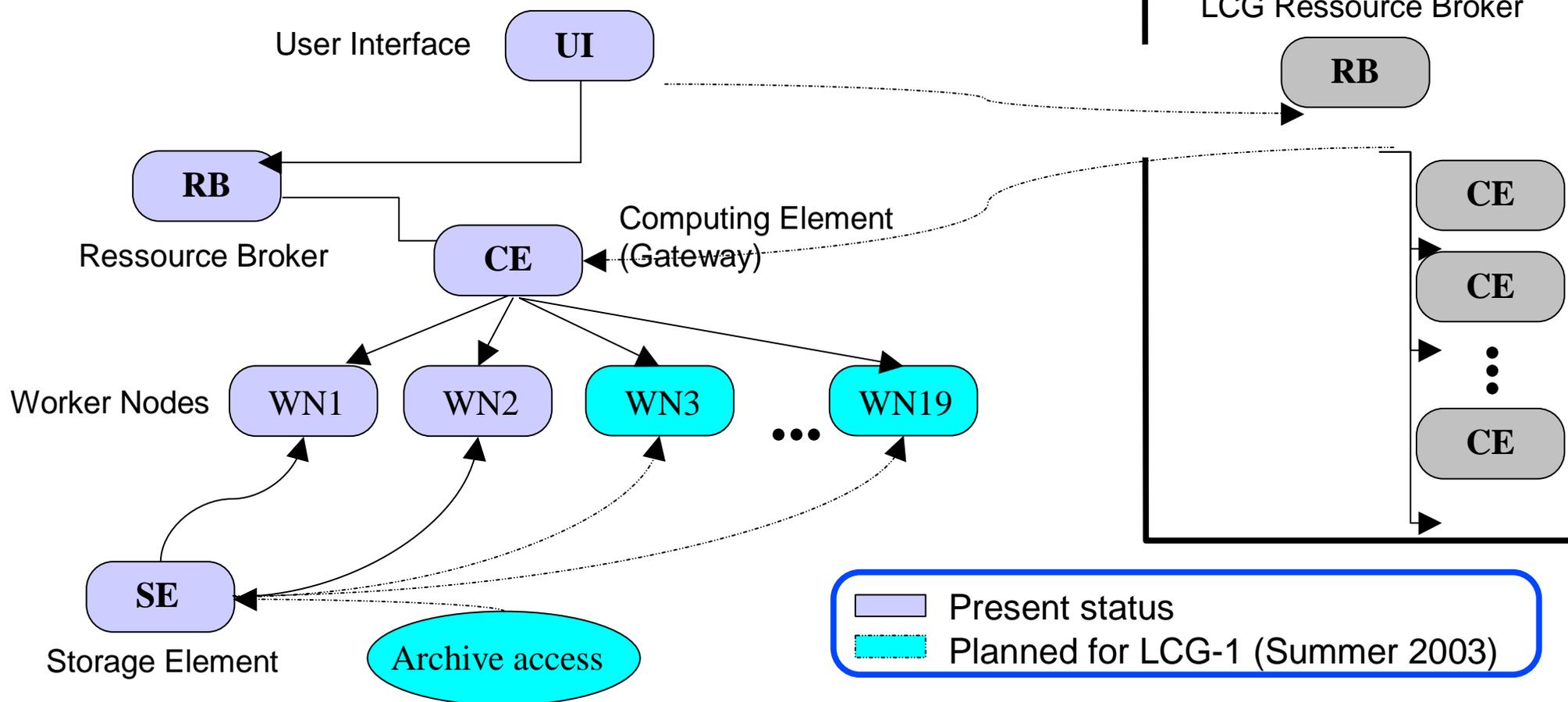
Setup prototype Tier-2 RC and join the LCG-1 "grid":

- Hardware installed ok
- LCG operations SW installation + testing in progress (EDG, ...)
- Scheduled to attach to LCG Tier1 (CERN) in summer/fall 2003
- install experiment's SW to be next (scheme in discussion, allocation of personnell under discussion with LCG)
- Personnell:
 - part of our 2 FTE located @CERN
 - 2*0.1 FTE at CSCS (cluster hardware and OS maintenance), future??
 - contribution from experiments (1 FTE from Atlas ?)
 - 0.1 FTE organisation + coordination (me)

Setup of CH-LCG RC at CSCS (opt)

Hardware: 20 dual CPU AMD Athlons (1.7 Ghz), 1GB RAM
20 • 200 GB Harddisk space

Software: RedHat 6.2, European DataGrid V-1.4.5





Swiss direct contribution to LCG

- Our Swiss contribution to the LCG project happens directly through our two persons assigned to LCG at CERN :
Derek Feichtinger and Frederik Orellana
They are deployed to "Applications Area" within LCG.
- Apart from smaller tasks, one of their major achievement up to now was to develop and setup the **Savannah portal** at CERN:
<http://savannah.cern.ch>



Networking Issues in Switzerland

SWITCH: <http://www.switch.ch/network>

Provides national academic and research network infrastructure, and supplies **very favourable conditions** (sufficient bandwidth for now)

- connects all Universities and CERN by national peerings using SWITCH- lambda fiber links (multiple Gbit E-net links)
(PSI and S.Gallen on old STM-1 / ATM net, upgrade in 2003 planned)
- connects CH to Europe's GEANT and to USA (Abilene/Internet2) with up to 10 Gbit/s; (CIXP @ Geneva and TIX @Zuerich)
- Direct fully optical 2.5 – 10 Gbit/s ZH – CERN in operation

Conclusions

- ❑ **Continue as planned to setup our Swiss “Tier-2” at CSCS:**
 - **Serving Swiss participators in LHC-experiments (CMS, ATLAS, LHCb)**
 - **Hardware prototype in operation; Software installation in progress**
 - **Resources/commitment situation at CSCS uncertain ... ??? !!!**

- ❑ **Switzerland is taking part in the global “LCG Project phase-1”**

- ❑ **Swiss direct contribution to LCG successful thanks to our two FTE
(Feichtinger and Orellana)**

- ❑ **Next steps :**
 - **Install experiment specific SW, update the LCG-operations SW**
 - **use prototype HW resources for experiments data challenges**
 - **link into LCG-Tiers framework according to LCG schedule (Q3/2003)**