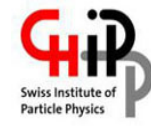


CHIPP – Computing Board Issues

remarks on

- Evolution of organisation
- ...

Christoph Grab
ETH Zürich



10.03.2017

Bern

Introduction (1)

- CHIPP, the Swiss LHC institutions, and CSCS have a long standing successful cooperation, based on consensus driven solutions.
 - CHIPP has been able to deliver the pledges to WLCG for the experiments as required , and CSCS has delivered resources to CHIPP as agreed in MoU.
- Common strategies by all experiments and CSCS have proven to be efficient means.
- Coordination of all activities has been handled through the CHIPP computing board.
 - >> I propose a small change to the coordination

Organisation for CHIPP computing - now

■ CHIPP computing board “CCB”:

- Consists of 1-2 representatives of the experiments and institutions, and representatives of CSCS;
 - may invite additional persons for technical advice eg. from CSCS.
- Meets F2F 2-3 times a year CSCS; AND ~biweekly operation meetings (VC); further minor issues dealt with by email or by direct discussions.
- Deals with all issues concerned with computing for the LHC on Swiss scale – discusses and decides on the Tier-2 level for CSCS, and advises for Tier-3 level on :
 - all technical issues for operation
 - compute resource provisioning
 - strategic issues for
 - Political issues ...
- *However: some very important issues are upcoming to be decided upon concerning our long term strategy, where it seems appropriate to be discussed on a higher level.*

Organisation for CHIPP computing: proposal

- **CHIPP computing board “CCB” as now :**
 - Consists of representatives of experiments, institutions and CSCS.
 - ...
 - Decides on all operational and technical issues on Tier-2 level, common to all LHC experiments
- **Propose: new CHIPP computing *steering* board “CCSB” :**
 - Consists of the PI-representatives of the institutions (i.e. FLARE LHC computing grant holders)
 - **Decides** on all strategic and political issues, e.g.
 - Strategy for long term evolution of computing model
 - Re-distribution of resources among experiments
 - Strategy for negotiation of contracts between CHIPP, CSCS/ETHZ, etc.
 - Strategy for communication with SNF, FLARE (LA), SANW, ...
 - Strategy for opening up CHIPP resources to other VO (communities)
 - Relies on advisory input of regular computing board for technical issues
 - Meetings called as needed by CCB chair (F2F or VC)

CHIPP computing board

Computing board coordinates the tier-2 and links to tier-3 activities; Membership includes representatives of institutions and LHC experiments, of CSCS and of CH-tier-3 experts.

Computing board



G.Sciacca (UNI Bern)

Luis M.Ruiz (UNI Genf)

C.Grab (ETHZ) chair CCB

J.Pata → T. Kljinsmaa (ETHZ)

D.Feichtinger vice-chair (PSI)

N.Loktionova (PSI)

R.Bernet (UNIZH)

S.Trouneur, (EPFL)

P.Fernandez, M.Gila,
M. De Lorenzi (CSCS)

CHIPP computing + steering boards

Computing board coordinates the tier-2 and links to tier-3 activities; Membership includes representatives of institutions and LHC experiments, of CSCS and of CH-tier-3 experts.

Computing board CCB

G.Sciacca (UNI Bern)
Luis M.Ruiz (UNI Genf)

C.Grab (ETHZ) chair CCB

J.Pata → T. Kljinsmaa (ETHZ)
D.Feichtinger vice-chair (PSI)
N.Loktionova (PSI)

R.Bernet (UNIZH)
S.Trouneur, (EPFL)

P.Fernandez, M.Gila,
M. De Lorenzi (CSCS)

Steering board CCSB

M.Weber
T.Golling,

C.Grab
D.Kotlinski
F.Canelli

U.Straumann
A.Bay

CSCS rep

CHEPP EB rep



Comments about modus operandi

- **Compute models (CM) of experiments have evolved a lot:**
 - **LHCb**: started out with MC-production only at CSCS, moved to use CH-CHIPP-LCG as “data centric T2” → higher storage demand
 - **ATLAS** complemented the CSCS site with AEC-LHEP at Bern, strengthening the CH-ATLAS federation with substantial resources.
... ATLAS adapted a new CM of few “nucleus data centres” and many lean “satellite centres”: ATLAS wants to have Swiss T2 as “nucleus centre”.
 - **CMS** so far evolved the CM; in Q1/17 setup a new initiative ECoM17 to re-evaluate CM; will report in April 17.
- **Mode of operation therefore differs between experiments:**
 - We need to become more creative and economical and optimise the use of our limited resources...

Strategic and Operational issues (1)

- Provisioning computing resources to LHC experiments:
 - Present LHC compute models do not scale beyond 2020.
CERN+experiments are active; e.g. "Scientific Computing Forum".
 - Strategy on Swiss resource provisioning at CSCS - two options:
 - 1) PHOENIX with dedicated HW ("separate cluster")
 - 2) Shared HPC resources at CSCS "LHConCRAY" (part of larger community)
→ decision end 2017.
 - Present splitting of resources between ATLAS:CMS:LHCb in CH;
needs to be re-assessed and adapted to developments.
 - Overall support model needs re-adaptation to experiments compute model.
 - - What is the optimal way to invest and operate ?
- based on FLAT budget by FLARE/SNF, and ETHZ+Uni contributions
 - What about other communities outside HEP ?

To be discussed in a
new CCSB

Next steps

- **Decide on new computing steering board:**
 - We'll draft a mandate for this board and distribute it
 - Send input to CHIPP EB or C.Grab and M.Türler

- ➔ Can we have a decision/vote at the next CHIPP board ?

- **Still in 2017 – need to address those issues mentioned above**
 - strategy LHConCRAY
 - implementations of adequate CM+support model for all VOs
 - optimize the resource splitting among experiments
 -