
LHCb Controls Project

Status and Progress

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P. Mato, CERN

Progress

◆ User Requirements

- Joint LH Cb/ALICE URD for the DCS kernel
 - » Available as LH Cb note 98-005
- No much progress on the LH Cb specific
 - » Questionnaire sent. One reply received
 - » Maybe is too early?

◆ Joint Control Project (JCOP)

- We are putting quite a lot of effort from LH Cb (0.5 FTE)
- Participation in various sub-projects

JCOP

- ◆ Organization:

- Started last December
- Project leader: David Myers
- Steering group (2 people each experiment + 2 people CO group)
- Project team . Meetings every 1-2 weeks .

- ◆ Current work items

- Technology survey , CAN bus , Architecture , Safety , ...

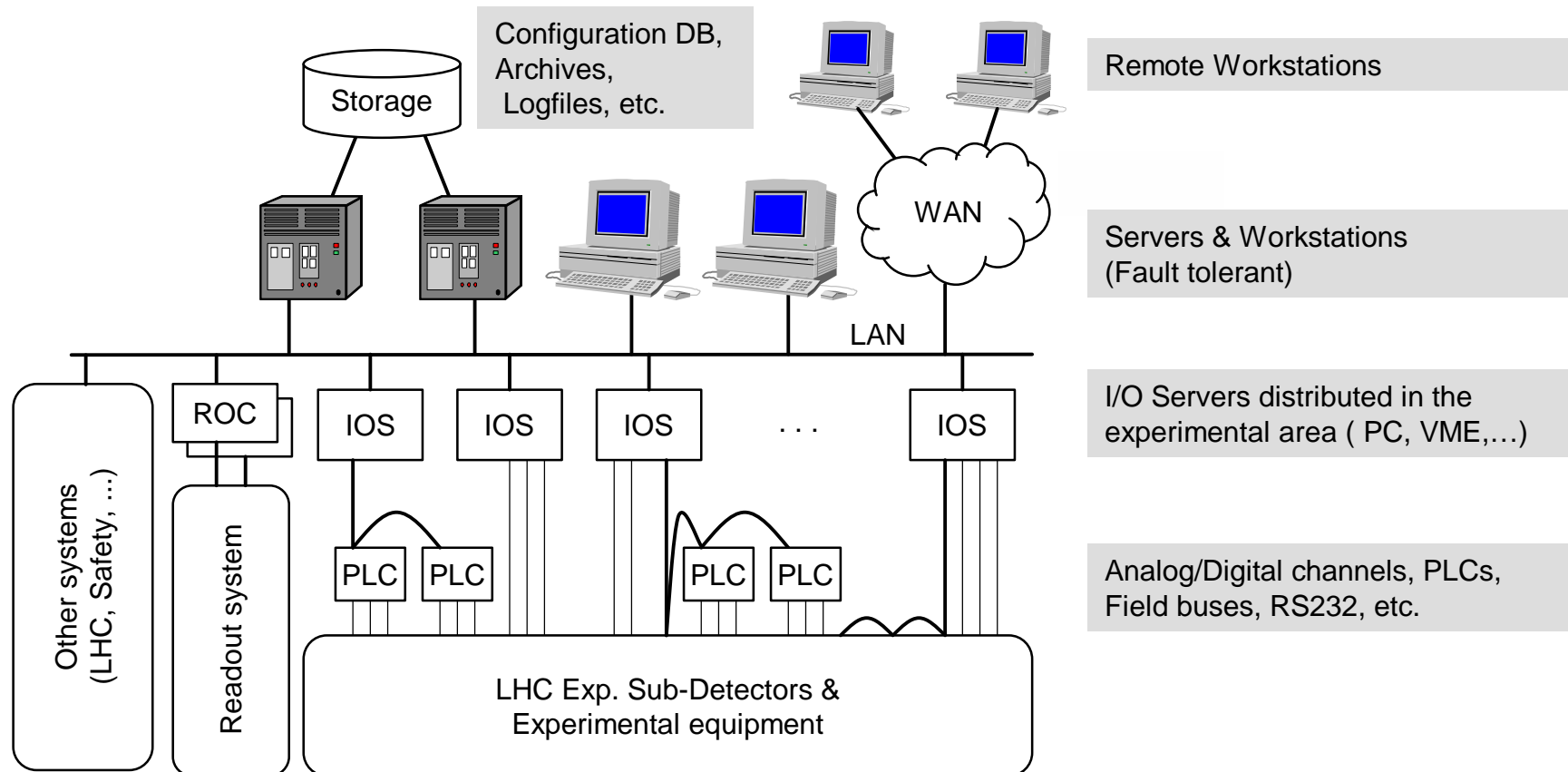
- ◆ Workshop (CERN, June 3-5)

- Current practices , LHC sub-detector requirements

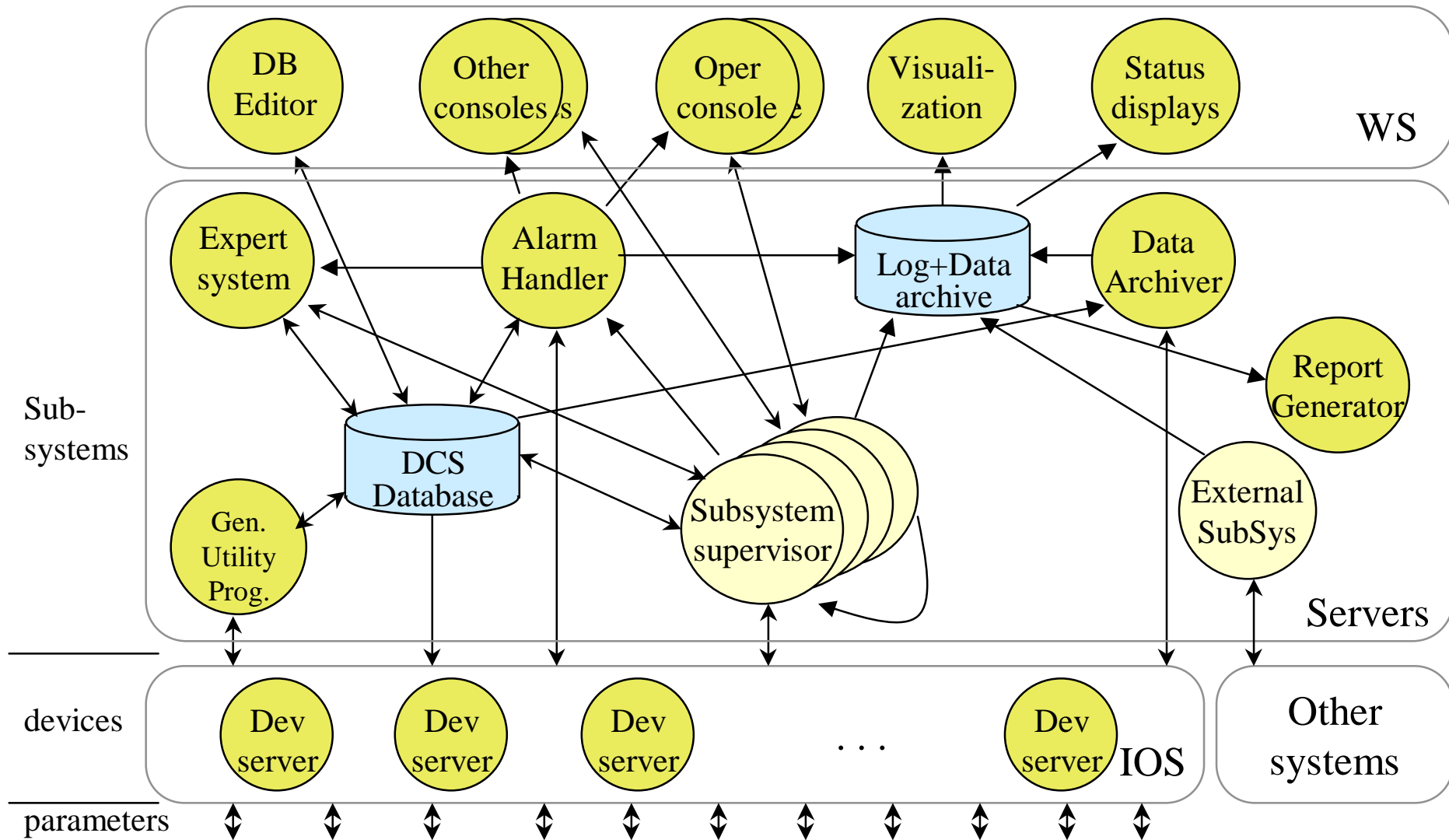
JCOP: Architecture sub-project

- ◆ Objective
 - To design and architecture which implements the known requirements (scale, DAQ integration, etc.).
- ◆ Deliverable
 - Architectural design document by summer.
- ◆ Progress
 - First ideas of an architecture exists. On the process of discussion specific points.
- ◆ People
 - About 10-12 participants (Beat, Pere, Wolfgang from LH Cb)

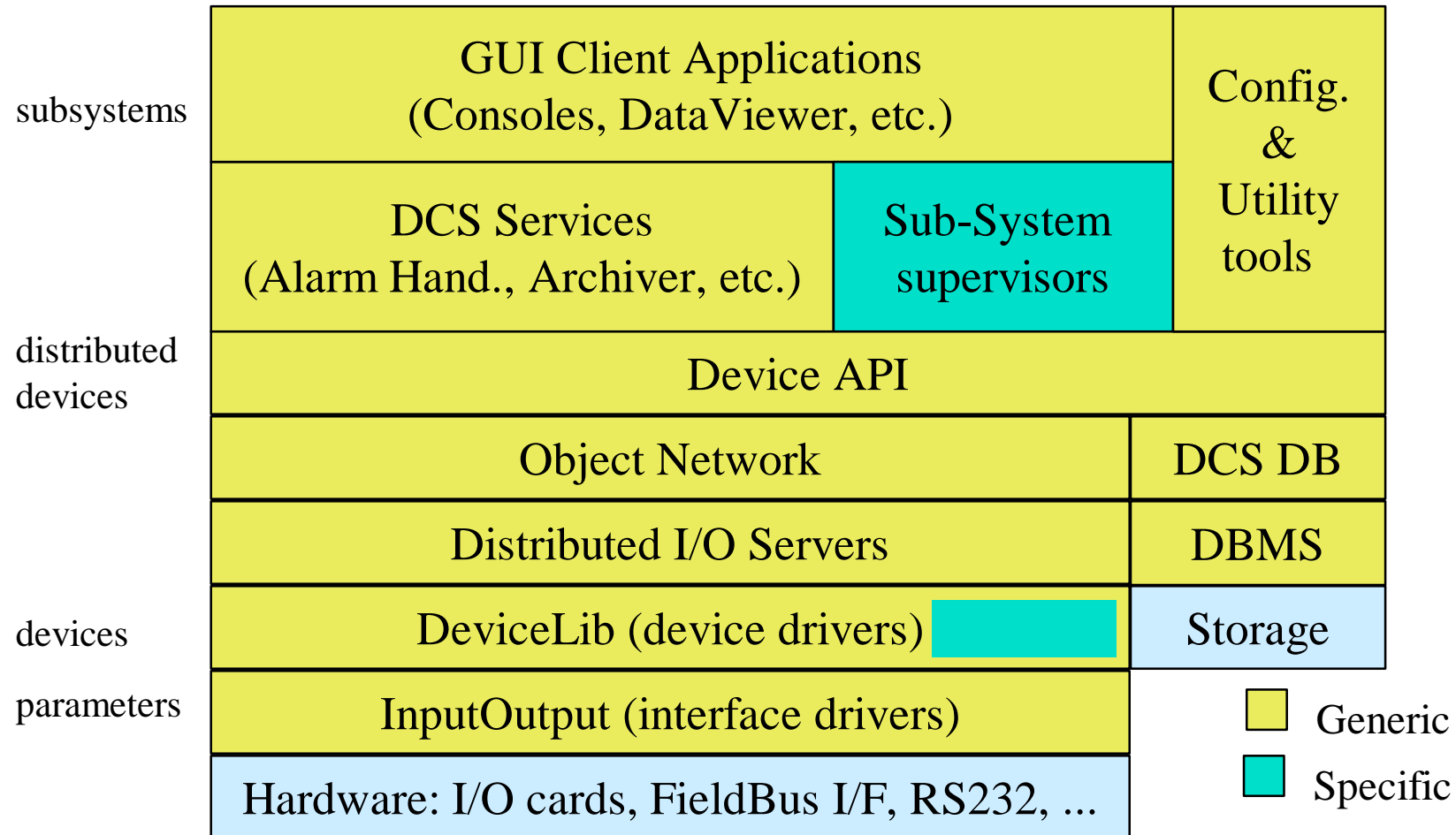
JCOP: Architecture: Hardware



JCOP: Architecture: Task



JCOP: Architecture: Software



JCOP: CAN bus sub-project

◆ Objectives

- 3 parts : Hands on CAN bus , Local Monitor Box (ATLAS), Standalone small control system .

◆ Progress

- Two meetings .

◆ People

- Mainly ATLAS. (Andre from LH Cb)

JCOP: New sub-project proposals

- ◆ A proposal from ALICE has been presented
 - Not very attractive from the point of view of LH Cb
- ◆ Planning to propose a new sub-project from LH Cb.
 - Objectives :
 - » Evaluation of the Component Technology (DCOM) for controls.
(Implementation of the architecture)
 - » Evaluation of OPC (OLE for Process Control) standard.
 - People:
 - » Some fraction of FTE from existing people plus Cooperants starting in September.

JCOP: Workshop

- ◆ CERN, June 4 -6

- ◆ Program

- Current Practice. Presentations from current and about to come on-line experiments.
- LHC experiments requirements and technical sessions.
 - » LHC has 45' + 15' to present our requirements
 - » Since we are not advanced on specific requirements we will use this time to convey generic requirements (scale, operation, integration...) ... lessons learned from ALEPH + DELPHI...
- Selected discussion topics. Architectures, Integration DCS and Run Control, commercial vs. home-made, re-engineering, componentware ...

JCOP: Workshop (2)

- ◆ So far only 5 people from LH Cb registered. We need to encourage our colleagues!
- ◆ We need to prepare the LH Cb presentation for Day 2
- ◆ For more information:
<http://itcwww.cern.ch/JCOPworkshop>

Near future activities

- ◆ Continuation with the participation of the JCOP sub-projects.
 - Architecture, CAN bus, Components, Safety.
- ◆ Get experience with new technologies: Field buses, PLC's, OPC, etc. Our role is to advise/recommend sub-detectors.
 - Use our DAQ/DCS bi-weekly meeting to present/discuss specific technologies.
- ◆ Collect specific requirements from sub-detectors.

Planing

