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# WLCG Workload Management Technical Evolution Group

Modified on: 2012-07-10

These Wiki pages contain information and links for the WLCG workload management technical evolution group.

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## Membership

If you're interested in joining the group and participating in the work, contact the chairs.

## Member input

## Members

Chairs: Davide Salomoni, Torre Wenaus

Members:

- Manfred Alef
- Tim Bell
- Ian Bird
- Catherine Biscarat
- Daniele Bonacorsi
- Marco Cecchi
- Mattia Cinquilli
- Kaushik De
- Xavier Espinal Curull
- Laurence Field
- Pierre Girard
- Ricardo Graciani Diaz
- Claudio Grandi
- Juan Manuel Guijarro
- Jhen-Wei Huang
- Andreas Heiss
- Burt Holzman
- Michel Jouvin
- Andrey Kiryanov
- Eric Christian Lancon
- Hung-Te Lee
- Maarten Litmaath
- Gavin Mccance
- Emmanuel Medernach
- Gonzalo Merino Arevalo
- Simon Metson
- Yannick Patois
- Di Qing
- Belmiro Rodrigues Moreira
- Pablo Saiz
- Ricardo Salgueiro Domingues da Silva

- Davide Salomoni
- Andrea Sartirana
- Jaroslava Schovancova
- Steffen Schreiner
- Ulrich Schwickerath
- Igor Sfiligoi
- Massimo Sgaravatto
- Oxana Smirnova
- Peter Solagna
- Daniele Spiga
- Federico Stagni
- Owen Millington Synge
- Daniel Colin Van der Ster
- Rodney Walker
- Stuart Wakefield
- Torre Wenaus
- Xiaomei Zhang

## Communications and meetings

The group mailing list is [wlcg-teg-workload-mgmt@cernNOSPAMPLEASE.ch](mailto:wlcg-teg-workload-mgmt@cern.ch). The list is open; anyone interested in following the activities of the group is welcome to sign up.

The mailing list archive is here [☞](#).

Meeting agendas are here [☞](#)

## Topics

### Member input on topics

### Pilots and frameworks

- Commonalities in pilot frameworks

### Resource allocation and job management

- Support of jobs requiring whole nodes or multiple cores
- Support of CPU affinity and CPUSSETS
- Proposal to tag I/O vs. CPU intensive jobs
- Requirements for a CE service
  
- Evaluation of the needs for a (global?) WMS
- Requirements for public/private access to WNs (incoming/outgoing connectivity)

### Use of information services

- Summary of the use of the IS by WLCG experiments

## Security models

Multi user pilot job security issues, authentication and authorization, etc - in collaboration with the Security TEG

## New computing models

- Use of virtualization technologies
- Cloud computing
- Requests for special resources (e.g. GPUs, parallel jobs)

## Environment variables for multi-core jobs

- Specs for the implementation of environment variables support

## Technical Evolution Groups Mandate

To reassess the implementation of the grid infrastructures that we use in the light of the experience with LHC data, and technology evolution, but never forgetting the important successes and lessons, and ensuring that any evolution does not disrupt our successful operation.

The work should:

- Document a strategy for evolution of the technical implementation of the WLCG distributed computing infrastructure.
- This strategy should provide a clear statement of needs for WLCG, which can also be used to provide input to any external middleware and infrastructure projects.

The work should, in each technical area, take into account the current understanding of:

- Experiment and site needs in the light of experience with real data, operational needs (effort, functionality, security, etc.), and constraints;
- Lessons learned over several years in terms of deployability of software;
- Evolution of technology over the last several years;
- Partnership and capabilities of the various middleware providers.

It should also consider issues of:

- Long term support and sustainability of the solutions;
- Achieving commonalities between experiments where possible;
- Achieving commonalities across all WLCG supporting infrastructures (EGI-related, OSG, NDGF, etc).

## Deliverables

- Assessment of the current situation with middleware, operations, and support structure.
- Strategy document setting out a plan and needs for the next 2-5 years.

## Structure

- The MB manages the process directly, and appoints several TWGs, one for each area to be addressed, monitors the results of the technical analysis and takes final decisions on the proposals.

- Each TWG should be co-chaired by 1 experiment and 1 site representative. The membership should include the technical experts drawn from the experiments, sites, and various middleware and infrastructure providers. The chairs and the group members to be proposed and agreed by the MB.
- The MB will monitor progress and have editorial ownership of the process. The TWGs report to the MB.

## Other TEGs

- Indico agendas [↗](#)
- Security
- Operations
- Data management
- Storage management

-- TorreWenaus - 17-Oct-2011

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This topic: LCG > WorkloadManagementTechnicalEvolution

Topic revision: r19 - 2012-07-10 - DavideSalomoni



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