

Worldwide LHC Computing Grid Tier-2 Workshop in Asia and EU-IndiaGrid Workshop on High Energy Physics Applications

Friday, December 1, 2006 - Monday, December 4, 2006

Tata Institute of Fundamental Research



Book of Abstracts

Contents

Welcome and workshop goals	1
Summary of the Experiment Computing Models	1
Summary of the Experiment Computing Models	1
Overview of networking for LCG sites in Asia	1
Free slots for topics that have arisen during the workshop	1
EU - India Networking	1
Melbourne, Australia (ATLAS)	2
IHEP Beijing, China (ATLAS, CMS)	2
Wuhan, China (ALICE)	2
TIFR, Mumbai, India (CMS)	2
VECC, Kolkata, India (ALICE)	2
New Zealand (CMS)	2
KEK, Japan	2
Univ. Hiroshima, Japan (ALICE)	3
Pakistan - CMS Federation	3
Taiwan - ATLAS & CMS Federations	3
Taiwan - CMS Federation	3
Sejong, Korea (ALICE)	3
Kyungpook, Korea (CMS)	3
Workload Management System (WMS)	3
Information System (IS)	4
The WLCG Light-weight Disk Pool Manager (DPM)	4
The WLCG reliable File Transfer Service (FTS)	4

Grid Level Monitoring	4
Site Level Monitoring	4
Debugging of FTS transfer problems	5
test	5
Tunning Systems for TCP/IP Performance on High Latency Networks	5
ATLAS Computing Model and Worldwide Operations	5
Discussion	5
ATLAS Operations at Tier-2s	5
Distributed Data Management Operations	6
Distributed Analysis Tutorial	6
EU-India Grid Project	6
KISTI, Korea (ALICE)	6
ICEPP, the University of Tokyo, Japan (ATLAS)	6
Overview of the ASGC Tier-1 Centre and its Grid Services	6
Issues on Indian Certification Authority	7
Tutorial on Garuda	7
Issues on interoperability	7
Workshop Conclusions	7
Status of the Indian Certificate Authority	7
Scientific collaboration between the European Commission and India	7
(no title)	7
Review part I	8
Review part II	8
Open discussion on application requirements and needs	8
Intro to CMS	8
Plans and Activities in the final year of preparation	8
DBS/DLS	8
Prod_Agent	9
CRAB	9
PhEDEx	9

Trivial File Catalog	9
Frontier	9
Software Setup	10
Introduction to the CMS Computing Model	10
Introduction to CMS Data Management and Monitoring	10
AliRoot tutorial	10
ALICE Grid Tutorial	10

Introduction / 0

Welcome and workshop goals

Corresponding Author: sunanda.banerjee@cern.ch

Welcome by Dr S. Banerjee, Director of the Bhabha Atomic Research Centre, followed by a brief introduction to the workshop by Sunanda Banerjee (TIFR) and Les Robertson (CERN - LCG Project Leader)

1

Summary of the Experiment Computing Models

Introduction / 2

Summary of the Experiment Computing Models

Brief overview by each experiment of their computing model with an emphasis on how this maps on to their Asian sites

Networking / 3

Overview of networking for LCG sites in Asia

Overview of the current and planned research networking infrastructure in Asia with reference to the LCG sites.

Measurements of performance between Asian Tier-2 sites and ASGC

5

Free slots for topics that have arisen during the workshop

Networking / 6

EU - India Networking

Status and plans for EU - Inida networking

Site Status Reports / 8

Melbourne, Australia (ATLAS)

Corresponding Author: mlarosa@physics.unimelb.edu.au

Site Status Reports / 9

IHEP Beijing, China (ATLAS, CMS)

Corresponding Author: ycheng@cern.ch

Site Status Reports / 10

Wuhan, China (ALICE)

Corresponding Author: xucc@iopp.ccnu.edu.cn

Site Status Reports / 11

TIFR, Mumbai, India (CMS)

Corresponding Author: pvd@tifr.res.in

Site Status Reports / 12

VECC, Kolkata, India (ALICE)

Corresponding Author: tsamanta@veccal.ernet.in

Site Status Reports / 13

New Zealand (CMS)

Corresponding Author: david.krofcheck@cern.ch

Site Status Reports / 14

KEK, Japan

Corresponding Author: go.iwai@kek.jp

Site Status Reports / 15

Univ. Hiroshima, Japan (ALICE)

Site Status Reports / 16

Pakistan - CMS Federation

Corresponding Author: adeel@ncp.edu.pk

Site Status Reports / 17

Taiwan - ATLAS & CMS Federations

18

Taiwan - CMS Federation

Site Status Reports / 19

Sejong, Korea (ALICE)

Corresponding Author: chang.yeong.choi@cern.ch

20

Kyungpook, Korea (CMS)

Tutorials on installing, configuring and tuning services - Part 1 / 21

Workload Management System (WMS)

Corresponding Author: horng-liang.shih@cern.ch

Tutorials on installing, configuring and tuning services - Part 1 / 22

Information System (IS)

Corresponding Author: horng-liang.shih@cern.ch

Tutorials on installing, configuring and tuning services - Part 2 / 23

The WLCG Light-weight Disk Pool Manager (DPM)

Corresponding Author: sophie.lemaitre@cern.ch

This tutorial will explain how to install, configure, tune and run an SRM-enabled storage element suitable for WLCG Tier2 sites.

Tutorials on installing, configuring and tuning services - Part 2 / 24

The WLCG reliable File Transfer Service (FTS)

Corresponding Author: paolo.badino@cern.ch

This tutorial will present the File Transfer Service with an emphasis on the Tier2 point of view, e.g. information on how to define and control the various channels of interest to a given Tier2 site.

<P> It will present a summary of the FTS admin workshop (October 18 at SARA) in terms of best practices

Tutorials on installing, configuring and tuning services - Part 2 / 25

Grid Level Monitoring

Corresponding Author: judit.novak@cern.ch

Grid Level Monitoring through the Site Availability Monitoring (SAM) framework

Tutorials on installing, configuring and tuning services - Part 2 / 26

Site Level Monitoring

Corresponding Author: min17502@gate.sinica.edu.tw

Tools and techniques for site-level monitoring of the core services

Tutorials on installing, configuring and tuning services - Part 2 / 27

Debugging of FTS transfer problems

Corresponding Author: paolo.badino@cern.ch

Tools, tips and techniques for debugging FTS transfer and configuration problems

28

test

Networking / 29

Tunning Systems for TCP/IP Performance on High Latency Networks

Author: Mark Bowden¹

¹ *FNAL*

Corresponding Author: bowden@fnal.gov

ATLAS Computing Model and Operation / 30

ATLAS Computing Model and Worldwide Operations

Author: Roger JONES¹

¹ *LANCAS*

ATLAS Computing Model and Operation / 31

Discussion

ATLAS Tutorials / 32

ATLAS Operations at Tier-2s

Author: Roger JONES¹

¹ *LANCAS*

Discussion session on general operations issues.

ATLAS Tutorials / 33

Distributed Data Management Operations

Author: Alexei Klimentov¹

¹ *A*

Tutorial on the ATLAS DDM system and how to operate it.
Current status and foreseen evolution.

ATLAS Tutorials / 34

Distributed Analysis Tutorial

Author: Chun Lik Tan¹

¹ *University of Birmingham*

Introduction / 35

EU-India Grid Project

Summary of the goals and status of the EU-India Grid
Project

Site Status Reports / 36

KISTI, Korea (ALICE)

Corresponding Author: hwang@kisti.re.kr

Site Status Reports / 37

ICEPP, the University of Tokyo, Japan (ATLAS)

Corresponding Author: matunaga@icepp.s.u-tokyo.ac.jp

ASGC Regional Operations Centre / 38

Overview of the ASGC Tier-1 Centre and its Grid Services

EU-IndiaGrid grid infrastructure / 39

Issues on Indian Certification Authority

EU-IndiaGrid grid infrastructure / 40

Tutorial on Garuda

EU-IndiaGrid grid infrastructure / 41

Issues on interoperability

EU-IndiaGrid grid infrastructure / 42

Workshop Conclusions

Site Status Reports / 43

Status of the Indian Certificate Authority

Corresponding Author: murthy@magnum.barc.ernet.in

44

Scientific collaboration between the European Commission and India

45

(no title)

Review of the gLite middleware;
Review of the Workload management system ;

Review of Basic Data Management Operations:
Discussion

EU-IndiaGrid non HEP Applications / 46

Review part I

Review of the gLite middleware;
Review of the Workload management system ;
Review of Basic Data Management Operations:
Discussion

EU-IndiaGrid non HEP Applications / 47

Review part II

Review of EGEE/gLite information services;
Review of Monitoring services;
Discussion.

EU-IndiaGrid non HEP Applications / 48

Open discussion on application requirements and needs

CMS Tutorials / 49

Intro to CMS

CMS Tutorials / 50

Plans and Activities in the final year of preparation

Co-author: Ian Fisk Fisk ¹

¹ *FNAL*

CMS Tutorials / 51

DBS/DLS

Author: Lee Lueking¹

¹ *FERMILAB*

Corresponding Author: lueking@fnal.gov

CMS Tutorials / 52

Prod_Agent

Author: Peter Elmer¹

¹ *PRINCETON UNIVERSITY*

CMS Tutorials / 53

CRAB

Author: Ian Fisk¹

¹ *Fermi National Accelerator Laboratory (FNAL)*

CMS Tutorials / 54

PhEDEx

Author: Chia-Ming Kuo¹

¹ *Department of Physics*

CMS Tutorials / 55

Trivial File Catalog

Author: Peter Elmer¹

¹ *PRINCETON UNIVERSITY*

CMS Tutorials / 56

Frontier

Author: Pandurang Vishnu Deshpande¹

¹ *Tata Institute of Fundamental Research (TIFR)*

CMS Tutorials / 57

Software Setup

Author: Peter Elmer¹

¹ *PRINCETON UNIVERSITY*

CMS Computing Model and Operation / 58

Introduction to the CMS Computing Model

Author: Lothar Bauerdick¹

¹ *FERMILAB*

CMS Computing model with a concentration on the role of the Tier-2

CMS Computing Model and Operation / 59

Introduction to CMS Data Management and Monitoring

Author: Stefano Belforte¹

¹ *Univ. + INFN*

Intro to data management concepts

ALICE Tutorials / 60

AliRoot tutorial

ALICE Tutorials / 61

ALICE Grid Tutorial

Author: Andreas Joachim Peters¹

¹ *CERN*