



Site Report of The Federated Taiwan Analysis Facility (TAF)

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ASGC and National Taiwan University
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1 Dec. 2006

Academia Sinica Grid Computing

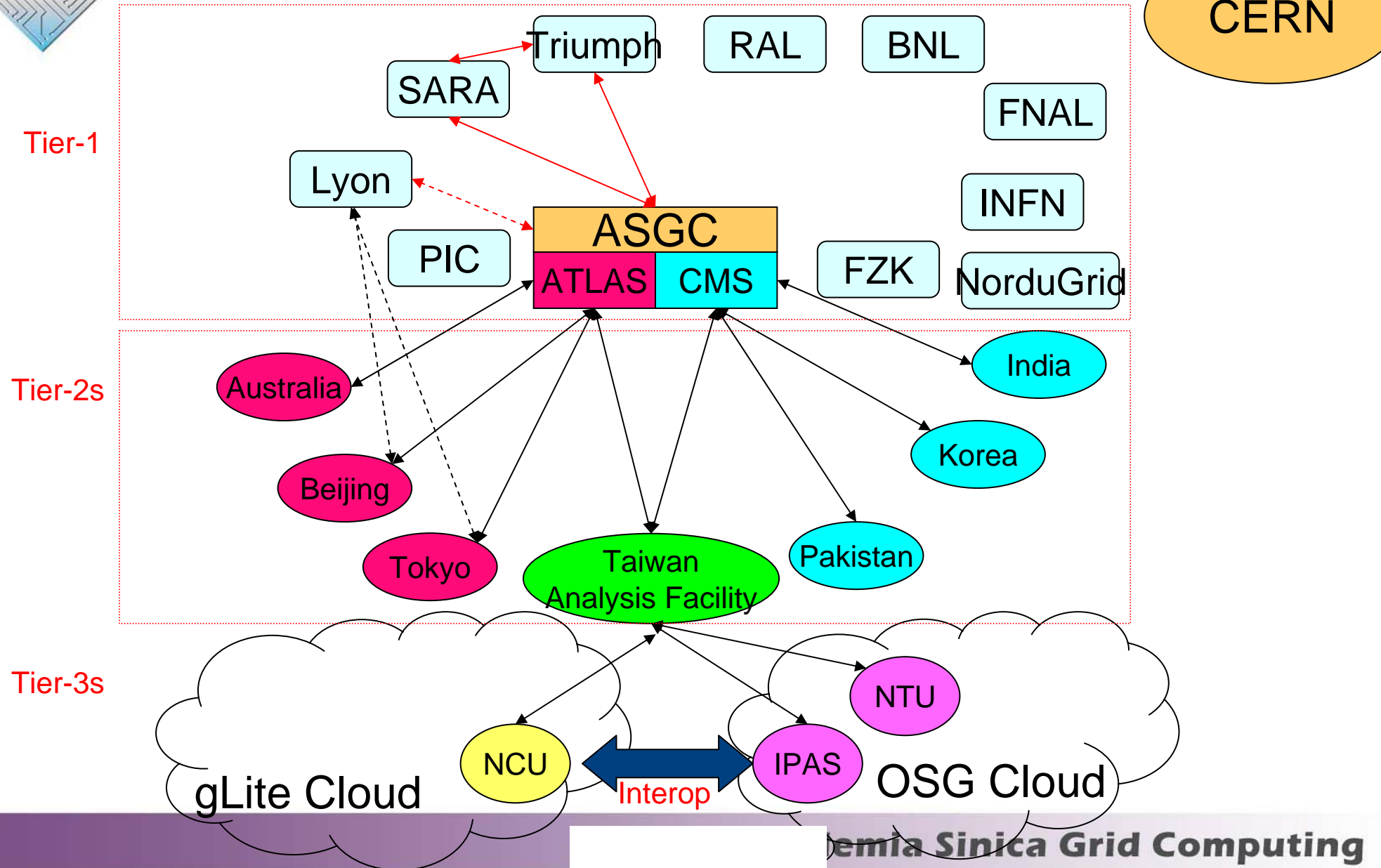
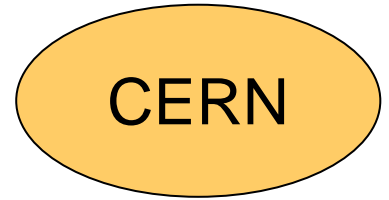


Outline

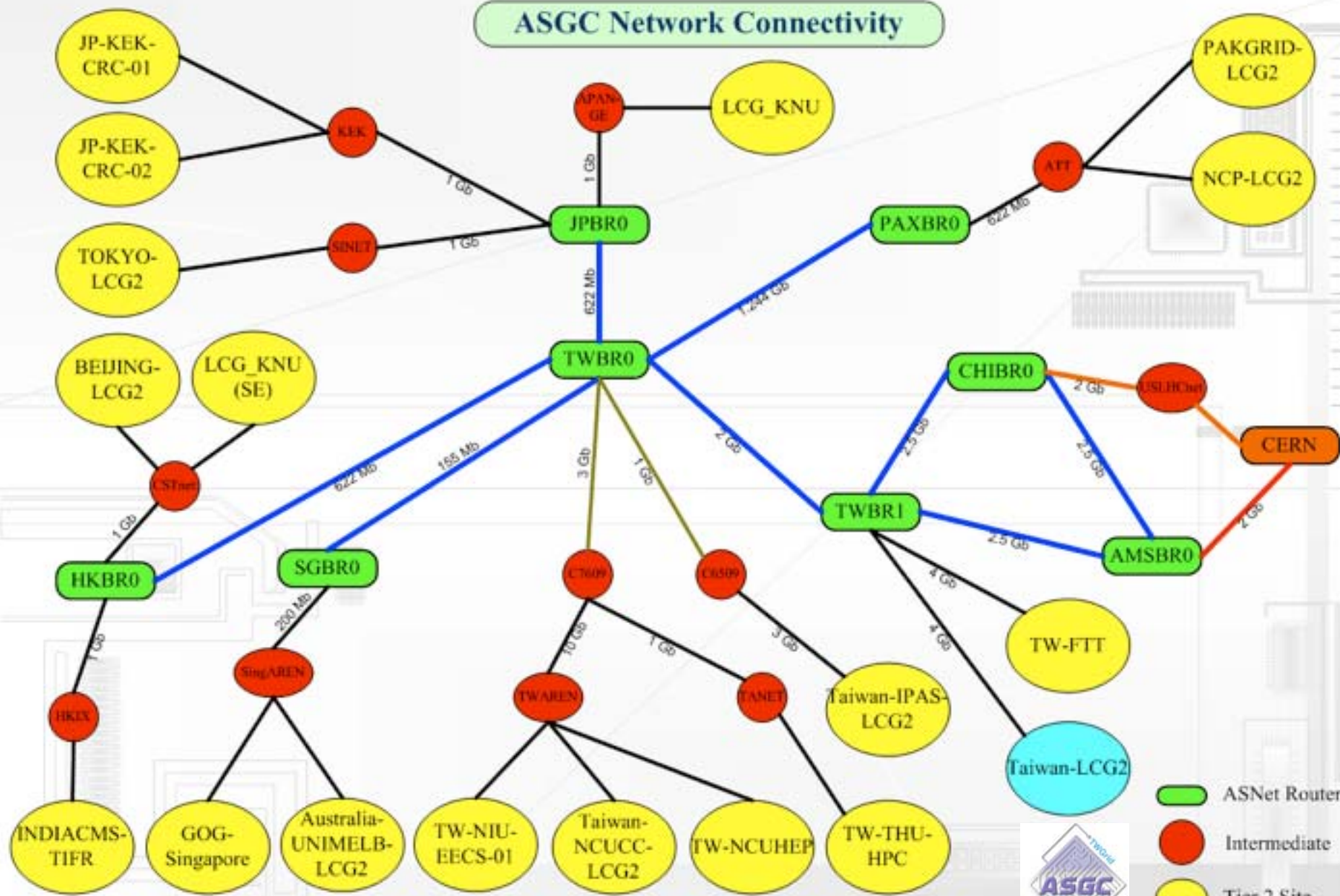
- Current Status
- Experiences of Service Challenges
- Networking
- Future planning
 - System Architecture
 - Resource expansion planning



WLCG Architecture in Taiwan



ASGC Network Connectivity



- ASNet Router
- Intermediate
- Tier 2 Site



Version 1.3
2006/09/23



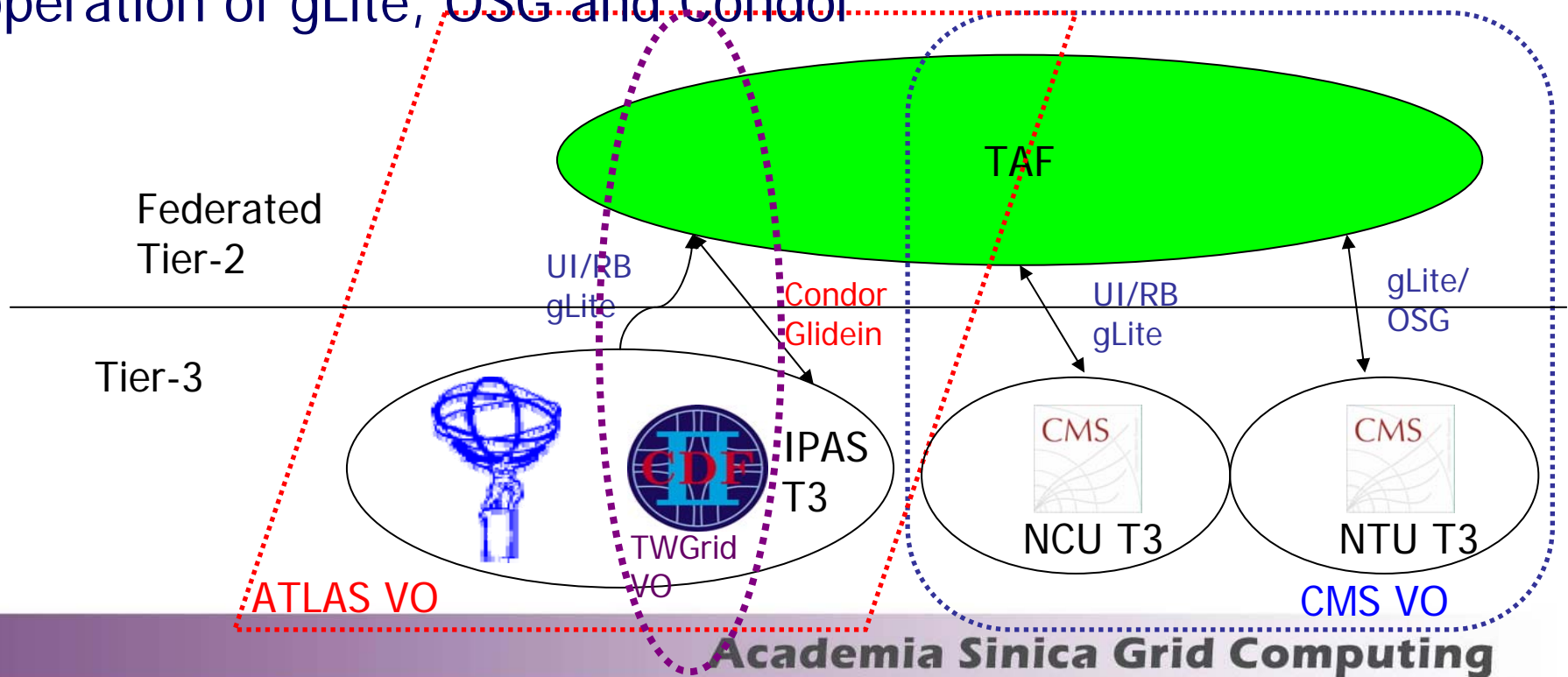
LHC Participation of Taiwan

- ATLAS:
 - Institute of Physics, Academia Sinica (IPAS)
 - 20,632 KSI2K-Hr production jobs running in 2006 (till end. Of Oct.)
 - DDM Operation Team is in place by ASGC and TAF together
 - Physics: Higgs And others
 - User Community: 10~20 in 2008
- CMS:
 - National Central University (NCU) and National Taiwan University (NTU)
 - 3,400 KSI2K-Hr production jobs
 - Physics: TTBar, Lepton, B Prime Physics
 - User Community: 30 ~ 40 in 2008



Physics Analysis Support Model

- Maximize the resource utilization
- Support more Grid-enabled HEP applications
- Framework would be customized based on the computing model/workflow of domestic experiment groups
- Interoperation of gLite, OSG and Condor





TAF in SC of 2006

- ATLAS:
 - DDM/DQ2: target is 20 MB/s between Tier-2 and Tier-1
 - Will test the performance between TAF and each Tier-1 in the following months
- CMS
 - SC4
 - CSA06



ATLAS DDM/DQ2

- Target is to reach 20MB/s between T2 and T1 at this stage

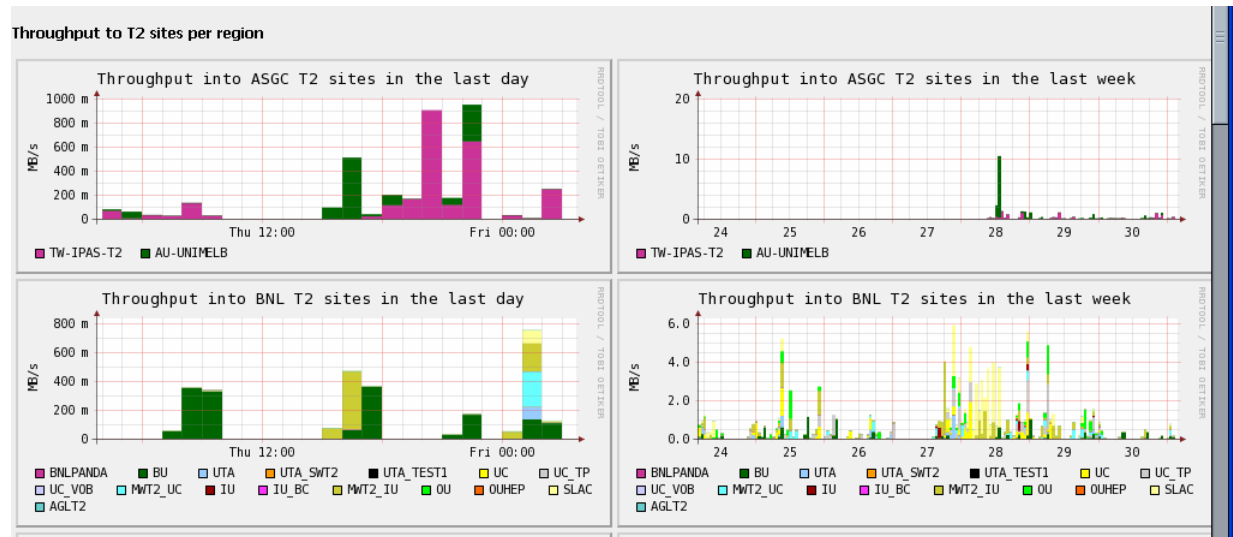
- TAF -- ASGC

- FTS: ~ 80MB/s
- DQ2: ~ 40MB/s

- TAF -- BNL

- DQ2: ~ 4 MB/s with small datasets

- TAF -- other Tier-1 will be tested in the future





Resource Plan of TAF

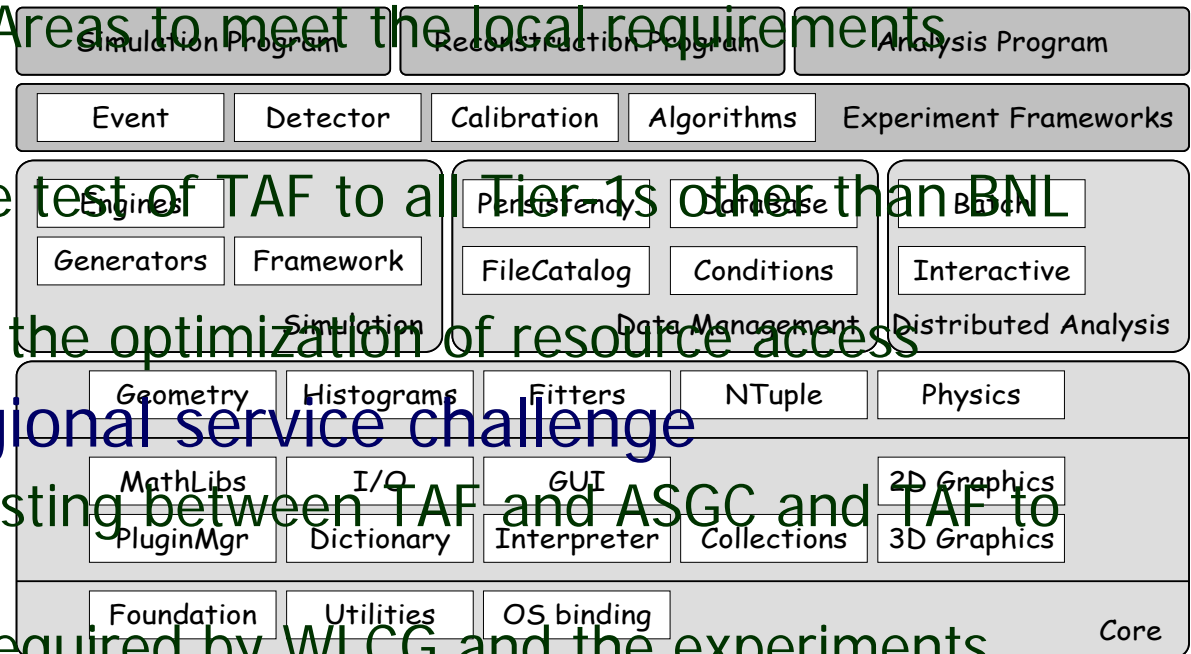
- Will have more resources based on the request of domestic experiment groups
- Target Will be reached by resource re-allocation and the support from ASGC

(KSI2K, TB)	2006	2007	2008
Orig. Plan	(200, 15)	(300, 30)	(400, 70)
Expectation	(300, 23)	(550, 115)	(1,100, 240)



Future Works

- Implementation of the Grid Analysis Framework
 - Customize and Optimize the Workflow and Resources for Physics Analysis
 - Focus on the UI, workflow and interoperability of gLite and OSG, and make use of well-established physics computing tools from ARDA and Application Areas to meet the local requirements
- ATLAS
 - DQ2/DDM performance test of TAF to all Tier-1s other than BNL and ASGC
 - Bottleneck analysis for the optimization of resource access
- CMS domestic and regional service challenge
 - Post-CSA06 regional testing between TAF and ASGC and TAF to local Tier-3 CMS sites
 - Get sustained quality required by WLCG and the experiments





HEP GRID Infrastructure of Taiwan

eGee

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

ASGC Tier-1



TAF



WLCG
VOs



CDF
VO



Belle
VO



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