



GridPP Status - ProjectMap

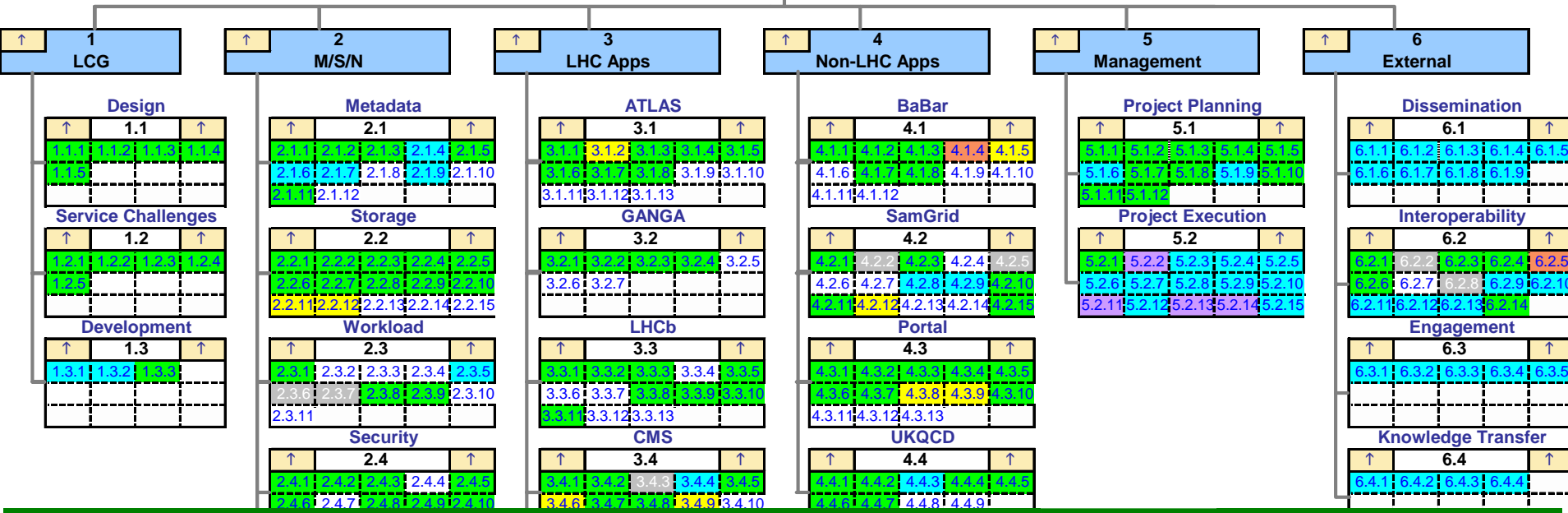
8/Feb/07

(These slides illustrate the management side of Grid computing
P Hobson, March 2008. Some slides have been removed from
the original presentation)



Production Grid Milestones																
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17
0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34
0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.46	0.47	0.48	0.49	0.50	0.51
0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.61	0.62	0.63	0.64	0.65	0.66	0.67	0.68

Production Grid Metrics																
0.100	0.101	0.102	0.103	0.104	0.105	0.106	0.107	0.108	0.109	0.110	0.111	0.112	0.113	0.114	0.115	0.116
0.117	0.118	0.119	0.120	0.121	0.122	0.123	0.124	0.125	0.126	0.127	0.128	0.129	0.130	0.131	0.132	0.133
0.134	0.135	0.136	0.137	0.138	0.139	0.140	0.141	0.142	0.143	0.144	0.145	0.146	0.147			



Metric OK	Metric not OK	Tasks Complete	Tasks Overdue	Tasks due in next 60 days	Items Inactive	Tasks not Due	Change Forms
90	8	175	5	14	34	58	20
(92%)		(69%)					

90 are currently satisfied; the 8 below are not:

0.105: Number of LCG/EGEE jobs slots used (but up from 37% to 60%).

0.108: GridPP disk storage available (lower than planned but meeting user needs in 2007).

0.111: Tape storage to LCG 130TB low (BaBar has 275TB); 350TB purchased 07Q1

0.131: Tier-1 service disaster recovery plans up to date.

5.2.2: Vacant posts (6 on Dec 31st but 5 now started or appointed).

5.2.11: Only 3 F2F meetings (but 39 VRVS)

5.2.13: Only 3 UB meetings (but "4th" was on Jan 4th).

5.2.14: Only 1 DB meetings (DTeam meets ~weekly).

http://www.gridpp.ac.uk/wiki/RAL_Tier1_Metrics_for_GridPP

0.101 Number of registered users (DNs excluding DTEAM)

Quarter	2005 Q4	2006 Q2	2006 Q4
Value	1342	1831	2726

0.102 Number of active users (DNs excluding DTEAM)

Quarter	2005 Q4	2006 Q1	2006 Q2	2006 Q3	2006 Q4
Value	83	166	201	203	246
>=10 jobs	n/a	94	126	121	154

Metrics - Usage (Jan07)

Registered User = 3456

799 .atlas	14 cmssgm
774 .dzero	10 .geant
617 .dteam	9 .pheno
492 .cms	9 lhcbprg
141 .alice	9 .babar
119 .lhcb	6 aliceprg
74 dteamsgm	5 biosgm
59 .bio	5 babarsgm
52 .esr	4 lhcbsgm
40 .ilc	3 zeussgm
37 cmsprg	3 geantsgm
33 alicesgm	2 .t2k
32 atlassgm	2 ilcsgm
25 .fusn	2 .cedar
20 dteamprg	1 phenosgm
20 atlasprg	1 minossgm
18 .zeus	1 .minos
16 .hone	1 honesgm
	1 .cdf

UK Certificates= 320

95 .atlas	3 atlassgm
78 .dteam	3 .alice
46 .lhcb	2 .t2k
25 .cms	2 dteamprg
11 dteamsgm	2 .cedar
9 .pheno	2 babarsgm
9 .ilc	2 atlasprg
7 .babar	1 phenosgm
5 .dzero	1 minossgm
4 .fusn	1 .minos
3 cmssgm	1 lhcbsgm
3 cmsprg	1 lhcbprg
3 .bio	1 ilcsgm

Active UK = 75

13 atlas
7 babar
1 bio
1 cedar
6 cms
12 dteam
2 dzero
4 fusn
2 ilc
16 lhcb
2 minos
8 pheno
1 t2k

A total of 252 active milestones; 175 (69%) have been completed; there are 5 milestones overdue:

0.16: Tier2s meet bandwidth requirements (requirements still being defined)

0.37: Full Tier-1 Team in place (1 post under discussion).

0.56: GridPP able to monitor networks to all supported sites. (3 out of 19 missing).

4.1.4: BaBar Grid Analysis: Emphasis now on skimming developments.

6.2.5: Integrated plans for NGS and GridPP (separate funding tracks).

Twenty change forms have been submitted, reviewed, enacted.

Production Grid (7)
Storage Group (2)
WLMS (1)
Interoperability (2)

ATLAS (1)
GANGA (1)
LHCb (2)
CMS (1)
BaBar (1)
SAM (2)

ID	Name	GridPP			LCG			MSN			Apps			Pro. Grid		
		Li	Im	Risk	Li	Im	Risk	Li	Im	Risk	Li	Im	Risk	Li	Im	Risk
R1	Recruitment/retention difficulties				2	2	4	2	2	4	2	2	4	2	2	4
R2	Sudden loss of key staff				1	3	3	1	3	3	1	3	3	1	4	4
R3	Minimal Contingency	2	2	4				1	2	2						
R4	GridPP deliverables late							1	3	3	2	3	6	2	2	4
R5	Sub-components not delivered to project				1	2	2	2	3	6	2	3	6	2	3	6
R6	Non take-up of project results				2	1	2	1	4	4	2	2	4	1	4	4
R7	Change in project scope				1	1	1	2	2	4						
R8	Bad publicity	1	3	3	1	3	3	1	3	3	2	3	6			
R9	External OS dependence	3	1	3												
R10	External middleware dependence				4	2	8	1	4	4	3	3	9	2	2	4
R11	Lack of monitoring of staff				1	2	2	2	2	4	2	2	4	1	3	3
R12	Withdrawal of an experiment	2	3	6	1	4	4									
R13	Lack of cooperation between Tier centres				2	2	4							1	3	3
R14	Scalability problems				1	2	2	2	2	4						
R15	Software maintainability problems				2	2	4	1	3	3	3	3	9	1	4	4
R16	Technology shifts				1	2	2	2	3	6	2	3	6			
R17	Repetition of research	3	2	6												
R18	Lack of funding to meet LCG PH-1 goals				4	1	4									
R20	Conflicting software requirements										3	2	6	2	3	6
R22	Hardware resources inadequate				2	3	6				2	3	6	2	3	6
R25	Hardware procurement problems				2	2	4							2	3	6
R26	LAN Bottlenecks													1	3	3
R27	Tier-2 organisation fails													2	2	4
R28	Experiment Requirements not met													2	3	6
R29	SYSMAN effort inadequate													2	3	6
R30	Firewalls interfere with Grid													2	3	6
R31	Inability to establish trust relationships															
R32	Security inadequate to operate Grid													2	3	6
R33	Interoperability													2	3	6
R35	Failure of international cooperation				2	1	2									
R36	e-Science and GridPP divergence													2	3	6
R37	Institutes do not embrace Grid	2	2	4												
R38	Grid does not work as required	4	2	8	4	2	8									
R39	Delay of the LHC	2	2	4												
R40	Lack of future funding	2	3	6				3	3	9	4	3	12			
R41	Network backbone failure													0	4	1
R42	Network backbone bottleneck													2	2	4
R43	Network backbone upgrade delay													1	4	4
R44	Inadequate User Support													2	3	6
Alt-i-r																

Four high risks identified:

R10-Apps: External middleware dependence (gLite)

R15-Apps: Software maintainability (Rolling Grant outcome).

R40-Apps: Lack of future funding (Rolling Grant outcome)

R40-MSN: Lack of future funding (GridPP2+ outcome).



GridPP
UK Computing for Particle Physics

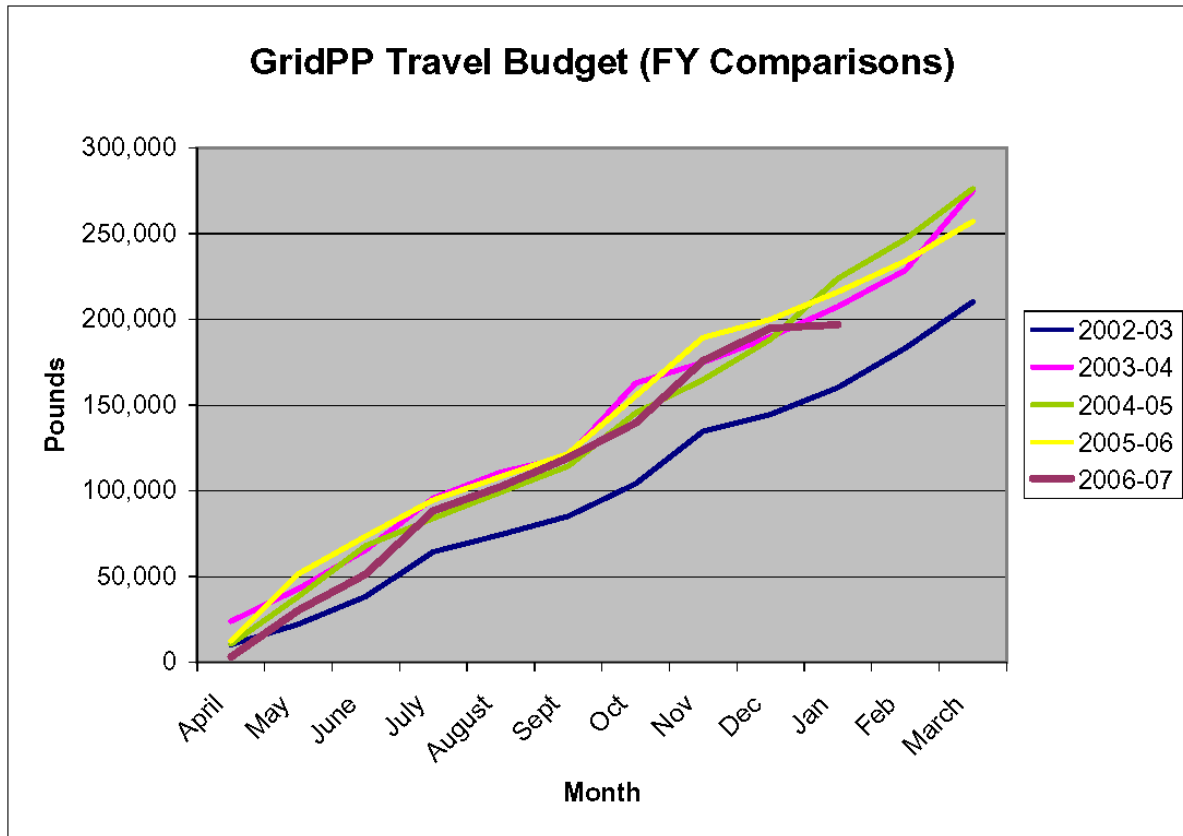
GridPP Status - Resources

08/Feb/2007

Integrated GridPP1 + GridPP2 picture.

Category	Sub-Cat	FY01	FY02	FY03	FY04	FY05	FY06	FY07	Total Cost	
LCG		£0	£907,843	£2,379,162	£2,379,829	£0	£0	£0	£5,666,835	
Tier-1	Staff	£62,045	£311,089	£513,625	£671,501	£680,315	£675,456	£410,135	£3,324,166	
Tier-1	Hardware	£776,300	£602,366	£116,927	£820,535	£529,182	£961,500	£1,508,318	£5,315,128	
Tier-2	Staff	£0	£0	£24,499	£293,881	£717,622	£1,012,503	£616,525	£2,665,030	
Tier-2	Hardware	£0	£0	£0	£105,719	£23,660	£0	£96,621	£226,000	
Applications	Staff	£97,528	£668,448	£726,561	£776,943	£1,028,243	£1,068,155	£483,221	£4,849,100	
N/M/S	Staff	£561,819	£1,028,552	£1,203,242	£1,053,794	£862,805	£939,004	£477,777	£6,126,993	
Operations	Managers	£127,827	£243,448	£267,729	£294,056	£315,432	£322,791	£141,085	£1,712,367	
Operations	Staff	£0	£0	£0	£17,339	£135,548	£145,973	£61,147	£360,007	
Operations	Travel	£175,000	£182,733	£274,825	£259,295	£264,771	£290,000	£275,000	£1,721,624	
Operations	Misc	£113,000	£5,000	£45,195	£149,872	£3,953	£11,559	£40,625	£369,204	
Total		£1,913,519	£3,949,478	£5,551,766	£6,822,763	£4,561,531	£5,426,942	£4,110,454	£32,336,453	
									Total PPARC funding	£32,900,000
									EU Travel Rebate	£35,000
									Unallocated Funds	£598,547

- Unallocated Funds of £599K:
- Includes £255k noted in February 2006.
- Mainly arise from reduced average staff costs at CCLRC and reduced effort delivered at CCLRC
- Smaller contributions from EU travel rebates and under-spend on Tier-2 hardware reserve.
- These funds are critically needed to address hardware funding in FY07 and GridPP2 → GridPP2+ → GridPP3 transition issues.
- Full proposal will be made once GridPP3 outcome is known.



Out-turn is estimated to be £290k

EU-rebate estimated to be £35k

Net cost to GridPP estimated to be £255k

Work Area	GridPP2 Funding		
	FTE	Total Posts	Unfilled
Application Interfaces	17	18	0
Middleware/Security/Networking	14.5	18	1
Tier-2	14.5	21	1
Tier-1	13.5	13.5	4
EGEE Infrastructure Support	4	4	0
Project Management Board	3.4	6	0
Operations	3.5	4	0
TOTAL	70.4	84.5	6

Note-1

Note-2

Note-3

Note-4

Note-1: Brunel CMS post now finished; LCG-deployment post redefined.

Note-2: Storage group lost 2 staff; some effort recovered from in-house effort.

Note-3: Tier-2 operational security posts starts March-07.

Note-4: Three (of 4) vacancies refilled; one post under discussion.



- GridPP continues to spend within budget.
- £599K currently unallocated awaiting outcome of GridPP3 proposal to help manage the inevitable transition issues and address the large hardware ramp-up needed in FY07.
- Effort is being delivered to the project (and levered by the project) according to plan.