



## WLCG - Tier-2 Accounting Summary

November 2007

Efficiency factor for Tier-2 sites - utilisation 60% of pledge as specified in TDR

CPU usage in month (KSI2K-Hrs)

Federation	2007 CPU Pledge (KSI2K)	pledge inc. efficiency (KSI2K-Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	delivered as % of pledge
Australia, University of Melbourne			Australia-UNIMELB-LCG2		1,129			1,129	
<b>AU-ATLAS</b>	<b>40</b>	<b>17,280</b>			<b>1,129</b>			<b>1,129</b>	<b>7%</b>
Austria, Austrian Tier-2 Federation			HEPHY-UIBK		286			286	
<b>AT-HEPHY-VIENNA-UIBK</b>	<b>420</b>	<b>181,440</b>			<b>286</b>			<b>286</b>	<b>0%</b>
Belgium, Belgian Tier-2 Federation			BEgrid-ULB-VUB			117,784		117,784	
			BelGrid-UCL			95,627		95,627	
<b>BE-TIER2</b>	<b>600</b>	<b>259,200</b>				<b>213,411</b>		<b>213,411</b>	<b>82%</b>
China, IHEP, Beijing			BEIJING-LCG2		6		4	10	
<b>CN-IHEP</b>	<b>400</b>	<b>172,800</b>			<b>6</b>		<b>4</b>	<b>10</b>	<b>0%</b>
Czech Rep., FZU AS, Prague			prague_lcg2	32,712	15,916			48,628	
			prague_cesnet_lcg2		1,131			1,131	
<b>CZ-Prague-T2</b>	<b>80</b>	<b>34,560</b>		<b>32,712</b>	<b>17,047</b>			<b>49,759</b>	<b>144%</b>
Finland, NDGF/HIP Tier2			HIP-T2						
<b>FI-HIP-T2</b>	<b>187</b>	<b>80,784</b>							
France, CC-IN2P3 AF			IN2P3-CC-T2	358,471	157,795	149,964	27,049	693,279	
<b>FR-IN2P3-CC-T2</b>	<b>320</b>	<b>138,240</b>		<b>358,471</b>	<b>157,795</b>	<b>149,964</b>	<b>27,049</b>	<b>693,279</b>	<b>502%</b>
France, GRIF, Paris			GRIF	108,597	124,257	10,022	5,493	248,369	
<b>FR-GRIF</b>	<b>583</b>	<b>251,856</b>		<b>108,597</b>	<b>124,257</b>	<b>10,022</b>	<b>5,493</b>	<b>248,369</b>	<b>99%</b>
France, LAPP, Annecy			IN2P3-LAPP		44,570		1,611	46,181	
<b>FR-IN2P3-LAPP</b>	<b>350</b>	<b>151,200</b>			<b>44,570</b>		<b>1,611</b>	<b>46,181</b>	<b>31%</b>
France, LPC, Clermont-Ferrand			IN2P3-LPC	145,672	166,479		236	312,387	
<b>FR-IN2P3-LPC</b>	<b>450</b>	<b>194,400</b>		<b>145,672</b>	<b>166,479</b>		<b>236</b>	<b>312,387</b>	<b>161%</b>
France, SUBATECH, Nantes			IN2P3-SUBATECH	208,909				208,909	
<b>FR-IN2P3-SUBATECH</b>	<b>224</b>	<b>96,768</b>		<b>208,909</b>				<b>208,909</b>	<b>216%</b>
Germany, GSI, Darmstadt			GSI-LCG2	19,861				19,861	
<b>DE-GSI</b>	<b>260</b>	<b>112,320</b>		<b>19,861</b>				<b>19,861</b>	<b>18%</b>
Germany, DESY, Hamburg			DESY-HH						
			DESY-ZN				2,566	2,566	
<b>DE-DESY-LHCb-T2</b>	<b>78</b>	<b>33,696</b>					<b>2,566</b>	<b>2,566</b>	<b>8%</b>
Germany, ATLAS Federation FR/W			UNI-FREIBURG		7,591			7,591	
			wuppertalprod		4,485			4,485	
<b>DE-FREIBURGWUPPERTAL</b>	<b>40</b>	<b>17,280</b>			<b>12,076</b>			<b>12,076</b>	<b>70%</b>

Federation	2007 CPU Pledge (KSI2K)	pledge inc. efficiency (KSI2K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	delivered as % of pledge
Germany, ATLAS Federation, Munich			LRZ-LMU		80,242			80,242	
			MPPMU						
<b>DE-MCAT</b>	<b>60</b>	<b>25,920</b>			<b>80,242</b>			<b>80,242</b>	<b>310%</b>
Germany, CMS Federation			DESY-HH			782,808		782,808	
			DESY-ZN			342		342	
			RWTH-Aachen			80,242		80,242	
<b>DE-DESY-RWTH-CMS-T2</b>	<b>500</b>	<b>216,000</b>				<b>863,392</b>		<b>863,392</b>	<b>400%</b>
India, TIFR, Mumbai			INDIACMS-TIFR						
<b>IN-INDIACMS-TIFR</b>	<b>130</b>	<b>56,160</b>							
India, VECC/SINP, Kolkata			IN-DAE-VECC-01	5,364				5,364	
<b>IN-DAE-KOLKATA-TIER2</b>	<b>282</b>	<b>121,824</b>		<b>5,364</b>				<b>5,364</b>	<b>4%</b>
Israel, HEP-IL Tier-2 Federation			WEIZMANN-LCG2	1	3,439		489	3,929	
			TAU-LCG2	611	273		82	966	
<b>IL-HEPTier-2</b>	<b>61</b>	<b>26,352</b>		<b>612</b>	<b>3,712</b>		<b>571</b>	<b>4,895</b>	<b>19%</b>
Italy, INFN ALICE Federation			INFN-BARI	6,939				6,939	
			INFN-CATANIA	57,711				57,711	
			INFN-FRASCATI						
			INFN-LNL-2	12,935				12,935	
			INFN-MILANO						
			INFN-NAPOLI-ATLAS						
			INFN-PISA						
			INFN-ROMA1						
			INFN-ROMA1-CMS						
			INFN-TORINO	79,486				79,486	
<b>IT-ALICE-federation</b>	<b>550</b>	<b>237,600</b>		<b>157,071</b>				<b>157,071</b>	<b>66%</b>
Italy, INFN ATLAS Federation			INFN-BARI		262			262	
			INFN-CATANIA						
			INFN-FRASCATI		17,603			17,603	
			INFN-LNL-2		519			519	
			INFN-MILANO		37,088			37,088	
			INFN-NAPOLI-ATLAS		9,665			9,665	
			INFN-PISA						
			INFN-ROMA1		15,455			15,455	
			INFN-ROMA1-CMS						
			INFN-TORINO		1			1	
<b>IT-ATLAS-federation</b>	<b>400</b>	<b>172,800</b>			<b>80,593</b>			<b>80,593</b>	<b>47%</b>

Federation	2007 CPU Pledge (KSI2K)	pledge inc. efficiency (KSI2K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	delivered as % of pledge
Italy, INFN CMS Federation			INFN-BARI			15,050		15,050	
			INFN-CATANIA						
			INFN-FRASCATI						
			INFN-LNL-2			143,099		143,099	
			INFN-MILANO						
			INFN-NAPOLI-ATLAS						
			INFN-PISA			277,213		277,213	
			INFN-ROMA1						
			INFN-ROMA1-CMS			27,298		27,298	
			INFN-TORINO						
<b>IT-CMS-federation</b>	<b>400</b>	<b>172,800</b>				<b>462,660</b>		<b>462,660</b>	<b>268%</b>
Italy, INFN LHCb Federation			INFN-BARI				9	9	
			INFN-CATANIA						
			INFN-FRASCATI						
			INFN-LNL-2				9	9	
			INFN-MILANO						
			INFN-NAPOLI-ATLAS						
			INFN-PISA						
			INFN-ROMA1						
			INFN-ROMA1-CMS						
			INFN-TORINO				159	159	
<b>IT-LHCb-federation</b>	<b>150</b>	<b>64,800</b>					<b>177</b>	<b>177</b>	<b>0%</b>
Japan, ICEPP, Tokyo			TOKYO-LCG2		167,679			167,679	
<b>JP-Tokyo-ATLAS-T2</b>	<b>1,000</b>	<b>432,000</b>			<b>167,679</b>			<b>167,679</b>	<b>39%</b>
Norway, UNINETT SIGMA Tier-2			NO-NORGRID-T2						
<b>NO-NORDGRID-T2</b>									
Pakistan, Pakistan Tier-2 Federation			NCP-LCG2		28	64	15	107	
			PAKGRID-LCG2	2	11	248	165	426	
<b>PK-CMS-T2</b>	<b>410</b>	<b>177,120</b>		<b>2</b>	<b>39</b>	<b>312</b>	<b>180</b>	<b>533</b>	<b>0%</b>
Poland, Polish Tier-2 Federation			AMD64.PSNC.PL		43			43	
			CYFRONET-IA64	17,999	10			18,009	
			CYFRONET-LCG2	2,552	98,840	4	3,568	104,964	
			egee.man.poznan.pl	37,752	46			37,798	
			WARSAW-EGEE	1,404	2,575	137,740	3,975	145,694	
<b>PL-TIER2-WLCG</b>	<b>650</b>	<b>280,800</b>		<b>59,707</b>	<b>101,514</b>	<b>137,744</b>	<b>7,543</b>	<b>306,508</b>	<b>109%</b>

Federation	2007 CPU Pledge (KSI2K)	pledge inc. efficiency (KSI2K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	delivered as % of pledge
Portugal, LIP Tier-2 Federation			LIP-Coimbra		13,196	7		13,203	
			LIP-Lisbon		6,981	5,365		12,346	
<b>PT-LIP-LCG-Tier2</b>	<b>500</b>	<b>216,000</b>			<b>20,177</b>	<b>5,372</b>		<b>25,549</b>	<b>12%</b>
Romania, Romanian Tier-2 Federation			NIHAM	120,087				120,087	
			RO-01-ICI						
			RO-02-NIPNE		28,580			28,580	
			RO-03-UPB						
			RO-07-NIPNE	44,110	35,965		143	80,218	
			RO-11-NIPNE				114	114	
<b>RO-LCG</b>	<b>735</b>	<b>317,520</b>		<b>164,197</b>	<b>64,545</b>		<b>257</b>	<b>228,999</b>	<b>72%</b>
Russian Fed., Russian Data-Intensive GRID			RU-Protvino-IHEP	1,627	20,975	1,095	264	23,961	
			ITEP	56,888	12,650	5,940	796	76,274	
			JINR-LCG2	247,835	2,490	27,815	17	278,157	
			RRC-KI						
			RU-Moscow-SINP-LCG2	1,093	1,170	91	2,911	5,265	
			RU-Moscow-FIAN-LCG2		21	16		37	
			RU-Moscow-MEPHI-LCG2		7			7	
			RU-SPbSU	485				485	
			RU-Phys-SPbSU						
			RU-PNPI-LCG2	107,977	27,558	7,155	1,480	144,170	
			RU-Troitsk-INR-LCG2	9,045		233	68	9,346	
<b>RU-RDIG</b>	<b>3,000</b>	<b>1,296,000</b>		<b>424,950</b>	<b>64,871</b>	<b>42,345</b>	<b>5,536</b>	<b>537,702</b>	<b>41%</b>
Slovenia, SiNET			SINET		55,773			55,773	
<b>SI-SINET</b>	<b>200</b>	<b>86,400</b>			<b>55,773</b>			<b>55,773</b>	<b>65%</b>
Spain, ATLAS Federation			Ifae		25,034			25,034	
			IFIC-LCG2		67,321			67,321	
			UAM-LCG2		90,207			90,207	
<b>ES-ATLAS-T2 tbc</b>	<b>117</b>	<b>50,544</b>			<b>182,562</b>			<b>182,562</b>	<b>361%</b>
Spain, CMS Federation			CIEMAT-LCG2			132,983		132,983	
			IFCA-LCG2			36,837		36,837	
<b>ES-CMS-T2</b>	<b>380</b>	<b>164,160</b>			<b>169,820</b>			<b>169,820</b>	<b>103%</b>
Spain, LHCb Federation			UB-LCG2				54	54	
			USC-LCG2				7,694	7,694	
<b>ES-LHCb-T2</b>	<b>118</b>	<b>50,976</b>					<b>7,748</b>	<b>7,748</b>	<b>15%</b>
Sweden, SNIC Tier-2			SE-SNIC-T2						
<b>SE-SNIC-T2</b>	<b>244</b>	<b>105,408</b>							
Switzerland, CHIPP			CSCS-LCG2		13,740	24,401	1,766	39,907	
<b>CH-CHIPP-CSCS</b>	<b>200</b>	<b>86,400</b>			<b>13,740</b>	<b>24,401</b>	<b>1,766</b>	<b>39,907</b>	<b>46%</b>

Federation	2007 CPU Pledge (KSI2K)	pledge inc. efficiency (KSI2K-Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	delivered as % of pledge
Taipei, Taiwan Analysis Facility Federation			TW-FTT		7,976	36,510		44,486	
<b>TW-</b>	<b>300</b>	<b>129,600</b>			<b>7,976</b>	<b>36,510</b>		<b>44,486</b>	<b>34%</b>
UK, London Tier 2			UKI-LT2-Brunel	1,195	52,395	53,766	6,706	114,062	
			UKI-LT2-IC-HEP	1,317	9,368	23,129	61	33,875	
			UKI-LT2-IC-LeSC	4	7,094	1	35	7,134	
			UKI-LT2-QMUL	1,078	92,256	1,838	212	95,384	
			UKI-LT2-RHUL	197	27,395	3,332	68	30,992	
			UKI-LT2-UCL-CENTRAL	876	2,354	1	37	3,268	
			UKI-LT2-UCL-HEP		422			422	
<b>UK-London-Tier2</b>	<b>2,500</b>	<b>1,080,000</b>		<b>4,667</b>	<b>191,284</b>	<b>82,067</b>	<b>7,119</b>	<b>285,137</b>	<b>26%</b>
UK, NorthGrid			UKI-NORTHGRID-LANCS-HEP	525	23,506	264	35	24,330	
			UKI-NORTHGRID-LIV-HEP	59	38,038		1,303	39,400	
			UKI-NORTHGRID-MAN-HEP	2,328	139,706		240	142,274	
			UKI-NORTHGRID-SHEF-HEP	598	34,862		6,804	42,264	
<b>UK-NorthGrid</b>	<b>2,600</b>	<b>1,123,200</b>		<b>3,510</b>	<b>236,112</b>	<b>264</b>	<b>8,382</b>	<b>248,268</b>	<b>22%</b>
UK, ScotGrid			UKI-SCOTGRID-DURHAM	438	15,249	153	1,427	17,267	
			ScotGRID-Edinburgh	3	246		15	264	
			UKI-SCOTGRID-GLASGOW		45,099		1,541	46,640	
<b>UK-ScotGrid</b>	<b>340</b>	<b>146,880</b>		<b>441</b>	<b>60,594</b>	<b>153</b>	<b>2,983</b>	<b>64,171</b>	<b>44%</b>
UK, SouthGrid			EFDA-JET	346	2,805		1	3,152	
			UKI-SOUTHGRID-BHAM-HEP	254	2,894		51	3,199	
			UKI-SOUTHGRID-BRIS-HEP	134	2,507	20	291	2,952	
			UKI-SOUTHGRID-CAM-HEP	31	64		41	136	
			UKI-SOUTHGRID-OX-HEP	2,283	5,777	4	879	8,943	
			UKI-SOUTHGRID-RALPP		417	31,404	202	32,023	
<b>UK-SouthGrid</b>	<b>940</b>	<b>406,080</b>		<b>3,048</b>	<b>14,464</b>	<b>31,428</b>	<b>1,465</b>	<b>50,405</b>	<b>12%</b>
Ukraine, Ukrainian Tier-2 Federation			Information to become available in 2008						
<b>UA-</b>	<b>600</b>	<b>259,200</b>							
USA, Great Lakes ATLAS T2			AGLT2		137,421			137,421	
<b>US-AGLT2</b>	<b>581</b>	<b>250,992</b>			<b>137,421</b>			<b>137,421</b>	<b>55%</b>
USA, Northeast ATLAS T2			BU_ATLAS_Tier2		167,315			167,315	
			BU_ATLAS_Tier2o						
<b>US-NET2</b>	<b>394</b>	<b>170,208</b>			<b>167,315</b>			<b>167,315</b>	<b>98%</b>

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USA, Midwest ATLAS T2			MWT2_UC		200,470			200,470	
			MWT2_IU		90,228			90,228	
			UC_Teraport		64			64	
			UC_ATLAS_MWT2		27,035			27,035	
			IU_ATLAS_Tier2						
			IU_OSG		4,895			4,895	
<b>US-MWT2</b>	<b>826</b>	<b>356,832</b>			<b>322,692</b>			<b>322,692</b>	<b>90%</b>
USA, Southwest ATLAS T2			OU_OCCHP_SWT2		103,746			103,746	
			OU_OSCER_ATLAS		18,157			18,157	
			UTA_DPCC		37,663			37,663	
			UTA_SWT2						
<b>US-SWT2</b>	<b>998</b>	<b>431,136</b>			<b>159,566</b>			<b>159,566</b>	<b>37%</b>
USA, SLAC ATLAS T2			PROD_SLAC		131,996			131,996	
<b>US-WT2</b>	<b>550</b>	<b>237,600</b>			<b>131,996</b>			<b>131,996</b>	<b>56%</b>
USA, Caltech CMS T2			CIT_CMS_T2			126,875		126,875	
<b>US-Caltech</b>	<b>470</b>	<b>203,040</b>				<b>126,875</b>		<b>126,875</b>	<b>62%</b>
USA, Florida CMS T2			Uflorida-PG			291,075		291,075	
			Uflorida-IHEPA						
			Uflorida-HPC						
<b>US-Florida</b>	<b>470</b>	<b>203,040</b>				<b>291,075</b>		<b>291,075</b>	<b>143%</b>
USA, MIT CMS T2			MIT_CMS			345,748		345,748	
<b>US-MIT</b>	<b>470</b>	<b>203,040</b>				<b>345,748</b>		<b>345,748</b>	<b>170%</b>
USA, Nebraska CMS T2			Nebraska			301,644		301,644	
<b>US-Nebraska</b>	<b>470</b>	<b>203,040</b>				<b>301,644</b>		<b>301,644</b>	<b>149%</b>
USA, Purdue CMS T2			Purdue-Lear			139,793		139,793	
			Purdue-RCAC			84,045		84,045	
<b>US-Purdue</b>	<b>470</b>	<b>203,040</b>				<b>223,838</b>		<b>223,838</b>	<b>110%</b>
USA, UC San Diego CMS T2			UCSDT2		2	161,523		161,525	
<b>US-UCSD</b>	<b>470</b>	<b>203,040</b>			<b>2</b>	<b>161,523</b>		<b>161,525</b>	<b>80%</b>
USA, U. Wisconsin CMS T2			GLOW			504,109		504,109	
<b>US-Wisconsin</b>	<b>470</b>	<b>203,040</b>				<b>504,109</b>		<b>504,109</b>	<b>248%</b>
<b>Grand Total</b>	<b>28,038</b>	<b>12,112,416</b>		<b>1,697,791</b>	<b>2,788,514</b>	<b>4,184,681</b>	<b>80,682</b>	<b>8,751,668</b>	<b>72%</b>