



## WLCG - Tier-2 Accounting Summary

April 2008

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

CPU usage in month (KSI2K-Hrs)

Federation	2008 CPU Pledge (KSI2K)	pledge inc. efficiency (KSI2K-Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	used as % of pledge
Australia, University of Melbourne			Australia-UNIMELB-LCG2						
<b>AU-ATLAS</b>	<b>150</b>	<b>64,800</b>							
Austria, Austrian Tier-2 Federation			HEPHY-UIBK		1,926			1,926	
<b>AT-HEPHY-VIENNA-UIBK</b>	<b>540</b>	<b>233,280</b>			<b>1,926</b>			<b>1,926</b>	<b>1%</b>
Belgium, Belgian Tier-2 Federation			BEGrid-ULB-VUB			26,250		26,250	
			BelGrid-UCL			9,724		9,724	
<b>BE-TIER2</b>	<b>1,050</b>	<b>453,600</b>				<b>35,974</b>		<b>35,974</b>	<b>8%</b>
Canada-East Federation			TORONTO-LCG2		98,717			98,717	
<b>CA-EAST-T2</b>	<b>200</b>	<b>86,400</b>			<b>98,717</b>			<b>98,717</b>	<b>114%</b>
Canada-West Federation			ALBERTA-LCG2						
			SFU-LCG2						
			VICTORIA-LCG2		3,458			3,458	
<b>CA-WEST-T2</b>	<b>300</b>	<b>129,600</b>			<b>3,458</b>			<b>3,458</b>	<b>3%</b>
China, IHEP, Beijing			BEIJING-LCG2		25,763	4,166		29,929	
<b>CN-IHEP</b>	<b>400</b>	<b>172,800</b>			<b>25,763</b>	<b>4,166</b>		<b>29,929</b>	<b>17%</b>
Czech Rep., FZU AS, Prague			praguelcg2	28,136	10,609			38,745	
			prague_cesnet_lcg2	3	34			37	
<b>CZ-Prague-T2</b>	<b>164</b>	<b>70,848</b>		<b>28,139</b>	<b>10,643</b>			<b>38,782</b>	<b>55%</b>
Estonia, NICPB, Tallinn			T2_Estonia			17,542	1,175	18,717	
<b>EE-NICPB</b>	<b>150</b>	<b>64,800</b>				<b>17,542</b>	<b>1,175</b>	<b>18,717</b>	<b>29%</b>
Finland, NDGF/HIP Tier2			HIP-T2						
<b>FI-HIP-T2</b>	<b>564</b>	<b>243,648</b>							
France, CC-IN2P3 AF			IN2P3-CC-T2	122,246	761,004	182,156	3,536	1,068,942	
<b>FR-IN2P3-CC-T2</b>	<b>1,500</b>	<b>648,000</b>		<b>122,246</b>	<b>761,004</b>	<b>182,156</b>	<b>3,536</b>	<b>1,068,942</b>	<b>165%</b>
France, GRIF, Paris			GRIF	72,216	728,966	31,713	47,014	879,909	
<b>FR-GRIF</b>	<b>1,642</b>	<b>709,344</b>		<b>72,216</b>	<b>728,966</b>	<b>31,713</b>	<b>47,014</b>	<b>879,909</b>	<b>124%</b>
France, LAPP, Annecy			IN2P3-LAPP		95,864		5,194	101,058	
<b>FR-IN2P3-LAPP</b>	<b>600</b>	<b>259,200</b>			<b>95,864</b>		<b>5,194</b>	<b>101,058</b>	<b>39%</b>
France, LPC, Clermont-Ferrand			IN2P3-LPC	22	173,792		8,914	182,728	
<b>FR-IN2P3-LPC</b>	<b>800</b>	<b>345,600</b>		<b>22</b>	<b>173,792</b>		<b>8,914</b>	<b>182,728</b>	<b>53%</b>
France, SUBATECH, Nantes			IN2P3-SUBATECH	148,065				148,065	
<b>FR-IN2P3-SUBATECH</b>	<b>312</b>	<b>134,784</b>		<b>148,065</b>				<b>148,065</b>	<b>110%</b>
Germany, GSI, Darmstadt			GSI-LCG2	33,872				33,872	
<b>DE-GSI</b>	<b>660</b>	<b>285,120</b>		<b>33,872</b>				<b>33,872</b>	<b>12%</b>
Germany, ATLAS Federation FR/W			UNI-FREIBURG		36,733			36,733	
			wuppertalprod		122,158			122,158	
<b>DE-FREIBURGWUPPERTAL</b>	<b>584</b>	<b>252,288</b>			<b>158,891</b>			<b>158,891</b>	<b>63%</b>

Federation	2008 CPU Pledge (KSI2K)	pledge inc. efficiency (KSI2K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	used as % of pledge
Germany, ATLAS Federation, Munich			LRZ-LMU		184,303			184,303	
			MPPMU		9,118			9,118	
<b>DE-MCAT</b>	<b>622</b>	<b>268,704</b>			<b>193,421</b>			<b>193,421</b>	<b>72%</b>
Germany, ATLAS Federation, DESY			DESY-HH		224,541			224,541	
			DESY-ZN		238,624			238,624	
<b>DE-DESY-ATLAS-T2</b>	<b>583</b>	<b>251,856</b>			<b>463,165</b>			<b>463,165</b>	<b>184%</b>
Germany, CMS Federation			DESY-HH			21,226		21,226	
			DESY-ZN			217		217	
			RWTH-Aachen			455,871		455,871	
<b>DE-DESY-RWTH-CMS-T2</b>	<b>1,050</b>	<b>453,600</b>				<b>477,314</b>		<b>477,314</b>	<b>105%</b>
Hungary, HGCC Federation			BUDAPEST	34,625	3	51,662	500	86,790	
			ELTE			78,705		78,705	
<b>HU-HGCC-T2</b>	<b>270</b>	<b>116,640</b>		<b>34,625</b>	<b>3</b>	<b>130,367</b>	<b>500</b>	<b>165,495</b>	<b>142%</b>
India, TIFR, Mumbai			INDIACMS-TIFR			1		1	
<b>IN-INDIACMS-TIFR</b>	<b>450</b>	<b>194,400</b>				<b>1</b>		<b>1</b>	<b>0%</b>
India, VECC/SINP, Kolkata			IN-DAE-VECC-01	5,179				5,179	
<b>IN-DAE-KOLKATA-TIER2</b>	<b>450</b>	<b>194,400</b>		<b>5,179</b>				<b>5,179</b>	<b>3%</b>
Israel, HEP-IL Tier-2 Federation			WEIZMANN-LCG2						
			TAU-LCG2				297	297	
<b>IL-HEPTier-2</b>	<b>280</b>	<b>120,960</b>					<b>297</b>	<b>297</b>	<b>0%</b>
Italy, INFN ALICE Federation			INFN-BARI	18,408				18,408	
			INFN-CATANIA	104,283				104,283	
			INFN-FRASCATI						
			INFN-LNL-2	26,710				26,710	
			INFN-MILANO	4				4	
			INFN-NAPOLI-ATLAS	6				6	
			INFN-PISA	12				12	
			INFN-ROMA1						
			INFN-ROMA1-CMS						
			INFN-TORINO	10,890				10,890	
<b>IT-ALICE-federation</b>	<b>750</b>	<b>324,000</b>		<b>160,313</b>				<b>160,313</b>	<b>49%</b>
Italy, INFN ATLAS Federation			INFN-BARI		1,976			1,976	
			INFN-CATANIA						
			INFN-FRASCATI		11,481			11,481	
			INFN-LNL-2		9,932			9,932	
			INFN-MILANO		19,242			19,242	
			INFN-NAPOLI-ATLAS		25,511			25,511	
			INFN-PISA		7,699			7,699	
			INFN-ROMA1		111,247			111,247	
			INFN-ROMA1-CMS						
			INFN-TORINO						
<b>IT-ATLAS-federation</b>	<b>750</b>	<b>324,000</b>			<b>187,088</b>			<b>187,088</b>	<b>58%</b>

Federation	2008 CPU Pledge (KSI2K)	pledge inc. efficiency (KSI2K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	used as % of pledge
Italy, INFN CMS Federation			INFN-BARI			61,571		61,571	
			INFN-CATANIA						
			INFN-FRASCATI						
			INFN-LNL-2			173,470		173,470	
			INFN-MILANO			160		160	
			INFN-NAPOLI-ATLAS			1		1	
			INFN-PISA			402,912		402,912	
			INFN-ROMA1						
			INFN-ROMA1-CMS			34,017		34,017	
			INFN-TORINO			61		61	
<b>IT-CMS-federation</b>	<b>850</b>	<b>367,200</b>				<b>672,192</b>		<b>672,192</b>	<b>183%</b>
Italy, INFN LHCb Federation			INFN-BARI				130	130	
			INFN-CATANIA				24	24	
			INFN-FRASCATI						
			INFN-LNL-2				6,948	6,948	
			INFN-MILANO				12,713	12,713	
			INFN-NAPOLI-ATLAS				93	93	
			INFN-PISA				6,446	6,446	
			INFN-ROMA1						
			INFN-ROMA1-CMS						
			INFN-TORINO				1	1	
<b>IT-LHCb-federation</b>	<b>350</b>	<b>151,200</b>					<b>26,355</b>	<b>26,355</b>	<b>17%</b>
Japan, ICEPP, Tokyo			TOKYO-LCG2		489,858			489,858	
<b>JP-Tokyo-ATLAS-T2</b>	<b>1,000</b>	<b>432,000</b>			<b>489,858</b>			<b>489,858</b>	<b>113%</b>
Republic of Korea, KISTI, Daejeon			KR-KISTI-GCRT-01	4				4	
<b>KR-KISTI-T2</b>	<b>100</b>	<b>43,200</b>		<b>4</b>				<b>4</b>	<b>0%</b>
Norway, UNINETT SIGMA Tier-2			NO-NORDGRID-T2						
<b>NO-NORDGRID-T2</b>	<b>110</b>	<b>47,520</b>							
Pakistan, Pakistan Tier-2 Federation			NCP-LCG2		6	115	42	163	
			PAKGRID-LCG2		1	47	182	230	
<b>PK-CMS-T2</b>	<b>795</b>	<b>343,440</b>			<b>7</b>	<b>162</b>	<b>224</b>	<b>393</b>	<b>0%</b>
Poland, Polish Tier-2 Federation			CYFRONET-IA64	5	2	376		383	
			CYFRONET-LCG2	4	329,242	253	58	329,557	
			PSNC	313,525	15,477	65	3	329,070	
			WARSAW-EGEE			31,280	7,803	39,083	
<b>PL-TIER2-WLCG</b>	<b>1,250</b>	<b>540,000</b>		<b>313,534</b>	<b>344,721</b>	<b>31,974</b>	<b>7,864</b>	<b>698,093</b>	<b>129%</b>

Federation	2008 CPU Pledge (KSI2K)	pledge inc. efficiency (KSI2K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	used as % of pledge
Portugal, LIP Tier-2 Federation			LIP-Coimbra		20,976	1,393		22,369	
			LIP-Lisbon		16,429	4,501		20,930	
<b>PT-LIP-LCG-Tier2</b>	<b>750</b>	<b>324,000</b>			<b>37,405</b>	<b>5,894</b>		<b>43,299</b>	<b>13%</b>
Romania, Romanian Tier-2 Federation			NIHAM	193,653				193,653	
			RO-02-NIPNE		23,202			23,202	
			RO-07-NIPNE	78,045	117,909		282	196,236	
			RO-11-NIPNE				197	197	
<b>RO-LCG</b>	<b>1,300</b>	<b>561,600</b>		<b>271,698</b>	<b>141,111</b>		<b>479</b>	<b>413,288</b>	<b>74%</b>
Russian Fed., Russian Data-Intensive GRID			RU-Protvino-IHEP	49,528	49,656	24,004	438	123,626	
			ITEP	82,325	68,861	35,859	15,417	202,462	
			JINR-LCG2	2,827	14,613	43,712	2,862	64,014	
			RRC-KI	432	169	3,090	11,735	15,426	
			ru-Moscow-SINP-LCG2	35,860	1,132	3,109	1,346	41,447	
			ru-Moscow-FIAN-LCG2		1			1	
			ru-Moscow-MEPHI-LCG2		12			12	
			RU-SPbSU	4,748		12	10	4,770	
			RU-Phys-SPbSU						
			ru-PNPI	68,218	83,880	3,239	8,588	163,925	
			Ru-Troitsk-INR-LCG2						
<b>RU-RDIG</b>	<b>3,000</b>	<b>1,296,000</b>		<b>243,938</b>	<b>218,324</b>	<b>113,025</b>	<b>40,396</b>	<b>615,683</b>	
Slovenia, SiGNET			SIGNET		149,042			149,042	
<b>SI-SIGNET</b>	<b>300</b>	<b>129,600</b>			<b>149,042</b>			<b>149,042</b>	<b>115%</b>
Spain, ATLAS Federation			Ifae		21,695			21,695	
			IFIC-LCG2		90,491			90,491	
			UAM-LCG2		145,348			145,348	
<b>ES-ATLAS-T2 tbc</b>	<b>875</b>	<b>378,000</b>			<b>257,534</b>			<b>257,534</b>	<b>68%</b>
Spain, CMS Federation			CIEMAT-LCG2			47,094		47,094	
			IFCA-LCG2			32,853		32,853	
<b>ES-CMS-T2</b>	<b>760</b>	<b>328,320</b>				<b>79,947</b>		<b>79,947</b>	<b>24%</b>
Spain, LHCb Federation			UB-LCG2				25,513	25,513	
			USC-LCG2				24,385	24,385	
<b>ES-LHCb-T2</b>	<b>296</b>	<b>127,872</b>					<b>49,898</b>	<b>49,898</b>	<b>39%</b>
Sweden, SNIC Tier-2			SE-SNIC-T2						
<b>SE-SNIC-T2</b>	<b>981</b>	<b>423,792</b>							
Switzerland, CHIPP			CSCS-LCG2		169,913	33,059	5,647	208,619	
<b>CH-CHIPP-CSCS</b>	<b>680</b>	<b>293,760</b>			<b>169,913</b>	<b>33,059</b>	<b>5,647</b>	<b>208,619</b>	<b>71%</b>

Federation	2008 CPU Pledge (KSI2K)	pledge inc. efficiency (KSI2K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	used as % of pledge
Taipei, Taiwan Analysis Facility Federation			TW-FTT		118,405	2,841		121,246	
<b>TW-FTT-T2</b>	<b>400</b>	<b>172,800</b>			<b>118,405</b>	<b>2,841</b>		<b>121,246</b>	<b>70%</b>
Turkey, Turkish Tier-2 Federation			TR-03-METU		3,067	6,151		9,218	
			TR-10-ULAKBIM		4,604	532		5,136	
<b>TR-Tier2-federation</b>	<b>850</b>	<b>367,200</b>			<b>7,671</b>	<b>6,683</b>		<b>14,354</b>	<b>4%</b>
UK, London Tier 2			UKI-LT2-Brunel	10	1,763	5,056	440	7,269	
			UKI-LT2-IC-HEP	17	29,179	41,410	268	70,874	
			UKI-LT2-IC-LeSC	6	10,729	17,103	20	27,858	
			UKI-LT2-QMUL						
			UKI-LT2-RHUL	1	29,706	737	11	30,455	
			UKI-LT2-UCL-CENTRAL						
			UKI-LT2-UCL-HEP		10,061			10,061	
<b>UK-London-Tier2</b>	<b>1,017</b>	<b>439,344</b>		<b>34</b>	<b>81,438</b>	<b>64,306</b>	<b>739</b>	<b>146,517</b>	<b>33%</b>
UK, NorthGrid			UKI-NORTHGRID-LANCS-HEP	4	149,385	232	15,223	164,844	
			UKI-NORTHGRID-LIV-HEP	6	262,618	69	2,379	265,072	
			UKI-NORTHGRID-MAN-HEP	5	266,916	420	12,542	279,883	
			UKI-NORTHGRID-SHEF-HEP	3	120,527	127	2,891	123,548	
<b>UK-NorthGrid</b>	<b>725</b>	<b>313,200</b>		<b>18</b>	<b>799,446</b>	<b>848</b>	<b>33,035</b>	<b>833,347</b>	<b>266%</b>
UK, ScotGrid			UKI-SCOTGRID-DURHAM		19,347	34	124	19,505	
			ScotGRID-Edinburgh	1	5		222	228	
			UKI-SCOTGRID-ECDF		33,334		30	33,364	
			UKI-SCOTGRID-GLASGOW		142,637	134	610	143,381	
<b>UK-ScotGrid</b>	<b>925</b>	<b>399,600</b>		<b>1</b>	<b>195,323</b>	<b>168</b>	<b>986</b>	<b>196,478</b>	<b>49%</b>
UK, SouthGrid			EFDA-JET	6	3,468	150	172	3,796	
			UKI-SOUTHGRID-BHAM-HEP	10	185	249	1,076	1,520	
			UKI-SOUTHGRID-BRIS-HEP	4	747	12,010	3,757	16,518	
			UKI-SOUTHGRID-CAM-HEP		22,047	454	7,247	29,748	
			UKI-SOUTHGRID-OX-HEP	5	163,875	349	349	164,578	
			UKI-SOUTHGRID-RALPP	2	161,285	39,292	27,214	227,793	
<b>UK-SouthGrid</b>	<b>959</b>	<b>414,288</b>		<b>27</b>	<b>351,607</b>	<b>52,504</b>	<b>39,815</b>	<b>443,953</b>	<b>107%</b>
Ukraine, Ukrainian Tier-2 Federation			Information to become available in 2008						
<b>UA-</b>	<b>1,166</b>	<b>503,712</b>							
USA, Great Lakes ATLAS T2			AGLT2		518,608			518,608	
<b>US-AGLT2</b>	<b>965</b>	<b>416,880</b>			<b>518,608</b>			<b>518,608</b>	<b>124%</b>
USA, Northeast ATLAS T2			BU_ATLAS_Tier2		597,939			597,939	
<b>US-NET2</b>	<b>665</b>	<b>287,280</b>			<b>597,939</b>			<b>597,939</b>	<b>208%</b>

Federation	2008 CPU Pledge (KSI2K)	pledge inc. efficiency (KSI2K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	used as % of pledge
USA, Midwest ATLAS T2			MWT2_UC		486,564			486,564	
			MWT2_IU		377,999			377,999	
			UC_ATLAS_MWT2		81,930			81,930	
			IU_OSG		167,732			167,732	
<b>US-MWT2</b>	<b>1,112</b>	<b>480,384</b>			<b>1,114,225</b>			<b>1,114,225</b>	<b>232%</b>
USA, Southwest ATLAS T2			OU_OCHEP_SWT2		405,940			405,940	
			SWT2-CPB		172,986			172,986	
			UTA_SWT2		313,618			313,618	
<b>US-SWT2</b>	<b>1,386</b>	<b>598,752</b>			<b>892,544</b>			<b>892,544</b>	<b>149%</b>
USA, SLAC ATLAS T2			PROD_SLAC		330,382			330,382	
<b>US-WT2</b>	<b>820</b>	<b>354,240</b>			<b>330,382</b>			<b>330,382</b>	<b>93%</b>
USA, Caltech CMS T2			CIT_CMS_T2			413,003		413,003	
<b>T2_US_Caltech</b>	<b>1,000</b>	<b>432,000</b>				<b>413,003</b>		<b>413,003</b>	<b>96%</b>
USA, Florida CMS T2			Uflorida-PG			17,126		17,126	
			Uflorida-IHEPA			20,843		20,843	
			Uflorida-HPC		25	20,959		20,984	
<b>T2_US_Florida</b>	<b>1,000</b>	<b>432,000</b>			<b>25</b>	<b>58,928</b>		<b>58,953</b>	<b>14%</b>
USA, MIT CMS T2			MIT_CMS			60,188		60,188	
<b>US-MIT</b>	<b>1,000</b>	<b>432,000</b>				<b>60,188</b>		<b>60,188</b>	<b>14%</b>
USA, Nebraska CMS T2			Nebraska		31	160,698		160,729	
<b>US-Nebraska</b>	<b>1,000</b>	<b>432,000</b>			<b>31</b>	<b>160,698</b>		<b>160,729</b>	<b>37%</b>
USA, Purdue CMS T2			Purdue-Lear						
			Purdue-RCAC			14,814		14,814	
<b>US-Purdue</b>	<b>1,000</b>	<b>432,000</b>				<b>14,814</b>		<b>14,814</b>	<b>3%</b>
USA, UC San Diego CMS T2			UCSDT2		2	157,339		157,341	
<b>US-UCSD</b>	<b>1,000</b>	<b>432,000</b>			<b>2</b>	<b>157,339</b>		<b>157,341</b>	<b>36%</b>
USA, U. Wisconsin CMS T2			GLOW			97,837		97,837	
<b>US-Wisconsin</b>	<b>1,000</b>	<b>432,000</b>				<b>97,837</b>		<b>97,837</b>	<b>23%</b>
<b>Grand Total</b>	<b>46,208</b>	<b>19,961,856</b>		<b>1,433,931</b>	<b>9,718,262</b>	<b>2,905,643</b>	<b>272,068</b>	<b>14,329,904</b>	<b>72%</b>