



WLCG - Tier-2 Accounting Summary

March 2008

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 | | 1,392 | | | 1,392 | |
| AU-ATLAS | 40 | 17,856 | | | 1,392 | | | 1,392 | 8% |
| Austria, Austrian Tier-2 Federation | | | HEPHY-UIBK | | 4,619 | | | 4,619 | |
| AT-HEPHY-VIENNA-UIBK | 420 | 187,488 | | | 4,619 | | | 4,619 | 2% |
| Belgium, Belgian Tier-2 Federation | | | BEgrid-ULB-VUB | | | 22,756 | | 22,756 | |
| | | | BelGrid-UCL | | | 4,945 | | 4,945 | |
| BE-TIER2 | 600 | 267,840 | | | | 27,701 | | 27,701 | 10% |
| China, IHEP, Beijing | | | BEIJING-LCG2 | | 17,241 | 6,202 | | 23,443 | |
| CN-IHEP | 400 | 178,560 | | | 17,241 | 6,202 | | 23,443 | 13% |
| Czech Rep., FZU AS, Prague | | | praguelcg2 | 21,075 | 4,867 | | | 25,942 | |
| | | | prague_cesnet_lcg2 | 3 | 7,323 | | | 7,326 | |
| CZ-Prague-T2 | 80 | 35,712 | | 21,078 | 12,190 | | | 33,268 | 93% |
| Finland, NDGF/HIP Tier2 | | | HIP-T2 | | | | | | |
| FI-HIP-T2 | 187 | 83,477 | | | | | | | |
| France, CC-IN2P3 AF | | | IN2P3-CC-T2 | 3,830 | 656,073 | 144,712 | 31,460 | 836,075 | |
| FR-IN2P3-CC-T2 | 320 | 142,848 | | 3,830 | 656,073 | 144,712 | 31,460 | 836,075 | 585% |
| France, GRIF, Paris | | | GRIF | 52,505 | 646,233 | 22,036 | 4,908 | 725,682 | |
| FR-GRIF | 583 | 260,251 | | 52,505 | 646,233 | 22,036 | 4,908 | 725,682 | 279% |
| France, LAPP, Annecy | | | IN2P3-LAPP | | 124,348 | | 9,467 | 133,815 | |
| FR-IN2P3-LAPP | 350 | 156,240 | | | 124,348 | | 9,467 | 133,815 | 86% |
| France, LPC, Clermont-Ferrand | | | IN2P3-LPC | 28 | 118,031 | | 764 | 118,823 | |
| FR-IN2P3-LPC | 450 | 200,880 | | 28 | 118,031 | | 764 | 118,823 | 59% |
| France, SUBATECH, Nantes | | | IN2P3-SUBATECH | 100,894 | | | | 100,894 | |
| FR-IN2P3-SUBATECH | 224 | 99,994 | | 100,894 | | | | 100,894 | 101% |
| Germany, GSI, Darmstadt | | | GSI-LCG2 | 6,339 | | | | 6,339 | |
| DE-GSI | 260 | 116,064 | | 6,339 | | | | 6,339 | 5% |
| Germany, ATLAS Federation FR/W | | | UNI-FREIBURG | | 14,784 | | | 14,784 | |
| | | | wuppertalprod | | 88,267 | | | 88,267 | |
| DE-FREIBURGWUPPERTAL | 80 | 35,712 | | | 103,051 | | | 103,051 | 289% |
| Germany, ATLAS Federation, Munich | | | LRZ-LMU | | 149,028 | | | 149,028 | |
| | | | MPPMU | | 31,968 | | | 31,968 | |
| DE-MCAT | 100 | 44,640 | | | 180,996 | | | 180,996 | 405% |

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|----------------------------------|-------------------------|------------------------------------|-------------------|---------------|----------------|----------------|------------|----------------|--------------------------|
| Germany, ATLAS Federation, DESY | | | DESY-HH | | 23,250 | | | 23,250 | |
| | | | DESY-ZN | | 169,895 | | | 169,895 | |
| DE-DESY-ATLAS-T2 | 80 | 35,712 | | | 193,145 | | | 193,145 | 541% |
| Germany, CMS Federation | | | DESY-HH | | | 15,535 | | 15,535 | |
| | | | DESY-ZN | | | | | | |
| | | | RWTH-Aachen | | | 212,396 | | 212,396 | |
| DE-DESY-RWTH-CMS-T2 | 500 | 223,200 | | | | 227,931 | | 227,931 | 102% |
| Hungary, HGCC Federation | | | BUDAPEST | 13,809 | 532 | 30,378 | 158 | 44,877 | |
| | | | ELTE | | | | | | |
| HU-HGCC-T2 | 200 | 89,280 | | 13,809 | 532 | 30,378 | 158 | 44,877 | 50% |
| India, TIFR, Mumbai | | | INDIACMS-TIFR | | | 2 | | 2 | |
| IN-INDIACMS-TIFR | 130 | 58,032 | | | | 2 | | 2 | 0% |
| India, VECC/SINP, Kolkata | | | IN-DAE-VECC-01 | 3,053 | | | | 3,053 | |
| IN-DAE-KOLKATA-TIER2 | 282 | 125,885 | | 3,053 | | | | 3,053 | 2% |
| Israel, HEP-IL Tier-2 Federation | | | WEIZMANN-LCG2 | | 1 | | 1 | 2 | |
| | | | TAU-LCG2 | 1 | 569 | | 358 | 928 | |
| IL-HEPTier-2 | 61 | 27,230 | | 1 | 570 | | 359 | 930 | 3% |
| Italy, INFN ALICE Federation | | | INFN-BARI | 4,656 | | | | 4,656 | |
| | | | INFN-CATANIA | 35,930 | | | | 35,930 | |
| | | | INFN-FRASCATI | | | | | | |
| | | | INFN-LNL-2 | 9,120 | | | | 9,120 | |
| | | | INFN-MILANO | | | | | | |
| | | | INFN-NAPOLI-ATLAS | 6 | | | | 6 | |
| | | | INFN-PISA | 7 | | | | 7 | |
| | | | INFN-ROMA1 | | | | | | |
| | | | INFN-ROMA1-CMS | | | | | | |
| | | | INFN-TORINO | 10,622 | | | | 10,622 | |
| IT-ALICE-federation | 550 | 245,520 | | 60,341 | | | | 60,341 | 25% |
| Italy, INFN ATLAS Federation | | | INFN-BARI | | 2,600 | | | 2,600 | |
| | | | INFN-CATANIA | | | | | | |
| | | | INFN-FRASCATI | | 39 | | | 39 | |
| | | | INFN-LNL-2 | | 27,449 | | | 27,449 | |
| | | | INFN-MILANO | | 2,344 | | | 2,344 | |
| | | | INFN-NAPOLI-ATLAS | | 6,774 | | | 6,774 | |
| | | | INFN-PISA | | 18,452 | | | 18,452 | |
| | | | INFN-ROMA1 | | 8,141 | | | 8,141 | |
| | | | INFN-ROMA1-CMS | | 1,833 | | | 1,833 | |
| | | | INFN-TORINO | | 9,936 | | | 9,936 | |
| IT-ATLAS-federation | 400 | 178,560 | | | 77,568 | | | 77,568 | 43% |

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|--------------------------------------|-------------------------|------------------------------------|--------------------|--------------|----------------|----------------|--------------|----------------|--------------------------|
| Italy, INFN CMS Federation | | | INFN-BARI | | | 15,050 | | 15,050 | |
| | | | INFN-CATANIA | | | | | | |
| | | | INFN-FRASCATI | | | | | | |
| | | | INFN-LNL-2 | | | 134,471 | | 134,471 | |
| | | | INFN-MILANO | | | | | | |
| | | | INFN-NAPOLI-ATLAS | | | 1 | | 1 | |
| | | | INFN-PISA | | | 122,691 | | 122,691 | |
| | | | INFN-ROMA1 | | | | | | |
| | | | INFN-ROMA1-CMS | | | 3,048 | | 3,048 | |
| | | | INFN-TORINO | | | | | | |
| IT-CMS-federation | 400 | 178,560 | | | | 275,261 | | 275,261 | 154% |
| Italy, INFN LHCb Federation | | | INFN-BARI | | | | 1,864 | 1,864 | |
| | | | INFN-CATANIA | | | | 143 | 143 | |
| | | | INFN-FRASCATI | | | | | | |
| | | | INFN-LNL-2 | | | | 364 | 364 | |
| | | | INFN-MILANO | | | | 60 | 60 | |
| | | | INFN-NAPOLI-ATLAS | | | | 519 | 519 | |
| | | | INFN-PISA | | | | 344 | 344 | |
| | | | INFN-ROMA1 | | | | | | |
| | | | INFN-ROMA1-CMS | | | | | | |
| | | | INFN-TORINO | | | | 147 | 147 | |
| IT-LHCb-federation | 150 | 66,960 | | | | | 3,441 | 3,441 | 5% |
| Japan, ICEPP, Tokyo | | | TOKYO-LCG2 | | 259,386 | | | 259,386 | |
| JP-Tokyo-ATLAS-T2 | 1,000 | 446,400 | | | 259,386 | | | 259,386 | 58% |
| Norway, UNINETT SIGMA Tier-2 | | | NO-NORGRID-T2 | | | | | | |
| NO-NORDGRID-T2 | | | | | | | | | |
| Pakistan, Pakistan Tier-2 Federation | | | NCP-LCG2 | | 599 | 61 | 378 | 1,038 | |
| | | | PAKGRID-LCG2 | | 243 | | 50 | 293 | |
| PK-CMS-T2 | 410 | 183,024 | | | 842 | 61 | 428 | 1,331 | 1% |
| Poland, Polish Tier-2 Federation | | | AMD64.PSNC.PL | | 1,032 | | | 1,032 | |
| | | | CYFRONET-IA64 | 5 | 6 | | | 11 | |
| | | | CYFRONET-LCG2 | 3 | 155,726 | | 692 | 156,421 | |
| | | | egee.man.poznan.pl | 4,003 | 3 | | | 4,006 | |
| | | | PSNC | 8 | 13,553 | | 583 | 14,144 | |
| | | | WARSAW-EGEE | 2 | 18 | 3,761 | 446 | 4,227 | |
| PL-TIER2-WLCG | 650 | 290,160 | | 4,021 | 170,338 | 3,761 | 1,721 | 179,841 | 62% |

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|---|----------------------------|---|----------------------|----------------|----------------|----------------|---------------|----------------|-----------------------------|
| Portugal, LIP Tier-2 Federation | | | LIP-Coimbra | | 22,161 | 2,010 | | 24,171 | |
| | | | LIP-Lisbon | | 23,211 | 1,371 | | 24,582 | |
| PT-LIP-LCG-Tier2 | 500 | 223,200 | | | 45,372 | 3,381 | | 48,753 | 22% |
| Romania, Romanian Tier-2 Federation | | | NIHAM | 135,358 | | | | 135,358 | |
| | | | RO-02-NIPNE | | 23,962 | | | 23,962 | |
| | | | RO-07-NIPNE | 56,032 | 11,172 | | 311 | 67,515 | |
| | | | RO-11-NIPNE | | | | 181 | 181 | |
| RO-LCG | 735 | 328,104 | | 191,390 | 35,134 | | 492 | 227,016 | 69% |
| Russian Fed., Russian Data-Intensive GRID | | | RU-Protvino-IHEP | 18,419 | 123,658 | 7,409 | 1,025 | 150,511 | |
| | | | ITEP | 43,154 | 105,377 | 33,434 | 17,386 | 199,351 | |
| | | | JINR-LCG2 | 19,918 | 62,859 | 26,916 | 463 | 110,156 | |
| | | | RRC-KI | 1,424 | 630 | 2 | 485 | 2,541 | |
| | | | ru-Moscow-SINP-LCG2 | 30,040 | 12,054 | 8 | 4,675 | 46,777 | |
| | | | ru-Moscow-FIAN-LCG2 | | 182 | | | 182 | |
| | | | ru-Moscow-MEPHI-LCG2 | | 238 | | | 238 | |
| | | | RU-SPbSU | 3,580 | 627 | | 75 | 4,282 | |
| | | | RU-Phys-SPbSU | | | | | | |
| | | | ru-PNPI | 38,754 | 93,130 | 3,860 | 5,809 | 141,553 | |
| | | | Ru-Troitsk-INR-LCG2 | | | | | | |
| RU-RDIG | 3,000 | 1,339,200 | | 155,289 | 398,755 | 71,629 | 29,918 | 655,591 | |
| Slovenia, SiNET | | | SiNET | | 157,700 | | | 157,700 | |
| SI-SiNET | 200 | 89,280 | | | 157,700 | | | 157,700 | 177% |
| Spain, ATLAS Federation | | | Ifae | | 35,767 | | | 35,767 | |
| | | | IFIC-LCG2 | | 114,701 | | | 114,701 | |
| | | | UAM-LCG2 | | 145,019 | | | 145,019 | |
| ES-ATLAS-T2 tbc | 117 | 52,229 | | | 295,487 | | | 295,487 | 566% |
| Spain, CMS Federation | | | CIEMAT-LCG2 | | | 122,117 | | 122,117 | |
| | | | IFCA-LCG2 | | | 27,259 | | 27,259 | |
| ES-CMS-T2 | 380 | 169,632 | | | | 149,376 | | 149,376 | 88% |
| Spain, LHCb Federation | | | UB-LCG2 | | | | 4,729 | 4,729 | |
| | | | USC-LCG2 | | | | 275 | 275 | |
| ES-LHCb-T2 | 118 | 52,675 | | | | | 5,004 | 5,004 | 9% |
| Sweden, SNIC Tier-2 | | | SE-SNIC-T2 | | | | | | |
| SE-SNIC-T2 | 244 | 108,922 | | | | | | | |
| Switzerland, CHIPP | | | CSCS-LCG2 | | 95,097 | 28,901 | 302 | 124,300 | |
| CH-CHIPP-CSCS | 200 | 89,280 | | | 95,097 | 28,901 | 302 | 124,300 | 139% |

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|---|-------------------------|------------------------------------|---|------------|----------------|---------------|---------------|----------------|--------------------------|
| Taipei, Taiwan Analysis Facility Federation | | | TW-FTT | | 81,826 | 2,297 | | 84,123 | |
| TW-FTT-T2 | 300 | 133,920 | | | 81,826 | 2,297 | | 84,123 | 63% |
| Turkey, Turkish Tier-2 Federation | | | TR-03-METU | | 5,528 | 2,693 | 75 | 8,296 | |
| | | | TR-10-ULAKBIM | | 3,877 | 1 | 73 | 3,951 | |
| TR-Tier2-federation | 250 | 111,600 | | | 9,405 | 2,694 | 148 | 12,247 | 11% |
| UK, London Tier 2 | | | UKI-LT2-Brunel | 7 | 9,029 | 6,305 | 926 | 16,267 | |
| | | | UKI-LT2-IC-HEP | 19 | 179,634 | 30,110 | 368 | 210,131 | |
| | | | UKI-LT2-IC-LeSC | 5 | 64,631 | 8,983 | 3 | 73,622 | |
| | | | UKI-LT2-QMUL | | | | | | |
| | | | UKI-LT2-RHUL | 1 | 3,687 | 948 | 162 | 4,798 | |
| | | | UKI-LT2-UCL-CENTRAL | | | | | | |
| | | | UKI-LT2-UCL-HEP | | 7,299 | | | 7,299 | |
| UK-London-Tier2 | 2,500 | 1,116,000 | | 32 | 264,280 | 46,346 | 1,459 | 312,117 | 28% |
| UK, NorthGrid | | | UKI-NORTHGRID-LANCS-HEP | 3 | 52,210 | | 2,442 | 54,655 | |
| | | | UKI-NORTHGRID-LIV-HEP | 5 | 163,990 | 1 | 265 | 164,261 | |
| | | | UKI-NORTHGRID-MAN-HEP | 4 | 247,138 | | 218 | 247,360 | |
| | | | UKI-NORTHGRID-SHEF-HEP | 4 | 45,450 | 55 | 8,310 | 53,819 | |
| UK-NorthGrid | 2,600 | 1,160,640 | | 16 | 508,788 | 56 | 11,235 | 520,095 | 45% |
| UK, ScotGrid | | | UKI-SCOTGRID-DURHAM | 2 | 3,581 | 2 | 114 | 3,699 | |
| | | | ScotGRID-Edinburgh | 1 | 304 | | 76 | 381 | |
| | | | UKI-SCOTGRID-GLASGOW | | 178,496 | | 1,394 | 179,890 | |
| UK-ScotGrid | 340 | 151,776 | | 3 | 182,381 | 2 | 1,584 | 183,970 | 121% |
| UK, SouthGrid | | | EFDA-JET | 5 | 5,919 | | 103 | 6,027 | |
| | | | UKI-SOUTHGRID-BHAM-HEP | 100 | 2,246 | | 801 | 3,147 | |
| | | | UKI-SOUTHGRID-BRIS-HEP | 3 | 1,301 | 2,327 | 58 | 3,689 | |
| | | | UKI-SOUTHGRID-CAM-HEP | | 19,516 | | 55 | 19,571 | |
| | | | UKI-SOUTHGRID-OX-HEP | 4 | 124,075 | 4 | 381 | 124,464 | |
| | | | UKI-SOUTHGRID-RALPP | 2 | 135,451 | 23,122 | 432 | 159,007 | |
| UK-SouthGrid | 940 | 419,616 | | 114 | 288,508 | 25,453 | 1,830 | 315,905 | 75% |
| Ukraine, Ukrainian Tier-2 Federation | | | Information to become available in 2008 | | | | | | |
| UA- | 600 | 267,840 | | | | | | | |
| USA, Great Lakes ATLAS T2 | | | AGLT2 | | 742,512 | | | 742,512 | |
| US-AGLT2 | 581 | 259,358 | | | 742,512 | | | 742,512 | 286% |
| USA, Northeast ATLAS T2 | | | BU_ATLAS_Tier2 | | 238,277 | | | 238,277 | |
| US-NET2 | 394 | 175,882 | | | 238,277 | | | 238,277 | 135% |

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|--------------------------|-------------------------|------------------------------------|----------------|----------------|------------------|------------------|----------------|------------------|--------------------------|
| USA, Midwest ATLAS T2 | | | MWT2_UC | | 352,051 | | | 352,051 | |
| | | | MWT2_IU | | 257,998 | | | 257,998 | |
| | | | UC_ATLAS_MWT2 | | 57,758 | | | 57,758 | |
| | | | IU_OSG | | 82,293 | | | 82,293 | |
| US-MWT2 | 826 | 368,726 | | | 750,100 | | | 750,100 | 203% |
| USA, Southwest ATLAS T2 | | | OU_OCHEP_SWT2 | | 135,463 | | | 135,463 | |
| | | | SWT2-CPB | | 180,967 | | | 180,967 | |
| | | | UTA_SWT2 | | 212,654 | | | 212,654 | |
| US-SWT2 | 998 | 445,507 | | | 529,084 | | | 529,084 | 119% |
| USA, SLAC ATLAS T2 | | | PROD_SLAC | | 382,817 | | | 382,817 | |
| US-WT2 | 550 | 245,520 | | | 382,817 | | | 382,817 | 156% |
| USA, Caltech CMS T2 | | | CIT_CMS_T2 | | | 142,343 | | 142,343 | |
| T2_US_Caltech | 470 | 209,808 | | | | 142,343 | | 142,343 | 68% |
| USA, Florida CMS T2 | | | Uflorida-PG | | 1 | 31,826 | | 31,827 | |
| | | | Uflorida-IHEPA | | | | | | |
| | | | Uflorida-HPC | | | | | | |
| T2_US_Florida | 470 | 209,808 | | | 1 | 31,826 | | 31,827 | 15% |
| USA, MIT CMS T2 | | | MIT_CMS | | | 91,108 | | 91,108 | |
| US-MIT | 470 | 209,808 | | | | 91,108 | | 91,108 | 43% |
| USA, Nebraska CMS T2 | | | Nebraska | | 8 | 105,956 | | 105,964 | |
| US-Nebraska | 470 | 209,808 | | | 8 | 105,956 | | 105,964 | 51% |
| USA, Purdue CMS T2 | | | Purdue-Lear | | | | | | |
| | | | Purdue-RCAC | | | 39,733 | | 39,733 | |
| US-Purdue | 470 | 209,808 | | | | 39,733 | | 39,733 | 19% |
| USA, UC San Diego CMS T2 | | | UCSDT2 | | 1 | 62,896 | | 62,897 | |
| US-UCSD | 470 | 209,808 | | | 1 | 62,896 | | 62,897 | 30% |
| USA, U. Wisconsin CMS T2 | | | GLOW | | | 86,779 | | 86,779 | |
| US-Wisconsin | 470 | 209,808 | | | | 86,779 | | 86,779 | 41% |
| Grand Total | 28,570 | 12,753,648 | | 612,743 | 7,572,088 | 1,628,821 | 104,678 | 9,918,330 | 78% |