



WLCG Accounting Report
December 2007
Tier-1 Centres + CERN



WLCG Accounting Summary

December 2007

Centre Summary of CERN + Tier-1s

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 12,404 | 22,470 |
| Disk (Tbytes) | 4,381 | 8,520 |
| Tape (Tbytes) | 5,545 | 8,910 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | | | | | | | | | | | | | aggregate 2007 to date*** | | | |
|------------------------------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------------------|-------------|-----------|-----|
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | MoU pledge | total usage | % MoU | |
| CPU Grid | ALICE | cpu | 28,300 | 16,061 | 22,272 | 20,488 | 3,947 | 29,728 | 40,166 | 27,217 | 67,836 | 88,275 | 66,111 | 59,458 | 5,422,664 | 469,859 | 47% |
| | | wall | 39,660 | 31,082 | 35,123 | 29,487 | 8,860 | 43,141 | 72,698 | 49,644 | 92,874 | 107,890 | 90,266 | 74,138 | | 674,863 | |
| | ATLAS | cpu | 74,793 | 61,328 | 60,453 | 81,549 | 97,692 | 75,271 | 70,316 | 71,026 | 94,619 | 158,448 | 104,791 | 118,315 | | 1,068,601 | |
| | | wall | 103,421 | 106,623 | 98,954 | 112,557 | 140,601 | 112,768 | 89,393 | 94,422 | 134,592 | 221,835 | 154,443 | 155,317 | | 1,524,926 | |
| | CMS | cpu | 74,726 | 82,632 | 54,491 | 87,013 | 57,345 | 57,851 | 66,474 | 80,670 | 56,730 | 38,348 | 49,313 | 50,727 | | 756,320 | |
| | | wall | 83,629 | 86,166 | 94,112 | 131,995 | 110,586 | 115,285 | 121,525 | 136,692 | 155,690 | 138,254 | 145,931 | 150,042 | | 1,469,907 | |
| | LHCb | cpu | 36,551 | 54,491 | 38,868 | 9,497 | 8,312 | 26,669 | 28,083 | 18,570 | 3,364 | 7,845 | 4,118 | 7,551 | | 243,919 | |
| | | wall | 61,764 | 65,996 | 47,380 | 11,583 | 14,925 | 35,983 | 35,567 | 30,309 | 7,714 | 18,271 | 18,022 | 11,949 | | 359,463 | |
| | TOTAL | cpu | 214,370 | 214,512 | 176,084 | 198,547 | 167,296 | 189,519 | 205,039 | 197,483 | 222,549 | 292,916 | 224,333 | 236,051 | | 2,538,699 | |
| | | wall | 288,474 | 289,867 | 275,569 | 285,622 | 274,972 | 307,177 | 319,183 | 311,067 | 390,870 | 486,250 | 408,662 | 391,446 | | 4,029,159 | |
| CPU Non-Grid | ALICE | cpu | 899 | 1,881 | 1,136 | 1,075 | 1,400 | 2,363 | 2,936 | 2,413 | 1,571 | 3,294 | 1,496 | 1,724 | 5,422,664 | 22,188 | 15% |
| | | wall | 4,773 | 4,545 | 4,462 | 3,078 | 3,575 | 6,466 | 7,467 | 4,028 | 6,490 | 9,284 | 2,432 | 3,086 | | 59,686 | |
| | ATLAS | cpu | 13,502 | 12,316 | 23,555 | 38,494 | 44,321 | 26,409 | 32,354 | 39,457 | 34,865 | 40,822 | 34,084 | 32,063 | | 372,242 | |
| | | wall | 21,854 | 25,727 | 60,138 | 52,389 | 73,650 | 52,618 | 50,291 | 53,044 | 64,794 | 62,028 | 51,296 | 45,074 | | 612,903 | |
| | CMS | cpu | 21,542 | 13,471 | 30,513 | 19,215 | 13,137 | 18,919 | 46,020 | 39,786 | 33,320 | 38,614 | 49,590 | 51,134 | | 375,261 | |
| | | wall | 27,499 | 18,485 | 37,330 | 23,979 | 19,714 | 31,071 | 81,171 | 94,153 | 96,667 | 82,647 | 88,161 | 84,270 | | 685,147 | |
| | LHCb | cpu | 8,637 | 5,965 | 4,266 | 2,272 | 4,071 | 3,159 | 2,530 | 1,092 | 1,547 | 2,467 | 602 | 428 | | 37,036 | |
| | | wall | 12,765 | 9,205 | 8,549 | 6,286 | 6,183 | 6,009 | 4,982 | 3,723 | 11,790 | 3,562 | 855 | | | 73,909 | |
| | TOTAL | cpu | 44,580 | 33,633 | 59,470 | 61,056 | 62,929 | 50,850 | 83,840 | 82,748 | 71,303 | 85,197 | 85,772 | 85,349 | | 806,727 | |
| | | wall | 66,891 | 57,962 | 110,479 | 85,732 | 103,122 | 96,164 | 143,911 | 154,948 | 179,741 | 157,521 | 142,744 | 132,430 | | 1,431,645 | |
| CPU Total | ALICE | cpu | 29,199 | 17,942 | 23,408 | 21,563 | 5,347 | 32,091 | 43,102 | 29,630 | 69,407 | 91,569 | 67,607 | 61,182 | 5,422,664 | 492,047 | 62% |
| | | wall | 44,433 | 35,627 | 39,585 | 32,565 | 12,435 | 49,607 | 80,165 | 53,672 | 99,364 | 117,174 | 92,698 | 77,224 | | 734,549 | |
| | ATLAS | cpu | 88,295 | 73,644 | 84,008 | 120,043 | 142,013 | 101,680 | 102,670 | 110,483 | 129,484 | 199,270 | 138,875 | 150,378 | | 1,440,843 | |
| | | wall | 125,275 | 132,350 | 159,092 | 164,946 | 214,251 | 165,386 | 139,684 | 147,466 | 199,386 | 283,863 | 205,739 | 200,391 | | 2,137,829 | |
| | CMS | cpu | 96,268 | 96,103 | 85,004 | 106,228 | 70,482 | 76,770 | 112,494 | 120,456 | 90,050 | 76,962 | 98,903 | 101,861 | | 1,131,581 | |
| | | wall | 111,128 | 104,651 | 131,442 | 155,974 | 130,300 | 146,356 | 202,696 | 230,845 | 252,357 | 220,901 | 234,092 | 234,312 | | 2,155,054 | |
| | LHCb | cpu | 45,188 | 60,456 | 43,134 | 11,769 | 12,383 | 29,828 | 30,613 | 19,662 | 4,911 | 10,312 | 4,720 | 7,979 | | 280,955 | |
| | | wall | 74,529 | 75,201 | 55,929 | 17,869 | 21,108 | 41,992 | 40,549 | 34,032 | 19,504 | 21,833 | 18,877 | 11,949 | | 433,372 | |
| | TOTAL | cpu | 258,950 | 248,145 | 235,554 | 259,603 | 230,225 | 240,369 | 288,879 | 280,231 | 293,852 | 378,113 | 310,105 | 321,400 | | 3,345,426 | |
| | | wall | 355,365 | 347,829 | 386,048 | 371,354 | 378,094 | 403,341 | 463,094 | 466,015 | 570,611 | 643,771 | 551,406 | 523,876 | | 5,460,804 | |
| installed capacity** | | | 12,963 | 14,005 | 14,095 | 15,162 | 14,525 | 14,492 | 20,306 | 20,306 | 22,616 | 23,579 | 25,455 | 25,685 | | | |
| cpu usage as % installed**** | | | 2350% | 74% | 63% | 67% | 62% | 65% | 56% | 54% | 51% | 63% | 48% | 49% | | | |
| MoU pledge* | | | 326,845 | 295,215 | 326,845 | 316,302 | 326,845 | 316,302 | 592,085 | 592,085 | 572,985 | 592,085 | 572,985 | 592,085 | | | |

Notes - cpu tables
 * MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU commitment in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007

Centre Summary of CERN + Tier-1s

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| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 12,404 | 22,470 |
| Disk (Tbytes) | 4,381 | 8,520 |
| Tape (Tbytes) | 5,545 | 8,910 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | | | |
|------------------------|------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|--------|--------|-----|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | | | |
| Disk Space - TBytes | ALICE | allocated | 383 | 386 | 393 | 401 | 415 | 420 | | 575 | 595 | 597 | 535 | 565 | | | | | |
| | | used | 267 | 273 | 187 | 151 | 147 | 156 | 153 | 166 | 196 | 200 | 167 | 170 | | | 5,265 | | |
| | ATLAS | allocated | 1,129 | 1,438 | 1,469 | 1,631 | 1,726 | 1,932 | 2,134 | 2,898 | 2,983 | 3,196 | 2,684 | 2,702 | | | | | |
| | | used | 786 | 1,035 | 1,171 | 1,297 | 1,170 | 1,631 | 1,541 | 1,615 | 1,955 | 2,372 | 2,529 | 2,631 | | | | 2,233 | |
| | CMS | allocated | 1,406 | 1,569 | 1,710 | 1,760 | 1,782 | 1,806 | 2,105 | 2,086 | 3,414 | 2,639 | 2,698 | 2,823 | | | | | |
| | | used | 890 | 912 | 946 | 922 | 1,047 | 950 | 994 | 1,355 | 1,964 | 2,119 | 2,042 | 1,317 | | | | 19,733 | |
| | LHCb | allocated | 375 | 410 | 546 | 588 | 595 | 582 | 568 | 599 | 675 | 687 | 730 | 738 | | | | | |
| | | used | 188 | 215 | 370 | 380 | 367 | 413 | 413 | 443 | 457 | 487 | 490 | 504 | | | | 25,798 | |
| | TOTAL | allocated | 3,293 | 3,803 | 4,118 | 4,380 | 4,518 | 4,740 | 4,807 | 6,158 | 7,667 | 7,119 | 6,647 | 6,828 | | | 77,406 | 64,078 | 83% |
| | | used | 2,131 | 2,435 | 2,674 | 2,750 | 2,731 | 3,150 | 3,101 | 3,579 | 4,572 | 5,178 | 5,228 | 4,622 | | | 54,186 | 42,151 | 78% |
| | installed capacity** | 3,923 | 4,427 | 4,940 | 5,197 | 5,709 | 5,583 | 6,775 | 7,025 | 8,126 | 8,358 | 9,096 | 9,107 | | | | | | |
| | disk usage as % installed*** | 78% | 79% | 77% | 76% | 68% | 81% | 65% | 73% | 80% | 89% | 82% | 73% | | | | | | |
| | MoU pledge* | allocated | 4,381 | 4,381 | 4,381 | 4,381 | 4,381 | 4,381 | 8,520 | 8,520 | 8,520 | 8,520 | 8,520 | 8,520 | | | | | |
| | | used | 3,067 | 3,067 | 3,067 | 3,067 | 3,067 | 5,964 | 5,964 | 5,964 | 5,964 | 5,964 | 5,964 | 5,964 | | | | | |

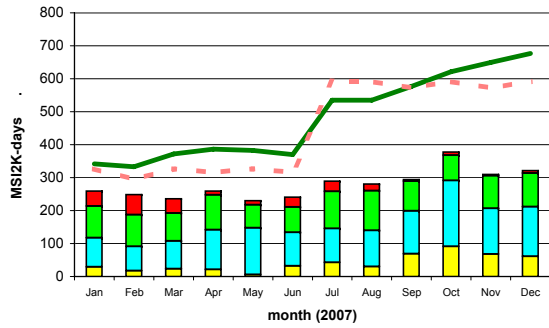
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | | |
|--------------------------------|------------------------------|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|--------|--------|-------|
| | | | | | | | | | | | | | | pledge | total TB-months | % MoU | | |
| Tape Space Used - TBytes | ALICE | 1,038 | 1,046 | 1,161 | 872 | 864 | 862 | 876 | 898 | 908 | 921 | 982 | 1,045 | | | | | |
| | ATLAS | 1,418 | 1,560 | 1,742 | 1,861 | 2,040 | 2,168 | 2,201 | 2,231 | 2,382 | 2,580 | 2,914 | 3,065 | | | | 11,473 | |
| | CMS | 1,753 | 1,838 | 2,199 | 2,479 | 2,523 | 2,522 | 2,614 | 2,918 | 3,507 | 4,626 | 5,695 | 5,150 | | | | 26,162 | |
| | LHCb | 763 | 760 | 928 | 779 | 783 | 888 | 672 | 700 | 710 | 715 | 688 | 699 | | | | 37,824 | |
| | TOTAL | 4,972 | 5,204 | 6,030 | 5,991 | 6,210 | 6,440 | 6,363 | 6,747 | 7,507 | 8,842 | 10,279 | 9,959 | | | 86,730 | 84,544 | 97% |
| | | installed capacity** | 6,702 | 6,814 | 7,542 | 7,492 | 7,522 | 8,549 | 8,846 | 8,946 | 10,038 | 10,085 | 11,604 | 11,965 | | | | 9,085 |
| | tape usage as % installed*** | 74% | 76% | 80% | 80% | 83% | 75% | 72% | 75% | 75% | 88% | 89% | 83% | | | | | |
| | MoU pledge* | used | 5,545 | 5,545 | 5,545 | 5,545 | 5,545 | 8,910 | 8,910 | 8,910 | 8,910 | 8,910 | 8,910 | | | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

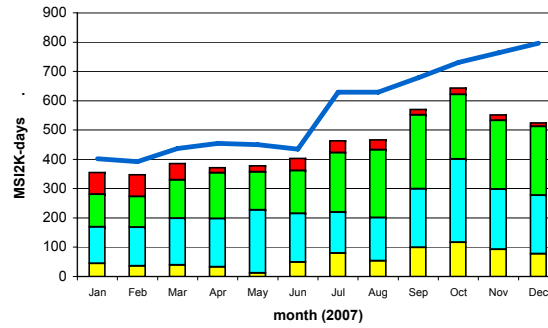
Comments:

Summary of CERN + Tier-1s

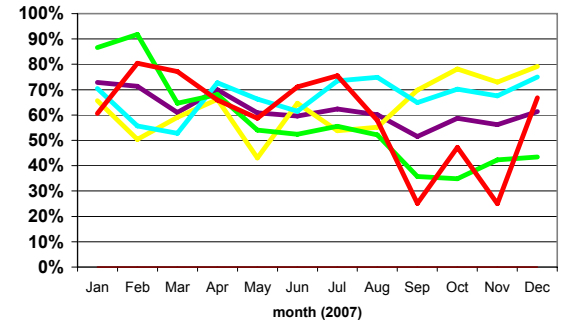
CPU Time Delivered



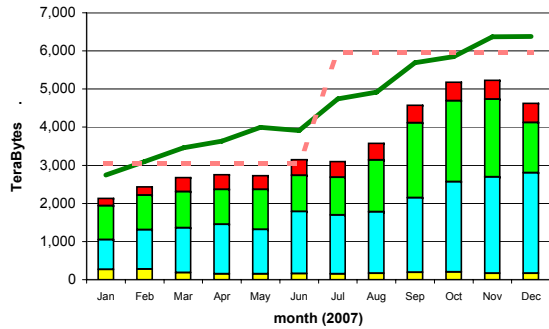
Wall-clock Time Delivered



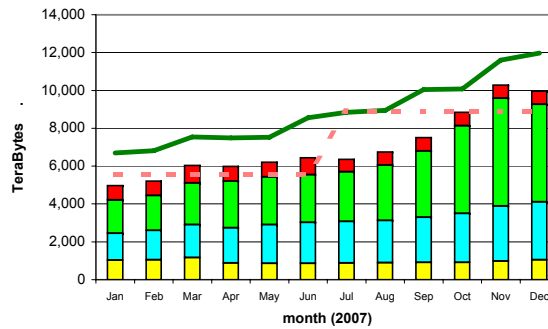
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — installed capacity (w/o efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - site average - cpu:wall_clock ratio —

| Site Summary | cpu used in year to date | | | cpu installed at end of period as % of pledge | disk used in year to date | | | disk at end of period | | | tape used in year to date | | | tape at end of period | | | | |
|-----------------|--------------------------|----------------|-------------|---|---------------------------|----------------|-------------|-----------------------|----------------------------|-------------------------|---------------------------|---------------|----------------|-----------------------|-----------------|----------------------------|-------------------------|--------------------------|
| | KSI2K-days | % of installed | % of pledge | | TByte-months | % of installed | % of pledge | TBytes occupied | occupied as % of installed | occupied as % of pledge | installed as % of pledge | TByte-months | % of installed | % of pledge | TBytes occupied | occupied as % of installed | occupied as % of pledge | installed as % of pledge |
| CERN Tier-0+CAF | 1,031,696 | 65% | 60% | 94% | 9,907 | 76% | 115% | 980 | 78% | 109% | 140% | 41,826 | 97% | 178% | 5,497 | 137% | 228% | 166% |
| ASGC | 71,920 | 24% | 17% | 100% | 1,642 | 51% | 30% | 286 | 95% | 45% | 48% | 1,297 | 32% | 17% | 241 | 30% | 30% | 100% |
| BNL | 421,821 | 73% | 74% | 102% | 7,554 | 114% | 111% | 885 | 115% | 115% | 100% | 8,622 | 81% | 160% | 964 | 96% | 161% | 167% |
| CC-IN2P3 | 317,348 | 62% | 83% | 199% | 4,310 | 66% | 82% | 681 | 70% | 133% | 191% | 6,383 | 61% | 83% | 871 | 59% | 116% | 196% |
| CNAF | 207,806 | 48% | 43% | 100% | 2,895 | 77% | 51% | 307 | 88% | 88% | 100% | 6,025 | 91% | 67% | 753 | 116% | 116% | 100% |
| FNAL | 306,290 | 38% | 78% | 251% | 6,800 | 98% | 202% | 0 | 0% | 0% | 194% | 6,350 | 89% | 192% | 0 | 0% | 0% | 333% |
| FZK-GridKA | 314,840 | 64% | 70% | 75% | 2,779 | 54% | 57% | 468 | 71% | 76% | 107% | 5,840 | 53% | 69% | 546 | 54% | 54% | 100% |
| NDGF | 160,611 | 76% | 85% | 100% | 1,217 | 76% | 52% | 151 | 77% | 55% | 72% | 81 | 5% | 3% | 28 | 25% | 10% | 41% |
| NL LHC/Tier-1 | 115,186 | 52% | 37% | 46% | 1,278 | 68% | 25% | 166 | 94% | 22% | 24% | 474 | 77% | 9% | 71 | 137% | 10% | 7% |
| PIC | 94,931 | 58% | 81% | 95% | 1,322 | 88% | 87% | 230 | 121% | 149% | 124% | 1,881 | 78% | 79% | 185 | 77% | 77% | 100% |
| RAL | 117,263 | 37% | 33% | 123% | 1,932 | 46% | 42% | 348 | 75% | 78% | 103% | 5,432 | 79% | 52% | 678 | 54% | 63% | 116% |
| TRIUMF | 185,714 | 118% | 386% | 566% | 515 | 119% | 101% | 120 | 156% | 156% | 100% | 333 | 20% | 60% | 125 | 32% | 156% | 481% |
| Total | 3,345,426 | 58% | 62% | 114% | 42,151 | 77% | 78% | 4,622 | 73% | 77% | 107% | 84,544 | 80% | 97% | 9,959 | 83% | 112% | 134% |

Colour coding of % columns: ≥ 90% < 50%

| VO Summary | cpu | | disk occupancy | | tape occupancy | |
|--------------|------------------|-------------|-------------------------|-------------|-------------------------|-------------|
| | KSI2K-days | % of total | TBytes at end of period | % of total | TBytes at end of period | % of total |
| ALICE | 492,047 | 15% | 170 | 4% | 1,045 | 10% |
| ATLAS | 1,440,843 | 43% | 2,631 | 57% | 3,065 | 31% |
| CMS | 1,131,581 | 34% | 1,317 | 28% | 5,150 | 52% |
| LHCb | 280,955 | 8% | 504 | 11% | 699 | 7% |
| Total | 3,345,426 | 100% | 4,622 | 100% | 9,959 | 100% |

| | <i>cpu</i> | | <i>disk occupancy</i> | | <i>tape occupancy</i> | |
|-----------------|-------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|
| | <i>KSI2K-days</i> | <i>% of total</i> | <i>TBytes at</i> | <i>% of total</i> | <i>TBytes at end</i> | <i>% of total</i> |
| | | | <i>end of</i> | | <i>of period</i> | |
| ALICE | | | | | | |
| CERN Tier-0+CAF | 139,446 | 28% | 128 | 75% | 833 | 80% |
| ASGC | | | | | | |
| BNL | | | | | | |
| CC-IN2P3 | 111,347 | 23% | 7 | 4% | 111 | 11% |
| CNAF | 45,309 | 9% | 20 | 12% | 39 | 4% |
| FNAL | | | | | | |
| FZK-GridKA | 108,643 | 22% | 13 | 8% | 60 | 6% |
| NDGF | 47,718 | 10% | 1 | 1% | 2 | 0% |
| NL LHC/Tier-1 | 26,645 | 5% | 1 | 1% | | |
| PIC | | | | | | |
| RAL | 12,939 | 3% | | | | |
| TRIUMF | | | | | | |
| Total | 492,047 | 100% | 170 | 100% | 1,045 | 100% |

| | <i>cpu</i> | | <i>disk occupancy</i> | | <i>tape occupancy</i> | |
|-----------------|-------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|
| | <i>KSI2K-days</i> | <i>% of total</i> | <i>TBytes at</i> | <i>% of total</i> | <i>TBytes at end</i> | <i>% of total</i> |
| | | | <i>end of</i> | | <i>of period</i> | |
| ATLAS | | | | | | |
| CERN Tier-0+CAF | 323,525 | 22% | 350 | 13% | 1,008 | 33% |
| ASGC | 36,594 | 3% | 71 | 3% | 33 | 1% |
| BNL | 421,821 | 29% | 885 | 34% | 964 | 31% |
| CC-IN2P3 | 90,404 | 6% | 354 | 13% | 285 | 9% |
| CNAF | 63,285 | 4% | 155 | 6% | 247 | 8% |
| FNAL | 144 | 0% | | | | |
| FZK-GridKA | 69,198 | 5% | 187 | 7% | 133 | 4% |
| NDGF | 112,893 | 8% | 150 | 6% | 26 | 1% |
| NL LHC/Tier-1 | 44,267 | 3% | 99 | 4% | 58 | 2% |
| PIC | 37,827 | 3% | 95 | 4% | 41 | 1% |
| RAL | 55,171 | 4% | 165 | 6% | 145 | 5% |
| TRIUMF | 185,714 | 13% | 120 | 5% | 125 | 4% |
| Total | 1,440,843 | 100% | 2,631 | 100% | 3,065 | 100% |

| | <i>cpu</i> | | <i>disk occupancy</i> | | <i>tape occupancy</i> | |
|--------------|-------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|
| | <i>KSI2K-days</i> | <i>% of total</i> | <i>TBytes at</i> | <i>% of total</i> | <i>TBytes at</i> | <i>% of total</i> |
| | | | <i>end of</i> | | <i>of period</i> | |
| CMS | | | | | | |
| CERN Tier- | 487,833 | 43% | 361 | 27% | 3,185 | 62% |
| ASGC | 35,326 | 3% | 215 | 16% | 208 | 4% |
| BNL | | | | | | |
| CC-IN2P3 | 85,507 | 8% | 239 | 18% | 456 | 9% |
| CNAF | 63,186 | 6% | 90 | 7% | 378 | 7% |
| FNAL | 306,146 | 27% | | | | |
| FZK-GridKa | 92,852 | 8% | 214 | 16% | 332 | 6% |
| NDGF | | | | | | |
| NL LHC/Tie | 3 | 0% | | | | |
| PIC | 35,479 | 3% | 102 | 8% | 120 | 2% |
| RAL | 25,249 | 2% | 96 | 7% | 471 | 9% |
| TRIUMF | | | | | | |
| Total | 1,131,581 | 100% | 1,317 | 100% | 5,150 | 100% |

| | <i>cpu</i> | | <i>disk occupancy</i> | | <i>tape occupancy</i> | |
|--------------|-------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|
| | <i>KSI2K-days</i> | <i>% of total</i> | <i>TBytes at</i> | <i>% of total</i> | <i>TBytes at</i> | <i>% of total</i> |
| | | | <i>end of</i> | | <i>of period</i> | |
| LHCb | | | | | | |
| CERN Tier- | 80,892 | 29% | 141 | 28% | 471 | 67% |
| ASGC | | | | | | |
| BNL | | | | | | |
| CC-IN2P3 | 30,090 | 11% | 81 | 16% | 19 | 3% |
| CNAF | 36,026 | 13% | 42 | 8% | 89 | 13% |
| FNAL | | | | | | |
| FZK-GridKa | 44,147 | 16% | 54 | 11% | 21 | 3% |
| NDGF | | | | | | |
| NL LHC/Tie | 44,271 | 16% | 66 | 13% | 13 | 2% |
| PIC | 21,625 | 8% | 33 | 7% | 24 | 3% |
| RAL | 23,904 | 9% | 87 | 17% | 62 | 9% |
| TRIUMF | | | | | | |
| Total | 280,955 | 100% | 504 | 100% | 699 | 100% |



WLCG Accounting Summary

December 2007

Centre Summary of Tier-1s

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| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
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| Disk (Tbytes) | 3,611 | 7,230 |
| Tape (Tbytes) | 4,045 | 6,500 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| CPU used - KSI2K-days | | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** | | | |
|------------------------------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------------------|-------------|-------|-----------|
| | | | | | | | | | | | | | | | MoU pledge | total usage | % MoU | |
| CPU Grid | ALICE | cpu | 14,624 | 9,477 | 13,947 | 12,058 | 1,759 | 14,128 | 23,477 | 20,458 | 60,914 | 70,208 | 51,902 | 44,383 | 3,715,624 | 2,073,091 | 56% | |
| | | wall | 17,803 | 15,424 | 20,386 | 13,920 | 4,163 | 18,861 | 45,519 | 37,400 | 77,935 | 82,656 | 64,316 | 53,657 | | | | 452,040 |
| | ATLAS | cpu | 64,023 | 51,571 | 48,770 | 67,268 | 68,038 | 66,090 | 59,607 | 61,819 | 92,477 | 151,422 | 104,024 | 117,835 | | | | 952,944 |
| | | wall | 83,531 | 80,722 | 69,312 | 82,174 | 98,903 | 90,937 | 73,755 | 80,501 | 130,556 | 204,495 | 151,638 | 148,584 | | | | 1,295,108 |
| | CMS | cpu | 62,892 | 68,115 | 42,764 | 62,835 | 37,013 | 37,772 | 43,767 | 69,127 | 51,962 | 34,507 | 45,169 | 46,655 | | | | 602,578 |
| | | wall | 58,659 | 63,384 | 64,205 | 85,810 | 69,274 | 71,906 | 72,817 | 94,751 | 96,669 | 107,117 | 116,563 | 116,272 | | | | 1,017,427 |
| | LHCb | cpu | 28,935 | 40,670 | 25,380 | 6,262 | 4,993 | 20,760 | 26,600 | 13,866 | 1,934 | 4,380 | 2,212 | 4,242 | | | | 180,234 |
| | | wall | 47,838 | 47,320 | 29,167 | 7,224 | 8,090 | 26,485 | 32,462 | 21,163 | 5,016 | 10,600 | 9,731 | 6,818 | | | | 251,914 |
| | TOTAL | cpu | 170,474 | 169,833 | 130,861 | 148,423 | 111,803 | 138,750 | 153,451 | 165,270 | 207,287 | 260,517 | 203,307 | 213,115 | | | | 2,073,091 |
| | | wall | 207,831 | 206,850 | 183,070 | 189,128 | 180,430 | 208,189 | 224,553 | 233,815 | 310,176 | 404,868 | 342,248 | 325,331 | | | | 3,016,489 |
| CPU Non-Grid | ALICE | cpu | 863 | 1,844 | 1,031 | 1,013 | 1,272 | 1,578 | 2,289 | 1,881 | 877 | 2,618 | | | 15,266 | | | |
| | | wall | 1,164 | 2,423 | 1,430 | 1,240 | 1,805 | 2,385 | 5,906 | 2,352 | 1,356 | 3,495 | | | 23,556 | | | |
| | ATLAS | cpu | 6,134 | 2,591 | 1,125 | 18,225 | 18,291 | 9,464 | 21,016 | 23,875 | 15,256 | 19,011 | 14,338 | 15,048 | 164,374 | | | |
| | | wall | 7,534 | 6,343 | 2,413 | 19,630 | 20,614 | 13,144 | 24,121 | 26,537 | 20,127 | 22,975 | 20,167 | 18,974 | 202,579 | | | |
| | CMS | cpu | 9,657 | 4,487 | 12,445 | 3,541 | 245 | 225 | 3,898 | 2,270 | 1,326 | 2,916 | 160 | | 41,170 | | | |
| | | wall | 8,152 | 4,125 | 15,064 | 4,494 | 550 | 895 | 8,919 | 2,604 | 1,498 | 3,529 | 295 | | 50,125 | | | |
| | LHCb | cpu | 7,624 | 4,485 | 1,341 | 644 | 2,335 | 1,205 | 173 | 8 | 612 | 1,391 | 11 | | 19,829 | | | |
| | | wall | 9,802 | 5,131 | 1,722 | 814 | 2,576 | 1,497 | 245 | 8 | 646 | 1,666 | 13 | | 24,120 | | | |
| | TOTAL | cpu | 24,278 | 13,407 | 15,942 | 23,423 | 22,143 | 12,472 | 27,376 | 28,034 | 18,071 | 25,936 | 14,509 | 15,048 | 240,639 | | | |
| | | wall | 26,652 | 18,022 | 20,629 | 26,178 | 25,545 | 17,921 | 39,191 | 31,501 | 23,627 | 31,665 | 20,475 | 18,974 | 300,380 | | | |
| CPU Total | ALICE | cpu | 15,487 | 11,321 | 14,978 | 13,071 | 3,031 | 15,706 | 25,766 | 22,339 | 61,791 | 72,826 | 51,902 | 44,383 | 352,601 | | | |
| | | wall | 18,967 | 17,847 | 21,816 | 15,160 | 5,968 | 21,246 | 51,425 | 39,752 | 79,291 | 86,151 | 64,316 | 53,657 | 475,596 | | | |
| | ATLAS | cpu | 70,157 | 54,162 | 49,895 | 85,493 | 86,329 | 75,554 | 80,623 | 85,694 | 107,733 | 170,433 | 118,362 | 132,883 | 1,117,318 | | | |
| | | wall | 91,065 | 87,065 | 71,725 | 101,804 | 119,517 | 104,081 | 97,876 | 107,038 | 150,683 | 227,470 | 171,805 | 167,558 | 1,497,687 | | | |
| | CMS | cpu | 72,549 | 72,602 | 55,209 | 66,376 | 37,258 | 37,997 | 47,665 | 71,397 | 53,288 | 37,423 | 45,329 | 46,655 | 643,748 | | | |
| | | wall | 66,811 | 67,509 | 79,269 | 90,304 | 69,824 | 72,801 | 81,736 | 97,355 | 98,167 | 110,646 | 116,858 | 116,272 | 1,067,552 | | | |
| | LHCb | cpu | 36,559 | 45,155 | 26,721 | 6,906 | 7,328 | 21,965 | 26,773 | 13,874 | 2,546 | 5,771 | 2,223 | 4,242 | 200,063 | | | |
| | | wall | 57,640 | 52,451 | 30,889 | 8,038 | 10,666 | 27,982 | 32,707 | 21,171 | 5,662 | 12,266 | 9,744 | 6,818 | 276,034 | | | |
| | TOTAL | cpu | 194,752 | 183,240 | 146,803 | 171,846 | 133,946 | 151,222 | 180,827 | 193,304 | 225,358 | 286,453 | 217,816 | 228,163 | 2,313,730 | | | |
| | | wall | 234,483 | 224,872 | 203,699 | 215,306 | 205,975 | 226,110 | 263,744 | 265,316 | 333,803 | 436,533 | 362,723 | 344,305 | 3,316,869 | | | |
| installed capacity** | | 10,444 | 10,831 | 10,921 | 11,988 | 11,351 | 11,318 | 13,206 | 13,206 | 15,516 | 16,479 | 18,355 | 18,585 | | | | | |
| cpu usage as % installed**** | | 2194% | 71% | 51% | 56% | 46% | 52% | 54% | 57% | 57% | 68% | 47% | 48% | | | | | |
| MoU pledge* | | 237,255 | 214,295 | 237,255 | 229,602 | 237,255 | 229,602 | 392,615 | 392,615 | 379,950 | 392,615 | 379,950 | 392,615 | | | | | |

Notes - cpu tables

* MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)

note - 2006 pledge to end June, 2007 pledge from July

** installed capacity - capacity installed (KSI2K)

*** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date

- % MoU - percentage of MoU commitment in calendar year to current date

**** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007

Centre Summary of Tier-1s

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 9,004 | 14,900 |
| Disk (Tbytes) | 3,611 | 7,230 |
| Tape (Tbytes) | 4,045 | 6,500 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | |
|------------------------|------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|---------------|-----------------|
| | | | | | | | | | | | | | | | | MoU pledge | total TB-months |
| Disk Space - TBytes | ALICE | allocated | 100 | 100 | 107 | 115 | 129 | 134 | 128 | 289 | 309 | 311 | 249 | 279 | | | 2,250 |
| | | used | 63 | 63 | 67 | 42 | 32 | 36 | 30 | 36 | 76 | 78 | 39 | 42 | | | 604 |
| | ATLAS | allocated | 872 | 1,048 | 999 | 1,161 | 1,236 | 1,429 | 1,629 | 2,395 | 2,505 | 2,710 | 2,198 | 2,205 | | | 20,387 |
| | | used | 634 | 810 | 864 | 1,002 | 1,050 | 1,278 | 1,218 | 1,478 | 1,702 | 2,085 | 2,224 | 2,281 | | | 16,626 |
| | CMS | allocated | 1,103 | 1,238 | 1,320 | 1,370 | 1,387 | 1,334 | 1,633 | 1,619 | 2,689 | 1,927 | 1,986 | 2,100 | | | 19,706 |
| | | used | 657 | 659 | 696 | 678 | 785 | 718 | 750 | 1,030 | 1,470 | 1,548 | 1,749 | 956 | | | 11,696 |
| | LHCb | allocated | 196 | 231 | 298 | 340 | 347 | 359 | 371 | 402 | 401 | 413 | 456 | 464 | | | 4,278 |
| | | used | 98 | 149 | 238 | 263 | 257 | 293 | 289 | 321 | 333 | 357 | 357 | 363 | | | 3,318 |
| | TOTAL | allocated | 2,271 | 2,617 | 2,724 | 2,986 | 3,099 | 3,256 | 3,761 | 4,705 | 5,904 | 5,361 | 4,889 | 5,048 | | | 65,046 |
| | | used | 1,452 | 1,681 | 1,865 | 1,985 | 2,124 | 2,325 | 2,287 | 2,865 | 3,581 | 4,068 | 4,369 | 3,642 | | | 45,534 |
| | installed capacity** | 2,901 | 3,137 | 3,440 | 3,697 | 4,209 | 4,083 | 5,275 | 5,525 | 6,326 | 6,558 | 7,296 | 7,307 | | | | |
| | disk usage as % installed*** | 72% | 77% | 77% | 77% | 72% | 81% | 62% | 74% | 81% | 89% | 86% | 71% | | | | |
| MoU pledge* | allocated | 3,611 | 3,611 | 3,611 | 3,611 | 3,611 | 3,611 | 7,230 | 7,230 | 7,230 | 7,230 | 7,230 | 7,230 | | | | |
| | used | 2,528 | 2,528 | 2,528 | 2,528 | 2,528 | 2,528 | 5,061 | 5,061 | 5,061 | 5,061 | 5,061 | 5,061 | | | | |

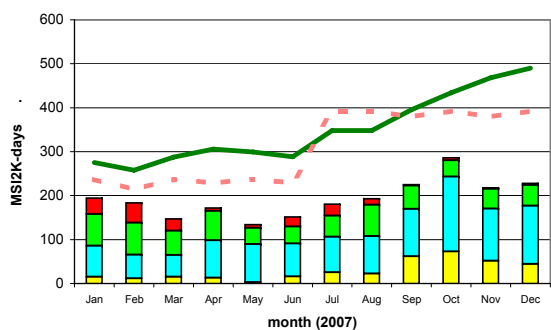
| | | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | |
|--------------------------------|------------------------------|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|--------|-----------------|
| | | | | | | | | | | | | | | | | pledge | total TB-months |
| Tape Space Used - TBytes | ALICE | | 487 | 424 | 444 | 134 | 124 | 121 | 134 | 142 | 156 | 158 | 176 | 212 | | | 2,712 |
| | ATLAS | | 907 | 1,028 | 1,106 | 1,195 | 1,286 | 1,414 | 1,481 | 1,514 | 1,626 | 1,720 | 2,022 | 2,057 | | | 17,356 |
| | CMS | | 1,032 | 1,069 | 1,353 | 1,600 | 1,592 | 1,467 | 1,414 | 1,505 | 1,694 | 2,260 | 2,746 | 1,965 | | | 19,697 |
| | LHCb | | 271 | 264 | 388 | 218 | 221 | 224 | 219 | 230 | 237 | 239 | 214 | 228 | | | 2,953 |
| | TOTAL | | 2,697 | 2,785 | 3,291 | 3,147 | 3,223 | 3,226 | 3,248 | 3,391 | 3,713 | 4,377 | 5,158 | 4,462 | | | 63,270 |
| | | installed capacity** | 3,702 | 3,814 | 4,542 | 4,492 | 4,522 | 4,549 | 4,846 | 4,946 | 6,038 | 6,085 | 7,604 | 7,965 | | | |
| | tape usage as % installed*** | 73% | 73% | 72% | 70% | 71% | 71% | 67% | 69% | 61% | 72% | 68% | 56% | | | | |
| MoU pledge* | used | 4,045 | 4,045 | 4,045 | 4,045 | 4,045 | 4,045 | 6,500 | 6,500 | 6,500 | 6,500 | 6,500 | 6,500 | | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

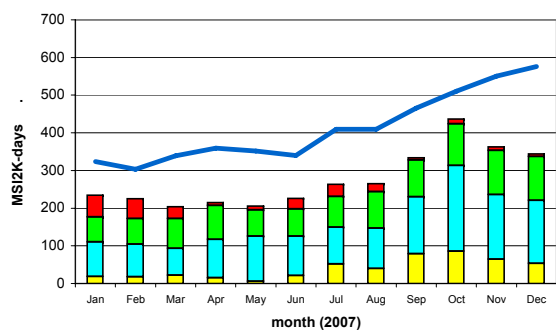
Comments:

Summary of Tier-1s

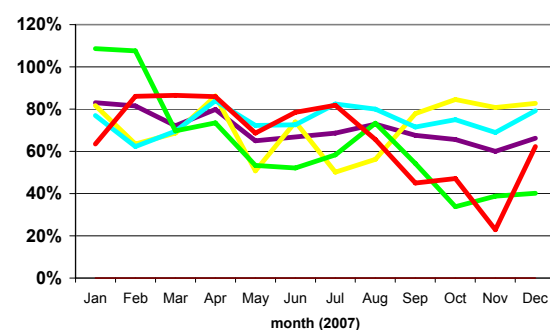
CPU Time Delivered



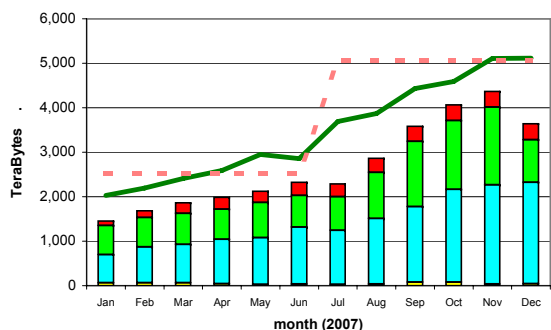
Wall-clock Time Delivered



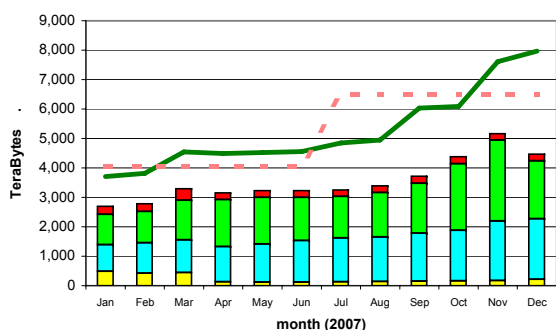
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE (yellow) CMS (green) installed capacity (inc. efficiency factor) (solid green line)
 ATLAS (cyan) LHCb (red) MoU commitment (inc. efficiency factor) (dashed red line)
 installed capacity (w/o efficiency factor) (solid blue line) site average - cpu:wall_clock ratio (purple line)



WLCG Accounting Summary

December 2007
Centre CERN Tier-0+CAF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 3,400 | 7,570 |
| Disk (Tbytes) | 770 | 1,290 |
| Tape (Tbytes) | 1,500 | 2,410 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| CPU used - KSI2K-days | | | | | | | | | | | | | | aggregate 2007 to date*** | | | |
|------------------------------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------------------|-------------|-----------|-----|
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | MoU pledge | total usage | % MoU | |
| CPU Grid | ALICE | cpu | 13,676 | 6,584 | 8,325 | 8,430 | 2,188 | 15,600 | 16,689 | 6,759 | 6,922 | 18,067 | 14,209 | 15,075 | | 132,524 | |
| | | wall | 21,857 | 15,658 | 14,737 | 15,567 | 4,697 | 24,280 | 27,179 | 12,244 | 14,939 | 25,234 | 25,950 | 20,481 | | 222,823 | |
| | ATLAS | cpu | 10,770 | 9,757 | 11,683 | 14,281 | 29,654 | 9,181 | 10,709 | 9,207 | 2,142 | 7,026 | 767 | 480 | | 115,657 | |
| | | wall | 19,890 | 25,901 | 29,642 | 30,383 | 41,698 | 21,831 | 15,638 | 13,921 | 4,036 | 17,340 | 2,805 | 6,733 | | 229,818 | |
| | CMS | cpu | 11,834 | 14,517 | 11,727 | 24,178 | 20,332 | 20,079 | 22,707 | 11,543 | 4,768 | 3,841 | 4,144 | 4,072 | | 153,742 | |
| | | wall | 24,970 | 22,782 | 29,907 | 46,185 | 41,312 | 43,379 | 48,708 | 41,941 | 59,021 | 31,137 | 29,368 | 33,770 | | 452,480 | |
| | LHCb | cpu | 7,616 | 13,821 | 13,488 | 3,235 | 3,319 | 5,909 | 1,483 | 4,704 | 1,430 | 3,465 | 1,906 | 3,309 | | 63,685 | |
| | | wall | 13,926 | 18,676 | 18,213 | 4,359 | 6,835 | 9,498 | 3,105 | 9,146 | 2,698 | 7,671 | 8,291 | 5,131 | | 107,549 | |
| | TOTAL | cpu | 43,896 | 44,679 | 45,223 | 50,124 | 55,493 | 50,769 | 51,588 | 32,213 | 15,262 | 32,399 | 21,026 | 22,936 | 1,707,040 | 465,608 | 27% |
| | | wall | 80,643 | 83,017 | 92,499 | 96,494 | 94,542 | 98,988 | 94,630 | 77,252 | 80,694 | 81,382 | 66,414 | 66,115 | | 1,012,670 | n/a |
| CPU Non-Grid | ALICE | cpu | 36 | 37 | 105 | 62 | 128 | 785 | 647 | 532 | 694 | 676 | 1,496 | 1,724 | | 6,922 | |
| | | wall | 3,609 | 2,122 | 3,032 | 1,838 | 1,770 | 4,081 | 1,561 | 1,676 | 5,134 | 5,789 | 2,432 | 3,086 | | 36,130 | |
| | ATLAS | cpu | 7,368 | 9,725 | 22,430 | 20,269 | 26,030 | 16,945 | 11,338 | 15,582 | 19,609 | 21,811 | 19,746 | 17,015 | | 207,868 | |
| | | wall | 14,320 | 19,384 | 57,725 | 32,759 | 53,036 | 39,474 | 26,170 | 26,507 | 44,667 | 39,053 | 31,129 | 26,100 | | 410,324 | |
| | CMS | cpu | 11,885 | 8,984 | 18,068 | 15,674 | 12,892 | 18,694 | 42,122 | 37,516 | 31,994 | 35,698 | 49,430 | 51,134 | | 334,091 | |
| | | wall | 19,347 | 14,360 | 22,266 | 19,485 | 19,164 | 30,176 | 72,252 | 91,549 | 95,169 | 79,118 | 87,866 | 84,270 | | 635,022 | |
| | LHCb | cpu | 1,013 | 1,480 | 2,925 | 1,628 | 1,736 | 1,954 | 2,357 | 1,084 | 935 | 1,076 | 591 | 428 | | 17,207 | |
| | | wall | 2,963 | 4,074 | 6,827 | 5,472 | 3,607 | 4,512 | 4,737 | 3,715 | 11,144 | 1,896 | 842 | | | 49,789 | |
| | TOTAL | cpu | 20,302 | 20,226 | 43,528 | 37,633 | 40,786 | 38,378 | 56,464 | 54,714 | 53,232 | 59,261 | 71,263 | 70,301 | 1,707,040 | 566,088 | 33% |
| | | wall | 40,239 | 39,940 | 89,850 | 59,554 | 77,577 | 78,243 | 104,720 | 123,447 | 156,114 | 125,856 | 122,269 | 113,456 | | 1,131,265 | n/a |
| CPU Total | ALICE | cpu | 13,712 | 6,621 | 8,430 | 8,492 | 2,316 | 16,385 | 17,336 | 7,291 | 7,616 | 18,743 | 15,705 | 16,799 | | 139,446 | |
| | | wall | 25,466 | 17,780 | 17,769 | 17,405 | 6,467 | 28,361 | 28,740 | 13,920 | 20,073 | 31,023 | 28,382 | 23,567 | | 258,953 | |
| | ATLAS | cpu | 18,138 | 19,482 | 34,113 | 34,550 | 55,684 | 26,126 | 22,047 | 24,789 | 21,751 | 28,837 | 20,513 | 17,495 | | 323,525 | |
| | | wall | 34,210 | 45,285 | 87,367 | 63,142 | 94,734 | 61,305 | 41,808 | 40,428 | 48,703 | 56,393 | 33,934 | 32,833 | | 640,142 | |
| | CMS | cpu | 23,719 | 23,501 | 29,795 | 39,852 | 33,224 | 38,773 | 64,829 | 49,059 | 36,762 | 39,539 | 53,574 | 55,206 | | 487,833 | |
| | | wall | 44,317 | 37,142 | 52,173 | 65,670 | 60,476 | 73,555 | 120,960 | 133,490 | 154,190 | 110,255 | 117,234 | 118,040 | | 1,087,502 | |
| | LHCb | cpu | 8,629 | 15,301 | 16,413 | 4,863 | 5,055 | 7,863 | 3,840 | 5,788 | 2,365 | 4,541 | 2,497 | 3,737 | | 80,892 | |
| | | wall | 16,889 | 22,750 | 25,040 | 9,831 | 10,442 | 14,010 | 7,842 | 12,861 | 13,842 | 9,567 | 9,133 | 5,131 | | 157,338 | |
| | TOTAL | cpu | 64,198 | 64,905 | 88,751 | 87,757 | 96,279 | 89,147 | 108,052 | 86,927 | 68,494 | 91,660 | 92,289 | 93,237 | 1,707,040 | 1,031,696 | 60% |
| | | wall | 120,882 | 122,957 | 182,349 | 156,048 | 172,119 | 177,231 | 199,350 | 200,699 | 236,808 | 207,238 | 188,683 | 179,571 | | 2,143,935 | n/a |
| installed capacity** | | 2,519 | 3,174 | 3,174 | 3,174 | 3,174 | 3,174 | 7,100 | 7,100 | 7,100 | 7,100 | 7,100 | 7,100 | | | | |
| cpu usage as % installed**** | | 97% | 86% | 106% | 108% | 115% | 110% | 58% | 46% | 38% | 49% | 51% | 50% | | | | |
| MoU pledge* | | 89,590 | 80,920 | 89,590 | 86,700 | 89,590 | 86,700 | 199,470 | 199,470 | 193,035 | 199,470 | 193,035 | 199,470 | | | | |

Notes - cpu tables

* MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)

note - 2006 pledge to end June, 2007 pledge from July

** installed capacity - capacity installed (KSI2K)

*** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date

- % MoU - percentage of MoU pledge in calendar year to current date

**** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007
Centre CERN Tier-0+CAF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KS12K-years) | 3,400 | 7,570 |
| Disk (Tbytes) | 770 | 1,290 |
| Tape (Tbytes) | 1,500 | 2,410 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|------------------------|-------------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|--------|------|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Disk Space - TBytes | ALICE | allocated | 283 | 286 | 286 | 286 | 286 | 286 | 286 | 286 | 286 | 286 | 286 | | | | |
| | | used | 204 | 210 | 120 | 109 | 115 | 120 | 123 | 130 | 120 | 122 | 128 | | | | |
| | ATLAS | allocated | 257 | 390 | 470 | 470 | 490 | 503 | 503 | 478 | 486 | 486 | 497 | | | | |
| | | used | 152 | 225 | 307 | 295 | 120 | 353 | 323 | 137 | 253 | 287 | 305 | 350 | | | |
| | CMS | allocated | 303 | 331 | 390 | 390 | 395 | 472 | 472 | 467 | 725 | 712 | 712 | 723 | | | |
| | | used | 233 | 253 | 250 | 244 | 262 | 232 | 244 | 325 | 494 | 571 | 293 | 361 | | | |
| | LHCb | allocated | 179 | 179 | 248 | 248 | 248 | 223 | 197 | 197 | 274 | 274 | 274 | 274 | | | |
| | | used | 90 | 66 | 132 | 117 | 110 | 120 | 124 | 122 | 124 | 130 | 133 | 141 | | | |
| | TOTAL | allocated | 1,022 | 1,186 | 1,394 | 1,394 | 1,419 | 1,484 | 1,460 | 1,453 | 1,763 | 1,758 | 1,758 | 1,780 | 12,360 | 17,871 | 145% |
| | | used | 679 | 754 | 809 | 765 | 607 | 825 | 814 | 714 | 991 | 1,110 | 859 | 980 | 8,652 | 9,907 | 115% |
| | | installed capacity** | 1,022 | 1,290 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,800 | 1,800 | 1,800 | 1,800 | | | |
| | | disk usage as % installed*** | 95% | 83% | 77% | 73% | 58% | 79% | 78% | 68% | 79% | 88% | 68% | 78% | | | |
| | MoU pledge* | allocated | 770 | 770 | 770 | 770 | 770 | 770 | 1,290 | 1,290 | 1,290 | 1,290 | 1,290 | | | | |
| | | used | 539 | 539 | 539 | 539 | 539 | 903 | 903 | 903 | 903 | 903 | 903 | | | | |

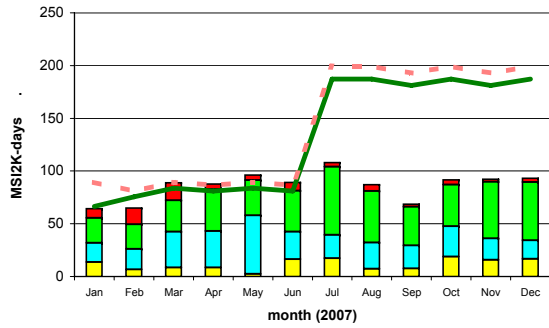
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | |
|--------------------------------|------------------------------|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU |
| Tape Space Used - TBytes | ALICE | 551 | 622 | 717 | 738 | 740 | 741 | 742 | 756 | 752 | 763 | 806 | 833 | | | |
| | ATLAS | 511 | 532 | 636 | 666 | 754 | 754 | 720 | 717 | 756 | 860 | 892 | 1,008 | | | |
| | CMS | 721 | 769 | 846 | 879 | 931 | 1,055 | 1,200 | 1,413 | 1,813 | 2,366 | 2,949 | 3,185 | | | |
| | LHCb | 492 | 496 | 540 | 561 | 562 | 664 | 453 | 470 | 473 | 476 | 474 | 471 | | | |
| | TOTAL | 2,275 | 2,419 | 2,739 | 2,844 | 2,987 | 3,214 | 3,115 | 3,356 | 3,794 | 4,465 | 5,121 | 5,497 | 23,460 | 41,826 | 178% |
| | | installed capacity** | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | | |
| | tape usage as % installed*** | 76% | 81% | 91% | 95% | 100% | 80% | 78% | 84% | 95% | 112% | 128% | 137% | | | |
| | MoU pledge* | used | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 2,410 | 2,410 | 2,410 | 2,410 | 2,410 | 2,410 | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

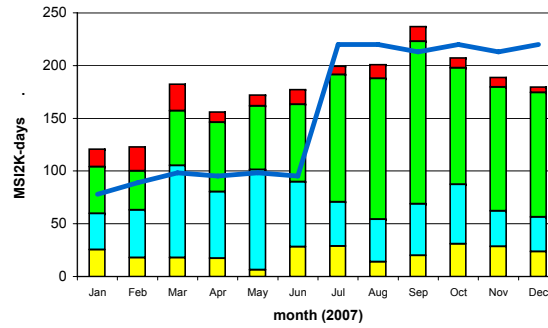
Comments:

CERN

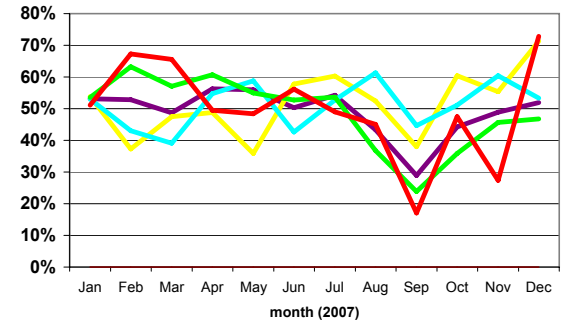
CPU Time Delivered



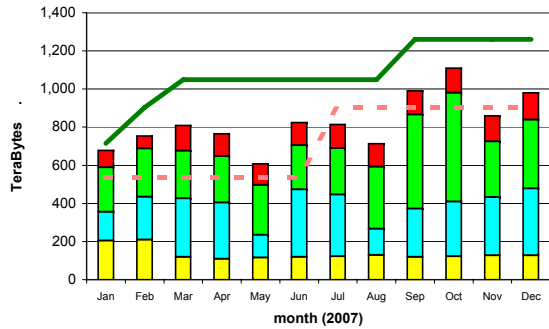
Wall-clock Time Delivered



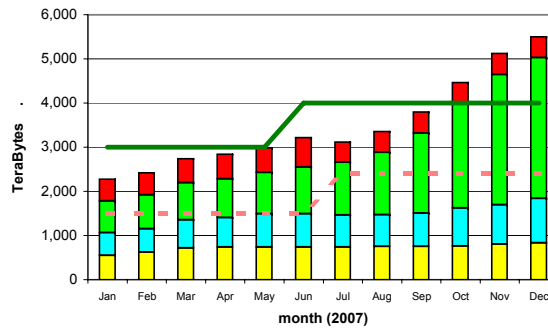
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — installed capacity (w/o efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - site average - cpu:wall_clock ratio —



WLCG Accounting Summary

December 2007
Centre ASGC

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 950 | 1,770 |
| Disk (Tbytes) | 400 | 900 |
| Tape (Tbytes) | 500 | 800 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| CPU used - KSI2K-days | | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** | | |
|-----------------------|-------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------|-------------|-------|
| | | | | | | | | | | | | | | | MoU pledge | total usage | % MoU |
| CPU Grid | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | ATLAS | cpu | 3,267 | 3,751 | 1,769 | 7,335 | 4,268 | 4,377 | 1,980 | 1,790 | 1,791 | 5,140 | 885 | 241 | | 36,594 | |
| | | wall | 4,109 | 4,704 | 3,357 | 8,629 | 8,704 | 6,183 | 2,291 | 2,317 | 2,727 | 7,983 | 1,863 | 365 | | 53,232 | |
| | CMS | cpu | 5,003 | 8,523 | 3,351 | 5,245 | 3,768 | 507 | 111 | 3,488 | 882 | 1,095 | 2,174 | 1,179 | | 35,326 | |
| | | wall | 5,027 | 8,563 | 3,691 | 5,796 | 11,462 | 9,946 | 386 | 4,057 | 1,824 | 3,045 | 2,674 | 2,041 | | 58,512 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 8,270 | 12,274 | 5,120 | 12,580 | 8,036 | 4,884 | 2,091 | 5,278 | 2,673 | 6,235 | 3,059 | 1,420 | 422,989 | 71,920 | 17% |
| | | wall | 9,136 | 13,267 | 7,048 | 14,425 | 20,166 | 16,129 | 2,677 | 6,374 | 4,551 | 11,028 | 4,537 | 2,406 | | 111,744 | n/a |
| CPU Non-Grid | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | ATLAS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | CMS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 422,989 | 0 | 0% |
| | | wall | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | n/a |
| CPU Total | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | ATLAS | cpu | 3,267 | 3,751 | 1,769 | 7,335 | 4,268 | 4,377 | 1,980 | 1,790 | 1,791 | 5,140 | 885 | 241 | | 36,594 | |
| | | wall | 4,109 | 4,704 | 3,357 | 8,629 | 8,704 | 6,183 | 2,291 | 2,317 | 2,727 | 7,983 | 1,863 | 365 | | 53,232 | |
| | CMS | cpu | 5,003 | 8,523 | 3,351 | 5,245 | 3,768 | 507 | 111 | 3,488 | 882 | 1,095 | 2,174 | 1,179 | | 35,326 | |
| | | wall | 5,027 | 8,563 | 3,691 | 5,796 | 11,462 | 9,946 | 386 | 4,057 | 1,824 | 3,045 | 2,674 | 2,041 | | 58,512 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 8,270 | 12,274 | 5,120 | 12,580 | 8,036 | 4,884 | 2,091 | 5,278 | 2,673 | 6,235 | 3,059 | 1,420 | 422,989 | 71,920 | 17% |
| | | wall | 9,136 | 13,267 | 7,048 | 14,425 | 20,166 | 16,129 | 2,677 | 6,374 | 4,551 | 11,028 | 4,537 | 2,406 | | 111,744 | n/a |
| | | installed capacity** | 455 | 746 | 845 | 945 | 640 | 640 | 640 | 640 | 640 | 1,770 | 1,770 | | | | |
| | | cpu usage as % installed**** | 69% | 69% | 23% | 52% | 48% | 30% | 12% | 31% | 16% | 13% | 7% | 3% | | | |
| | | MoU pledge* | 25,033 | 22,610 | 25,033 | 24,225 | 25,033 | 24,225 | 46,640 | 46,640 | 45,135 | 46,640 | 45,135 | 46,640 | | | |

Notes - cpu tables
 * MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU pledge in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007

Centre ASGC

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 | 2007 |
|-------------------|---------|---------|
| | jan-jun | jul-dec |
| CPU (KS12K-years) | 950 | 1,770 |
| Disk (Tbytes) | 400 | 900 |
| Tape (Tbytes) | 500 | 800 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|---------------------|-----------------------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|-------|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Disk Space - TBytes | ALICE | allocated | | | | | | | | | | | | | | | |
| | | used | | | | | | | | | | | | | | | |
| | ATLAS | allocated | 49 | 160 | 67 | 67 | 67 | 127 | 127 | 127 | 127 | 167 | 167 | 167 | | | |
| | | used | 14 | 31 | 42 | 52 | 48 | 50 | 53 | 76 | 86 | 98 | 130 | 71 | | | 1,419 |
| | CMS | allocated | 65 | 160 | 218 | 218 | 218 | 159 | 159 | 159 | 159 | 178 | 178 | 279 | | | 2,150 |
| | | used | 48 | 29 | 75 | 80 | 93 | 9 | 13 | 56 | 91 | 77 | 105 | 215 | | | 891 |
| | LHCb | allocated | | | | | | | | | | | | | | | 0 |
| | | used | | | | | | | | | | | | | | | 0 |
| | TOTAL | allocated | 114 | 320 | 285 | 285 | 285 | 286 | 286 | 286 | 286 | 345 | 345 | 446 | 7,800 | 3,569 | 46% |
| | | used | 62 | 60 | 117 | 132 | 141 | 59 | 66 | 132 | 177 | 175 | 235 | 286 | 5,460 | 1,642 | 30% |
| | | installed capacity** | 114 | 320 | 474 | 474 | 474 | 360 | 360 | 360 | 360 | 432 | 432 | 432 | | | |
| | | disk usage as % installed*** | 78% | 27% | 35% | 40% | 42% | 23% | 26% | 52% | 70% | 58% | 78% | 95% | | | |
| | MoU pledge* allocated | 400 | 400 | 400 | 400 | 400 | 400 | 900 | 900 | 900 | 900 | 900 | 900 | | | | |
| | used | 280 | 280 | 280 | 280 | 280 | 280 | 630 | 630 | 630 | 630 | 630 | 630 | | | | |

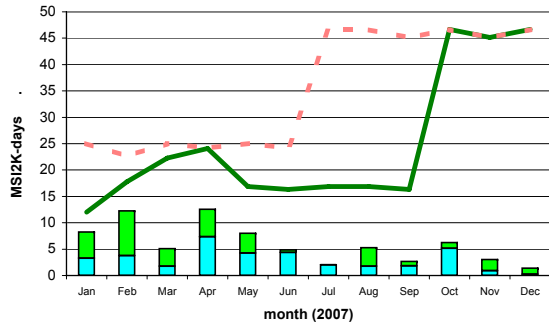
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | | |
|--------------------------|------------------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|-----|-----|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | | |
| Tape Space Used - TBytes | ALICE | | | | | | | | | | | | | | | | | |
| | ATLAS | | 13 | 13 | 13 | | | 12 | 12 | 40 | 42 | 33 | 33 | | | | 257 | |
| | CMS | | 2 | 2 | 117 | 240 | | 12 | 14 | 18 | 38 | 70 | 202 | 208 | | | | 923 |
| | LHCb | | | | 117 | | | | | | | | | | | | | 117 |
| | TOTAL | | 15 | 15 | 247 | 253 | 0 | 24 | 26 | 58 | 80 | 103 | 235 | 241 | 7,800 | 1,297 | 17% | |
| | | installed capacity** | 304 | 304 | 304 | 304 | 304 | 280 | 280 | 280 | 280 | 280 | 391 | 800 | | | | |
| | | tape usage as % installed*** | 5% | 5% | 81% | 83% | 0% | 9% | 9% | 21% | 29% | 37% | 60% | 30% | | | | |
| | MoU pledge* used | 500 | 500 | 500 | 500 | 500 | 500 | 800 | 800 | 800 | 800 | 800 | 800 | | | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

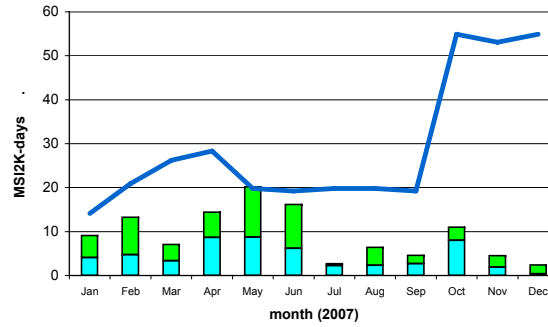
Comments: Dec.: CMS accounting data is a bit low comparing with the number obtain from batch server.
 max 255 chars

ASGC

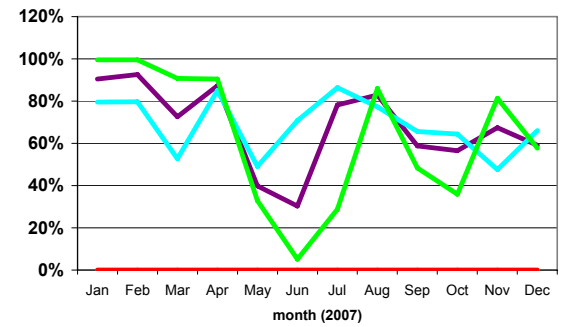
CPU Time Delivered



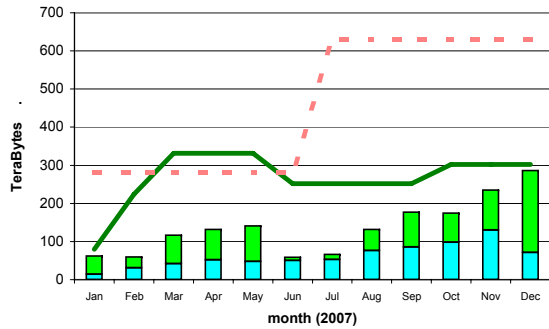
Wall-clock Time Delivered



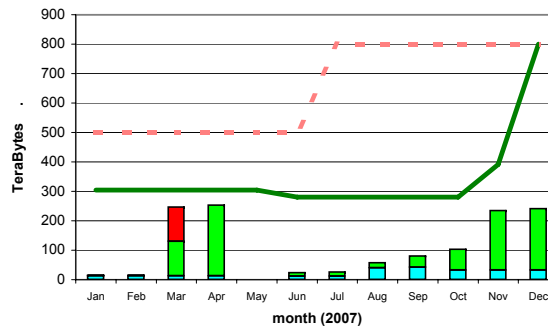
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — installed capacity (w/o efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - site average - cpu:wall_clock ratio —



WLCG Accounting Summary

December 2007
Centre BNL

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 1,120 | 2,560 |
| Disk (Tbytes) | 520 | 1,100 |
| Tape (Tbytes) | 300 | 600 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| CPU used - KSI2K-days | | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** | | |
|-----------------------|-------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------|-------------|-------|
| | | | | | | | | | | | | | | | MoU pledge | total usage | % MoU |
| CPU Grid | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | ATLAS | cpu | 16,400 | 14,100 | 16,834 | 15,882 | 17,154 | 21,819 | 28,024 | 27,199 | 31,928 | 31,941 | 21,734 | 36,089 | | 279,104 | |
| | | wall | 19,680 | 22,579 | 21,794 | 16,921 | 20,496 | 26,285 | 30,893 | 29,906 | 42,228 | 44,391 | 33,739 | 42,408 | | 351,320 | |
| | CMS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 16,400 | 14,100 | 16,834 | 15,882 | 17,154 | 21,819 | 28,024 | 27,199 | 31,928 | 31,941 | 21,734 | 36,089 | 572,696 | 279,104 | 49% |
| | | wall | 19,680 | 22,579 | 21,794 | 16,921 | 20,496 | 26,285 | 30,893 | 29,906 | 42,228 | 44,391 | 33,739 | 42,408 | | 351,320 | n/a |
| CPU Non-Grid | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | ATLAS | cpu | 4,100 | 298 | 245 | 14,371 | 13,792 | 7,830 | 17,841 | 21,690 | 14,743 | 18,554 | 14,209 | 15,044 | | 142,717 | |
| | | wall | 4,920 | 3,092 | 956 | 14,981 | 14,962 | 10,056 | 18,806 | 22,374 | 18,512 | 21,262 | 19,898 | 18,969 | | 168,788 | |
| | CMS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 4,100 | 298 | 245 | 14,371 | 13,792 | 7,830 | 17,841 | 21,690 | 14,743 | 18,554 | 14,209 | 15,044 | 572,696 | 142,717 | 25% |
| | | wall | 4,920 | 3,092 | 956 | 14,981 | 14,962 | 10,056 | 18,806 | 22,374 | 18,512 | 21,262 | 19,898 | 18,969 | | 168,788 | n/a |
| CPU Total | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | ATLAS | cpu | 20,500 | 14,398 | 17,079 | 30,253 | 30,946 | 29,649 | 45,865 | 48,889 | 46,671 | 50,495 | 35,943 | 51,133 | | 421,821 | |
| | | wall | 24,600 | 25,671 | 22,750 | 31,902 | 35,458 | 36,341 | 49,699 | 52,280 | 60,740 | 65,653 | 53,637 | 61,377 | | 520,108 | |
| | CMS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 20,500 | 14,398 | 17,079 | 30,253 | 30,946 | 29,649 | 45,865 | 48,889 | 46,671 | 50,495 | 35,943 | 51,133 | 572,696 | 421,821 | 74% |
| | | wall | 24,600 | 25,671 | 22,750 | 31,902 | 35,458 | 36,341 | 49,699 | 52,280 | 60,740 | 65,653 | 53,637 | 61,377 | | 520,108 | n/a |
| | | installed capacity** | 1,120 | 1,120 | 1,120 | 1,120 | 1,120 | 2,600 | 2,600 | 2,600 | 2,600 | 2,600 | 2,600 | | | | |
| | | cpu usage as % installed**** | 69% | 54% | 58% | 106% | 105% | 104% | 71% | 70% | 74% | 54% | 75% | | | | |
| | | MoU pledge* | 29,512 | 26,656 | 29,512 | 28,560 | 29,512 | 28,560 | 67,456 | 65,280 | 67,456 | 65,280 | 67,456 | | | | |

Notes - cpu tables
 * MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU pledge in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007
Centre BNL

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| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KS12K-years) | 1,120 | 2,560 |
| Disk (Tbytes) | 520 | 1,100 |
| Tape (Tbytes) | 300 | 600 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|---------------------|------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|------|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Disk Space - TBytes | ALICE | allocated | | | | | | | | | | | | | | | |
| | | used | | | | | | | | | | | | | | | |
| | ATLAS | allocated | 520 | 520 | 520 | 520 | 520 | 520 | 1,100 | 1,100 | 1,100 | 520 | 520 | | | | |
| | | used | 384 | 423 | 393 | 453 | 488 | 578 | 553 | 665 | 821 | 984 | 927 | 885 | | | |
| | CMS | allocated | | | | | | | | | | | | | | | |
| | | used | | | | | | | | | | | | | | | |
| | LHCb | allocated | | | | | | | | | | | | | | | |
| | | used | | | | | | | | | | | | | | | |
| | TOTAL | allocated | 520 | 520 | 520 | 520 | 520 | 520 | 520 | 1,100 | 1,100 | 1,100 | 520 | 520 | 9,720 | 7,980 | 82% |
| | | used | 384 | 423 | 393 | 453 | 488 | 578 | 553 | 665 | 821 | 984 | 927 | 885 | 6,804 | 7,554 | 111% |
| | installed capacity** | 520 | 520 | 520 | 520 | 520 | 520 | 850 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | | | | |
| | disk usage as % installed*** | 105% | 116% | 108% | 124% | 134% | 159% | 93% | 86% | 107% | 128% | 120% | 115% | | | | |
| | MoU pledge* | allocated | 520 | 520 | 520 | 520 | 520 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 | | | | |
| | used | 364 | 364 | 364 | 364 | 364 | 364 | 770 | 770 | 770 | 770 | 770 | 770 | | | | |

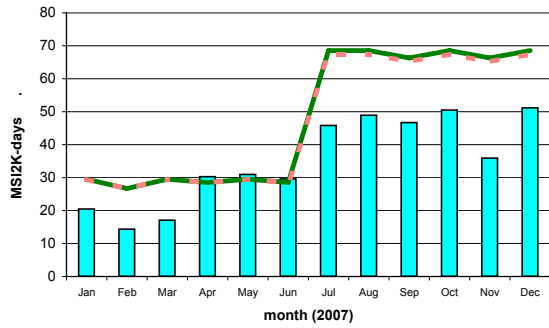
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|--------------------------|-------------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|------|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Tape Space Used - TBytes | ALICE | | | | | | | | | | | | | | | | |
| | ATLAS | | 420 | 432 | 512 | 607 | 678 | 732 | 782 | 813 | 853 | 896 | 933 | 964 | | | |
| | CMS | | | | | | | | | | | | | | | | |
| | LHCb | | | | | | | | | | | | | | | | |
| | TOTAL | | 420 | 432 | 512 | 607 | 678 | 732 | 782 | 813 | 853 | 896 | 933 | 964 | 5,400 | 8,622 | 160% |
| | | installed capacity** | 600 | 600 | 600 | 900 | 900 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | | | |
| | | tape usage as % installed*** | 70% | 72% | 85% | 67% | 75% | 73% | 78% | 81% | 85% | 90% | 93% | 96% | | | |
| | MoU pledge* | used | 300 | 300 | 300 | 300 | 300 | 600 | 600 | 600 | 600 | 600 | 600 | | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

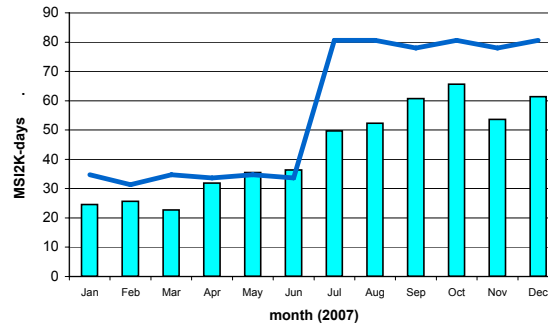
Comments:
 max 255 chars

BNL

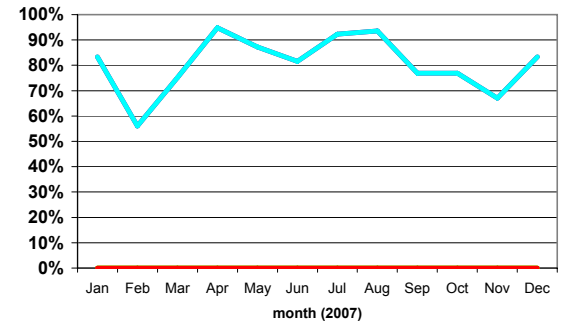
CPU Time Delivered



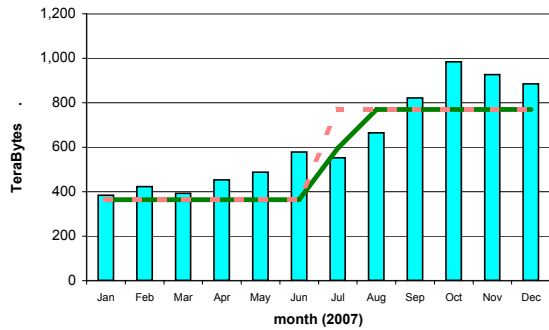
Wall-clock Time Delivered



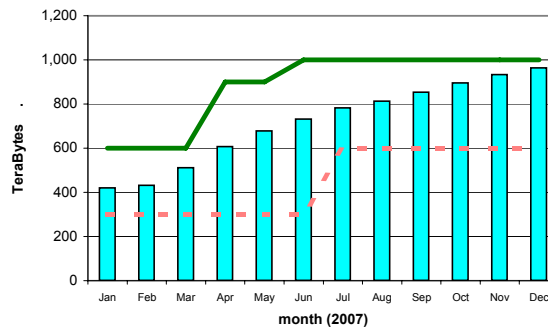
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — installed capacity (w/o efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - - - site average - cpu:wall_clock ratio —



WLCG Accounting Summary

December 2007
Centre CC-IN2P3

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 1,170 | 1,290 |
| Disk (Tbytes) | 520 | 730 |
| Tape (Tbytes) | 535 | 750 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** | | | |
|--------------|-------|------------------------------|------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------|---------|-----|--|
| | | | MoU pledge | total usage | % MoU | | | | | | | | | | | | | |
| CPU Grid | ALICE | cpu | 309 | 412 | 1,461 | 1,103 | 104 | 3,731 | 4,825 | 4,470 | 31,954 | 34,662 | 13,720 | 5,701 | | | | |
| | | wall | 470 | 921 | 2,900 | 1,825 | 1,678 | 5,204 | 7,770 | 5,208 | 35,749 | 37,311 | 14,834 | 6,228 | | | | |
| | ATLAS | cpu | 7,572 | 4,757 | 2,956 | 5,998 | 5,914 | 6,118 | 6,355 | 4,861 | 4,124 | 13,592 | 4,169 | 9,860 | | | | |
| | | wall | 11,649 | 9,989 | 6,367 | 9,127 | 8,641 | 10,054 | 9,833 | 8,035 | 6,396 | 21,813 | 7,008 | 11,051 | | | | |
| | CMS | cpu | 3,464 | 4,932 | 2,153 | 4,671 | 2,523 | 2,611 | 6,365 | 11,662 | 18,307 | 12,282 | 1,261 | 1,391 | | | | |
| | | wall | 4,553 | 6,493 | 2,906 | 6,084 | 4,148 | 3,590 | 8,106 | 13,829 | 20,610 | 19,300 | 12,121 | 7,773 | | | | |
| | LHCb | cpu | 48 | 4,052 | 1,244 | 466 | 428 | 1,346 | 5,502 | 2,870 | 87 | 307 | 308 | 1,240 | | | | |
| | | wall | 63 | 5,036 | 1,796 | 640 | 563 | 1,939 | 7,001 | 3,765 | 207 | 1,409 | 2,355 | 1,991 | | | | |
| | TOTAL | cpu | 11,393 | 14,153 | 7,814 | 12,238 | 8,969 | 13,806 | 23,047 | 23,863 | 54,472 | 60,843 | 19,458 | 18,192 | 381,764 | 268,248 | 70% | |
| | | wall | 16,735 | 22,439 | 13,969 | 17,676 | 15,030 | 20,787 | 32,710 | 30,837 | 62,962 | 79,833 | 36,318 | 27,043 | | 376,339 | n/a | |
| CPU Non-Grid | ALICE | cpu | 442 | 949 | 159 | 276 | 1,064 | 1,472 | 1,533 | 1,849 | 877 | 274 | | | | | | |
| | | wall | 727 | 1,249 | 194 | 360 | 1,500 | 2,132 | 2,428 | 2,315 | 1,356 | 326 | | | | | | |
| | ATLAS | cpu | 374 | 893 | 620 | 2,458 | 2,807 | 1,184 | 2,790 | 2,164 | 512 | 326 | | | | | | |
| | | wall | 601 | 1,597 | 1,029 | 3,121 | 3,921 | 2,322 | 4,824 | 4,140 | 1,614 | 1,344 | | | | | | |
| | CMS | cpu | | | 1,457 | 2,298 | 240 | 143 | 3,323 | 2,268 | 1,326 | 2,830 | | | | | | |
| | | wall | | | 1,875 | 3,123 | 328 | 182 | 3,853 | 2,558 | 1,498 | 2,830 | | | | | | |
| | LHCb | cpu | 6,583 | 1,728 | | 561 | 418 | 752 | 162 | | 612 | 1,376 | | | | | | |
| | | wall | 8,307 | 2,115 | | 725 | 543 | 981 | 219 | | 646 | 1,488 | | | | | | |
| | TOTAL | cpu | 7,399 | 3,570 | 2,236 | 5,593 | 4,529 | 3,551 | 7,808 | 6,281 | 3,327 | 4,806 | 0 | 0 | 381,764 | 49,100 | 13% | |
| | | wall | 9,635 | 4,961 | 3,098 | 7,329 | 6,292 | 5,617 | 11,324 | 9,013 | 5,114 | 5,988 | 0 | 0 | | 68,371 | n/a | |
| CPU Total | ALICE | cpu | 751 | 1,361 | 1,620 | 1,379 | 1,168 | 5,203 | 6,358 | 6,319 | 32,831 | 34,936 | 13,720 | 5,701 | | | | |
| | | wall | 1,197 | 2,170 | 3,094 | 2,185 | 3,178 | 7,336 | 10,198 | 7,523 | 37,105 | 37,637 | 14,834 | 6,228 | | | | |
| | ATLAS | cpu | 7,946 | 5,650 | 3,576 | 8,456 | 8,721 | 7,302 | 9,145 | 7,025 | 4,636 | 13,918 | 4,169 | 9,860 | | | | |
| | | wall | 12,250 | 11,586 | 7,396 | 12,248 | 12,562 | 12,376 | 14,657 | 12,175 | 8,010 | 23,157 | 7,008 | 11,051 | | | | |
| | CMS | cpu | 3,464 | 4,932 | 3,610 | 6,969 | 2,763 | 2,754 | 9,688 | 13,930 | 19,633 | 15,112 | 1,261 | 1,391 | | | | |
| | | wall | 4,553 | 6,493 | 4,781 | 9,207 | 4,476 | 3,772 | 11,959 | 16,387 | 22,108 | 22,130 | 12,121 | 7,773 | | | | |
| | LHCb | cpu | 6,631 | 5,780 | 1,244 | 1,027 | 846 | 2,098 | 5,664 | 2,870 | 699 | 1,683 | 308 | 1,240 | | | | |
| | | wall | 8,370 | 7,151 | 1,796 | 1,365 | 1,106 | 2,920 | 7,220 | 3,765 | 853 | 2,897 | 2,355 | 1,991 | | | | |
| | TOTAL | cpu | 18,792 | 17,723 | 10,050 | 17,831 | 13,498 | 17,357 | 30,855 | 30,144 | 57,799 | 65,649 | 19,458 | 18,192 | 381,764 | 317,348 | 83% | |
| | | wall | 26,370 | 27,400 | 17,067 | 25,005 | 21,322 | 26,404 | 44,034 | 39,850 | 68,076 | 85,821 | 36,318 | 27,043 | | 444,710 | n/a | |
| | | installed capacity** | 1,171 | 1,171 | 1,171 | 1,171 | 1,171 | 1,170 | 1,290 | 1,290 | 2,568 | 2,568 | 2,568 | 2,568 | | | | |
| | | cpu usage as % installed**** | 61% | 64% | 33% | 60% | 44% | 58% | 89% | 88% | 97% | 30% | 27% | | | | | |
| | | MoU pledge* | 30,830 | 27,846 | 30,830 | 29,835 | 30,830 | 29,835 | 33,992 | 33,992 | 32,895 | 33,992 | 32,895 | 33,992 | | | | |

Notes - cpu tables
 * MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU pledge in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007
Centre CC-IN2P3

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KS12K-years) | 1,170 | 1,290 |
| Disk (Tbytes) | 520 | 730 |
| Tape (Tbytes) | 535 | 750 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|------------------------|-------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|-----|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Disk Space - TBytes | ALICE | allocated | 13 | 14 | 20 | 20 | 18 | 18 | 18 | 20 | 20 | 30 | 31 | | | | |
| | | used | 10 | 10 | 15 | 16 | 6 | 6 | 8 | 8 | 8 | 6 | 7 | | 242 | | |
| | ATLAS | allocated | 106 | 109 | 149 | 149 | 199 | 271 | 290 | 281 | 333 | 334 | 280 | | 2,791 | | |
| | | used | 48 | 86 | 108 | 127 | 157 | 241 | 205 | 233 | 205 | 281 | 308 | 354 | | 2,353 | |
| | CMS | allocated | 75 | 82 | 76 | 100 | 103 | 109 | 100 | 100 | 307 | 290 | 311 | 308 | | 1,961 | |
| | | used | 48 | 47 | 41 | 36 | 49 | 54 | 69 | 68 | 111 | 127 | 179 | 239 | | 1,068 | |
| | LHCb | allocated | 44 | 41 | 87 | 87 | 84 | 81 | 93 | 93 | 92 | 92 | 92 | 92 | | 978 | |
| | | used | 25 | 32 | 65 | 64 | 63 | 69 | 64 | 79 | 79 | 81 | 81 | 81 | | 783 | |
| | TOTAL | allocated | 238 | 246 | 332 | 356 | 406 | 479 | 501 | 501 | 700 | 735 | 767 | 711 | 7,500 | 5,972 | 80% |
| | | used | 131 | 175 | 229 | 243 | 275 | 370 | 344 | 388 | 403 | 497 | 574 | 681 | 5,250 | 4,310 | 82% |
| | | installed capacity** | 280 | 280 | 340 | 356 | 500 | 520 | 730 | 730 | 1,394 | 1,394 | 1,394 | 1,394 | | | |
| | | disk usage as % installed*** | 67% | 89% | 96% | 98% | 79% | 102% | 67% | 76% | 41% | 51% | 59% | 70% | | | |
| | | MoU pledge* allocated | 520 | 520 | 520 | 520 | 520 | 520 | 730 | 730 | 730 | 730 | 730 | 730 | | | |
| | | used | 364 | 364 | 364 | 364 | 364 | 364 | 511 | 511 | 511 | 511 | 511 | 511 | | | |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|--------------------------------|-------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|--|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Tape Space Used - TBytes | ALICE | 61 | 46 | 48 | 50 | 40 | 43 | 49 | 58 | 67 | 69 | 72 | 111 | | 714 | | |
| | ATLAS | 153 | 271 | 186 | 165 | 160 | 179 | 199 | 200 | 212 | 213 | 284 | 285 | | 2,507 | | |
| | CMS | 128 | 130 | 163 | 160 | 186 | 217 | 221 | 197 | 226 | 304 | 404 | 456 | | 2,792 | | |
| | LHCb | 67 | 69 | 70 | 17 | 17 | 17 | 18 | 19 | 19 | 19 | 19 | 19 | | 370 | | |
| | TOTAL | 409 | 516 | 467 | 392 | 403 | 456 | 487 | 474 | 524 | 605 | 779 | 871 | 7,710 | 6,383 | 83% | |
| | | installed capacity** | 500 | 500 | 510 | 510 | 510 | 535 | 750 | 750 | 1,469 | 1,469 | 1,469 | 1,469 | | | |
| | | tape usage as % installed*** | 82% | 103% | 92% | 77% | 79% | 85% | 65% | 63% | 36% | 41% | 53% | 59% | | | |
| | | MoU pledge* used | 535 | 535 | 535 | 535 | 535 | 535 | 750 | 750 | 750 | 750 | 750 | 750 | | | |

Notes - disk and tape tables

Space used/allocated at end of the calendar month

* MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used

note - 2006 pledge to end June, 2007 pledge from July

** installed capacity - capacity installed (TB)

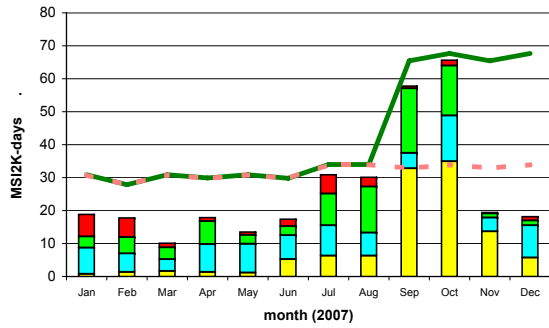
*** disk/tape usage as % installed - includes efficiency factor

Comments:

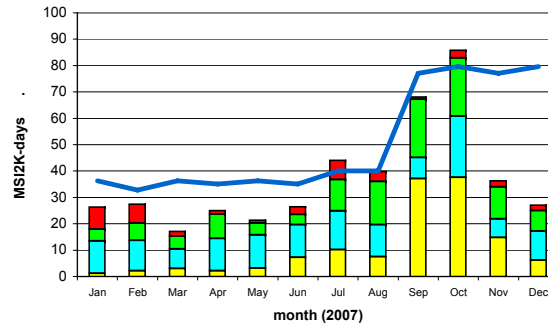
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CC-IN2P3

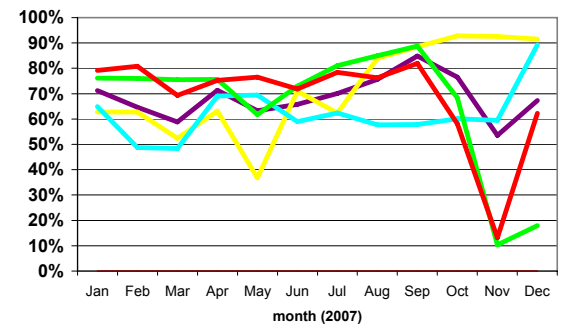
CPU Time Delivered



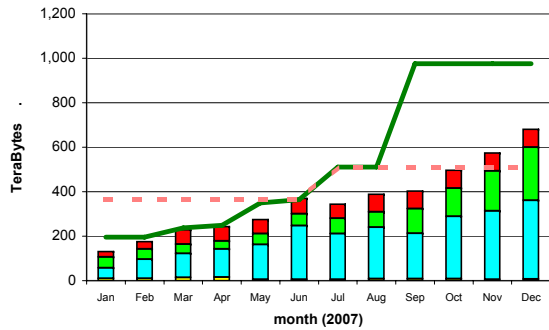
Wall-clock Time Delivered



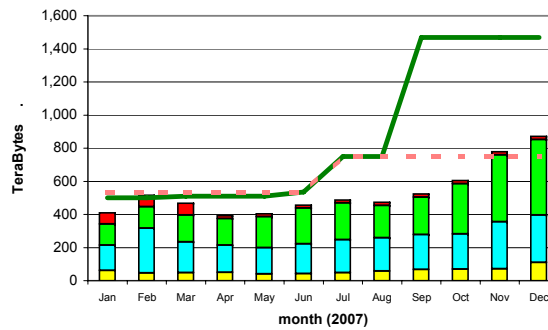
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - - - installed capacity (w/o efficiency factor) —
— site average - cpu:wall_clock ratio



WLCG Accounting Summary

December 2007
Centre CNAF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 1,800 | 1,300 |
| Disk (Tbytes) | 850 | 500 |
| Tape (Tbytes) | 850 | 650 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

CPU used - KSI2K-days

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** | | | |
|-------------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------|-------------|---------|-----|
| | | | | | | | | | | | | | | MoU pledge | total usage | % MoU | |
| CPU Grid | ALICE | cpu | 1,425 | 2,695 | 3,723 | 2,279 | 503 | 3,983 | 5,029 | 2,238 | 5,651 | 4,448 | 3,939 | 9,396 | | 45,309 | |
| | | wall | 1,986 | 4,213 | 5,412 | 2,994 | 942 | 5,942 | 7,112 | 3,994 | 11,823 | 9,567 | 8,721 | 14,711 | | 77,417 | |
| | ATLAS | cpu | 3,945 | 5,523 | 3,550 | 8,103 | 5,915 | 3,452 | 3,087 | 2,477 | 1,517 | 6,596 | 3,229 | 15,837 | | 63,231 | |
| | | wall | 5,989 | 10,237 | 7,188 | 10,669 | 9,027 | 5,541 | 5,875 | 3,796 | 4,504 | 11,915 | 5,725 | 21,933 | | 102,399 | |
| | CMS | cpu | 4,797 | 6,779 | 2,949 | 999 | 328 | 736 | 13,139 | 6,549 | 1,842 | 4,817 | 7,593 | 12,655 | | 63,183 | |
| | | wall | 6,969 | 8,392 | 3,658 | 2,173 | 1,538 | 3,401 | 18,596 | 12,385 | 2,968 | 12,053 | 16,639 | 25,658 | | 114,430 | |
| | LHCb | cpu | 6,785 | 4,486 | 1,792 | 566 | 215 | 668 | 12,462 | 6,067 | 39 | 285 | 181 | 37 | | 33,583 | |
| | | wall | 8,502 | 5,115 | 2,101 | 666 | 323 | 973 | 15,877 | 7,340 | 593 | 1,595 | 1,790 | 102 | | 44,977 | |
| | TOTAL | cpu | 16,952 | 19,483 | 12,014 | 11,947 | 6,961 | 8,839 | 33,717 | 17,331 | 9,049 | 16,146 | 14,942 | 37,925 | 480,250 | 205,306 | 43% |
| | | wall | 23,446 | 27,957 | 18,359 | 16,502 | 11,830 | 15,857 | 47,460 | 27,515 | 19,888 | 35,130 | 32,875 | 62,404 | | 339,223 | n/a |
| | CPU Non-Grid | ALICE | cpu | | | | | | | | | | | | | 0 | |
| | | | wall | | | | | | | | | | | | | | 0 |
| ATLAS | | cpu | 21 | 33 | | | | | | | | | | | | 54 | |
| | | wall | 24 | 37 | | | | | | | | | | | | 61 | |
| CMS | | cpu | | 3 | | | | | | | | | | | | 3 | |
| | | wall | | 11 | | | | | | | | | | | | 11 | |
| LHCb | | cpu | | | 18 | 83 | 1,904 | 438 | | | | | | | | 2,443 | |
| | | wall | | | 181 | 89 | 2,020 | 496 | | | | | | | | 2,786 | |
| TOTAL | | cpu | 21 | 36 | 18 | 83 | 1,904 | 438 | 0 | 0 | 0 | 0 | 0 | 0 | 480,250 | 2,500 | 1% |
| | | wall | 24 | 48 | 181 | 89 | 2,020 | 496 | 0 | 0 | 0 | 0 | 0 | 0 | | 2,858 | n/a |
| CPU Total | ALICE | cpu | 1,425 | 2,695 | 3,723 | 2,279 | 503 | 3,983 | 5,029 | 2,238 | 5,651 | 4,448 | 3,939 | 9,396 | | 45,309 | |
| | | wall | 1,986 | 4,213 | 5,412 | 2,994 | 942 | 5,942 | 7,112 | 3,994 | 11,823 | 9,567 | 8,721 | 14,711 | | 77,417 | |
| | ATLAS | cpu | 3,966 | 5,556 | 3,550 | 8,103 | 5,915 | 3,452 | 3,087 | 2,477 | 1,517 | 6,596 | 3,229 | 15,837 | | 63,285 | |
| | | wall | 6,013 | 10,274 | 7,188 | 10,669 | 9,027 | 5,541 | 5,875 | 3,796 | 4,504 | 11,915 | 5,725 | 21,933 | | 102,460 | |
| | CMS | cpu | 4,797 | 6,782 | 2,949 | 999 | 328 | 736 | 13,139 | 6,549 | 1,842 | 4,817 | 7,593 | 12,655 | | 63,186 | |
| | | wall | 6,969 | 8,403 | 3,658 | 2,173 | 1,538 | 3,401 | 18,596 | 12,385 | 2,968 | 12,053 | 16,639 | 25,658 | | 114,441 | |
| | LHCb | cpu | 6,785 | 4,486 | 1,810 | 649 | 2,119 | 1,106 | 12,462 | 6,067 | 39 | 285 | 181 | 37 | | 36,026 | |
| | | wall | 8,502 | 5,115 | 2,282 | 755 | 2,343 | 1,469 | 15,877 | 7,340 | 593 | 1,595 | 1,790 | 102 | | 47,763 | |
| | TOTAL | cpu | 16,973 | 19,519 | 12,032 | 12,030 | 8,865 | 9,277 | 33,717 | 17,331 | 9,049 | 16,146 | 14,942 | 37,925 | 480,250 | 207,806 | 43% |
| | | wall | 23,470 | 28,005 | 18,540 | 16,591 | 13,850 | 16,353 | 47,460 | 27,515 | 19,888 | 35,130 | 32,875 | 62,404 | | 342,081 | n/a |
| | installed capacity** | | 1,500 | 1,636 | 1,500 | 1,500 | 1,500 | 1,300 | 1,300 | 1,300 | 1,300 | 1,300 | 1,300 | 1,300 | | | |
| | cpu usage as % installed**** | | 43% | 50% | 30% | 31% | 22% | 28% | 98% | 51% | 27% | 47% | 45% | 111% | | | |
| MoU pledge* | | 47,430 | 42,840 | 47,430 | 45,900 | 47,430 | 45,900 | 34,255 | 34,255 | 33,150 | 34,255 | 33,150 | 34,255 | | | | |

Notes - cpu tables

* MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)

note - 2006 pledge to end June, 2007 pledge from July

** installed capacity - capacity installed (KSI2K)

*** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date

- % MoU - percentage of MoU pledge in calendar year to current date

**** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007
Centre CNAF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KS12K-years) | 1,800 | 1,300 |
| Disk (Tbytes) | 850 | 500 |
| Tape (Tbytes) | 850 | 650 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|---------------------|-----------------------|------------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-------|-------|-----|
| | | MoU pledge | total TB-months | % MoU | | | | | | | | | | | | | |
| Disk Space - TBytes | ALICE | allocated | 21 | 21 | 22 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | | | | |
| | | used | 19 | 19 | 20 | 21 | 21 | 21 | 20 | 20 | 19 | 21 | 21 | | | | |
| | ATLAS | allocated | 44 | 47 | 74 | 109 | 109 | 109 | 125 | 138 | 151 | 151 | 135 | 160 | | | |
| | | used | 26 | 33 | 64 | 95 | 82 | 82 | 106 | 117 | 130 | 135 | 125 | 155 | | | |
| | CMS | allocated | 60 | 106 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 135 | 135 | 151 | | | |
| | | used | 45 | 75 | 92 | 89 | 87 | 90 | 71 | 93 | 90 | 107 | 94 | 90 | | | |
| | LHCb | allocated | 22 | 23 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 55 | 51 | 51 | | | |
| | | used | 14 | 21 | 48 | 48 | 45 | 45 | 40 | 41 | 38 | 51 | 47 | 42 | | | |
| | TOTAL | allocated | 147 | 197 | 257 | 294 | 294 | 294 | 310 | 323 | 336 | 365 | 345 | 386 | 8,100 | 3,548 | 44% |
| | | used | 104 | 148 | 224 | 253 | 235 | 238 | 237 | 271 | 277 | 314 | 287 | 307 | 5,670 | 2,895 | 51% |
| | | installed capacity** | 450 | 450 | 450 | 450 | 450 | 400 | 400 | 400 | 400 | 500 | 500 | 500 | | | |
| | | disk usage as % installed*** | 33% | 47% | 71% | 80% | 75% | 85% | 85% | 97% | 99% | 90% | 82% | 88% | | | |
| | MoU pledge* allocated | 850 | 850 | 850 | 850 | 850 | 850 | 500 | 500 | 500 | 500 | 500 | 500 | | | | |
| | used | 595 | 595 | 595 | 595 | 595 | 595 | 350 | 350 | 350 | 350 | 350 | 350 | | | | |

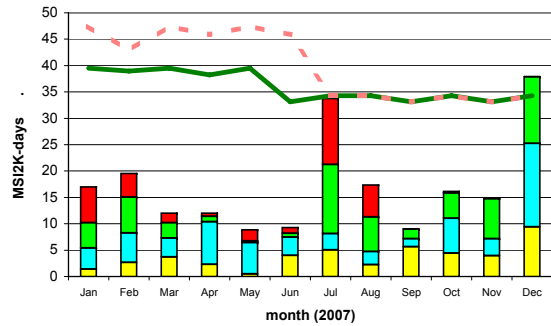
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | |
|--------------------------|------------------------------|----------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-------|-----|
| | | MoU pledge | total TB-months | % MoU | | | | | | | | | | | | |
| Tape Space Used - TBytes | ALICE | 30 | 30 | 33 | 34 | 34 | 28 | 34 | 34 | 39 | 39 | 39 | 39 | | | |
| | ATLAS | 104 | 112 | 130 | 151 | 161 | 172 | 200 | 200 | 221 | 200 | 239 | 247 | | | |
| | CMS | 90 | 102 | 132 | 134 | 170 | 139 | 140 | 215 | 240 | 366 | 360 | 378 | | | |
| | LHCb | 72 | 75 | 84 | 84 | 84 | 82 | 82 | 86 | 93 | 89 | 89 | 89 | | | |
| | TOTAL | 296 | 319 | 379 | 403 | 449 | 421 | 456 | 535 | 593 | 694 | 727 | 753 | 9,000 | 6,025 | 67% |
| | | installed capacity** | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 600 | 600 | 650 | 650 | 650 | | |
| | tape usage as % installed*** | 59% | 64% | 76% | 81% | 90% | 84% | 91% | 89% | 99% | 107% | 112% | 116% | | | |
| | MoU pledge* used | 850 | 850 | 850 | 850 | 850 | 850 | 650 | 650 | 650 | 650 | 650 | 650 | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

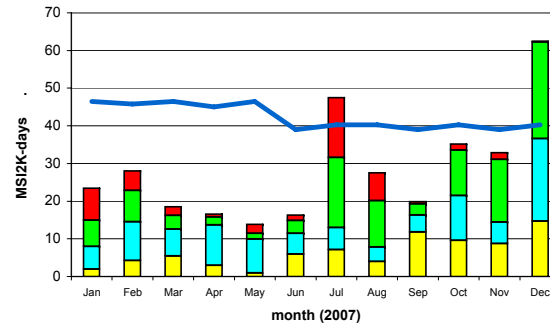
Comments:
 max 255 chars

CNAF

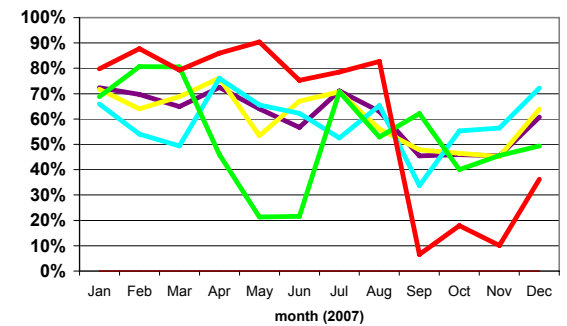
CPU Time Delivered



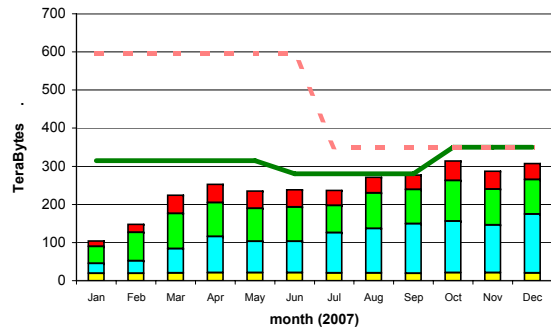
Wall-clock Time Delivered



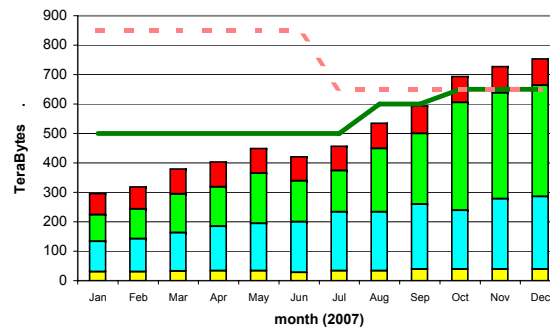
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — installed capacity (w/o efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - site average - cpu:wall_clock ratio —



WLCG Accounting Summary

December 2007
Centre FNAL

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 | 2007 |
|-------------------|---------|---------|
| | jan-jun | jul-dec |
| CPU (KSI2K-years) | 728 | 1,790 |
| Disk (Tbytes) | 100 | 700 |
| Tape (Tbytes) | 250 | 300 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| CPU used - KSI2K-days | | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** | | |
|-----------------------|-------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------|-------------|-------|
| | | | | | | | | | | | | | | | MoU pledge | total usage | % MoU |
| CPU Grid | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | | 0 |
| | ATLAS | cpu | | | | 51 | 69 | | | | | | 24 | | | 144 | |
| | | wall | | | | 78 | 78 | | | 15 | 2 | | 15 | 26 | | 214 | |
| | CMS | cpu | 37,676 | 34,199 | 24,869 | 14,083 | 16,325 | 17,468 | 9,944 | 32,611 | 23,389 | 13,783 | 30,515 | 27,793 | | 282,655 | |
| | | wall | 27,136 | 23,410 | 29,871 | 15,393 | 22,079 | 21,558 | 11,555 | 38,981 | 46,904 | 59,197 | 72,673 | 67,005 | | 435,762 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 37,676 | 34,199 | 24,869 | 14,134 | 16,394 | 17,468 | 9,944 | 32,611 | 23,389 | 13,783 | 30,539 | 27,793 | 391,961 | 282,799 | 72% |
| | | wall | 27,136 | 23,410 | 29,871 | 15,471 | 22,157 | 21,558 | 11,570 | 38,983 | 46,904 | 59,212 | 72,699 | 67,005 | | 435,976 | n/a |
| CPU Non-Grid | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | ATLAS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | CMS | cpu | 9,486 | 3,288 | 10,717 | | | | | | | | | | | 23,491 | |
| | | wall | 7,905 | 2,740 | 12,873 | | | | | | | | | | | 23,518 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 9,486 | 3,288 | 10,717 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 391,961 | 23,491 | 6% |
| | | wall | 7,905 | 2,740 | 12,873 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 23,518 | n/a |
| CPU Total | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | ATLAS | cpu | | | | 51 | 69 | | | | | | 24 | | | 144 | |
| | | wall | | | | 78 | 78 | | | 15 | 2 | | 15 | 26 | | 214 | |
| | CMS | cpu | 47,162 | 37,487 | 35,586 | 14,083 | 16,325 | 17,468 | 9,944 | 32,611 | 23,389 | 13,783 | 30,515 | 27,793 | | 306,146 | |
| | | wall | 35,041 | 26,150 | 42,744 | 15,393 | 22,079 | 21,558 | 11,555 | 38,981 | 46,904 | 59,197 | 72,673 | 67,005 | | 459,280 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 47,162 | 37,487 | 35,586 | 14,134 | 16,394 | 17,468 | 9,944 | 32,611 | 23,389 | 13,783 | 30,539 | 27,793 | 391,961 | 306,290 | 78% |
| | | wall | 35,041 | 26,150 | 42,744 | 15,471 | 22,157 | 21,558 | 11,570 | 38,983 | 46,904 | 59,212 | 72,699 | 67,005 | | 459,494 | n/a |
| | | installed capacity** | 2,250 | 2,250 | 2,250 | 2,250 | 2,250 | 2,250 | 2,250 | 2,250 | 2,250 | 2,250 | 4,500 | 4,500 | | | |
| | | cpu usage as % installed**** | 80% | 70% | 60% | 25% | 28% | 30% | 17% | 55% | 41% | 23% | 27% | 23% | | | |
| | | MoU pledge* | 19,183 | 17,326 | 19,183 | 18,564 | 19,183 | 18,564 | 47,167 | 47,167 | 45,645 | 47,167 | 45,645 | 47,167 | | | |

Notes - cpu tables
 * MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU pledge in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007

Centre FNAL

Please report accounting data in the shaded cells and return the report to lwg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 728 | 1,790 |
| Disk (Tbytes) | 100 | 700 |
| Tape (Tbytes) | 250 | 300 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | | |
|---------------------|------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|-------|------|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | | |
| Disk Space - TBytes | ALICE | allocated | | | | | | | | | | | | | | | | |
| | | used | | | | | | | | | | | | | | | 0 | |
| | ATLAS | allocated | | | | | | | | | | | | | | | | |
| | | used | | | | | | | | | | | | | | | 0 | |
| | CMS | allocated | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 1,500 | 700 | 700 | 700 | | | | 9,200 | |
| | | used | 400 | 400 | 400 | 400 | 500 | 500 | 500 | 700 | 1,000 | 1,000 | 1,000 | | | | 6,800 | |
| | LHCb | allocated | | | | | | | | | | | | | | | | |
| | | used | | | | | | | | | | | | | | | 0 | |
| | TOTAL | allocated | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 1,500 | 700 | 700 | 700 | | 4,800 | | 9,200 | 192% |
| | | used | 400 | 400 | 400 | 400 | 500 | 500 | 500 | 700 | 1,000 | 1,000 | 1,000 | 0 | 3,360 | | 6,800 | 202% |
| | installed capacity** | 720 | 720 | 720 | 720 | 720 | 720 | 720 | 720 | 720 | 720 | 1,360 | 1,360 | | | | | |
| | disk usage as % installed*** | 79% | 79% | 79% | 79% | 99% | 99% | 99% | 139% | 198% | 198% | 105% | 0% | | | | | |
| | MoU pledge* allocated | 100 | 100 | 100 | 100 | 100 | 100 | 700 | 700 | 700 | 700 | 700 | 700 | | | | | |
| | used | 70 | 70 | 70 | 70 | 70 | 70 | 490 | 490 | 490 | 490 | 490 | 490 | | | | | |

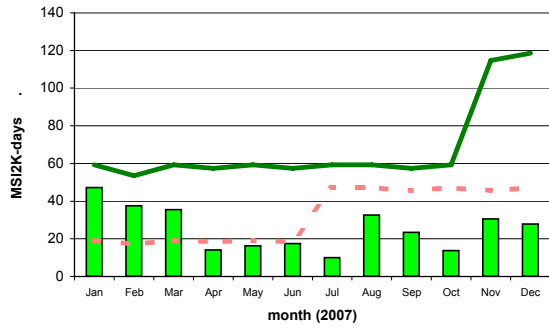
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | | |
|--------------------------|------------------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|-------|------|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | | |
| Tape Space Used - TBytes | ALICE | | | | | | | | | | | | | | | | | |
| | ATLAS | | | | | | | | | | | | | | | | | |
| | CMS | | 400 | 500 | 500 | 500 | 500 | 500 | 550 | 600 | 600 | 800 | 900 | | | | 6,350 | |
| | LHCb | | | | | | | | | | | | | | | | | 0 |
| | TOTAL | | 400 | 500 | 500 | 500 | 500 | 500 | 550 | 600 | 600 | 800 | 900 | 0 | 3,300 | | 6,350 | 192% |
| | | installed capacity** | 500 | 600 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 1,000 | 1,000 | | | | |
| | | tape usage as % installed*** | 80% | 83% | 100% | 100% | 100% | 100% | 110% | 120% | 120% | 160% | 90% | 0% | | | | |
| | MoU pledge* used | 250 | 250 | 250 | 250 | 250 | 250 | 300 | 300 | 300 | 300 | 300 | 300 | | | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

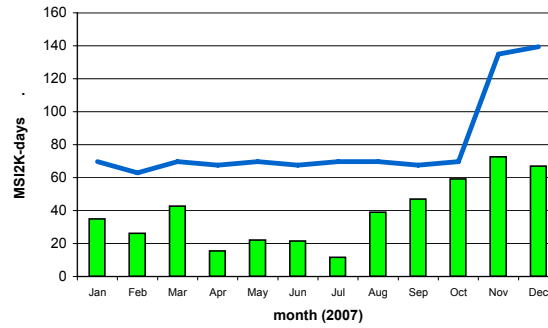
Comments:
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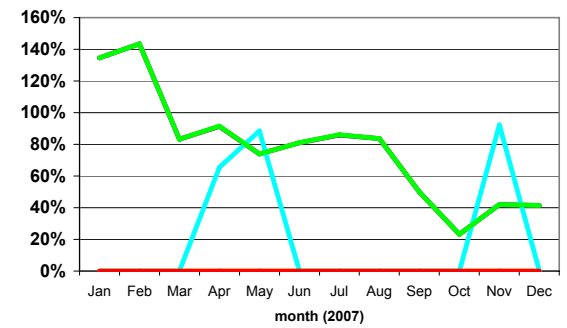
CPU Time Delivered



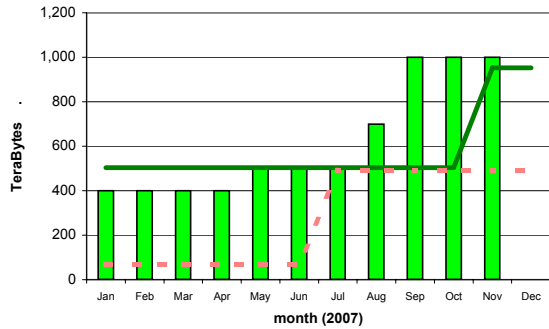
Wall-clock Time Delivered



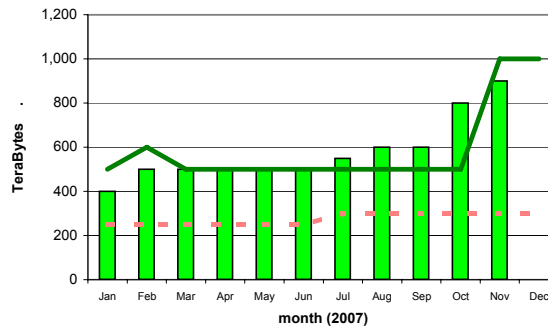
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — installed capacity (w/o efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - site average - cpu:wall_clock ratio —



WLCG Accounting Summary

December 2007
Centre FZK-GridKA

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 1,030 | 1,860 |
| Disk (Tbytes) | 280 | 880 |
| Tape (Tbytes) | 393 | 1,010 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

CPU used - KSI2K-days

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** | | | | | | |
|------------------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------|-------------|-------|--|---------|---------|-----|
| | | | | | | | | | | | | | | MoU pledge | total usage | % MoU | | | | |
| CPU Grid | ALICE | cpu | 10,263 | 4,109 | 5,381 | 4,113 | | 1,779 | 5,729 | 6,446 | 15,049 | 13,726 | 17,777 | 20,382 | | | | | | |
| | | wall | 12,243 | 6,769 | 7,411 | 5,633 | 3 | 2,797 | 22,159 | 19,964 | 21,362 | 18,100 | 23,257 | 23,478 | | | | 104,754 | | |
| | ATLAS | cpu | 1,779 | 1,287 | 4,812 | 6,484 | 5,712 | 3,833 | 5,773 | 6,129 | 7,378 | 9,816 | 4,844 | 4,647 | | | | 163,176 | | |
| | | wall | 3,152 | 2,490 | 6,543 | 8,279 | 11,207 | 9,144 | 6,733 | 12,165 | 10,849 | 13,033 | 8,314 | 10,578 | | | | 62,494 | | |
| | CMS | cpu | 4,830 | 4,925 | 2,374 | 23,354 | 12,491 | 12,913 | 5,392 | 13,866 | 4,497 | 1,234 | 1,521 | 1,713 | | | | 102,487 | | |
| | | wall | 6,857 | 5,238 | 3,272 | 36,211 | 24,858 | 25,387 | 20,697 | 23,097 | 17,894 | 8,702 | 6,045 | 5,671 | | | | 89,110 | | |
| | LHCb | cpu | 4,098 | 16,893 | 11,971 | 982 | 782 | 2,460 | 70 | 241 | 92 | 765 | 565 | 141 | | | | 183,929 | | |
| | | wall | 9,042 | 17,920 | 13,180 | 1,258 | 1,297 | 4,108 | 110 | 258 | 312 | 2,033 | 683 | 231 | | | | 39,060 | | |
| | TOTAL | cpu | 20,970 | 27,214 | 24,538 | 34,933 | 18,985 | 20,985 | 16,964 | 26,682 | 27,016 | 25,541 | 24,707 | 26,883 | | | | 449,371 | 295,418 | 66% |
| | | wall | 31,294 | 32,417 | 30,406 | 51,381 | 37,365 | 41,436 | 49,699 | 55,484 | 50,417 | 41,868 | 38,299 | 39,958 | | | | 500,024 | n/a | |
| CPU Non-Grid | ALICE | cpu | | 571 | 148 | | | 106 | 720 | | | 2,344 | | 3,889 | | | | | | |
| | | wall | | 801 | 238 | | | 253 | 3,433 | | | 3,169 | | 7,894 | | | | | | |
| | ATLAS | cpu | 1,604 | 1,340 | 251 | 1,075 | 1,566 | 450 | 225 | | | 128 | 65 | 6,704 | | | | | | |
| | | wall | 1,931 | 1,574 | 401 | 1,194 | 1,590 | 754 | 328 | | | 366 | 204 | 8,342 | | | | | | |
| | CMS | cpu | 166 | 1,185 | 266 | 1,238 | | 76 | 565 | | | 86 | 160 | 3,742 | | | | | | |
| | | wall | 178 | 1,283 | 298 | 1,364 | | 86 | 4,743 | | | 699 | 295 | 8,946 | | | | | | |
| | LHCb | cpu | 950 | 2,757 | 1,323 | | 13 | 15 | 3 | | | 15 | 11 | 5,087 | | | | | | |
| | | wall | 1,403 | 3,016 | 1,541 | | 13 | 17 | 17 | | | 178 | 13 | 6,198 | | | | | | |
| | TOTAL | cpu | 2,720 | 5,853 | 1,988 | 2,313 | 1,579 | 647 | 1,513 | 0 | 0 | 2,573 | 236 | 0 | | | | 449,371 | 19,422 | 4% |
| | | wall | 3,512 | 6,674 | 2,478 | 2,558 | 1,603 | 1,110 | 8,521 | 0 | 0 | 4,412 | 512 | 0 | | | | 31,380 | n/a | |
| CPU Total | ALICE | cpu | 10,263 | 4,680 | 5,529 | 4,113 | | 1,885 | 6,449 | 6,446 | 15,049 | 16,070 | 17,777 | 20,382 | | | | | | |
| | | wall | 12,243 | 7,570 | 7,649 | 5,633 | 3 | 3,050 | 25,592 | 19,964 | 21,362 | 21,269 | 23,257 | 23,478 | | | | 108,643 | | |
| | ATLAS | cpu | 3,383 | 2,627 | 5,063 | 7,559 | 7,278 | 4,283 | 5,998 | 6,129 | 7,378 | 9,944 | 4,909 | 4,647 | | | | 171,070 | | |
| | | wall | 5,083 | 4,064 | 6,944 | 9,473 | 12,797 | 9,898 | 7,061 | 12,165 | 10,849 | 13,399 | 8,518 | 10,578 | | | | 69,198 | | |
| | CMS | cpu | 4,996 | 6,110 | 2,640 | 24,592 | 12,491 | 12,989 | 5,957 | 13,866 | 4,497 | 1,320 | 1,681 | 1,713 | | | | 110,829 | | |
| | | wall | 7,035 | 6,521 | 3,570 | 37,575 | 24,858 | 25,473 | 25,440 | 23,097 | 17,894 | 9,401 | 6,340 | 5,671 | | | | 92,852 | | |
| | LHCb | cpu | 5,048 | 19,650 | 13,294 | 982 | 795 | 2,475 | 73 | 241 | 92 | 780 | 576 | 141 | | | | 192,875 | | |
| | | wall | 10,445 | 20,936 | 14,721 | 1,258 | 1,310 | 4,125 | 127 | 258 | 312 | 2,211 | 696 | 231 | | | | 44,147 | | |
| | TOTAL | cpu | 23,690 | 33,067 | 26,526 | 37,246 | 20,564 | 21,632 | 18,477 | 26,682 | 27,016 | 28,114 | 24,943 | 26,883 | | | | 56,630 | | |
| | | wall | 34,806 | 39,091 | 32,884 | 53,939 | 38,968 | 42,546 | 58,220 | 55,484 | 50,417 | 46,280 | 38,811 | 39,958 | | | | 314,840 | 70% | |
| installed capacity** | | 1,027 | 1,027 | 1,027 | 1,864 | 1,864 | 1,864 | 1,864 | 1,864 | 1,864 | 1,864 | 1,400 | 1,400 | | | | | | | |
| cpu usage as % installed**** | | 88% | 135% | 98% | 78% | 42% | 46% | 38% | 54% | 57% | 57% | 70% | 73% | | | | | | | |
| MoU pledge* | | 27,141 | 24,514 | 27,141 | 26,265 | 27,141 | 26,265 | 49,011 | 49,011 | 47,430 | 49,011 | 47,430 | 49,011 | | | | | | | |

Notes - cpu tables

- * MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)
- note - 2006 pledge to end June, 2007 pledge from July
- ** installed capacity - capacity installed (KSI2K)
- *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
- % MoU - percentage of MoU pledge in calendar year to current date
- **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007

Centre FZK-GridKA

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KS12K-years) | 1,030 | 1,860 |
| Disk (Tbytes) | 280 | 880 |
| Tape (Tbytes) | 393 | 1,010 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|---------------------|-------|------------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-------|-------|------|
| | | MoU pledge | total TB-months | % MoU | | | | | | | | | | | | | |
| Disk Space - TBytes | ALICE | allocated | 61 | 61 | 61 | 54 | 62 | 62 | 203 | 203 | 203 | 151 | 151 | | | | |
| | | used | 33 | 33 | 31 | 4 | 4 | 8 | 3 | 7 | 48 | 47 | 10 | 13 | | | |
| | ATLAS | allocated | 72 | 71 | 71 | 94 | 132 | 180 | 190 | 282 | 282 | 282 | 351 | 351 | | | |
| | | used | 20 | 44 | 44 | 64 | 69 | 94 | 96 | 111 | 123 | 124 | 185 | 187 | | | |
| | CMS | allocated | 117 | 116 | 116 | 116 | 110 | 110 | 365 | 331 | 331 | 331 | 366 | 366 | | | |
| | | used | 48 | 57 | 54 | 20 | 17 | 25 | 37 | 40 | 97 | 97 | 208 | 214 | | | |
| | LHCb | allocated | 51 | 51 | 51 | 51 | 65 | 66 | 66 | 69 | 69 | 69 | 78 | 78 | | | |
| | | used | 12 | 22 | 22 | 39 | 39 | 43 | 38 | 40 | 50 | 50 | 54 | 54 | | | |
| | TOTAL | allocated | 301 | 299 | 299 | 315 | 369 | 418 | 683 | 885 | 885 | 885 | 946 | 946 | 6,960 | 7,231 | 104% |
| | | used | 113 | 156 | 151 | 127 | 129 | 170 | 174 | 198 | 318 | 318 | 457 | 468 | 4,872 | 2,779 | 57% |
| | | installed capacity** | 284 | 284 | 284 | 315 | 369 | 418 | 878 | 878 | 885 | 885 | 946 | 946 | | | |
| | | disk usage as % installed*** | 57% | 78% | 76% | 58% | 50% | 58% | 28% | 32% | 51% | 51% | 69% | 71% | | | |
| | | MoU pledge* allocated | 280 | 280 | 280 | 280 | 280 | 280 | 880 | 880 | 880 | 880 | 880 | 880 | | | |
| | | used | 196 | 196 | 196 | 196 | 196 | 196 | 616 | 616 | 616 | 616 | 616 | 616 | | | |

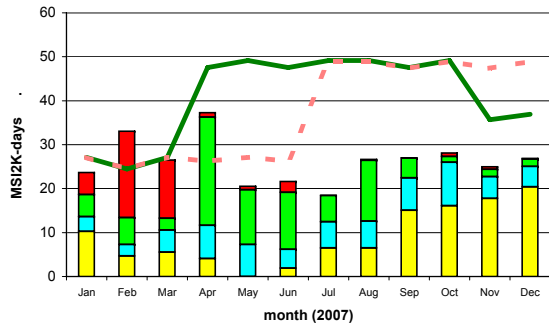
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|--------------------------|------------------|------------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-------|-----|--|
| | | MoU pledge | total TB-months | % MoU | | | | | | | | | | | | | |
| Tape Space Used - TBytes | ALICE | 395 | 347 | 361 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 52 | 60 | | | | |
| | ATLAS | 79 | 58 | 85 | 95 | 116 | 144 | 99 | 92 | 95 | 93 | 135 | 133 | | | | |
| | CMS | 182 | 94 | 152 | 203 | 270 | 223 | 123 | 234 | 287 | 286 | 394 | 332 | | | | |
| | LHCb | 41 | 20 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | | | | |
| | TOTAL | 697 | 519 | 619 | 369 | 457 | 438 | 293 | 397 | 453 | 450 | 602 | 546 | 8,418 | 5,840 | 69% | |
| | | installed capacity** | 637 | 637 | 637 | 1,007 | 1,007 | 1,007 | 1,007 | 1,007 | 1,007 | 1,007 | 1,007 | 1,007 | | | |
| | | tape usage as % installed*** | 109% | 81% | 97% | 37% | 45% | 43% | 29% | 39% | 45% | 45% | 60% | 54% | | | |
| | MoU pledge* used | 393 | 393 | 393 | 393 | 393 | 393 | 1,010 | 1,010 | 1,010 | 1,010 | 1,010 | 1,010 | | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

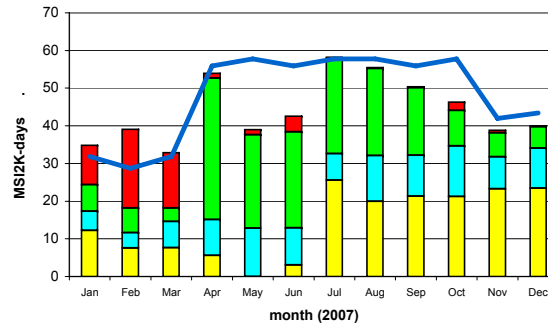
Comments: * The values for CPU stay reduced to 1400 due to incompatible hard disk problems occurred in our last compute nodes consignment. ** Values for disk allocated vary due to temporary exchange of disk space between exp. and dCache Pool arrangements.
 max 255 chars

FZK-GridKA

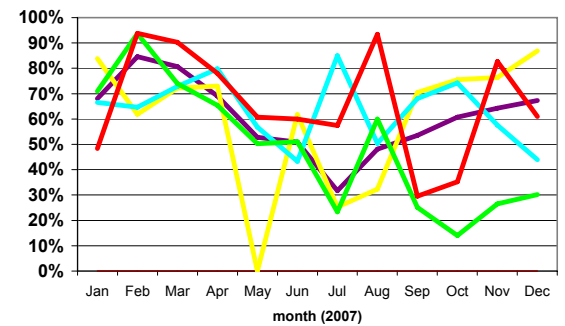
CPU Time Delivered



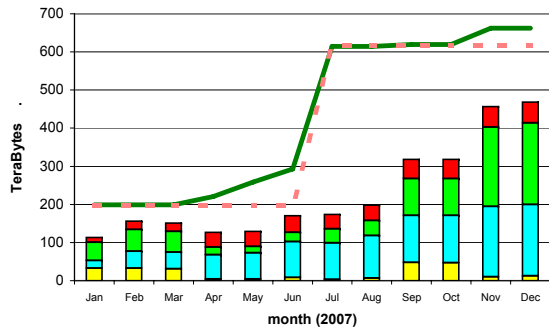
Wall-clock Time Delivered



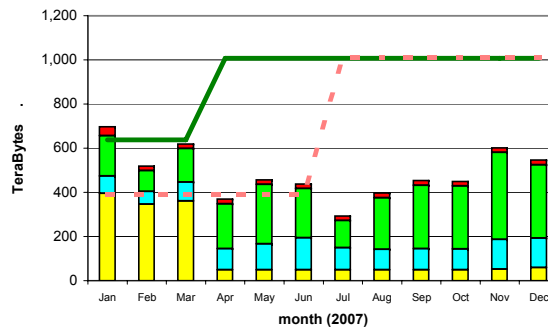
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — installed capacity (w/o efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - MoU commitment (w/o efficiency factor) — site average - cpu:wall_clock ratio —



WLCG Accounting Summary

December 2007

Centre NDGF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 520 | 690 |
| Disk (Tbytes) | 170 | 390 |
| Tape (Tbytes) | 240 | 270 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | CPU used - KSI2K-days | | | | | | | | | | | | aggregate 2007 to date*** | | | |
|--------------|-------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------|-------------|---------|-----|
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | MoU pledge | total usage | % MoU | |
| CPU Grid | ALICE | cpu | 195 | 131 | 77 | 46 | 225 | 1,065 | 4,481 | 4,612 | 4,486 | 12,921 | 13,280 | 6,199 | | 47,718 | |
| | | wall | 219 | 152 | 97 | 57 | 285 | 1,229 | 4,310 | 4,413 | 4,486 | 12,921 | 13,280 | 6,199 | | 47,648 | |
| | ATLAS | cpu | 13,556 | 7,060 | 7,768 | 11,142 | 10,989 | 6,190 | 5,276 | 6,570 | 10,290 | 16,704 | 6,654 | 10,694 | | 112,893 | |
| | | wall | 14,986 | 7,766 | 8,476 | 11,661 | 12,141 | 6,998 | 5,619 | 6,570 | 10,290 | 16,704 | 6,654 | 10,694 | | 118,559 | |
| | CMS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 13,751 | 7,191 | 7,845 | 11,188 | 11,214 | 7,255 | 9,757 | 11,182 | 14,776 | 29,625 | 19,934 | 16,893 | 187,920 | 160,611 | 85% |
| | | wall | 15,205 | 7,918 | 8,573 | 11,718 | 12,426 | 8,227 | 9,929 | 10,983 | 14,776 | 29,625 | 19,934 | 16,893 | | 166,207 | n/a |
| CPU Non-Grid | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | ATLAS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | CMS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 187,920 | 0 | 0% |
| | | wall | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | n/a |
| CPU Total | ALICE | cpu | 195 | 131 | 77 | 46 | 225 | 1,065 | 4,481 | 4,612 | 4,486 | 12,921 | 13,280 | 6,199 | | 47,718 | |
| | | wall | 219 | 152 | 97 | 57 | 285 | 1,229 | 4,310 | 4,413 | 4,486 | 12,921 | 13,280 | 6,199 | | 47,648 | |
| | ATLAS | cpu | 13,556 | 7,060 | 7,768 | 11,142 | 10,989 | 6,190 | 5,276 | 6,570 | 10,290 | 16,704 | 6,654 | 10,694 | | 112,893 | |
| | | wall | 14,986 | 7,766 | 8,476 | 11,661 | 12,141 | 6,998 | 5,619 | 6,570 | 10,290 | 16,704 | 6,654 | 10,694 | | 118,559 | |
| | CMS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 13,751 | 7,191 | 7,845 | 11,188 | 11,214 | 7,255 | 9,757 | 11,182 | 14,776 | 29,625 | 19,934 | 16,893 | 187,920 | 160,611 | 85% |
| | | wall | 15,205 | 7,918 | 8,573 | 11,718 | 12,426 | 8,227 | 9,929 | 10,983 | 14,776 | 29,625 | 19,934 | 16,893 | | 166,207 | n/a |
| | | installed capacity** | 683 | 683 | 683 | 683 | 683 | 595 | 688 | 688 | 720 | 688 | 688 | 688 | | | |
| | | cpu usage as % installed**** | 76% | 44% | 44% | 64% | 62% | 48% | 54% | 62% | 80% | 163% | 114% | 93% | | | |
| | | MoU pledge* | 13,702 | 12,376 | 13,702 | 13,260 | 13,702 | 13,260 | 18,182 | 18,182 | 17,595 | 18,182 | 17,595 | 18,182 | | | |

Notes - cpu tables
 * MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU pledge in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007

Centre NDGF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KS12K-years) | 520 | 690 |
| Disk (Tbytes) | 170 | 390 |
| Tape (Tbytes) | 240 | 270 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|---------------------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|-----|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Disk Space - TBytes | ALICE | | | | | | | | 20 | 20 | 20 | 20 | 26 | | 106 | | |
| | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 12 | |
| | ATLAS | | | | | | | 95 | 95 | 120 | 134 | 158 | 168 | | 770 | | |
| | | 80 | 103 | 115 | 98 | 101 | 106 | 67 | 89 | 93 | 100 | 103 | 150 | | 1,205 | | |
| | CMS | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | 0 | |
| | LHCb | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | 0 | |
| | TOTAL | | 0 | 0 | 0 | 0 | 0 | 0 | 95 | 115 | 140 | 154 | 178 | 194 | 3,360 | 876 | 26% |
| | | | 81 | 104 | 116 | 99 | 102 | 107 | 68 | 90 | 94 | 101 | 104 | 151 | 2,352 | 1,217 | 52% |
| | installed capacity** | 189 | 189 | 189 | 189 | 140 | 140 | 140 | 140 | 184 | 240 | 277 | 281 | | | | |
| | disk usage as % installed*** | 61% | 79% | 88% | 75% | 104% | 109% | 69% | 92% | 73% | 60% | 54% | 77% | | | | |
| | MoU pledge* allocated | 170 | 170 | 170 | 170 | 170 | 170 | 390 | 390 | 390 | 390 | 390 | 390 | | | | |
| | used | 119 | 119 | 119 | 119 | 119 | 119 | 273 | 273 | 273 | 273 | 273 | 273 | | | | |

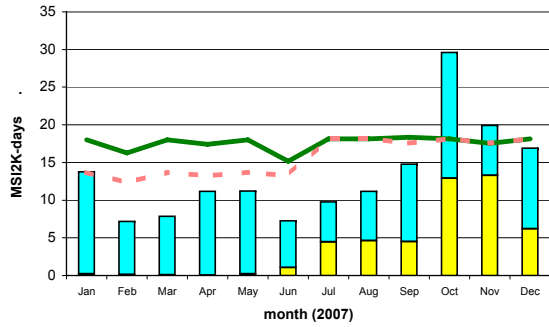
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|--------------------------|------------------------------|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|----|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Tape Space Used - TBytes | ALICE | | | | | | | 1 | | | | | 2 | | 3 | | |
| | ATLAS | | | | | | | | | 14 | 18 | 20 | 26 | | 78 | | |
| | CMS | | | | | | | | | | | | | | 0 | | |
| | LHCb | | | | | | | | | | | | | | 0 | | |
| | TOTAL | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 14 | 18 | 20 | 28 | 3,060 | 81 | 3% |
| | | installed capacity** | 186 | 186 | 186 | 186 | 186 | 112 | 112 | 112 | 112 | 112 | 112 | 112 | | | |
| | tape usage as % installed*** | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 0% | 13% | 16% | 18% | 25% | | | | |
| | MoU pledge* used | 240 | 240 | 240 | 240 | 240 | 240 | 270 | 270 | 270 | 270 | 270 | 270 | | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

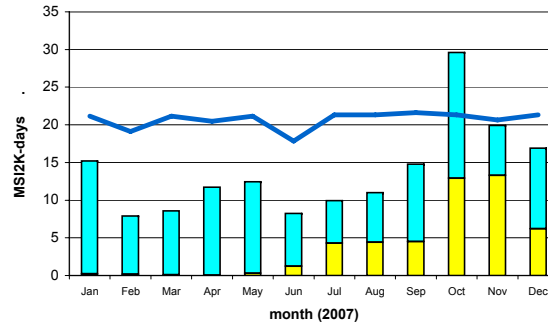
Comments: Added the ATLAS and ALICE disk/tape usage.
 max 255 chars

NDGF

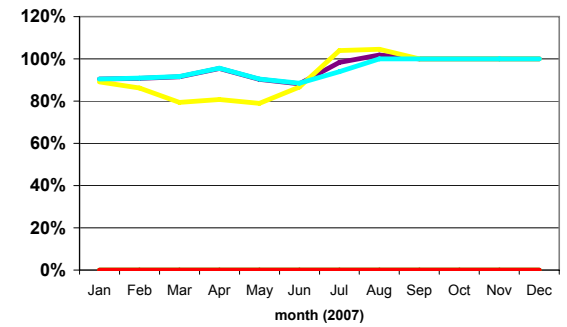
CPU Time Delivered



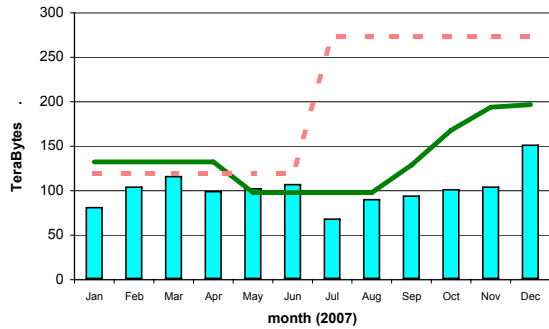
Wall-clock Time Delivered



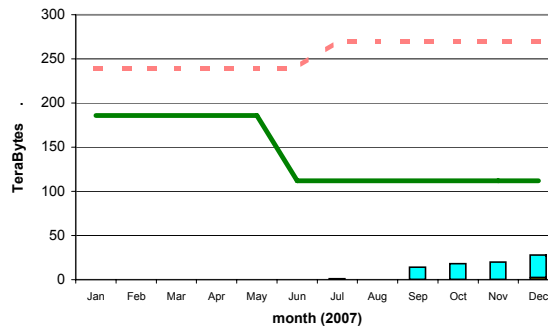
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — installed capacity (w/o efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - site average - cpu:wall_clock ratio —



WLCG Accounting Summary

December 2007
Centre NL LHC/Tier-1

Please report accounting data in the shaded cells and return the report to lwg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 306 | 1,680 |
| Disk (Tbytes) | 170 | 1,060 |
| Tape (Tbytes) | 143 | 720 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| CPU used - KSI2K-days | | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** | | | |
|-----------------------|-------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------|-------------|--------|-----|
| | | | | | | | | | | | | | | | MoU pledge | total usage | % MoU | |
| CPU Grid | ALICE | cpu | 1,803 | 1,443 | 2,427 | 3,994 | 361 | 2,626 | 2,814 | 1,679 | 2,018 | 2,841 | 1,471 | 754 | | | | |
| | | wall | 2,093 | 2,395 | 3,319 | 2,766 | 474 | 2,721 | 3,575 | 2,400 | 2,723 | 3,116 | 2,468 | 1,145 | | | | |
| | ATLAS | cpu | 6,214 | 6,314 | 3,345 | 2,363 | 4,155 | 4,156 | 1,727 | 2,731 | 4,008 | 4,286 | 2,563 | 2,405 | | | | |
| | | wall | 10,325 | 9,367 | 6,417 | 3,385 | 6,985 | 4,931 | 2,964 | 3,629 | 8,289 | 9,092 | 11,094 | 6,376 | | | | |
| | CMS | cpu | | | | 1 | | | | | | | 1 | | 1 | | | |
| | | wall | | | | 1 | | | | 2 | | 2 | | 2 | | 2 | | |
| | LHCb | cpu | 6,400 | 9,553 | 7,311 | 1,855 | 928 | 9,195 | 4,583 | 2,254 | 190 | 574 | 269 | 1,159 | | | | |
| | | wall | 8,358 | 9,922 | 7,804 | 2,003 | 946 | 9,677 | 4,895 | 2,299 | 417 | 1,185 | 1,424 | 2,037 | | | | |
| | TOTAL | cpu | 14,417 | 17,310 | 13,083 | 8,213 | 5,444 | 15,977 | 9,124 | 6,664 | 6,216 | 7,702 | 4,303 | 4,319 | 309,830 | 112,772 | 36% | |
| | | wall | 20,776 | 21,684 | 17,540 | 8,155 | 8,405 | 17,329 | 11,434 | 8,330 | 11,429 | 13,395 | 14,986 | 9,560 | | 163,023 | n/a | |
| CPU Non-Grid | ALICE | cpu | 421 | 324 | 724 | 737 | 208 | | | | | | | | | | 2,414 | |
| | | wall | 437 | 373 | 998 | 880 | 305 | | | | | | | | | | 2,993 | |
| | ATLAS | cpu | | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | | 0 | |
| | CMS | cpu | | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | | 0 | |
| | LHCb | cpu | | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 421 | 324 | 724 | 737 | 208 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 309,830 | 2,414 | 1% |
| | | wall | 437 | 373 | 998 | 880 | 305 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 2,993 | n/a |
| CPU Total | ALICE | cpu | 2,224 | 1,767 | 3,151 | 4,731 | 569 | 2,626 | 2,814 | 1,679 | 2,018 | 2,841 | 1,471 | 754 | | | 26,645 | |
| | | wall | 2,530 | 2,768 | 4,317 | 3,646 | 779 | 2,721 | 3,575 | 2,400 | 2,723 | 3,116 | 2,468 | 1,145 | | | 32,188 | |
| | ATLAS | cpu | 6,214 | 6,314 | 3,345 | 2,363 | 4,155 | 4,156 | 1,727 | 2,731 | 4,008 | 4,286 | 2,563 | 2,405 | | | 44,267 | |
| | | wall | 10,325 | 9,367 | 6,417 | 3,385 | 6,985 | 4,931 | 2,964 | 3,629 | 8,289 | 9,092 | 11,094 | 6,376 | | | 82,854 | |
| | CMS | cpu | | | | 1 | | | | | | | 1 | | 1 | | 3 | |
| | | wall | | | | 1 | | | | 2 | | 2 | | 2 | | 2 | 7 | |
| | LHCb | cpu | 6,400 | 9,553 | 7,311 | 1,855 | 928 | 9,195 | 4,583 | 2,254 | 190 | 574 | 269 | 1,159 | | | 44,271 | |
| | | wall | 8,358 | 9,922 | 7,804 | 2,003 | 946 | 9,677 | 4,895 | 2,299 | 417 | 1,185 | 1,424 | 2,037 | | | 50,967 | |
| | TOTAL | cpu | 14,838 | 17,634 | 13,807 | 8,950 | 5,652 | 15,977 | 9,124 | 6,664 | 6,216 | 7,702 | 4,303 | 4,319 | 309,830 | 115,186 | 37% | |
| | | wall | 21,213 | 22,057 | 18,538 | 9,035 | 8,710 | 17,329 | 11,434 | 8,330 | 11,429 | 13,395 | 14,986 | 9,560 | | 166,016 | n/a | |
| | | installed capacity** | 558 | 558 | 774 | 774 | 558 | 774 | 774 | 774 | 774 | 774 | 774 | | | | | |
| | | cpu usage as % installed**** | 101% | 133% | 68% | 45% | 38% | 81% | 45% | 33% | 31% | 38% | 22% | 21% | | | | |
| | | MoU pledge* | 8,063 | 7,283 | 8,063 | 7,803 | 8,063 | 7,803 | 44,268 | 44,268 | 42,840 | 44,268 | 44,268 | | | | | |

Notes - cpu tables
 * MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU pledge in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007

Centre NL LHC/Tier-1

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KS12K-years) | 306 | 1,680 |
| Disk (Tbytes) | 170 | 1,060 |
| Tape (Tbytes) | 143 | 720 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | | |
|---------------------|-----------------------|------------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-------|----|-------|-----|
| | | MoU pledge | total TB-months | % MoU | | | | | | | | | | | | | | |
| Disk Space - TBytes | ALICE | allocated | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | | | | | |
| | | used | | | | | | | | | | 1 | 1 | 1 | | 34 | | |
| | ATLAS | allocated | 28 | 28 | 41 | 59 | 48 | 59 | 59 | 90 | 92 | 105 | 105 | 105 | | | | |
| | | used | 17 | 25 | 27 | 33 | 32 | 53 | 53 | 73 | 79 | 94 | 103 | 99 | | | 819 | |
| | CMS | allocated | | | | | | | | | | | | | | | 688 | |
| | | used | | | | | | | | | | | | | | | 0 | |
| | LHCb | allocated | 34 | 34 | 39 | 53 | 47 | 61 | 61 | 74 | 74 | 72 | 72 | 72 | | | 0 | |
| | | used | 8 | 27 | 37 | 38 | 37 | 58 | 58 | 62 | 64 | 66 | 66 | 66 | | | 693 | |
| | TOTAL | allocated | 65 | 65 | 83 | 114 | 97 | 123 | 123 | 167 | 169 | 180 | 180 | 180 | 7,380 | | 1,546 | 21% |
| | | used | 25 | 52 | 64 | 71 | 69 | 111 | 111 | 135 | 143 | 161 | 170 | 166 | 5,166 | | 1,278 | 25% |
| | | installed capacity** | 96 | 104 | 148 | 270 | 286 | 253 | 253 | 253 | 253 | 253 | 253 | 253 | | | | |
| | | disk usage as % installed*** | 37% | 71% | 62% | 38% | 34% | 63% | 63% | 76% | 81% | 91% | 96% | 94% | | | | |
| | MoU pledge* allocated | 170 | 170 | 170 | 170 | 170 | 170 | 1,060 | 1,060 | 1,060 | 1,060 | 1,060 | 1,060 | | | | | |
| | used | 119 | 119 | 119 | 119 | 119 | 119 | 742 | 742 | 742 | 742 | 742 | 742 | | | | | |

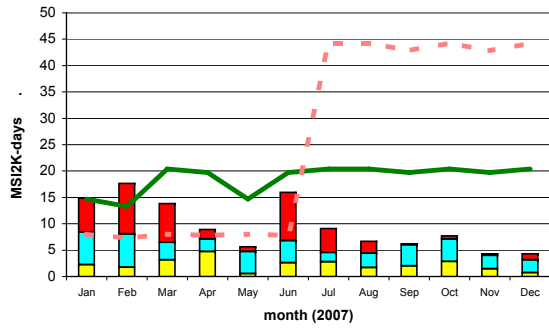
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|--------------------------|------------------|------------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|--|-----|----|
| | | MoU pledge | total TB-months | % MoU | | | | | | | | | | | | | |
| Tape Space Used - TBytes | ALICE | | | | | | | | | | | 13 | | | | 13 | |
| | ATLAS | 18 | 18 | 38 | 15 | 17 | 20 | 20 | 32 | 32 | 32 | 58 | 58 | | | 358 | |
| | CMS | | | | | | | | | | | | | | | 0 | |
| | LHCb | 7 | 7 | 7 | 7 | 8 | 9 | 9 | 12 | 12 | 12 | | | 13 | | 103 | |
| | TOTAL | 25 | 25 | 45 | 22 | 25 | 29 | 29 | 44 | 44 | 44 | 71 | 71 | 5,178 | | 474 | 9% |
| | | installed capacity** | 25 | 25 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 100 | 52 | | | |
| | | tape usage as % installed*** | 100% | 100% | 87% | 42% | 48% | 56% | 56% | 85% | 85% | 85% | 71% | 137% | | | |
| | MoU pledge* used | 143 | 143 | 143 | 143 | 143 | 143 | 720 | 720 | 720 | 720 | 720 | 720 | | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

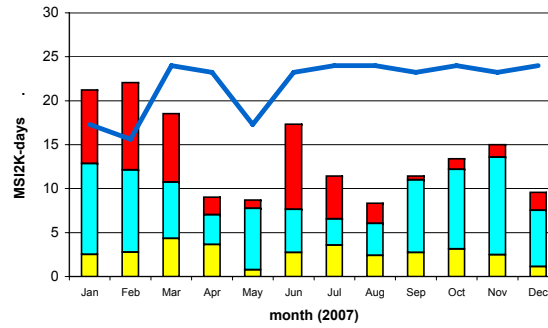
Comments: Values were corrected. The numbers for Nov. 2007 tape usage to be the same as the ones for Dec. 2007.
 max 255 chars

NL LHC-Tier-1

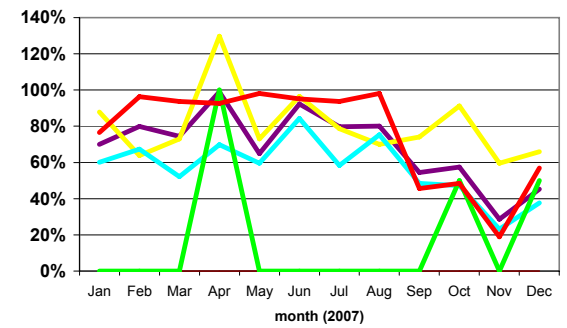
CPU Time Delivered



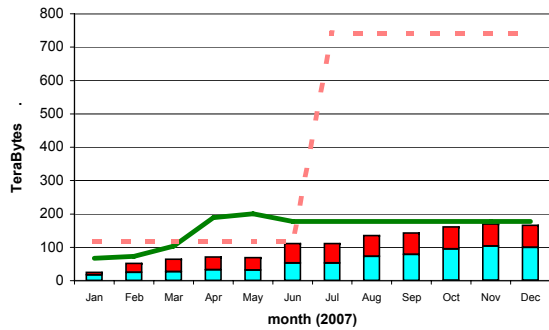
Wall-clock Time Delivered



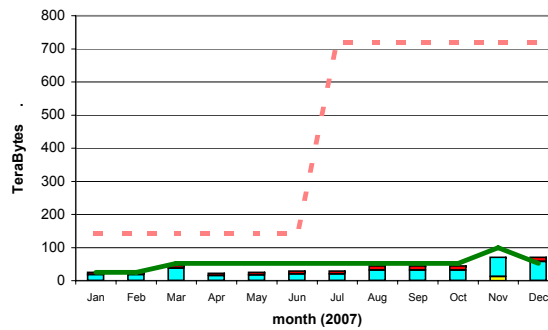
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE (yellow) CMS (green) installed capacity (inc. efficiency factor) (solid green line) installed capacity (w/o efficiency factor) (solid blue line)
 ATLAS (cyan) LHCb (red) MoU commitment (inc. efficiency factor) (dashed red line) site average - cpu:wall_clock ratio (purple line)



WLCG Accounting Summary

December 2007
Centre PIC

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 250 | 500 |
| Disk (Tbytes) | 140 | 220 |
| Tape (Tbytes) | 158 | 240 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| CPU used - KSI2K-days | | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** | | |
|-----------------------|-------|------------------------------|------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------|---------|-----|
| | | | MoU pledge | total usage | % MoU | | | | | | | | | | | | |
| CPU Grid | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | | 0 |
| | ATLAS | cpu | 4,487 | 4,878 | 3,648 | 4,393 | 3,759 | 4,240 | 2,301 | 2,304 | 827 | 2,089 | 2,624 | 2,277 | | 37,827 | |
| | | wall | 6,336 | 7,747 | 5,021 | 5,811 | 6,698 | 5,851 | 3,087 | 3,466 | 3,309 | 4,573 | 5,987 | 4,534 | | 62,420 | |
| | CMS | cpu | 3,167 | 4,402 | 3,759 | 5,338 | 955 | 3,023 | 8,814 | 896 | 2,393 | 760 | 744 | 1,228 | | 35,479 | |
| | | wall | 3,547 | 5,311 | 6,686 | 5,846 | 2,319 | 4,542 | 9,607 | 1,700 | 5,674 | 3,998 | 4,407 | 7,112 | | 60,749 | |
| | LHCb | cpu | 6,366 | 3,175 | 1,508 | 898 | 921 | 1,465 | 2,790 | 1,765 | 693 | 1,210 | 430 | 404 | | 21,625 | |
| | | wall | 7,962 | 3,383 | 1,850 | 1,081 | 1,196 | 1,758 | 3,136 | 3,434 | 1,921 | 1,790 | 1,171 | 528 | | 29,210 | |
| | TOTAL | cpu | 14,020 | 12,455 | 8,915 | 10,629 | 5,635 | 8,728 | 13,905 | 4,965 | 3,913 | 4,059 | 3,798 | 3,909 | 116,664 | 94,931 | 81% |
| | | wall | 17,845 | 16,441 | 13,557 | 12,738 | 10,213 | 12,151 | 15,830 | 8,600 | 10,904 | 10,361 | 11,565 | 12,174 | | 152,379 | n/a |
| CPU Non-Grid | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | ATLAS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | CMS | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | LHCb | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | TOTAL | cpu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 116,664 | 0 | 0% |
| | | wall | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | n/a |
| CPU Total | ALICE | cpu | | | | | | | | | | | | | | 0 | |
| | | wall | | | | | | | | | | | | | | 0 | |
| | ATLAS | cpu | 4,487 | 4,878 | 3,648 | 4,393 | 3,759 | 4,240 | 2,301 | 2,304 | 827 | 2,089 | 2,624 | 2,277 | | 37,827 | |
| | | wall | 6,336 | 7,747 | 5,021 | 5,811 | 6,698 | 5,851 | 3,087 | 3,466 | 3,309 | 4,573 | 5,987 | 4,534 | | 62,420 | |
| | CMS | cpu | 3,167 | 4,402 | 3,759 | 5,338 | 955 | 3,023 | 8,814 | 896 | 2,393 | 760 | 744 | 1,228 | | 35,479 | |
| | | wall | 3,547 | 5,311 | 6,686 | 5,846 | 2,319 | 4,542 | 9,607 | 1,700 | 5,674 | 3,998 | 4,407 | 7,112 | | 60,749 | |
| | LHCb | cpu | 6,366 | 3,175 | 1,508 | 898 | 921 | 1,465 | 2,790 | 1,765 | 693 | 1,210 | 430 | 404 | | 21,625 | |
| | | wall | 7,962 | 3,383 | 1,850 | 1,081 | 1,196 | 1,758 | 3,136 | 3,434 | 1,921 | 1,790 | 1,171 | 528 | | 29,210 | |
| | TOTAL | cpu | 14,020 | 12,455 | 8,915 | 10,629 | 5,635 | 8,728 | 13,905 | 4,965 | 3,913 | 4,059 | 3,798 | 3,909 | 116,664 | 94,931 | 81% |
| | | wall | 17,845 | 16,441 | 13,557 | 12,738 | 10,213 | 12,151 | 15,830 | 8,600 | 10,904 | 10,361 | 11,565 | 12,174 | | 152,379 | n/a |
| | | installed capacity** | 600 | 600 | 510 | 450 | 450 | 480 | 600 | 600 | 477 | 477 | 477 | | | | |
| | | cpu usage as % installed**** | 89% | 87% | 66% | 93% | 48% | 71% | 88% | 31% | 26% | 32% | 31% | 31% | | | |
| | | MoU pledge* | 6,588 | 5,950 | 6,588 | 6,375 | 6,588 | 6,375 | 13,175 | 13,175 | 12,750 | 13,175 | 12,750 | 13,175 | | | |

Notes - cpu tables
 * MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU pledge in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007

Centre PIC

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 | 2007 |
|-------------------|---------|---------|
| | jan-jun | jul-dec |
| CPU (KS12K-years) | 250 | 500 |
| Disk (Tbytes) | 140 | 220 |
| Tape (Tbytes) | 158 | 240 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|---------------------|------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|-----|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Disk Space - TBytes | ALICE | allocated | | | | | | | | | | | | | 0 | | |
| | | used | | | | | | | | | | | | | 0 | | |
| | ATLAS | allocated | 11 | 18 | 18 | 26 | 24 | 26 | 79 | 79 | 78 | 114 | 114 | 111 | | 698 | |
| | | used | 11 | 16 | 16 | 24 | 17 | 19 | 26 | 43 | 61 | 83 | 99 | 95 | | 510 | |
| | CMS | allocated | 31 | 23 | 23 | 26 | 26 | 26 | 79 | 79 | 132 | 133 | 133 | 128 | | 839 | |
| | | used | 22 | 19 | 14 | 19 | 14 | 8 | 15 | 23 | 33 | 80 | 85 | 102 | | 434 | |
| | LHCb | allocated | 23 | 29 | 29 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 33 | | 402 | |
| | | used | 22 | 28 | 28 | 28 | 27 | 32 | 36 | 36 | 36 | 36 | 36 | 33 | | 378 | |
| | TOTAL | allocated | 65 | 70 | 70 | 88 | 86 | 88 | 194 | 194 | 246 | 283 | 283 | 272 | 2,160 | 1,939 | 90% |
| | | used | 55 | 63 | 58 | 71 | 58 | 59 | 77 | 102 | 130 | 199 | 220 | 230 | 1,512 | 1,322 | 87% |
| | installed capacity** | 65 | 70 | 70 | 88 | 86 | 88 | 280 | 280 | 280 | 284 | 284 | 272 | | | | |
| | disk usage as % installed*** | 121% | 129% | 118% | 115% | 96% | 96% | 39% | 52% | 66% | 100% | 111% | 121% | | | | |
| | MoU pledge* allocated | 140 | 140 | 140 | 140 | 140 | 140 | 220 | 220 | 220 | 220 | 220 | 220 | | | | |
| | used | 98 | 98 | 98 | 98 | 98 | 98 | 154 | 154 | 154 | 154 | 154 | 154 | | | | |

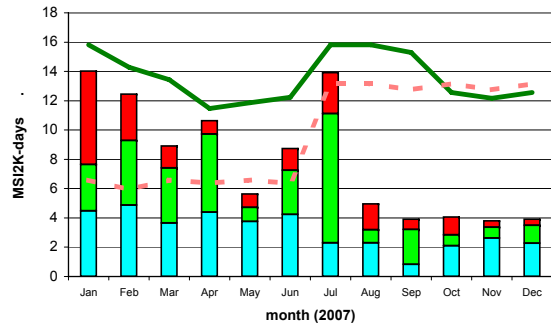
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|--------------------------|------------------------------|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|--|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Tape Space Used - TBytes | ALICE | | | | | | | | | | | | | | 0 | | |
| | ATLAS | 56 | 58 | 67 | 69 | 72 | 72 | 72 | 73 | 74 | 65 | 74 | 41 | | 793 | | |
| | CMS | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 47 | 99 | 120 | | 635 | |
| | LHCb | 45 | 46 | 38 | 38 | 39 | 40 | 38 | 39 | 39 | 40 | 27 | 24 | | 453 | | |
| | TOTAL | 142 | 145 | 146 | 148 | 152 | 153 | 151 | 153 | 154 | 152 | 200 | 185 | 2,388 | 1,881 | 79% | |
| | | installed capacity** | 152 | 152 | 161 | 161 | 167 | 167 | 243 | 243 | 243 | 240 | 240 | 240 | | | |
| | tape usage as % installed*** | 93% | 95% | 91% | 92% | 91% | 92% | 62% | 63% | 63% | 63% | 83% | 77% | | | | |
| | MoU pledge* used | 158 | 158 | 158 | 158 | 158 | 158 | 240 | 240 | 240 | 240 | 240 | 240 | | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

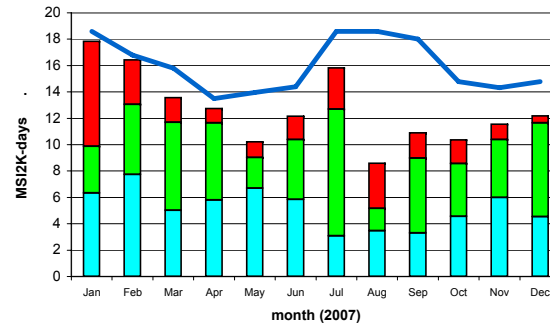
Comments:

PIC

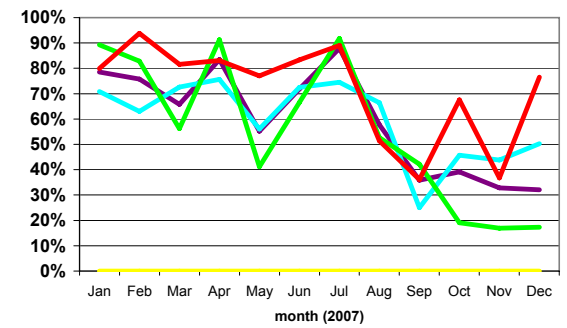
CPU Time Delivered



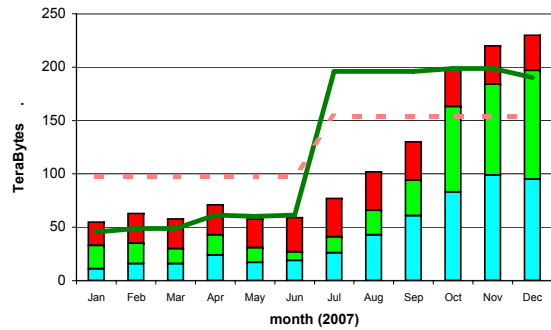
Wall-clock Time Delivered



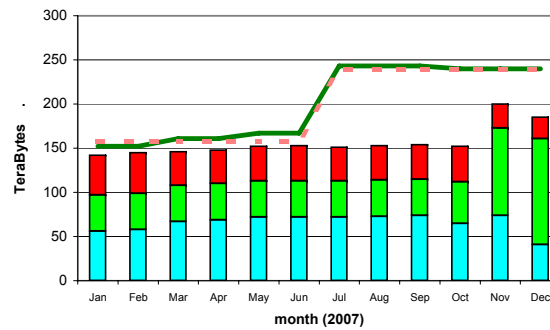
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — installed capacity (w/o efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - site average - cpu:wall_clock ratio —



WLCG Accounting Summary

December 2007
Centre RAL

Please report accounting data in the shaded cells and return the report to lwg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 980 | 1,300 |
| Disk (Tbytes) | 449 | 640 |
| Tape (Tbytes) | 664 | 1,080 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| CPU used - KSI2K-days | | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** | | |
|------------------------------|--------|--------|------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------------------------|---------|-----|
| | | | MoU pledge | total usage | % MoU | | | | | | | | | | | | |
| CPU Grid | ALICE | cpu | 629 | 687 | 878 | 523 | 566 | 944 | 599 | 1,013 | 1,756 | 1,610 | 1,715 | 1,951 | 354,093 | 116,268 | 33% |
| | | wall | 792 | 974 | 1,247 | 645 | 781 | 968 | 593 | 1,421 | 1,792 | 1,641 | 1,756 | 1,896 | | | |
| | ATLAS | cpu | 2,463 | 2,165 | 1,149 | 2,164 | 6,648 | 7,538 | 2,705 | 4,626 | 4,613 | 8,839 | 6,081 | 5,409 | | | |
| | | wall | 4,228 | 4,133 | 1,829 | 2,594 | 8,087 | 8,925 | 2,920 | 6,189 | 8,459 | 13,188 | 9,440 | 6,683 | | | |
| | CMS | cpu | 3,955 | 4,355 | 3,309 | 9,144 | 623 | 514 | 2 | 55 | 652 | 535 | 1,361 | 695 | | | |
| | | wall | 4,570 | 5,977 | 14,121 | 14,306 | 2,870 | 3,482 | 3,870 | 700 | 795 | 820 | 2,004 | 1,010 | | | |
| | LHCb | cpu | 5,238 | 2,511 | 1,554 | 1,495 | 1,719 | 5,626 | 1,193 | 669 | 833 | 1,239 | 459 | 1,261 | | | |
| | | wall | 13,911 | 5,944 | 2,436 | 1,576 | 3,765 | 8,030 | 1,443 | 4,067 | 1,566 | 2,588 | 2,308 | 1,929 | | | |
| | TOTAL | cpu | 12,285 | 9,718 | 6,890 | 13,326 | 9,556 | 14,622 | 4,499 | 6,363 | 7,854 | 12,223 | 9,616 | 9,316 | | | |
| | wall | 23,501 | 17,028 | 19,633 | 19,121 | 15,503 | 21,405 | 8,826 | 12,377 | 12,612 | 18,237 | 15,508 | 11,518 | | | | |
| CPU Non-Grid | ALICE | cpu | | | | | | | 36 | 32 | | | | 354,093 | 995 | 0% | |
| | | wall | | | | | | | 45 | 37 | | | | | | | |
| | ATLAS | cpu | 35 | 27 | 9 | 321 | 126 | | 160 | 21 | 1 | 3 | 64 | | | | 4 |
| | | wall | 58 | 43 | 27 | 334 | 141 | 12 | 163 | 23 | 1 | 3 | 65 | | | | 5 |
| | CMS | cpu | 5 | 11 | 5 | 5 | 5 | 6 | 10 | 2 | | | | | | | |
| | | wall | 69 | 91 | 18 | 7 | 222 | 627 | 323 | 46 | | | | | | | |
| | LHCb | cpu | 91 | | | | | | 8 | 8 | | | | | | | |
| | | wall | 92 | | | | | 3 | 9 | 8 | | | | | | | |
| | TOTAL | cpu | 131 | 38 | 14 | 326 | 131 | 6 | 214 | 63 | 1 | 3 | 64 | | | | 4 |
| | wall | 219 | 134 | 45 | 341 | 363 | 642 | 540 | 114 | 1 | 3 | 65 | 5 | | | | |
| CPU Total | ALICE | cpu | 629 | 687 | 878 | 523 | 566 | 944 | 635 | 1,045 | 1,756 | 1,610 | 1,715 | 1,951 | 354,093 | 117,263 | 33% |
| | | wall | 792 | 974 | 1,247 | 645 | 781 | 968 | 638 | 1,458 | 1,792 | 1,641 | 1,756 | 1,896 | | | |
| | ATLAS | cpu | 2,498 | 2,192 | 1,158 | 2,485 | 6,774 | 7,538 | 2,865 | 4,647 | 4,614 | 8,842 | 6,145 | 5,413 | | | |
| | | wall | 4,286 | 4,176 | 1,856 | 2,928 | 8,228 | 8,937 | 3,083 | 6,212 | 8,460 | 13,191 | 9,505 | 6,688 | | | |
| | CMS | cpu | 3,960 | 4,366 | 3,314 | 9,149 | 628 | 520 | 12 | 57 | 652 | 535 | 1,361 | 695 | | | |
| | | wall | 4,639 | 6,068 | 14,139 | 14,313 | 3,092 | 4,109 | 4,193 | 746 | 795 | 820 | 2,004 | 1,010 | | | |
| | LHCb | cpu | 5,329 | 2,511 | 1,554 | 1,495 | 1,719 | 5,626 | 1,201 | 677 | 833 | 1,239 | 459 | 1,261 | | | |
| | | wall | 14,003 | 5,944 | 2,436 | 1,576 | 3,765 | 8,033 | 1,452 | 4,075 | 1,566 | 2,588 | 2,308 | 1,929 | | | |
| | TOTAL | cpu | 12,416 | 9,756 | 6,904 | 13,652 | 9,687 | 14,628 | 4,713 | 6,426 | 7,855 | 12,226 | 9,680 | 9,320 | | | |
| | wall | 23,720 | 17,162 | 19,678 | 19,462 | 15,866 | 22,047 | 9,366 | 12,491 | 12,613 | 18,240 | 15,573 | 11,523 | | | | |
| installed capacity** | 775 | 735 | 736 | 926 | 810 | 820 | 895 | 895 | 1,295 | 1,283 | 1,373 | 1,603 | | | | | |
| cpu usage as % installed**** | 61% | 56% | 36% | 58% | 45% | 70% | 20% | 27% | 24% | 36% | 28% | 22% | | | | | |
| MoU pledge* | 25,823 | 23,324 | 25,823 | 24,990 | 25,823 | 24,990 | 34,255 | 34,255 | 33,150 | 34,255 | 33,150 | 34,255 | | | | | |

Notes - cpu tables
 * MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU pledge in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007
Centre RAL

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 | 2007 |
|-------------------|---------|---------|
| | jan-jun | jul-dec |
| CPU (KS12K-years) | 980 | 1,300 |
| Disk (Tbytes) | 449 | 640 |
| Tape (Tbytes) | 664 | 1,080 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|---------------------|------------------------------|------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-------|-------|-----|
| | | MoU pledge | total TB-months | % MoU | | | | | | | | | | | | | |
| Disk Space - TBytes | ALICE | allocated | 2 | 1 | 1 | 15 | 21 | 27 | 21 | 21 | 39 | 41 | 21 | 44 | | 254 | |
| | | used | | | | | | | | | | | | | | 0 | |
| | ATLAS | allocated | 30 | 72 | 36 | 114 | 114 | 114 | 114 | 164 | 164 | 214 | 204 | 233 | | 1,573 | |
| | | used | 22 | 27 | 33 | 34 | 34 | 33 | 35 | 42 | 56 | 111 | 147 | 165 | | 739 | |
| | CMS | allocated | 55 | 51 | 77 | 100 | 120 | 120 | 120 | 140 | 150 | 160 | 163 | 168 | | 1,424 | |
| | | used | 46 | 32 | 20 | 34 | 25 | 32 | 45 | 50 | 48 | 60 | 78 | 96 | | 566 | |
| | LHCb | allocated | 22 | 53 | 41 | 62 | 64 | 64 | 64 | 79 | 79 | 89 | 127 | 138 | | 882 | |
| | | used | 17 | 19 | 38 | 46 | 46 | 46 | 53 | 63 | 66 | 73 | 73 | 87 | | 627 | |
| | TOTAL | allocated | 109 | 177 | 155 | 291 | 319 | 325 | 319 | 404 | 432 | 504 | 515 | 583 | 6,534 | 4,133 | 63% |
| | | used | 85 | 78 | 91 | 114 | 105 | 111 | 133 | 155 | 170 | 244 | 298 | 348 | 4,572 | 1,932 | 42% |
| | installed capacity** | 171 | 177 | 221 | 291 | 640 | 640 | 640 | 640 | 640 | 640 | 640 | 659 | | | | |
| | disk usage as % installed*** | 71% | 63% | 59% | 56% | 23% | 25% | 30% | 35% | 38% | 54% | 67% | 75% | | | | |
| | MoU pledge* allocated | 449 | 449 | 449 | 449 | 449 | 449 | 640 | 640 | 640 | 640 | 640 | 640 | | | | |
| | used | 314 | 314 | 314 | 314 | 314 | 314 | 448 | 448 | 448 | 448 | 448 | 448 | | | | |

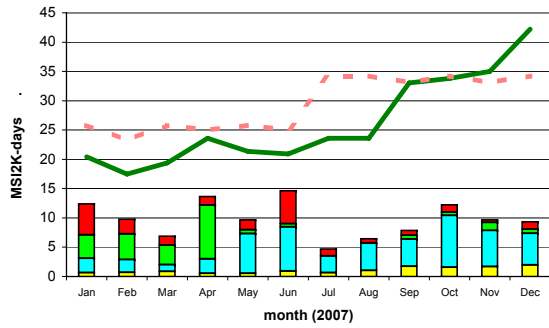
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|--------------------------|------------------|------------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|--------|-------|-----|
| | | MoU pledge | total TB-months | % MoU | | | | | | | | | | | | | |
| Tape Space Used - TBytes | ALICE | | 1 | 1 | 2 | | | | | | | | | | | 4 | |
| | ATLAS | | 64 | 66 | 73 | 77 | 77 | 91 | 52 | 58 | 126 | 141 | 145 | | 1,047 | | |
| | CMS | | 189 | 200 | 248 | 322 | 425 | 335 | 325 | 200 | 262 | 387 | 471 | | 3,751 | | |
| | LHCb | | 39 | 47 | 51 | 51 | 52 | 55 | 51 | 53 | 53 | 58 | 58 | | 630 | | |
| | TOTAL | | 293 | 314 | 374 | 450 | 554 | 467 | 467 | 305 | 373 | 571 | 586 | 678 | 10,464 | 5,432 | 52% |
| | | installed capacity** | 286 | 298 | 1,080 | 360 | 384 | 384 | 390 | 390 | 390 | 390 | 1,250 | 1,250 | | | |
| | | tape usage as % installed*** | 102% | 105% | 35% | 125% | 144% | 122% | 120% | 78% | 96% | 146% | 47% | 54% | | | |
| | MoU pledge* used | 664 | 664 | 664 | 664 | 664 | 664 | 1,080 | 1,080 | 1,080 | 1,080 | 1,080 | 1,080 | | | | |

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used
 note - 2006 pledge to end June, 2007 pledge from July
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

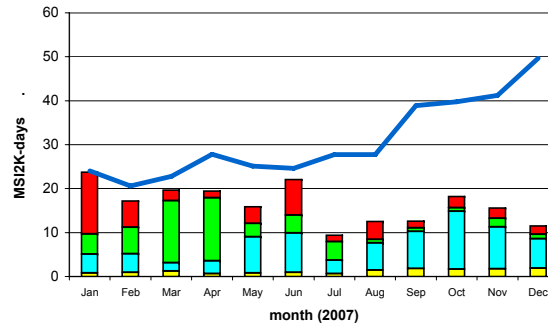
Comments:

RAL

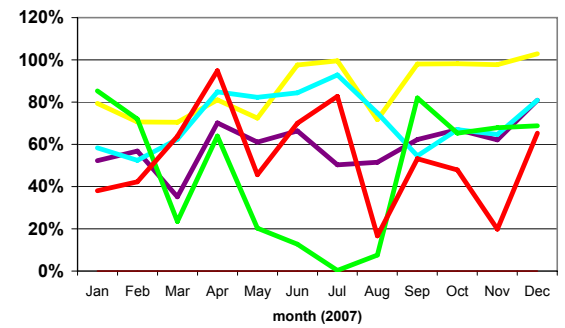
CPU Time Delivered



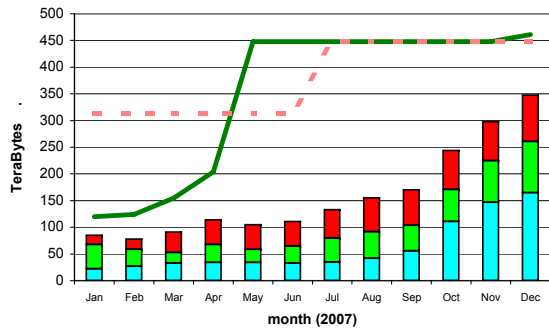
Wall-clock Time Delivered



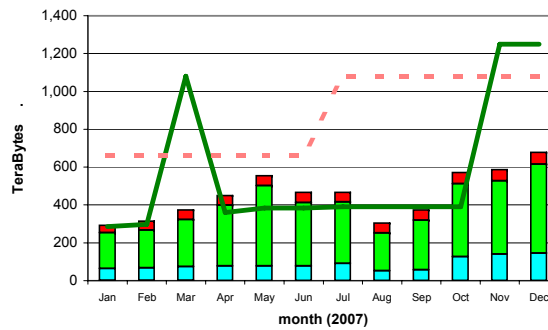
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — installed capacity (w/o efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - site average - cpu:wall_clock ratio —



WLCG Accounting Summary

December 2007
Centre TRIUMF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KSI2K-years) | 150 | 160 |
| Disk (Tbytes) | 12 | 110 |
| Tape (Tbytes) | 12 | 80 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

CPU used - KSI2K-days

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** | | | |
|--------------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------|-------------|---------|------|
| | | | | | | | | | | | | | | MoU pledge | total usage | % MoU | |
| CPU Grid | ALICE | | | | | | | | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | 0 | | |
| | ATLAS | 4,340 | 1,736 | 2,939 | 3,353 | 3,455 | 4,367 | 2,379 | 3,132 | 26,001 | 52,419 | 51,217 | 30,376 | | 185,714 | | |
| | | 3,077 | 1,710 | 2,320 | 5,020 | 6,839 | 7,025 | 3,525 | 4,426 | 33,505 | 61,788 | 61,788 | 33,962 | | 224,985 | | |
| | CMS | | | | | | | | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | 0 | | |
| | LHCb | | | | | | | | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | 0 | | |
| | TOTAL | cpu | 4,340 | 1,736 | 2,939 | 3,353 | 3,455 | 4,367 | 2,379 | 3,132 | 26,001 | 52,419 | 51,217 | 30,376 | 48,103 | 185,714 | 386% |
| | | wall | 3,077 | 1,710 | 2,320 | 5,020 | 6,839 | 7,025 | 3,525 | 4,426 | 33,505 | 61,788 | 61,788 | 33,962 | | 224,985 | n/a |
| CPU Non-Grid | ALICE | | | | | | | | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | 0 | | |
| | ATLAS | | | | | | | | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | 0 | | |
| | CMS | | | | | | | | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | 0 | | |
| | LHCb | | | | | | | | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | 0 | | |
| | TOTAL | cpu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48,103 | 0 | 0% |
| | | wall | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | n/a |
| CPU Total | ALICE | | | | | | | | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | 0 | | |
| | ATLAS | 4,340 | 1,736 | 2,939 | 3,353 | 3,455 | 4,367 | 2,379 | 3,132 | 26,001 | 52,419 | 51,217 | 30,376 | | 185,714 | | |
| | | 3,077 | 1,710 | 2,320 | 5,020 | 6,839 | 7,025 | 3,525 | 4,426 | 33,505 | 61,788 | 61,788 | 33,962 | | 224,985 | | |
| | CMS | | | | | | | | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | 0 | | |
| | LHCb | | | | | | | | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | 0 | | |
| | TOTAL | cpu | 4,340 | 1,736 | 2,939 | 3,353 | 3,455 | 4,367 | 2,379 | 3,132 | 26,001 | 52,419 | 51,217 | 30,376 | 48,103 | 185,714 | 386% |
| | | wall | 3,077 | 1,710 | 2,320 | 5,020 | 6,839 | 7,025 | 3,525 | 4,426 | 33,505 | 61,788 | 61,788 | 33,962 | | 224,985 | n/a |
| | installed capacity** | 305 | 305 | 305 | 305 | 305 | 305 | 305 | 305 | 905 | 905 | 905 | 905 | | | | |
| | cpu usage as % installed**** | 54% | 24% | 37% | 43% | 43% | 56% | 30% | 39% | 113% | 220% | 222% | 127% | | | | |
| | MoU pledge* | 3,953 | 3,570 | 3,953 | 3,825 | 3,953 | 3,825 | 4,216 | 4,216 | 4,216 | 4,080 | 4,216 | 4,080 | 4,216 | | | |

Notes - cpu tables

- * MoU pledge - pledge in MoU for KSI2K-days of cpu time for current month (includes efficiency factor)
note - 2006 pledge to end June, 2007 pledge from July
- ** installed capacity - capacity installed (KSI2K)
- *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
- % MoU - percentage of MoU pledge in calendar year to current date
- **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2007

Centre TRIUMF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

| MoU pledges | 2006 jan-jun | 2007 jul-dec |
|-------------------|-----------------|-----------------|
| CPU (KS12K-years) | 150 | 160 |
| Disk (Tbytes) | 12 | 110 |
| Tape (Tbytes) | 12 | 80 |

| Standard efficiency factors | |
|---------------------------------|------|
| Scheduled cpu used (Tier-0, -1) | 85% |
| Chaotic cpu used (Tier-2) | 60% |
| Disk utilisation | 70% |
| Mass store utilisation | 100% |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|---------------------|------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|------|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Disk Space - TBytes | ALICE | allocated | | | | | | | | | | | | | 0 | | |
| | | used | | | | | | | | | | | | | 0 | | |
| | ATLAS | allocated | 12 | 23 | 23 | 23 | 23 | 23 | 30 | 30 | 110 | 110 | 110 | 110 | | 627 | |
| | | used | 12 | 22 | 22 | 22 | 22 | 22 | 24 | 29 | 48 | 75 | 97 | 120 | | 515 | |
| | CMS | allocated | | | | | | | | | | | | | | 0 | |
| | | used | | | | | | | | | | | | | | 0 | |
| | LHCb | allocated | | | | | | | | | | | | | | 0 | |
| | | used | | | | | | | | | | | | | | 0 | |
| | TOTAL | allocated | 12 | 23 | 23 | 23 | 23 | 23 | 30 | 30 | 110 | 110 | 110 | 110 | 732 | 627 | 86% |
| | | used | 12 | 22 | 22 | 22 | 22 | 22 | 24 | 29 | 48 | 75 | 97 | 120 | 510 | 515 | 101% |
| | installed capacity** | 12 | 23 | 24 | 24 | 24 | 24 | 24 | 24 | 110 | 110 | 110 | 110 | | | | |
| | disk usage as % installed*** | 143% | 137% | 131% | 131% | 131% | 131% | 143% | 173% | 62% | 97% | 126% | 156% | | | | |
| | MoU pledge* allocated | 12 | 12 | 12 | 12 | 12 | 12 | 110 | 110 | 110 | 110 | 110 | 110 | | | | |
| | used | 8 | 8 | 8 | 8 | 8 | 8 | 77 | 77 | 77 | 77 | 77 | 77 | | | | |

| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | aggregate 2007 to date*** (TB-months) | | | |
|--------------------------|------------------------------|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------------------|-----------------|-------|-----|
| | | | | | | | | | | | | | | MoU pledge | total TB-months | % MoU | |
| Tape Space Used - TBytes | ALICE | | | | | | | | | | | | | | 0 | | |
| | ATLAS | | | | 2 | 3 | 5 | 6 | 6 | 12 | 25 | 44 | 105 | 125 | | 333 | |
| | CMS | | | | | | | | | | | | | | | 0 | |
| | LHCb | | | | | | | | | | | | | | | 0 | |
| | TOTAL | | 0 | 0 | 2 | 3 | 5 | 6 | 6 | 12 | 25 | 44 | 105 | 125 | 552 | 333 | 60% |
| | | installed capacity** | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 385 | 385 | 385 | 385 | | | |
| | tape usage as % installed*** | 0% | 0% | 17% | 25% | 42% | 50% | 50% | 100% | 6% | 11% | 27% | 32% | | | | |
| | MoU pledge* used | 12 | 12 | 12 | 12 | 12 | 12 | 80 | 80 | 80 | 80 | 80 | 80 | | | | |

Notes - disk and tape tables

Space used/allocated at end of the calendar month

* MoU pledge - pledge in MoU for data storage - includes efficiency factors for space used

note - 2006 pledge to end June, 2007 pledge from July

** installed capacity - capacity installed (TB)

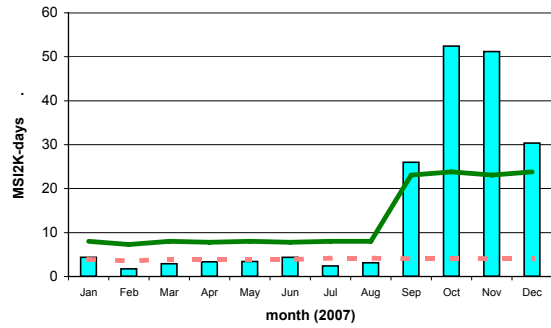
*** disk/tape usage as % installed - includes efficiency factor

Comments:

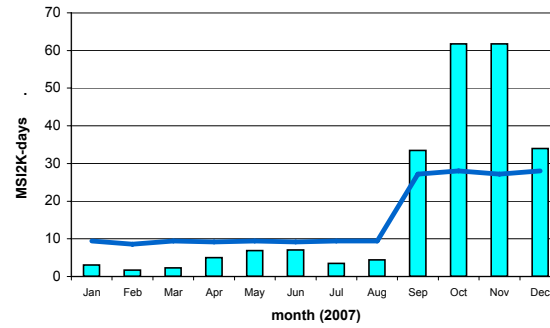
max 255 chars

TRIUMF

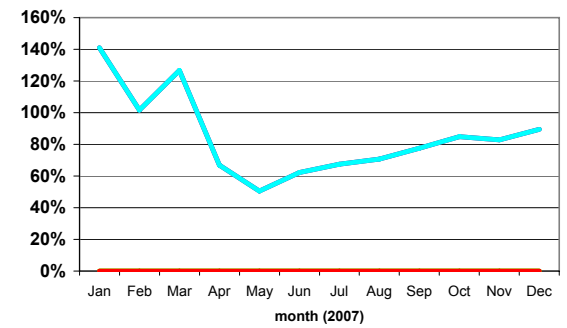
CPU Time Delivered



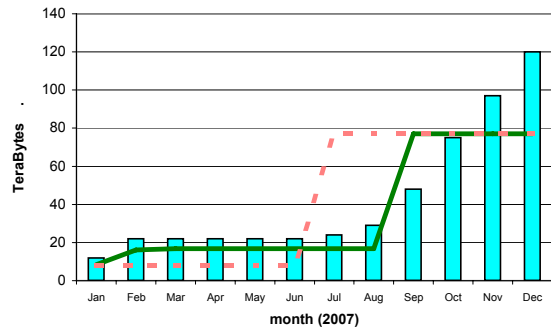
Wall-clock Time Delivered



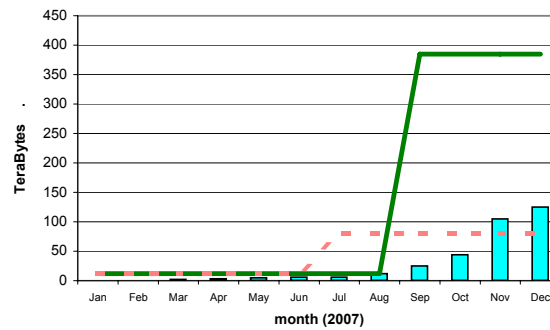
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) - - - installed capacity (w/o efficiency factor) —
— site average - cpu:wall_clock ratio