

## CPU Resource Table

This page is for the IT internal planning of CPU resources for the LHC experiments, non-LHC experiments and various other groups.

We have now 7 different areas of CPU resource allocations: LSF public share, LSF dedicated queues/resources, LSF extra instance, openstack compute, openstack services, condor and dedicated physical VOBoxes.

The unit for all CPU processing numbers is HS06.

I am assuming an error bar of about 5% for the presented numbers.

| Experiment/Group   | status Nov 2018 | pledge April 2019 | pledge April 2020 |
|--------------------|-----------------|-------------------|-------------------|
|                    | [HS06]          | [HS06]            | [HS06]            |
| ALICE              | 350000          | 350000            | 350000            |
| ATLAS              | 411000          | 411000            | 411000            |
| CMS                | 423000          | 423000            | 423000            |
| LHCb               | 86000           | 86000             | 96000             |
|                    |                 |                   |                   |
| TOTEM              | 10000           | 10000             | 10000             |
| LHCf               | 2000            | 2000              | 2000              |
|                    |                 |                   |                   |
| ATLAS T3 CERN      | 7800            | 11000             | 11000             |
| CMS T3 CERN        | 9400            | 14000             | 14000             |
| LHCb T3 CERN       | 4800            | 7000              | 7000              |
|                    |                 |                   |                   |
| ATLAS T3 Wisconsin | 7000            | 7000              | 7000              |
| ATLAS T3 Tokyo     | 9000            | 9000              | 9000              |
|                    |                 |                   |                   |
| COMPASS            | 54000           | 55000             | 55000             |
| AMS                | 100000          | 100000            | 100000            |
| Theory             | 70000           | 70000             | 70000             |
| NA48+NA62          | 50000           | 50000             | 50000             |
| NA61               | 10000           | 10000             | 10000             |
| Ship               | 10000           | 10000             | 10000             |
| NP02               | 7500            | 7500              | 7500              |
| NP04               | 7500            | 7500              | 7500              |
| other groups/exp.  | 50000           | 50000             | 50000             |
|                    |                 |                   |                   |
| Sum                | 1679000         | 1689000           | 1689000           |

UNOSAT,SFT,OPERA,OPAL,L3,ALEPH,DELPHI,NA45,NOMAD,NA38NA50,ITDC,AMSP,etc. have just 4 HS04 in the LSF share

Resources for HPC (e.g. Theory QCD, CFD, BE parallel) are not included in the previous table. Also not included are service resources for IT, EN, GS and BE.

## Resource details per experiment

The following table shows the split of the pledged resources across 6 different areas for the 4 LHC experiments. the openstack number are always the quotas and not the used number of cores/HS06

The unit for all CPU processing numbers is [HS06], for openstack the mapping is 1 core = 10 HS06

## ALICE

| Resource type      | Nov 2018 |
|--------------------|----------|
|                    | [HS06]   |
| openstack services | 13100    |
| condor             | 336900   |
|                    |          |
| total sum          | 350000   |

## ATLAS

| Resource type             | Nov 2018 |
|---------------------------|----------|
|                           | [HS06]   |
| LSF dedicated T0 instance | 210000   |
| openstack services        | 72800    |
| condor                    | 128200   |
|                           |          |
| total sum                 | 411000   |

## CMS

| Resource type                | Nov 2018 |
|------------------------------|----------|
|                              | [HS06]   |
| condor dedicated T0 instance | 302000   |
| openstack services           | 52800    |
| condor                       | 68200    |
|                              |          |
| total sum                    | 423000   |

## LHCb

| Resource type      | Nov 2018 |
|--------------------|----------|
|                    | [HS06]   |
| openstack services | 16000    |
| condor             | 70000    |
|                    |          |
| total sum          | 86000    |

## Group codes and experiments

\* group\_code\_mapping.txt: linux group code mappings

## Policies

1. The pledged CPU resources for the LHC experiments can be split between the different areas (Voboxes, Shares, dedicated, openstack), but the total pledge is constant.

2. The openstack resources are calculated via the quotas, not the used resources.

## History and Changes

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This topic: Main > CpuResourcePlanning

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