

Status of computing resources for ALICE

Thursday, September 4, 2007

Approved by the ALICE Management Board

The present document summarizes the status of the ALICE computing resources. It is based on the requirements detailed in the Computing TDR, updated to take into account the startup scenario of LHC. The pledged resources are taken from a document distributed by WLCG on August 26, 2007 to the C-RRB. This document concerns only sites that have signed the WLCG MoU. Pledged resources by other sites have been communicated to ALICE by the site coordinator.

The profile (2007 – 2012) of the resources required in external Tier1 (excluding the CERN Tier0 and Tier1) and in external Tier2 (excluding CAF) is listed in the Table 1. According with our computing model (and consistently with the observed resources evolution at RHIC), we have estimated our requirements after 2010 by increasing the CPU and disk resources by 30% each year. The required resources are compared to the overall resources pledged by all sites (2008-2010), including sites that have not yet signed the WLCG MoU, such as the US sites. Only the percentage difference with respect to the required resources is reported in terms of missing (-) or excess (+). It should be reminded that 2008 is a non typical year in terms of running time and luminosity and in 2009 we anticipate 60% of the nominal pp running time but a full heavy-ion run. The 2010 pledges from the Tier2 are for the majority of the sites set equal to the pledges for the previous year, as these sites have not projected budget until 2010. Pledges for 2011 and 2012 have not yet been communicated.

Table 1

External T1s & T2s		2008		2009		2010		2011		2012	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
CPU	Requested (MSI2k)	10.1	12.5	19.9	14.3	23.5	25.0	30.5	32.5	39.7	42.2
	Pledged	-31%	-37%	-47%	-20%	-39%	-40%	-	-	-	-
Disk	Requested (PB)	4.0	1.7	6.8	4.0	12.0	4.3	16.6	5.6	22.4	7.3
	Pledged	-32%	5%	-37%	-22%	-50%	-3%	-	-	-	-
MS	Requested (PB)	5.8	-	12.4	-	19.7	-	27.0	-	33.7	-
	Pledged	-32%	-	-32%	-	-36%	-	-	-	-	-

The profile (2007-2012) of the resources required at CERN, including Tier0, Tier1 and CAF services is listed in Table 2.

Table 2

CERN T0, T1 & CAF		2008		2009		2010		2011		2012	
		T0+T1	CAF	T0+T1	CAF	T0+T1	CAF	T0+T1	CAF	T0+T1	CAF
CPU	Requested (MSI2k)	1.8	0.5	9.0	2.6	9.7	2.6	11.8	3.4	15.3	4.4
Disk	Requested (PB)	1.6	0.1	4.2	0.3	4.4	0.3	4.8	0.4	5.0	0.4
MS	Requested (PB)	3.3	-	7.3	-	11.6	-	16.0	-	21.0	-