

Experiment Operations: Priority issues for ALICE

WLCG-GDB

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Abstract

- ❖ ALICE has the following requirements before the real data taking:
 - ◆ Deployment of SL5 in all WNs and VOBOXEs (T0,T1,T2 sites)
 - DEADLINE: Mid-September 2009 → Self-imposed and following the recommendation of the MB in terms of pushing T1/T2 to migrate to SL5
 - ◆ Deployment of a CREAM-CE at all sites (T0,T1,T2 sites)
 - DEADLINE: Mid-November 2009 → following the milestones defined in terms of CREAM-CE deployment
- ❖ The status of these requirements will be the topic of this talk

❖ The CREAM-CE

CREAM-CE and ALICE

- ❖ ALICE requires the deployment of the CREAM-CE service at all sites which provide support to the experiment
 - ◆ GOAL: Deprecation of the WMS use in benefit of the direct CREAM-CE submission
 - ◆ WMS submission mode to CREAM-CE not required
- ❖ ALICE has began to test the CREAM-CE since the beginning of Summer 2008 into the real production environment
 - ◆ *The experiment is asking for a CREAM-CE at all sites since a long time and it is considered one of the highest priorities*

Implementation and ALICE Experiences

- ❖ Full implementation of the CREAM-CE into the AliEn environment since Feb 2009
 - ◆ Stability and performance were the most important test issues at the sites providing CREAM-CE
- ❖ The deployment of a 2nd VOBOX ensures that the production will continue on parallel to the WMS
 - ◆ A unique VOBOX would require a dedicated babysitting of the system
- ❖ Feedback of all issues are directly provided to the CREAM-CE developers

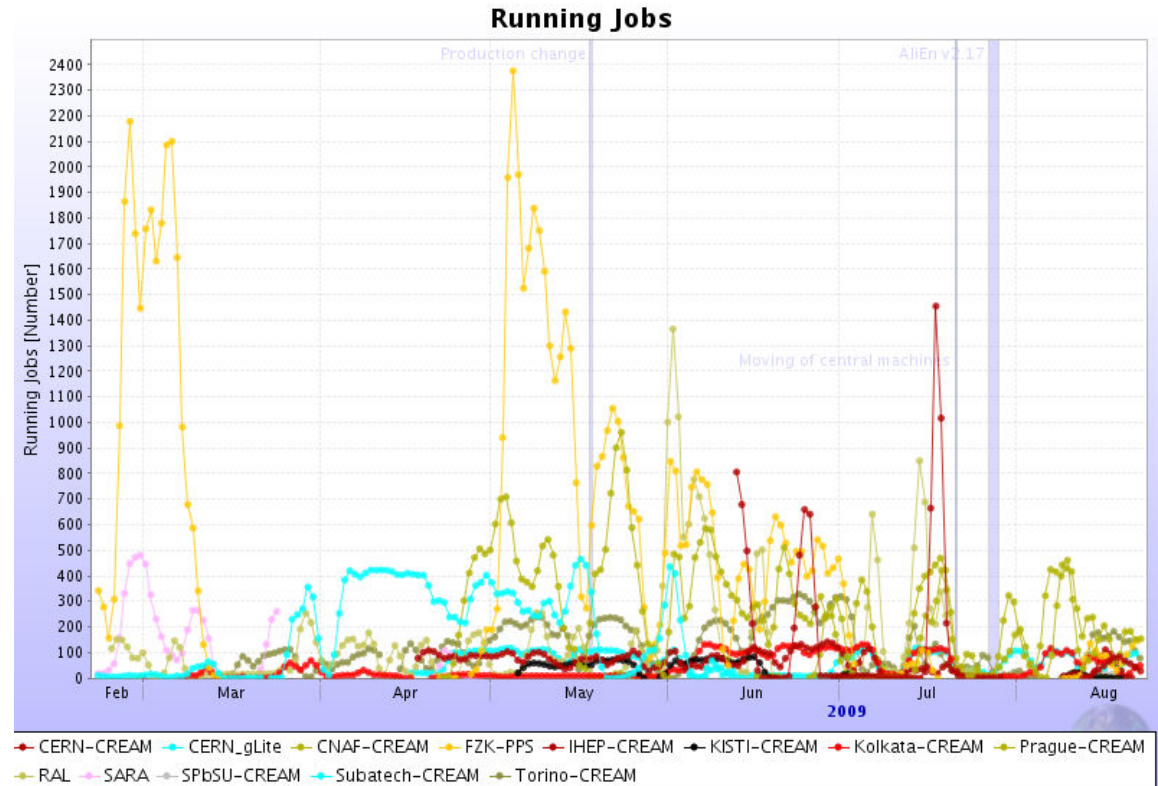
Implementation and ALICE Experiences (cont.)

- ❖ As of today, 13 sites FOR ALICE are providing CREAM-CE
 - ◆ CERN, KISTI, INFN-Torino, CNAF, RAL, FZK, Kolkata, IHEP, SARA, Subatech, Legnaro, SPbSU, Prague
 - ◆ **THE SAME NUMBER OF SITES FOR ALICE PRESENTED DURING CHEP09!**
 - ◆ **There are no advances in this sense**

ALICE results with CREAM-CE

❖ CREAM-CE is part of the AliEn distribution since Feb 2009

❖ 2.8M jobs
done since
Feb08 using
CREAM-CE
resources



Reminder: ALICE requirements of the CREAM-CE setup

- ❖ The parallel LCG-CE vs. CREAM-CE setup in terms of ALICE computing model means the deployment of a 2nd VOBOX
 - ◆ Each VOBOX is able to submit to a specific backend
 - ◆ One VOBOX → LCG-CE OR CREAM-CE submission: replacement approach
 - ◆ Two VOBOXES → LCG-CE AND CREAM-CE submission: parallel approach
- ❖ If a pure ALICE site has resource problems to provide both LCG-CE and CREAM-CE, ALICE advice is to provide exclusively the CREAM-CE
 - ◆ Not applicable to T1 sites
- ❖ Setup of the ALICE production queue behind the CREAM-CE
 - ◆ This procedure puts the CREAM-CE directly in production
- ❖ GridFTP server
 - ◆ The gLite-VOBOX 3.2 will have it (back) as a part of its distribution

ALICE conclusions for CREAM-CE

- ❖ ALICE is using CREAM-CE as part of the experiment production since Feb09
- ❖ The experiment is asking for the deployment of this service at all sites since Summer 2008
- ❖ It has been probed the good behavior of this service by both experiment and site admins
- ❖ Still ALICE is having an important lack of CREAM-CE resources at all sites
- ❖ The double support we are currently providing (WMS/LCG-CE and CREAM-CE) cannot scale during real data taking
 - ◆ After more than 1 year asking for this service, ALICE will deprecate the use of the WMS/LCG-CE in benefit of the CREAM-CE by mid-November 2009

❖ SL(C)5 WNs and VOBOXES

SL(C)5 testing

- ❖ Almost parallel to the CREAM-CE testing, ALICE has been successfully testing SL5 resources in two sites:
 - ◆ CERN (behind CREAM-CE)
 - ◆ RAL
- ❖ ALICE has largely verified that the experiment is ready to run on these resources

ALICE conclusions for SL5

- ❖ ALICE has agreed during the last 13/08/09 TF meeting to collaborate actively with their sites to ensure the timely migration
- ❖ The experiment has asked for the SL5 distribution in all official forums: WLCG-GDB, WLCG-MB and workshops
- ❖ Following the strategy explained for the CREAM-CE ALICE cannot maintain an hybrid SL4/SL5 setups at the sites
- ❖ **SL4 is deprecated and ALICE will not maintain it anymore**
- ❖ **The DEADLINE established by the experiment is mid-September 2009**
- ❖ SL5 VOBOX
 - ◆ Max priority for WLCG-GD
 - ◆ ALICE can count on one previous version by this week@CERN

ALICE conclusions for SL5 (cont.)

❖ SL5 gLite3.2-VOBOX

- ◆ Patches 3205/3040 provided by GD has been installed at CERN and successfully tested (voalice13.cern.ch)
- ◆ Following (some) site requirements we have provided the instructions to begin the installation of this patch by Monday (7th Sep. thanks to Andreas Unterkircher)
- ◆ PPS team has been informed

Let's do it together

- ❖ ALICE has gained a remarkable level of expertise by using CREAM-CE and SL5
- ❖ In addition we work together with IT-GD and system/service developers
- ❖ We can support the migration with the required expertise on a site by site basis

❖ Extra slides

The WLCG Milestones on regards with CREAM-CE

- ❖ https://twiki.cern.ch/twiki/pub/LCG/MilestonesPlans/WLCG_High_Level_Milestones_20090623.pdf

ID	Date	Milestone	ASGC	CC IN2P3	CERN	DE-KIT	INFN CNAF	NDGF	PIC	RAL	SARA NIKHE F	TRIUM F	BNL	FNAL
CREAM CE Rollout														
WLCG-09-25	Apr 2009	Release of CREAM CE for deployment												
WLCG-09-26	May 2009	All European T1 + TRIUMF and CERN at least 1 CE. 5 T2s supporting 1 CE												
WLCG-09-27	Jul 2009	2 T2s for each experiment provide 1 CREAM-CE each.		ALICE		ATLAS			CMS				LHCb	
WLCG-09-28	Sep 2009	50 sites in addition to the ones above												