ATLAS T2 VO REPORT

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CHIPP-CSCS face 2 face - 13 September 2019

RECENT NEWS AND ISSUES

- **Plenty of turbulence** (as expected during LS)
- **Move to pilot2:**
  - Early bugs hit Unibe
  - Needed to replace bugged release from the ARC cache at CSCS
  - Needed dCache reconfiguration to allow transfers without space-token information
- **Move to singularity**
  - Pending at CSCS (probably next Monday, needs ATLAS-CSCS co-ordination)
  - Needed to replace bugged singularity binary from CVMFS caches at Unibe

  For both: couple of rollbacks from the ATLAS side, hitting Unibe
- **CSCS relative VO shares**
  - Improved
  - More later

ATLAS T2 STATISTICS

HAMMERCLOUD REPORT

Historic view for "panda_queues_all"
from 00:00 01.04.2019 to 00:00 09.09.2019

Show 100 entries Search:

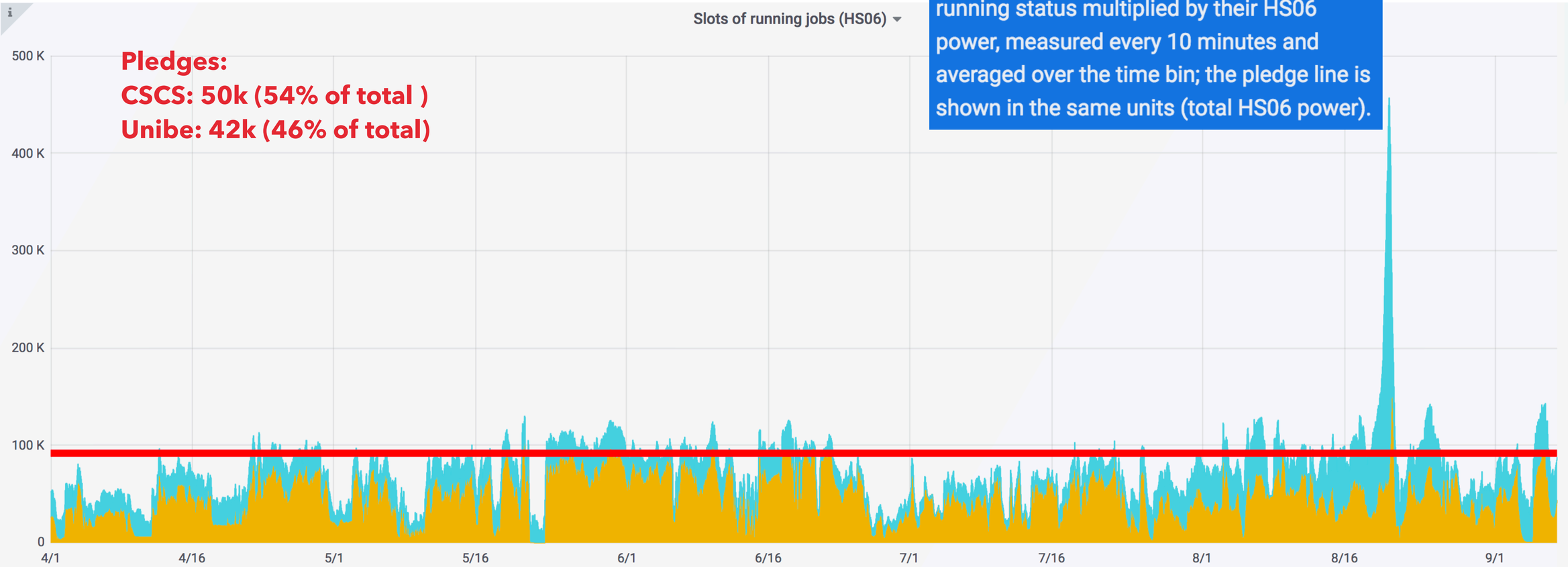
PANDA queue	SITE Name	TIER	CLOUD	History plot time bin = 322 hours	offline		brokeroff		online		NoQueue		test	
					%	count	%	count	%	count	%	count	%	count
ANALY_CSCS-HPC	CSCS-LCG2	T2D	DE		1.23	3	0.25	3	76.89	12	0	0	16.08	4
ANALY_UNIBE-LHEP	UNIBE-LHEP	T2	ND		17.71	5	0.1	1	71.33	9	0	0	5.31	4
ANALY_UNIBE-LHEP-UBELIX	UNIBE-LHEP	T2	ND		0	0	0	0	93.26	9	0	0	1.19	1
CSCS-LCG2-HPC_MCORE	CSCS-LCG2	T2D	DE		1.78	4	0	0	91.21	13	0	0	1.46	3
UNIBE-LHEP-UBELIX_MCORE	UNIBE-LHEP	T2	ND		0.28	1	0	0	93.05	10	0	0	1.13	1
UNIBE-LHEP-UBELIX_MCORE_LOPRI	UNIBE-LHEP	T2	ND		0	0	0	0	93.39	13	0	0	1.06	6
UNIBE-LHEP_MCORE	UNIBE-LHEP	T2	ND		18.19	6	0	0	71.13	10	0	0	5.13	4

Showing 1 to 7 of 7 entries First Previous 1 Next Last

ATLAS T2 STATISTICS

HS06 DELIVERY: CH-CHIPP-CSCS FEDERATION

Contents: the number cores used by jobs in running status multiplied by their HS06 power, measured every 10 minutes and averaged over the time bin; the pledge line is shown in the same units (total HS06 power).



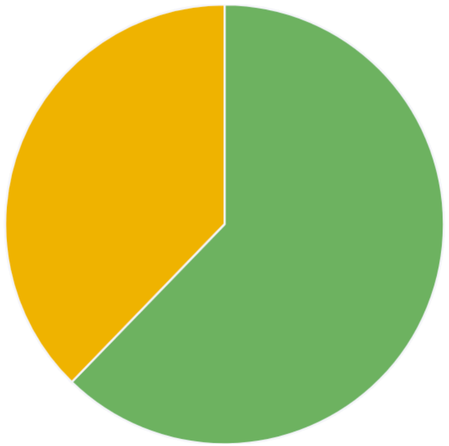
	min	max	avg	total
CSCS-LCG2	0	149.3 K	47.3 K	181.0598 Mil
UNIBE-LHEP	0	391.0 K	26.2 K	100.4214 Mil
Pledges	92.0 K	92.0 K	92.0 K	58.7880 Mil

ATLAS T2 STATISTICS

SITE PROCESSING SHARES

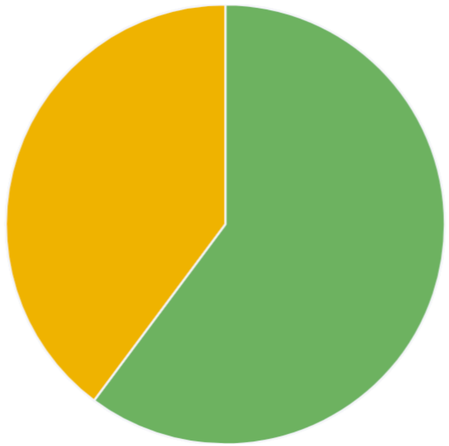
Pledges:
CSCS: 50k (54%)
Unibe: 42k (46%)

Wallclock Consumption: Successful jobs in Seconds



	current	percentage
CSCS-LCG2	44.3 Bil	62%
UNIBE-LHEP	26.8 Bil	38%

Wallclock Consumption: All jobs in Seconds

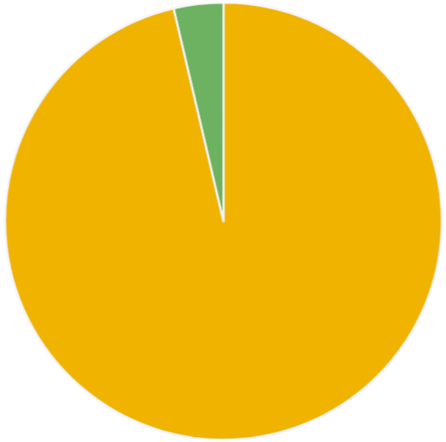


	total	percentage
CSCS-LCG2	52.6 Bil	60%
UNIBE-LHEP	34.8 Bil	40%

ATLAS T2 STATISTICS

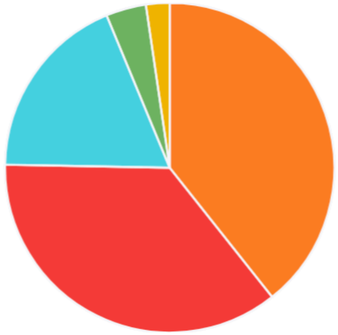
SPLIT ANALYSIS VS PRODUCTION

Wallclock Consumption: All jobs in Seconds



	total	percentage
CSCS-LCG2-HPC_MCORE	50.7 Bil	96%
ANALY_CSCS-HPC	1.929 Bil	4%

Wallclock Consumption: All jobs in Seconds

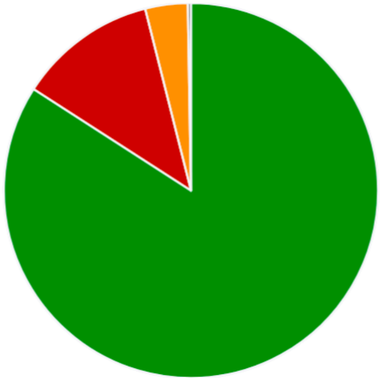


	total	percentage
UNIBE-LHEP-UBELIX_MCORE_LOPRI	14.37 Bil	39%
UNIBE-LHEP_MCORE	13.15 Bil	36%
UNIBE-LHEP-UBELIX_MCORE	6.74 Bil	18%
ANALY_UNIBE-LHEP	1.440 Bil	4%
ANALY_UNIBE-LHEP-UBELIX	849 Mil	2%

ATLAS T2 STATISTICS

SUCCESS VS FAIL WC EFFICIENCY

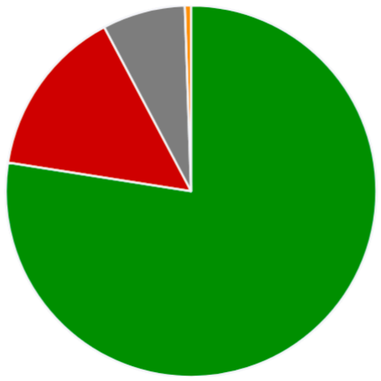
WallClock Consumption of Successful and Failed Jobs - Pie Graph



	current	percentage
finished	44.3 Bil	84%
failed	6.30 Bil	12%
cancelled	1.934 Bil	4%
closed	140.3 Mil	0%

CSCS

WallClock Consumption of Successful and Failed Jobs - Pie Graph



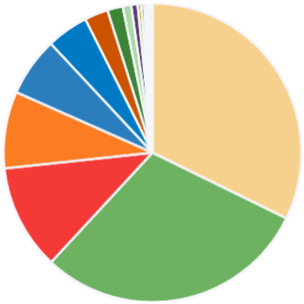
	current	percentage
finished	28.3 Bil	77%
failed	5.40 Bil	15%
closed	2.641 Bil	7%
cancelled	200 Mil	1%

Unibe

ATLAS T2 STATISTICS

FAILURE REASONS

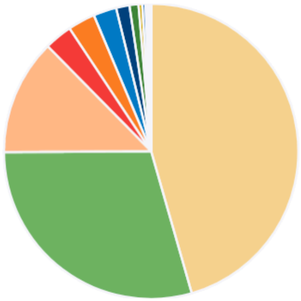
Panda Failure Categories - Pie chart



	current	percentage
TaskBuffer Error: Timeout	158 K	32%
	145.6 K	30%
Execution Error	56.0 K	11%
DDM Error	40.8 K	8%
Pilot/DDM Error	31.4 K	6%
Execution Error 65	22.2 K	5%

CSCS

Panda Failure Categories - Pie chart

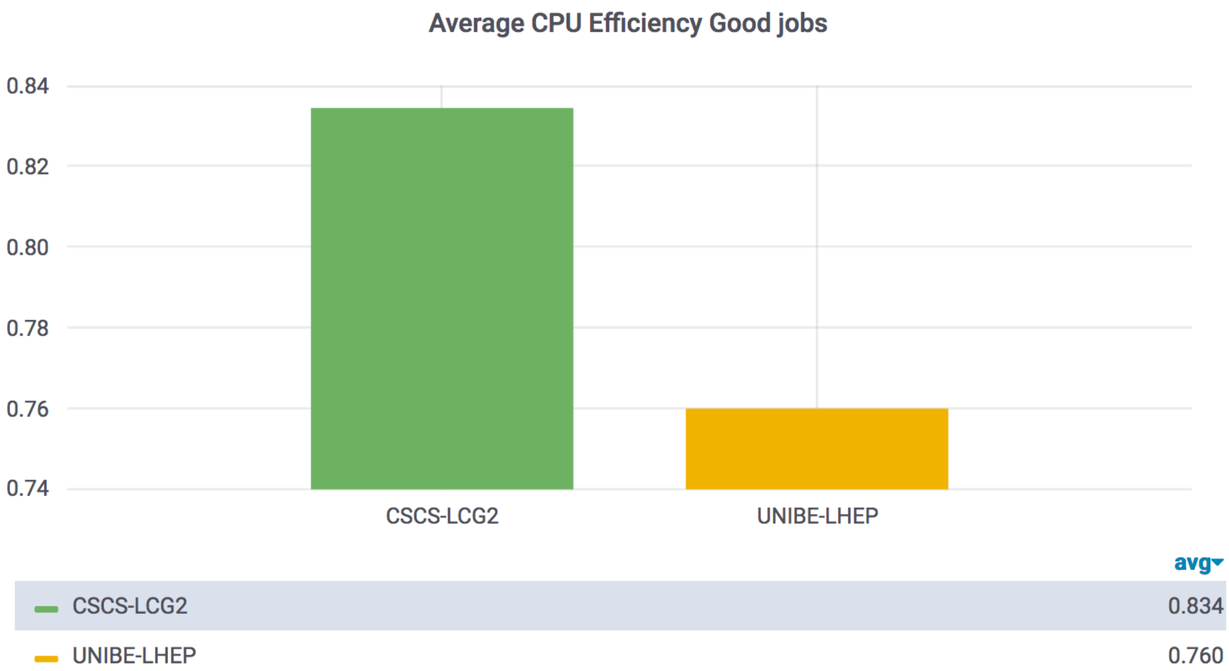


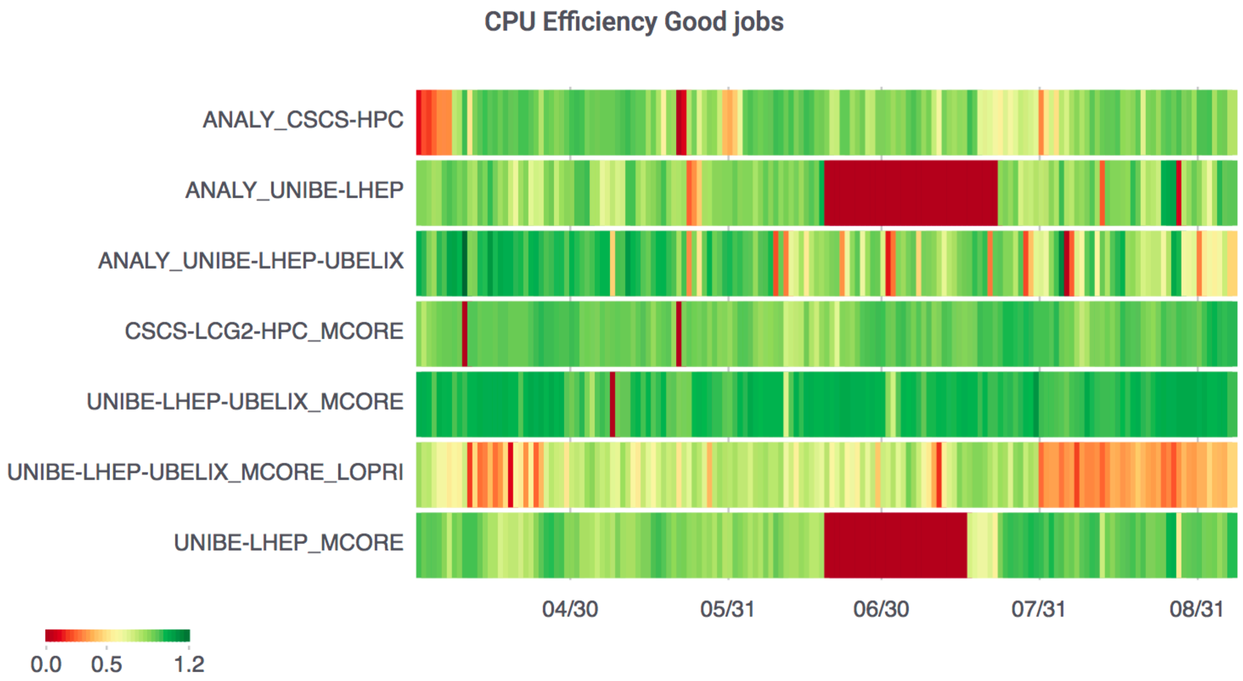
	current	percentage
TaskBuffer Error	532 K	46%
	343 K	29%
TaskBuffer Error: Timeout	148.2 K	13%
Execution Error	35.7 K	3%
DDM Error	35.0 K	3%
Execution Error 65	29.6 K	3%

Unibe

ATLAS T2 STATISTICS

WC EFFICIENCY FOR GOOD JOBS



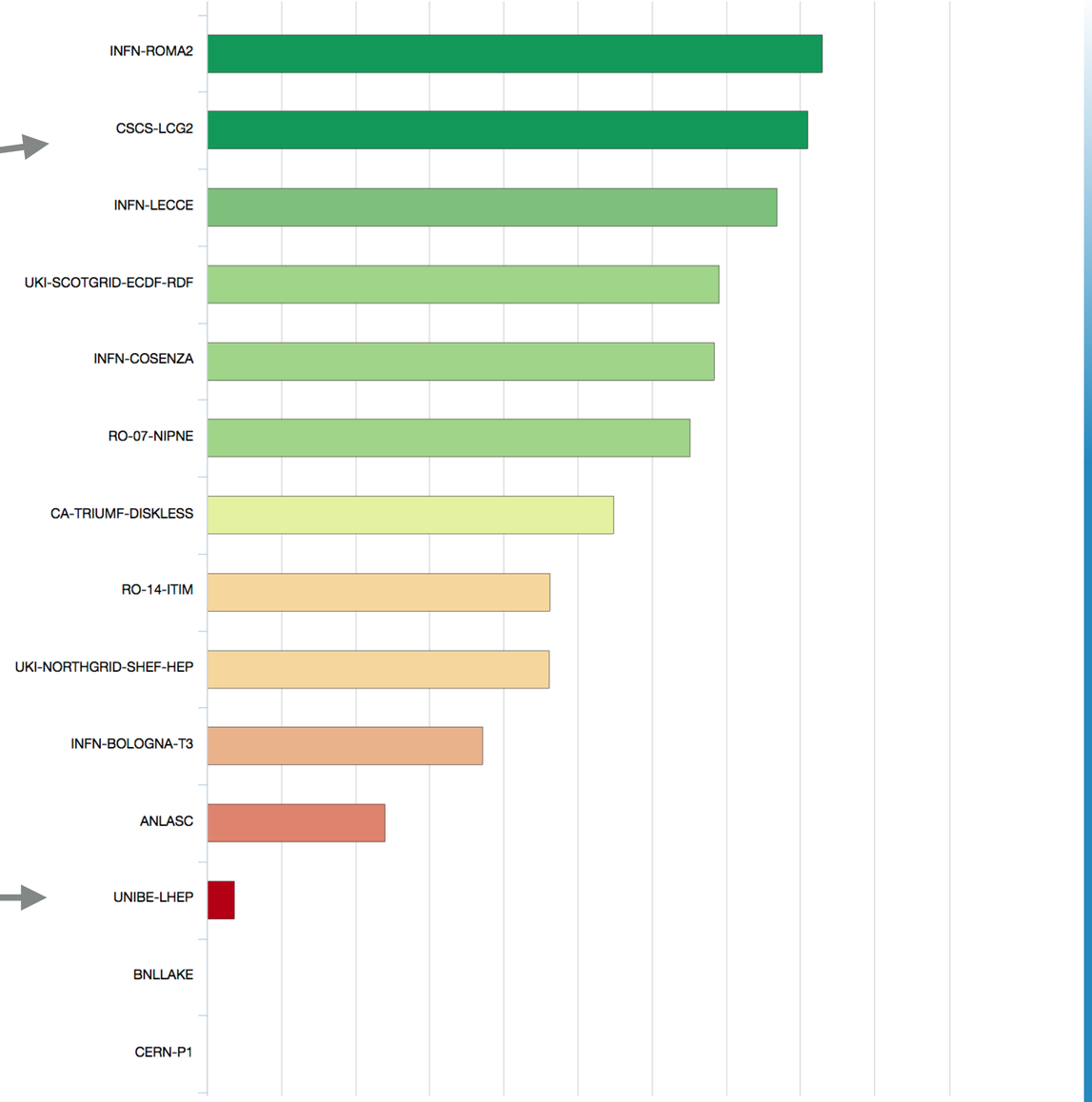


ATLAS T2 STATISTICS

SITE RELIABILITY USING ATLAS_CRITICAL

CSCS - 81% (rank 99)

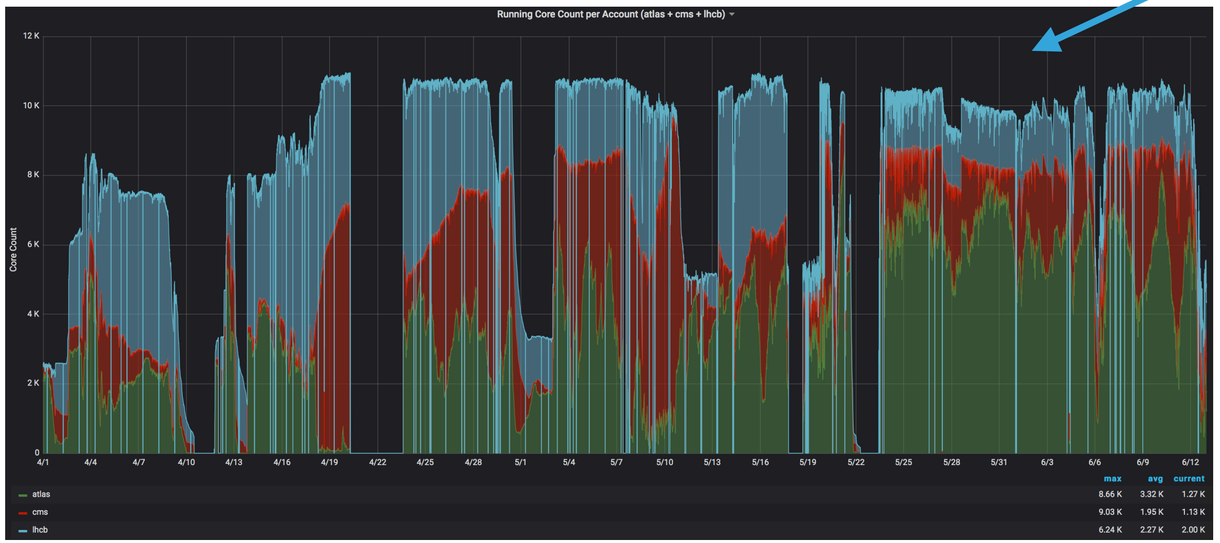
Unibe - 3.6% (!)

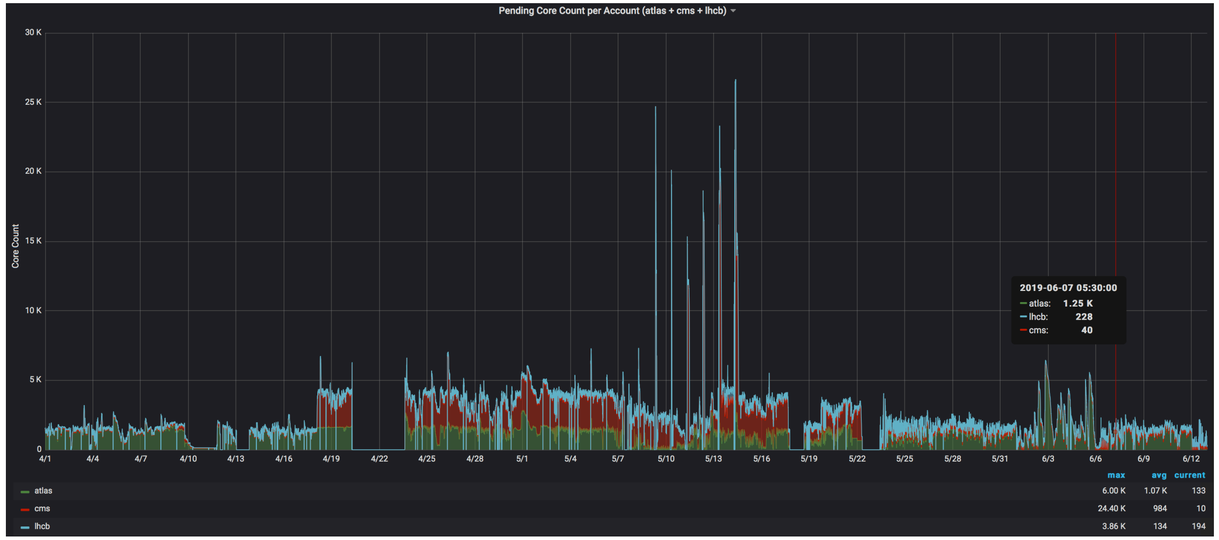


ATLAS T2 STATISTICS

CSCS VO RELATIVE SHARES

(average running cores 7.5k vs 11k installed)





max	avg	current
8.6570 K	3.3185 K	1.2710 K
9.0330 K	1.9504 K	1.1280 K
6.2380 K	2.2685 K	1.9990 K

41% => +0.4%
33% => -17.5%
26% => +30%

max	avg	current
6.00 K	1.07 K	133
24.40 K	984	10
3.86 K	134	194

Propose to add Pie charts for Cumulative WC and Running Core Count per VO to the CHIPP dashboard

ONGOING OPERATIONAL TASKS

- **Both sites in a transition phase**
  - Pledges not fulfilled yet
  - Far more advanced at CSCS compared to Unibe
  - Still experiment operational changes ongoing and more expected => extra efforts
- **Migration to ARC 6**
  - Pending at both sites
- **Monitor and report monthly by each site:**
  - Running vs Installed cores
  - Relative VO shares (CSCS)
  - Batch vs ATLAS metrics (not straightforward at Unibe)
- **Reminder**
  - Strengthen CSCS communication in case of incidents
  - Use downtimes in case of service incidents
    - Allows automated handling by ATLAS

CHIPP DASHBOARD WISHES

- **Add pie charts for:**
  - Cumulative CPU utilisation percentage per VO
  - Running Core Count percentage per VO
- **Add ARC CE metrics**
  - Dino working on it
- **HammerCloud state**
  - 1 status box per queue (red/green)
  - Best if with alarm