Rapporto delle attività del Tier1 CNAF Gennaio-Febbraio-Marzo-Aprile 2019

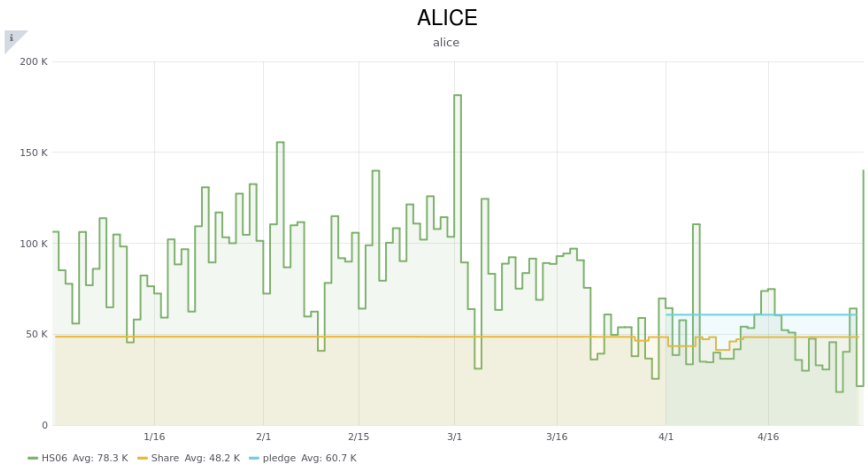
Run Coordinator: Marcelo Soares

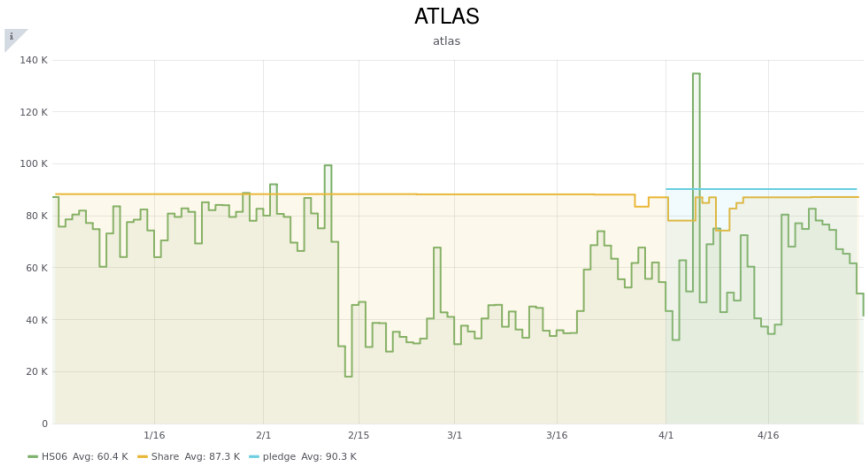
3 maggio 2019

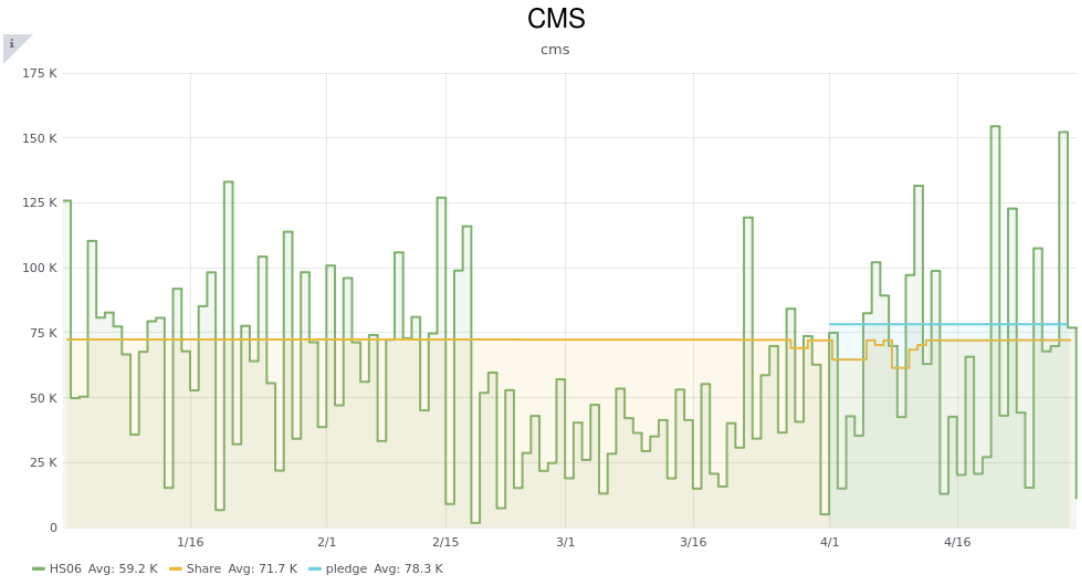
Indice

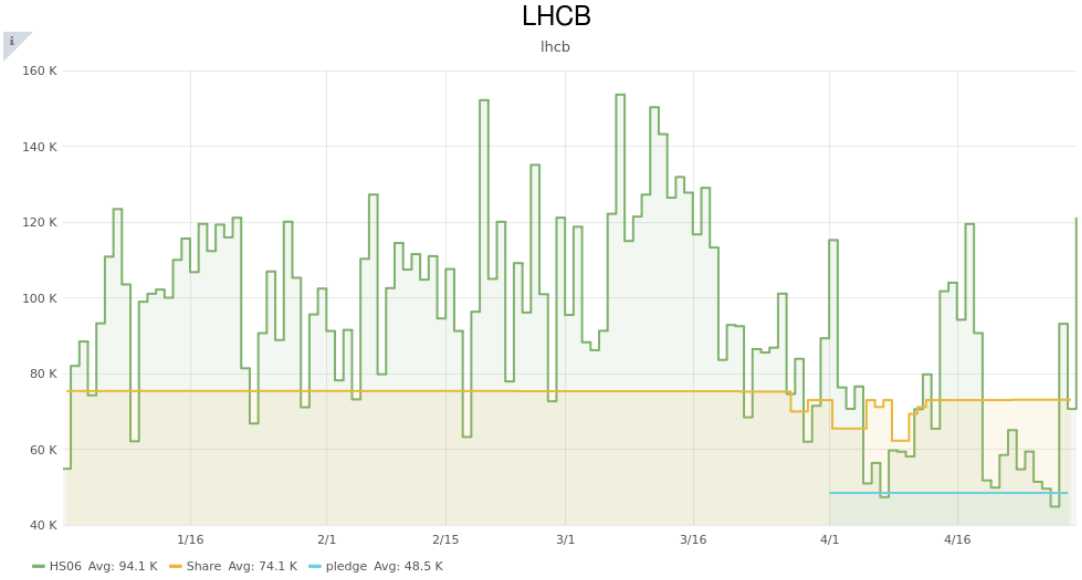
1 Utilizzo delle risorse - Farming

1.1 LHC usage

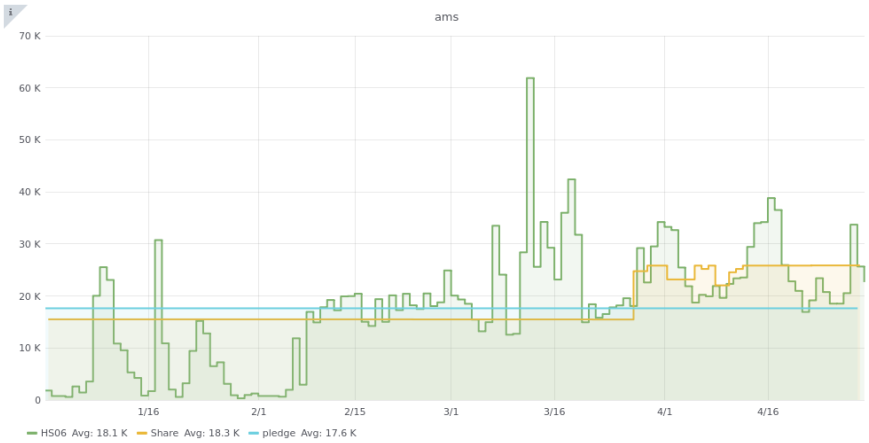


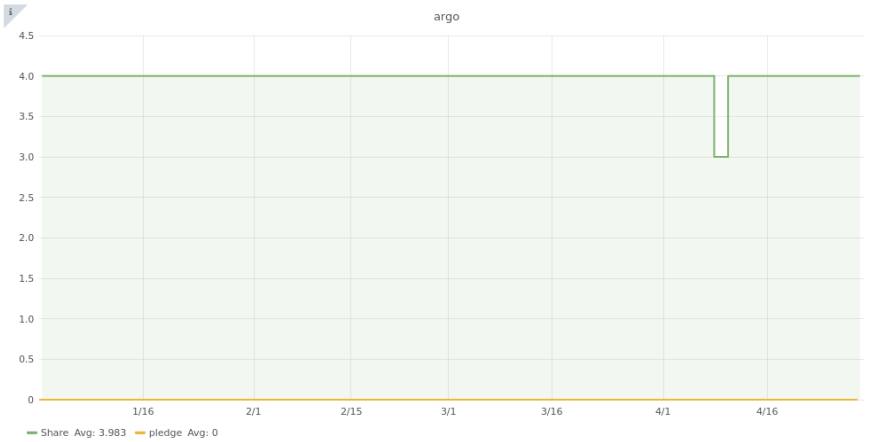


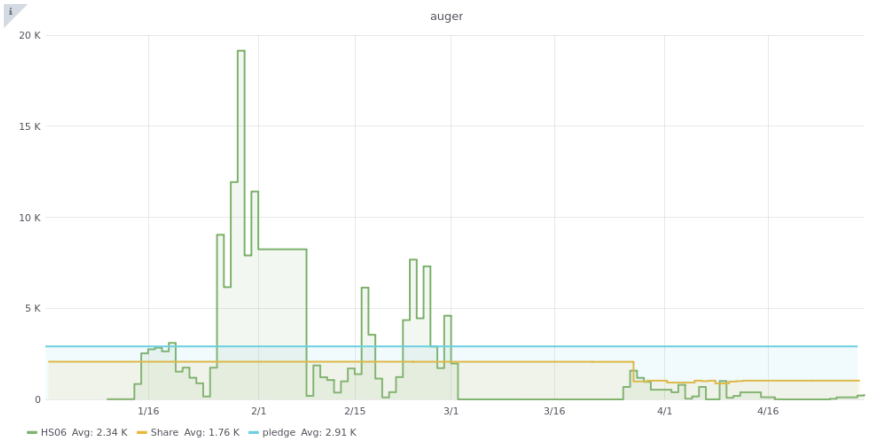

CMS
cms
175 K
150 K
125 K
100 K
75 K
50 K
25 K
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 59.2 K
Share Avg: 71.7 K
pledge Avg: 78.3 K

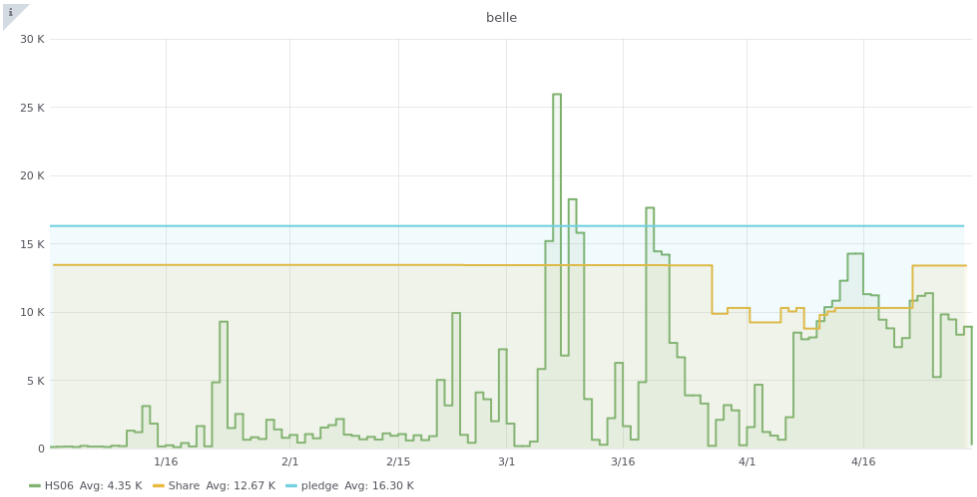

LHCB
lhcb
160 K
140 K
120 K
100 K
80 K
60 K
40 K
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 94.1 K
Share Avg: 74.1 K
pledge Avg: 48.5 K

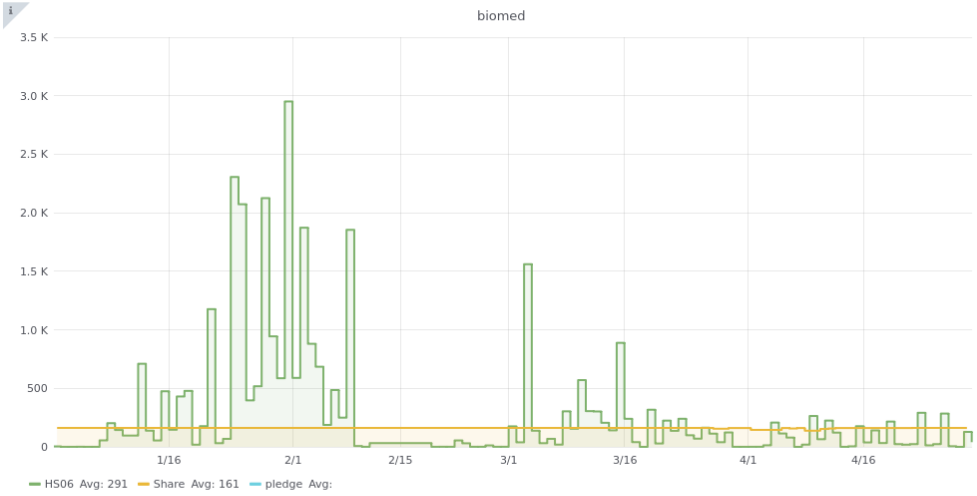
1.2 NO LHC usage

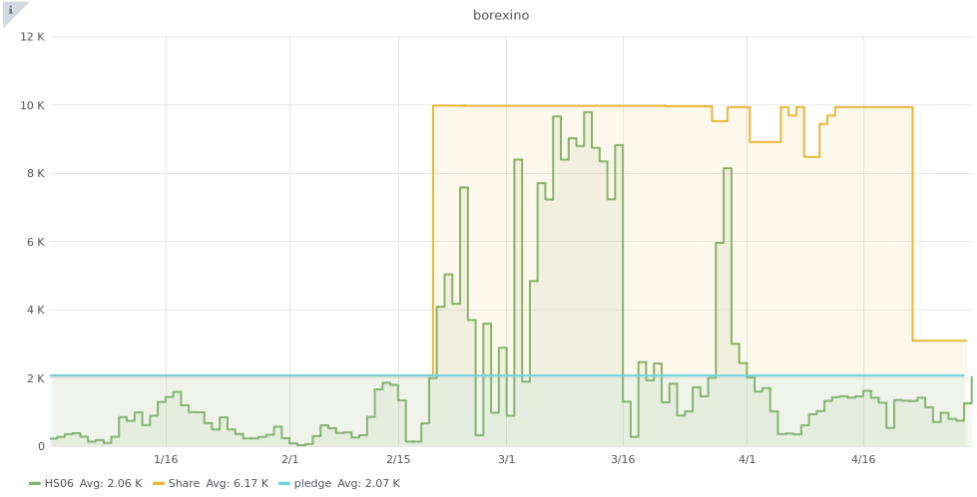


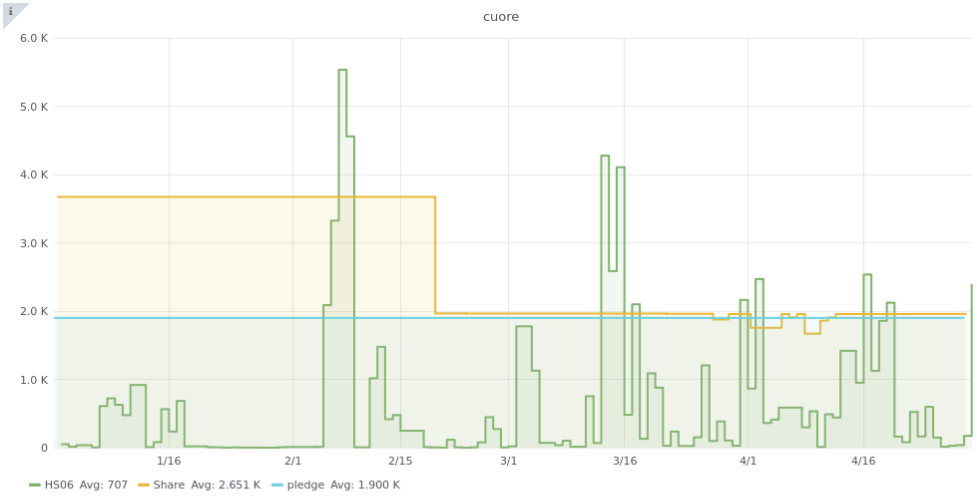


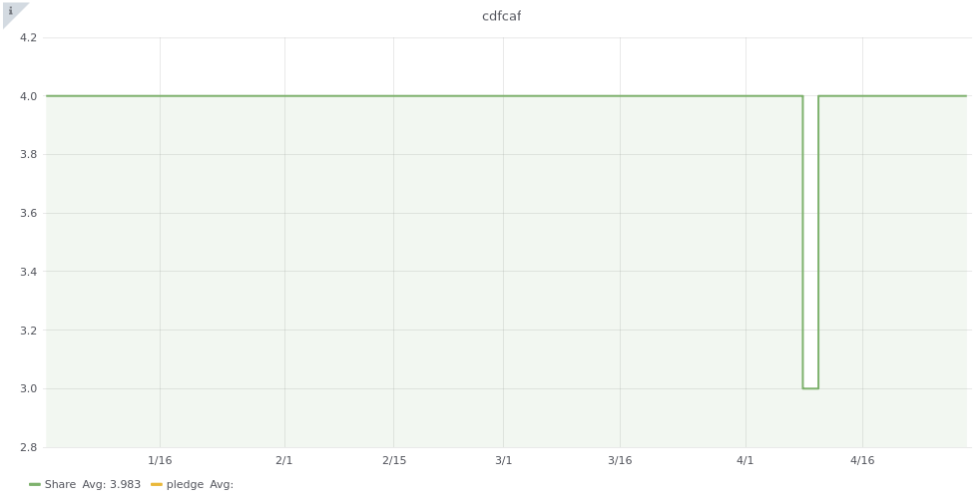


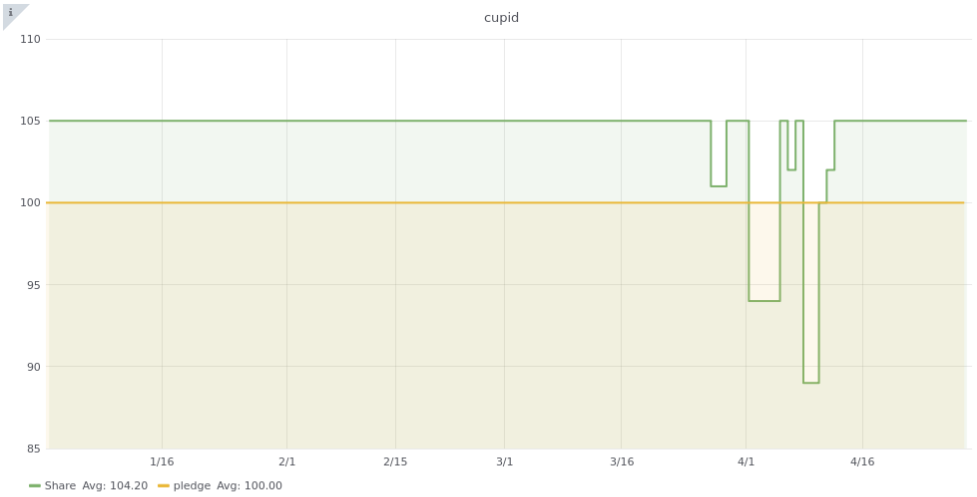

belle
30 K
25 K
20 K
15 K
10 K
5 K
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 4.35 K
Share Avg: 12.67 K
pledge Avg: 16.30 K

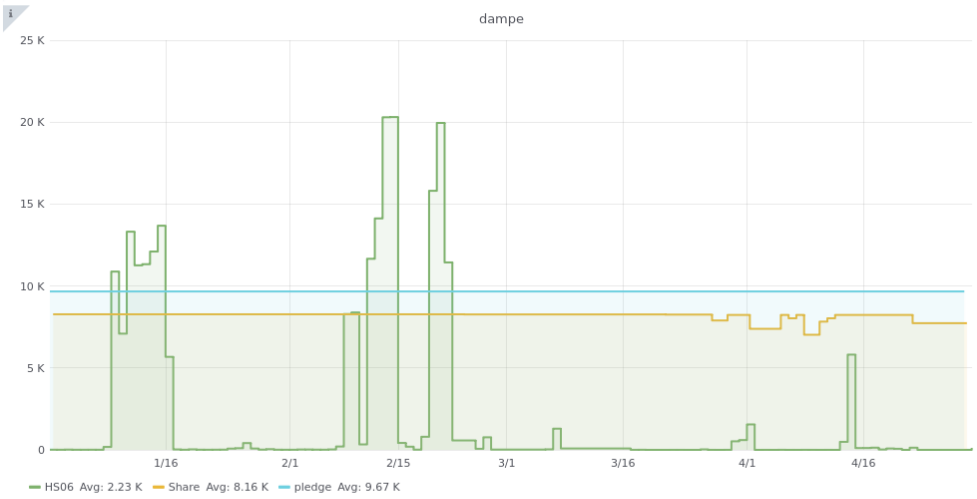

biomed
3.5 K
3.0 K
2.5 K
2.0 K
1.5 K
1.0 K
500
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 291
Share Avg: 161
pledge Avg:

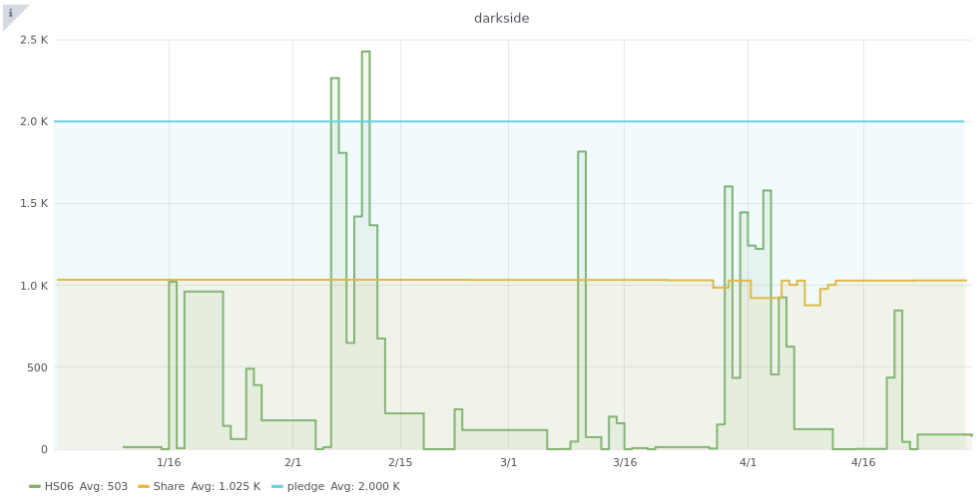

borexino
12 K
10 K
8 K
6 K
4 K
2 K
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 2.06 K
Share Avg: 6.17 K
pledge Avg: 2.07 K

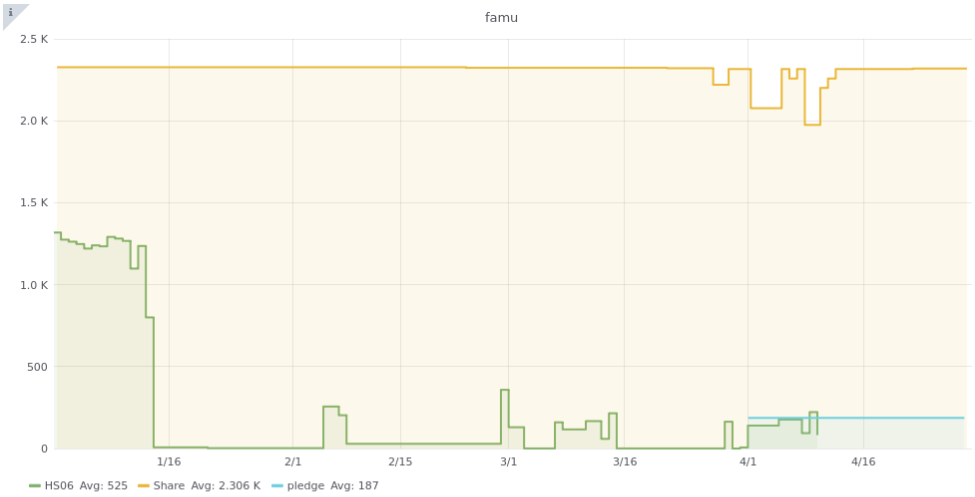

cuore
6.0 K
5.0 K
4.0 K
3.0 K
2.0 K
1.0 K
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 707
Share Avg: 2.651 K
pledge Avg: 1.900 K

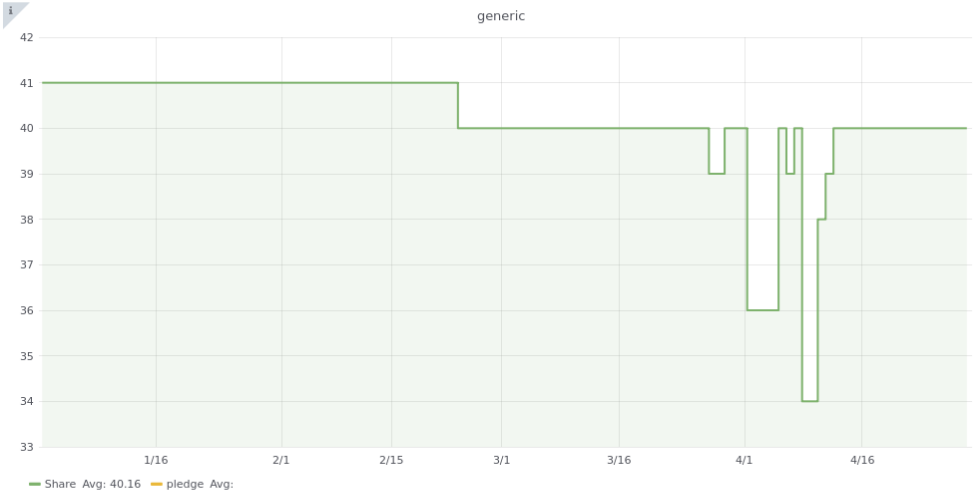

cdfcaf
4.2
4.0
3.8
3.6
3.4
3.2
3.0
2.8
1/16
2/1
2/15
3/1
3/16
4/1
4/16
Share Avg: 3.983
pledge Avg:

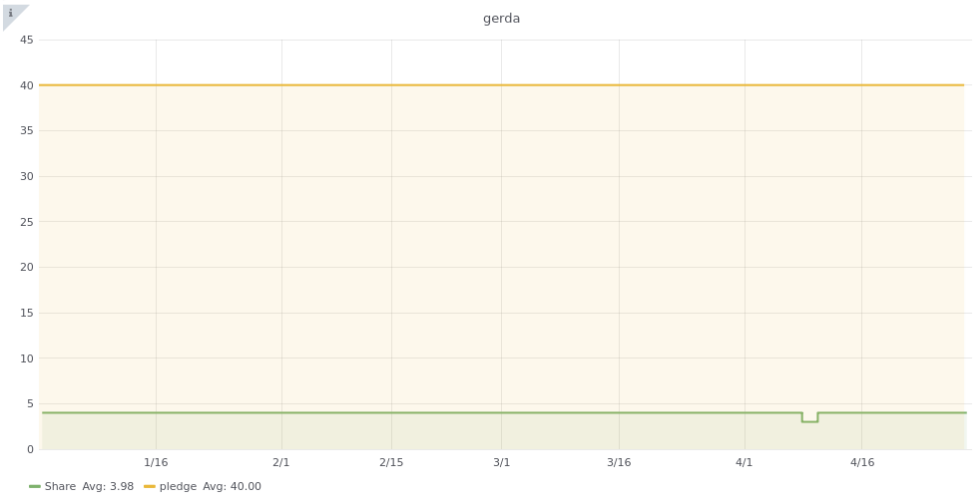

cupid
110
105
100
95
90
85
1/16
2/1
2/15
3/1
3/16
4/1
4/16
Share Avg: 104.20
pledge Avg: 100.00

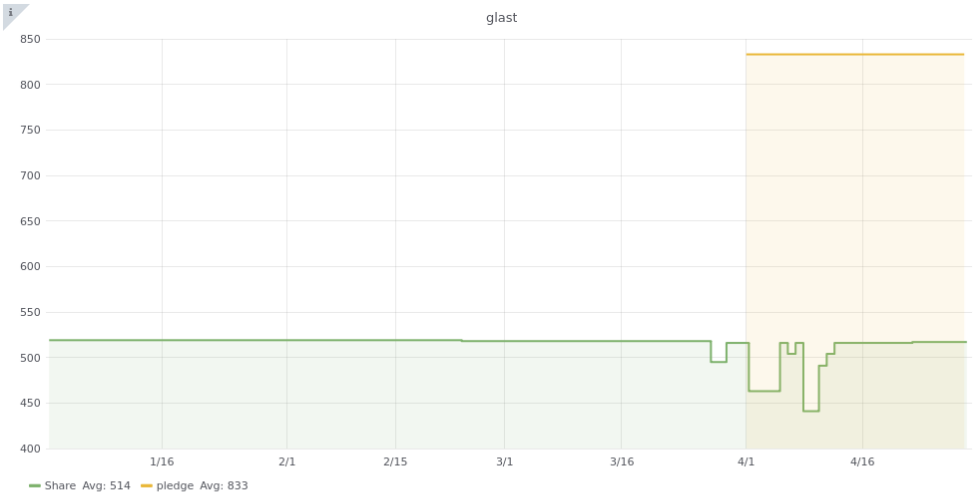

dampe
25 K
20 K
15 K
10 K
5 K
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 2.23 K
Share Avg: 8.16 K
pledge Avg: 9.67 K

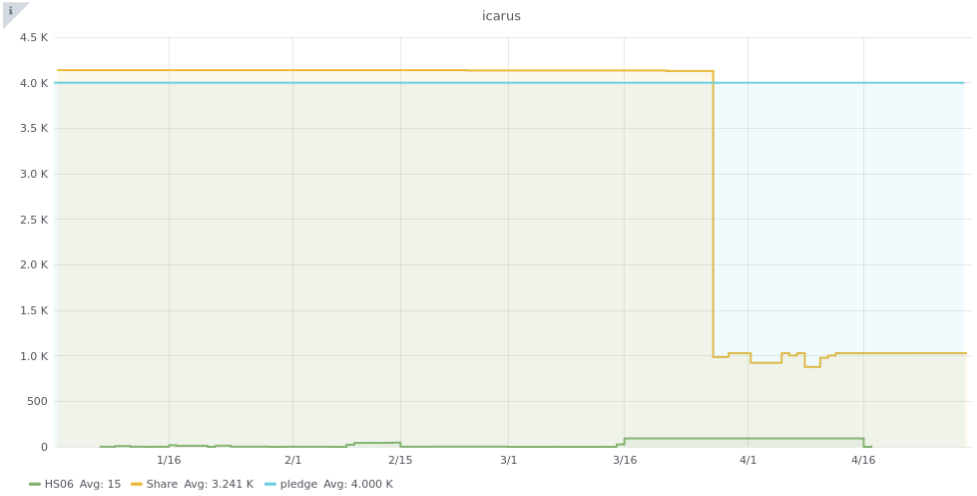

darkside
2.5 K
2.0 K
1.5 K
1.0 K
500
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 503
Share Avg: 1.025 K
pledge Avg: 2.000 K

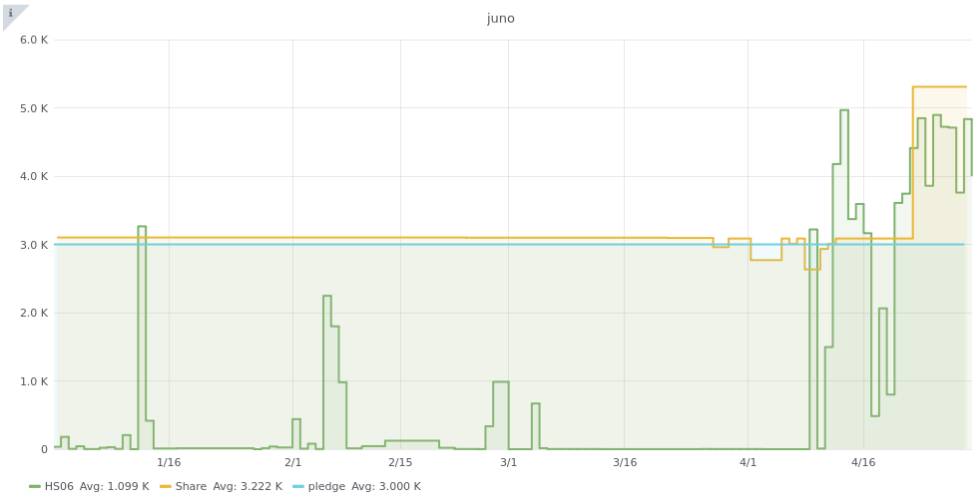

famu
2.5 K
2.0 K
1.5 K
1.0 K
500
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 525
Share Avg: 2.306 K
pledge Avg: 187

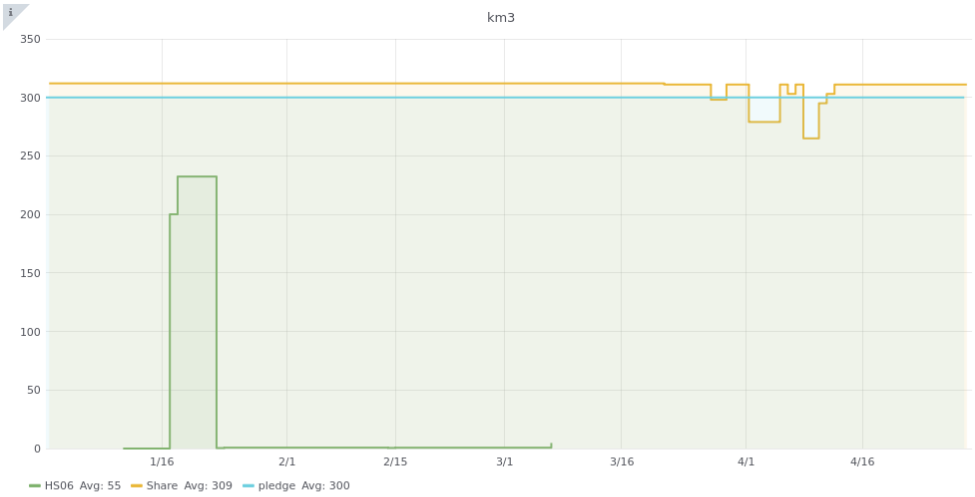

generic
42
41
40
39
38
37
36
35
34
33
1/16
2/1
2/15
3/1
3/16
4/1
4/16
Share Avg: 40.16
pledge Avg:

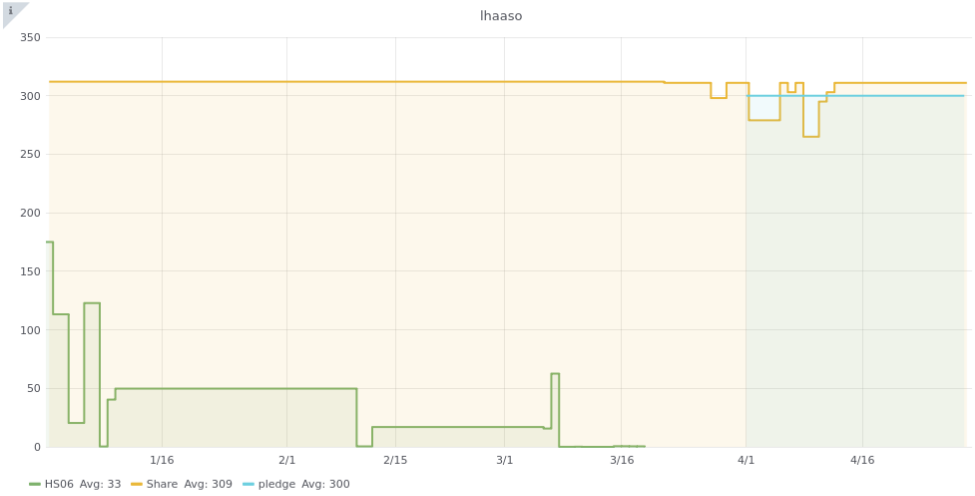

gerda
45
40
35
30
25
20
15
10
5
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
Share Avg: 3.98
pledge Avg: 40.00

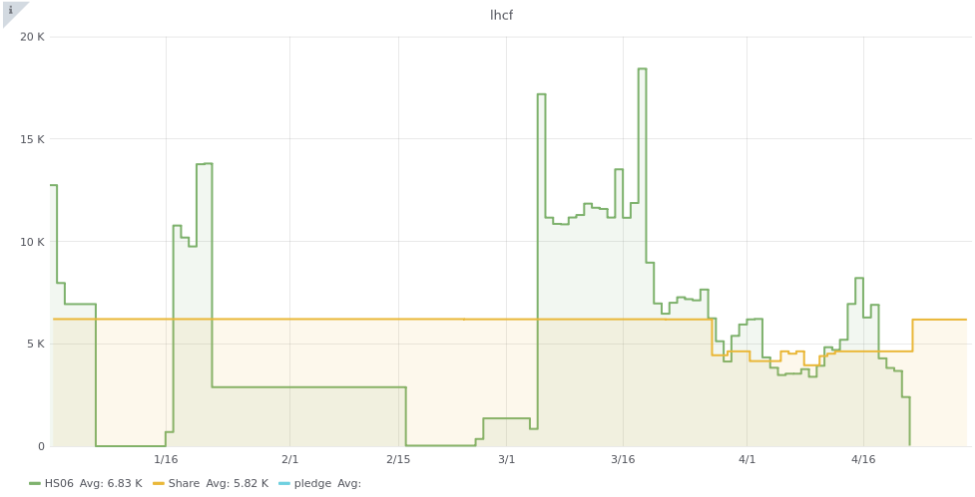

glast
850
800
750
700
650
600
550
500
450
400
1/16
2/1
2/15
3/1
3/16
4/1
4/16
Share Avg: 514
pledge Avg: 833

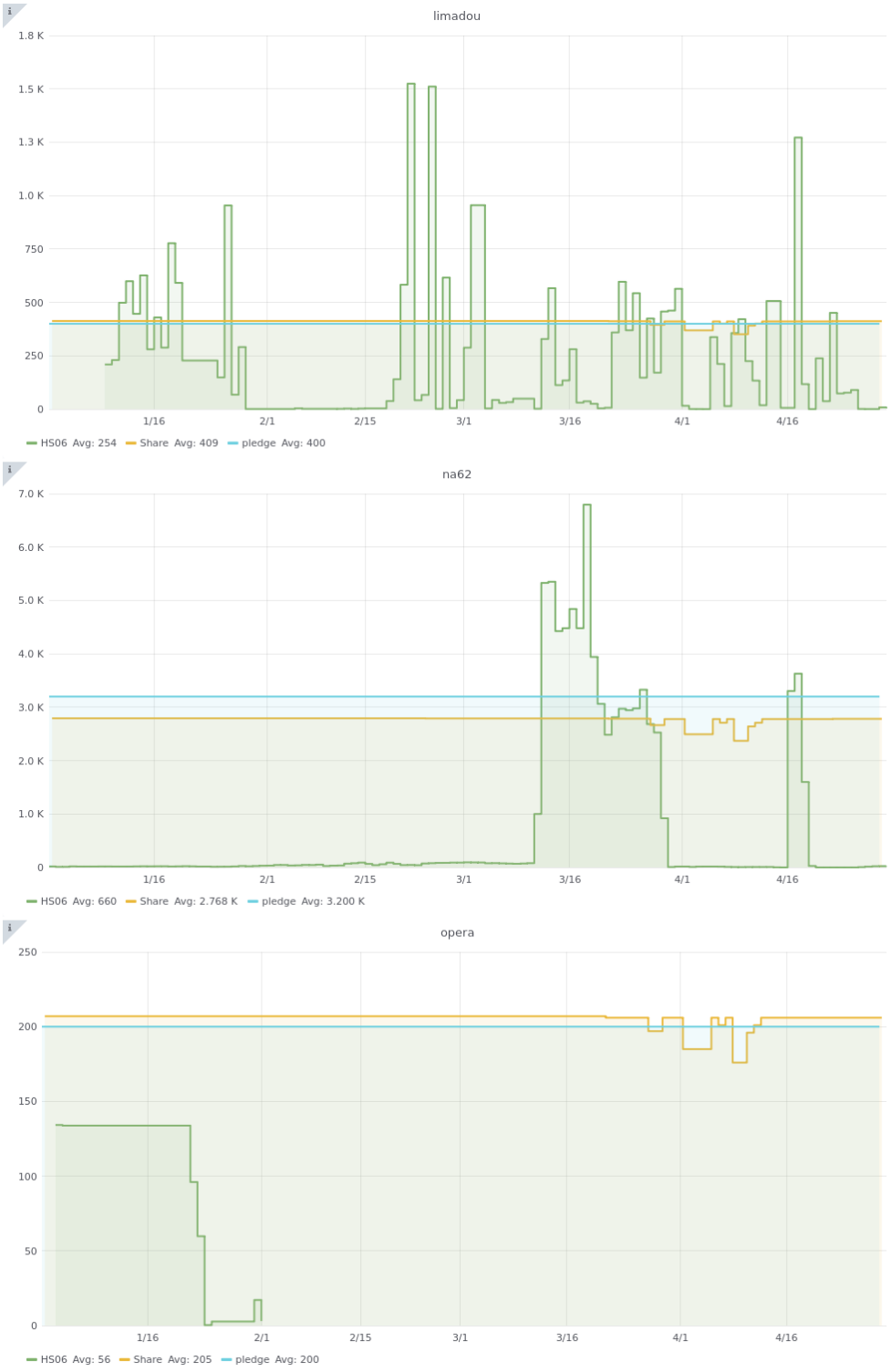

icarus
4.5 K
4.0 K
3.5 K
3.0 K
2.5 K
2.0 K
1.5 K
1.0 K
500
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 15
Share Avg: 3.241 K
pledge Avg: 4.000 K

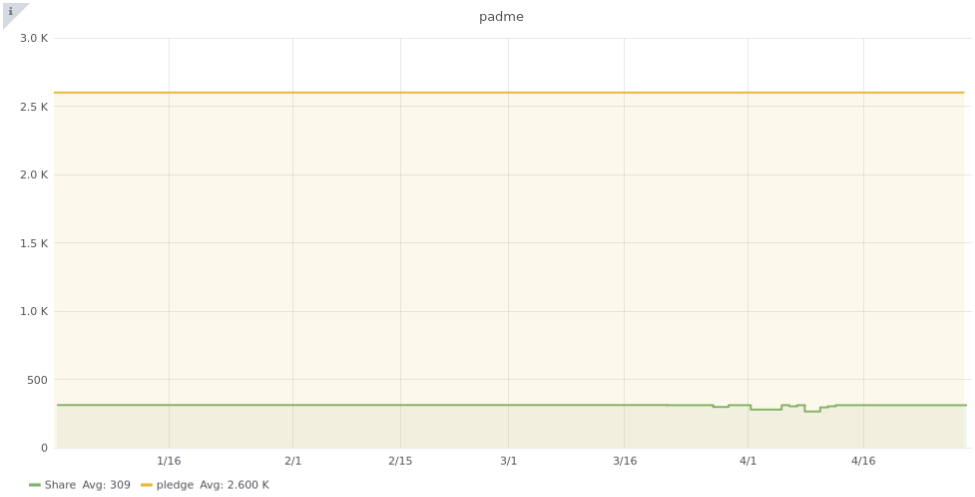

juno
6.0 K
5.0 K
4.0 K
3.0 K
2.0 K
1.0 K
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 1.099 K
Share Avg: 3.222 K
pledge Avg: 3.000 K

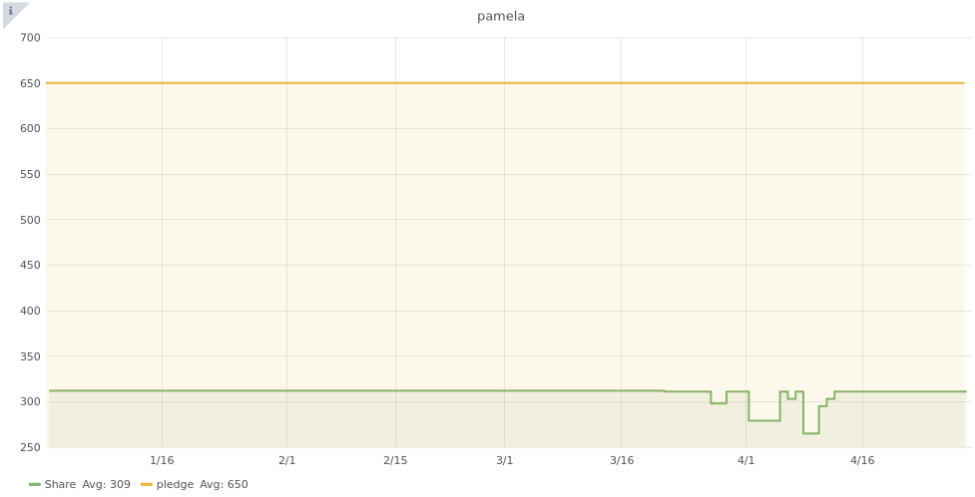

km3
350
300
250
200
150
100
50
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 55
Share Avg: 309
pledge Avg: 300

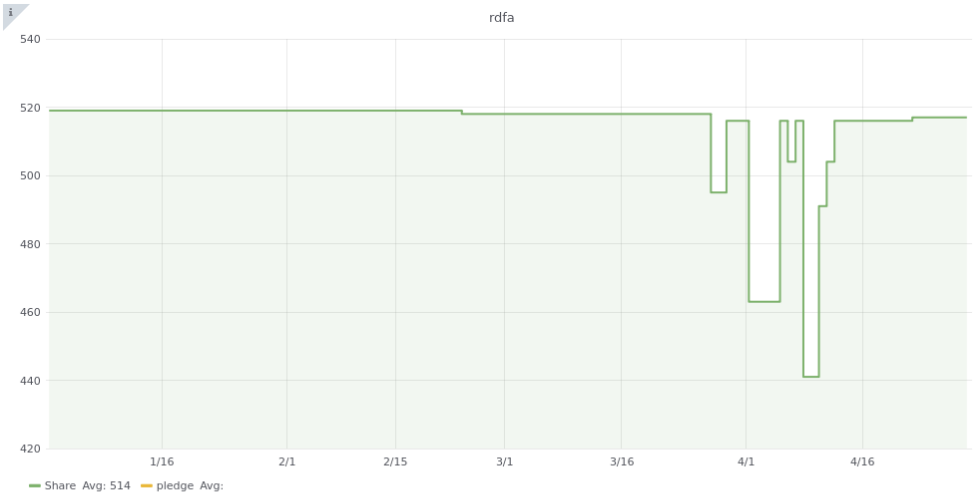

lhaaso
350
300
250
200
150
100
50
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 33
Share Avg: 309
pledge Avg: 300

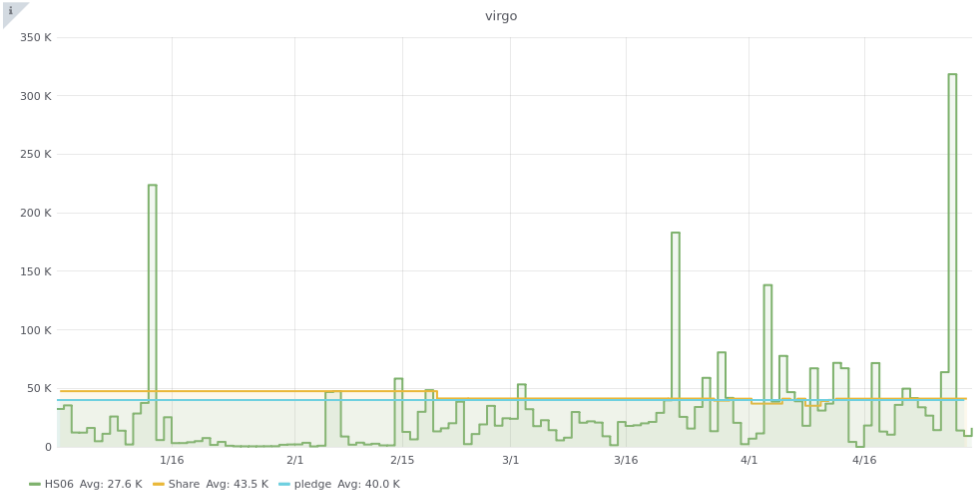

lhcf
20 K
15 K
10 K
5 K
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 6.83 K
Share Avg: 5.82 K
pledge Avg:

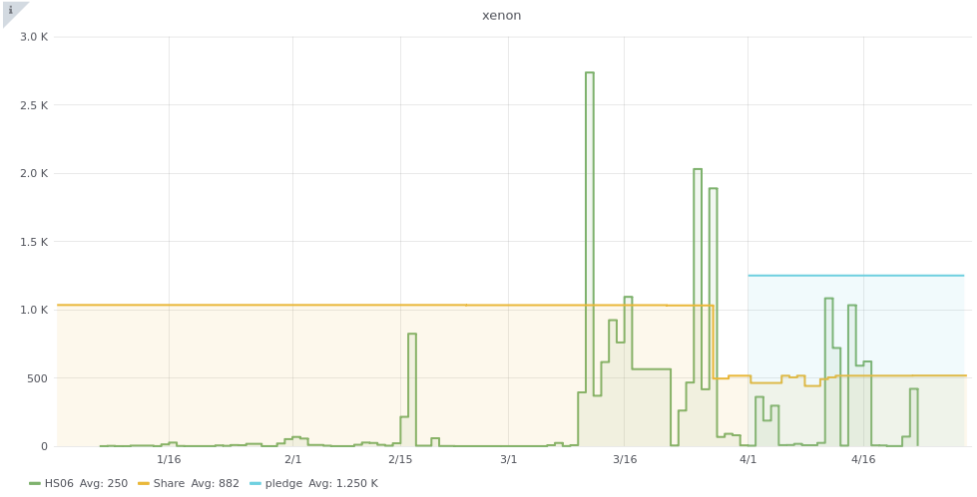

limadou
1.8 K
1.5 K
1.3 K
1.0 K
750
500
250
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 254
Share Avg: 409
pledge Avg: 400
na62
7.0 K
6.0 K
5.0 K
4.0 K
3.0 K
2.0 K
1.0 K
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 660
Share Avg: 2.768 K
pledge Avg: 3.200 K
opera
250
200
150
100
50
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 56
Share Avg: 205
pledge Avg: 200


padme
3.0 K
2.5 K
2.0 K
1.5 K
1.0 K
500
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
Share Avg: 309
pledge Avg: 2.600 K


pamela
700
650
600
550
500
450
400
350
300
250
1/16
2/1
2/15
3/1
3/16
4/1
4/16
Share Avg: 309
pledge Avg: 650

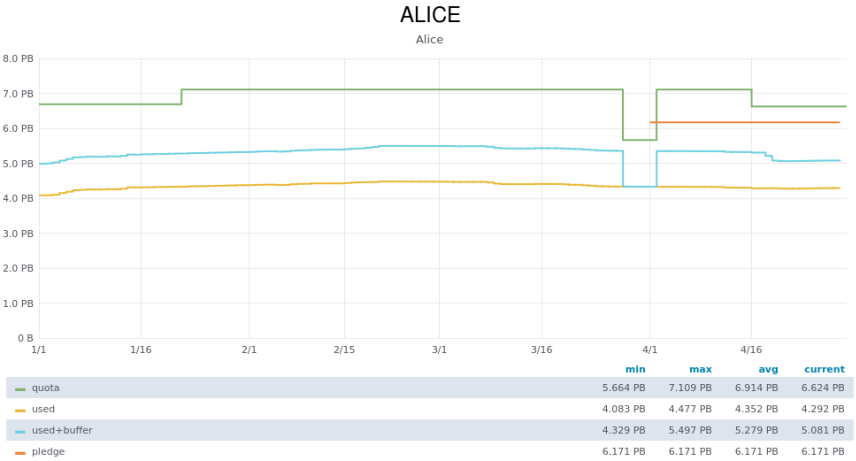

rdfa
540
520
500
480
460
440
420
1/16
2/1
2/15
3/1
3/16
4/1
4/16
Share Avg: 514
pledge Avg:

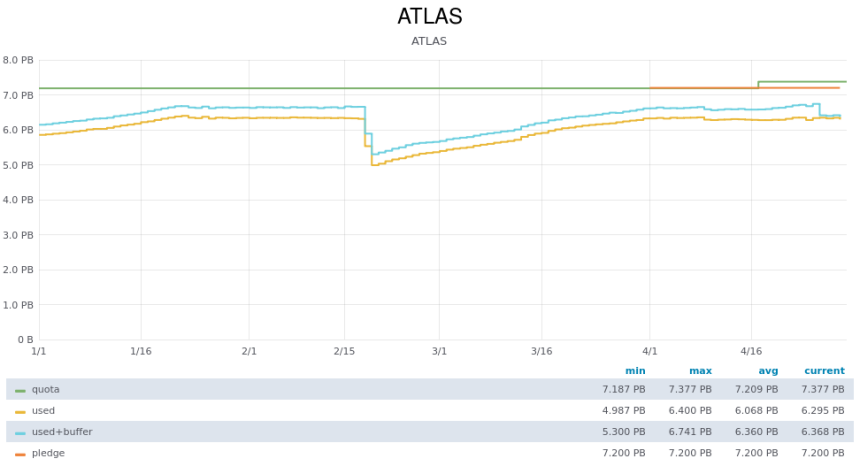

virgo
350 K
300 K
250 K
200 K
150 K
100 K
50 K
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 27.6 K
Share Avg: 43.5 K
pledge Avg: 40.0 K


xenon
3.0 K
2.5 K
2.0 K
1.5 K
1.0 K
500
0
1/16
2/1
2/15
3/1
3/16
4/1
4/16
HS06 Avg: 250
Share Avg: 882
pledge Avg: 1.250 K

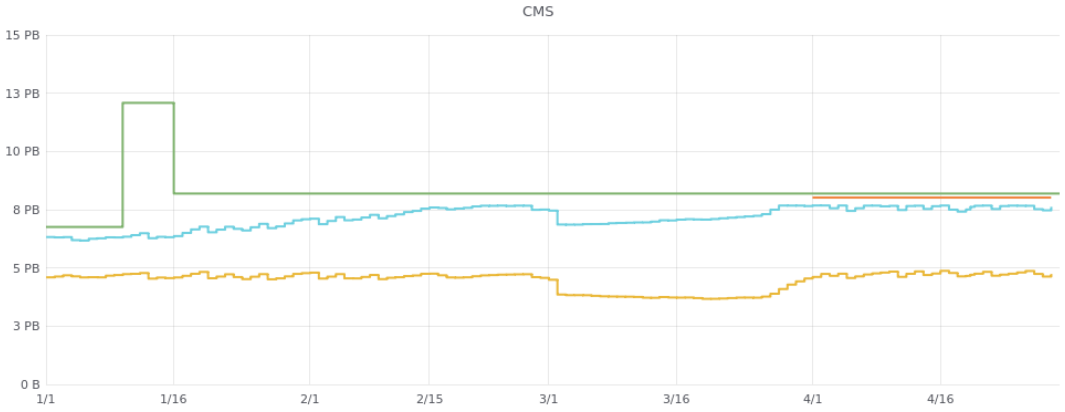
2 Utilizzo delle risorse - Storage

2.1 Disk usage - LHC



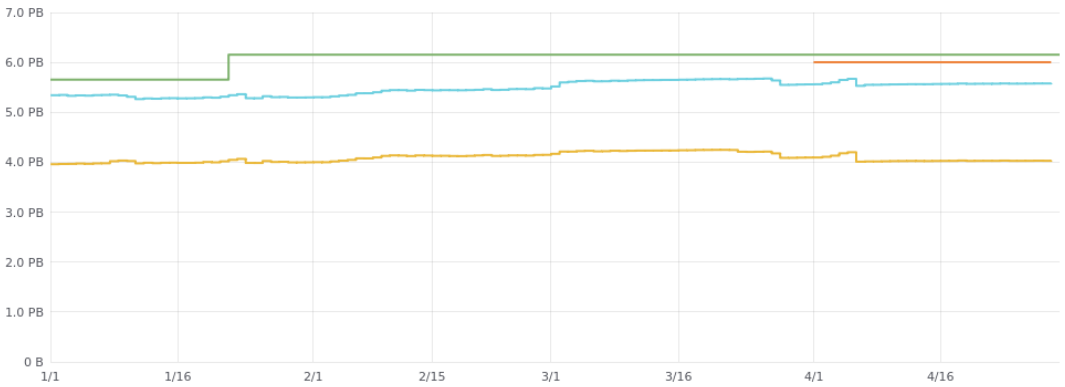


CMS



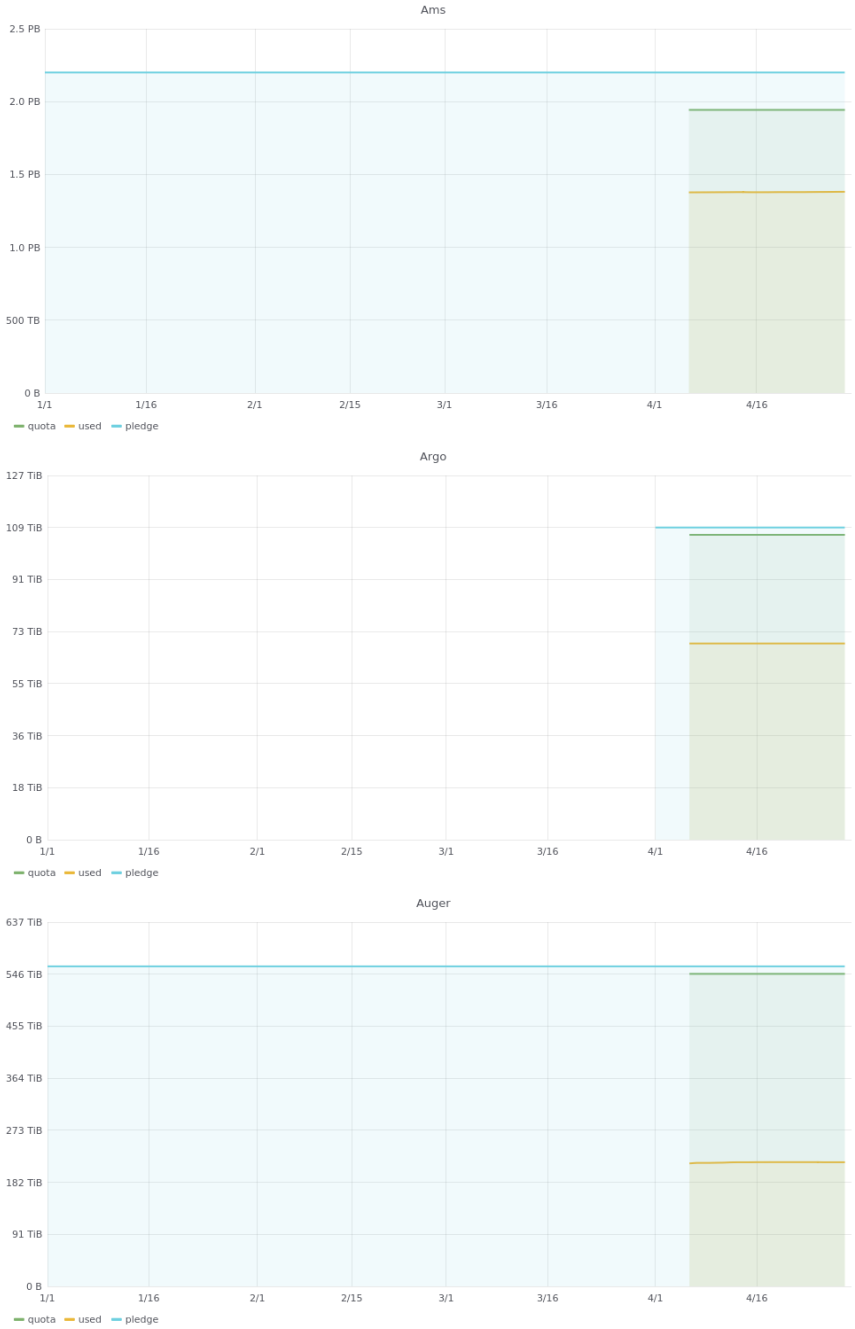
	min	max	avg	current
quota	6.76 PB	12.09 PB	8.28 PB	8.19 PB
used	3.67 PB	4.87 PB	4.47 PB	4.74 PB
used+buffer	6.18 PB	7.68 PB	7.16 PB	7.62 PB
pledge	8.02 PB	8.02 PB	8.02 PB	8.02 PB

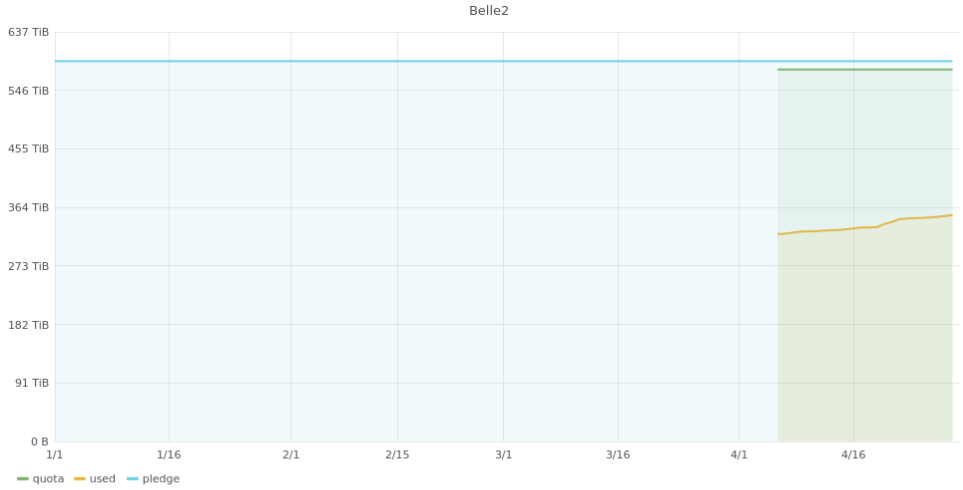
LHCB

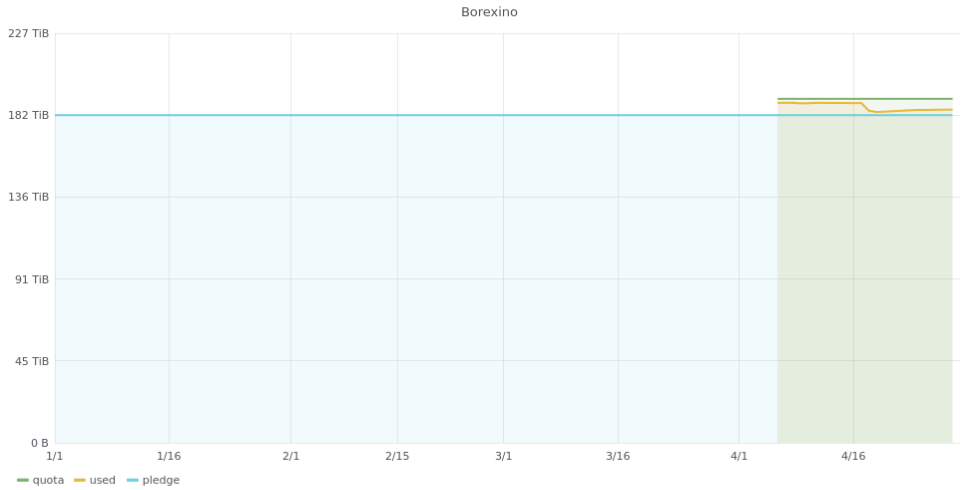


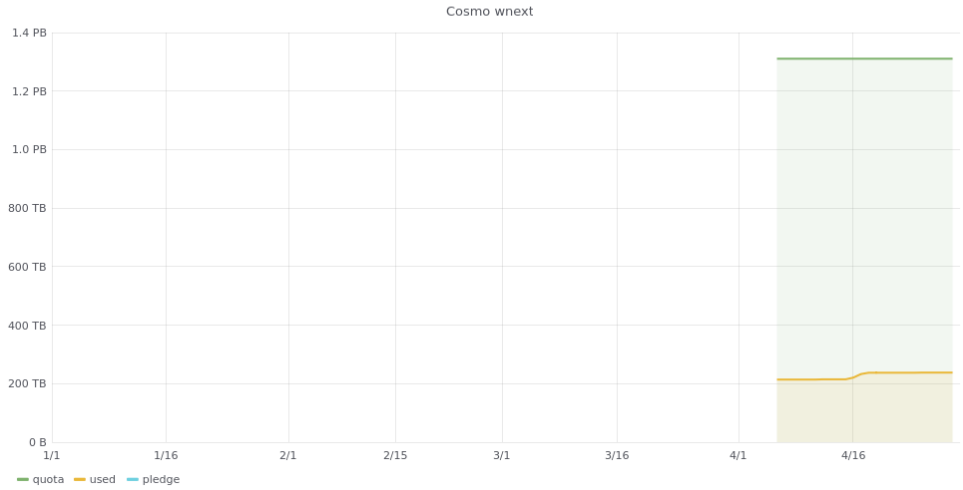
	min	max	avg	current
quota	5.655 PB	6.154 PB	6.067 PB	6.154 PB
used	3.961 PB	4.248 PB	4.090 PB	4.035 PB
used+buffer	5.265 PB	5.677 PB	5.484 PB	5.584 PB
pledge	6.004 PB	6.004 PB	6.004 PB	6.004 PB

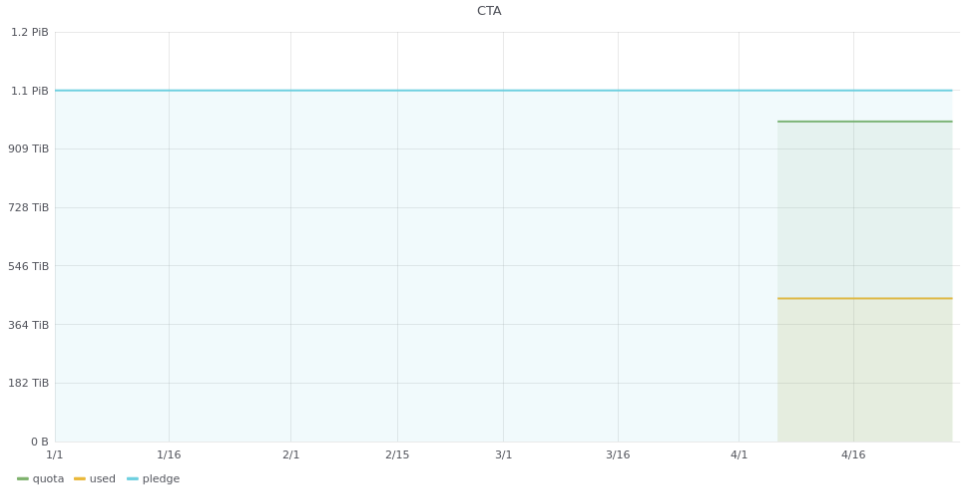
2.2 Disk usage - No LHC

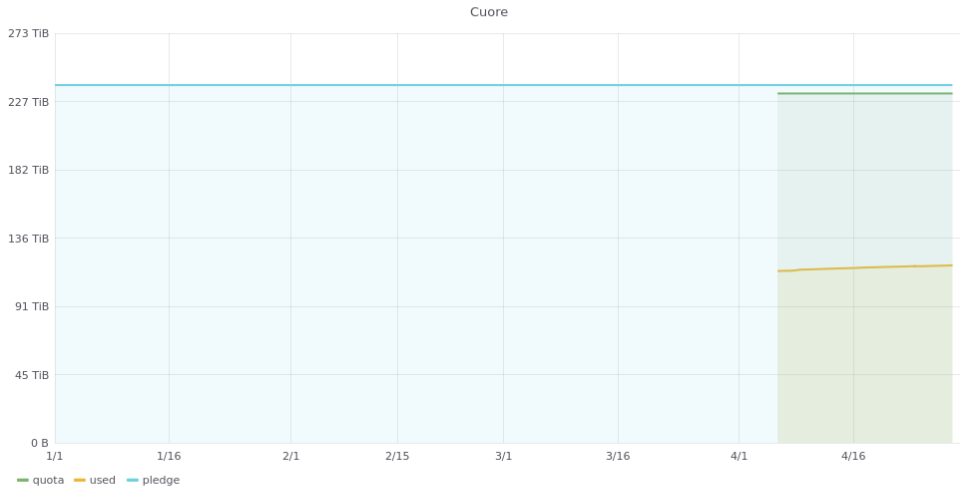


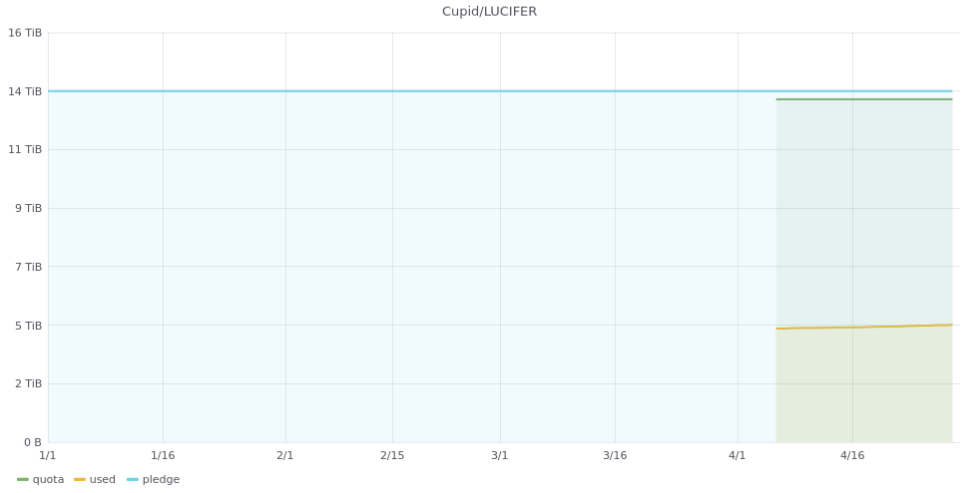

Belle2
637 TiB
546 TiB
455 TiB
364 TiB
273 TiB
182 TiB
91 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

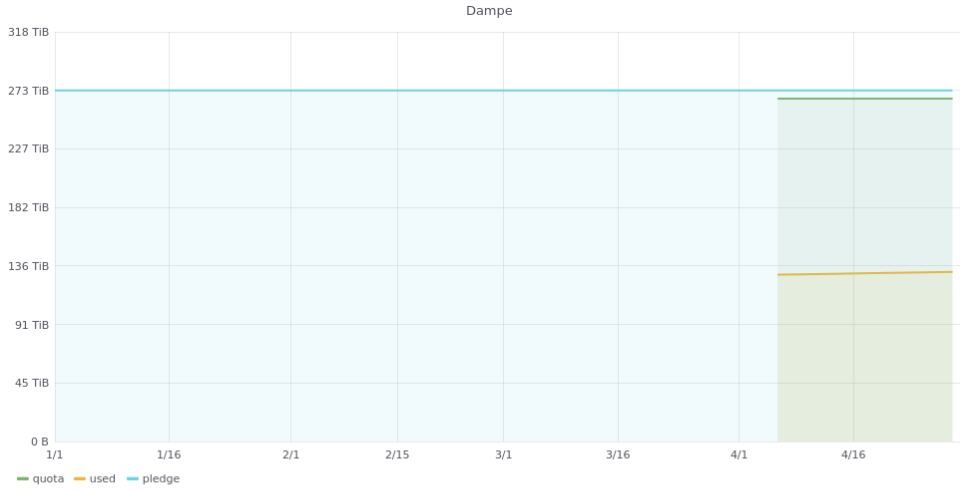

Borexino
227 TiB
182 TiB
136 TiB
91 TiB
45 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

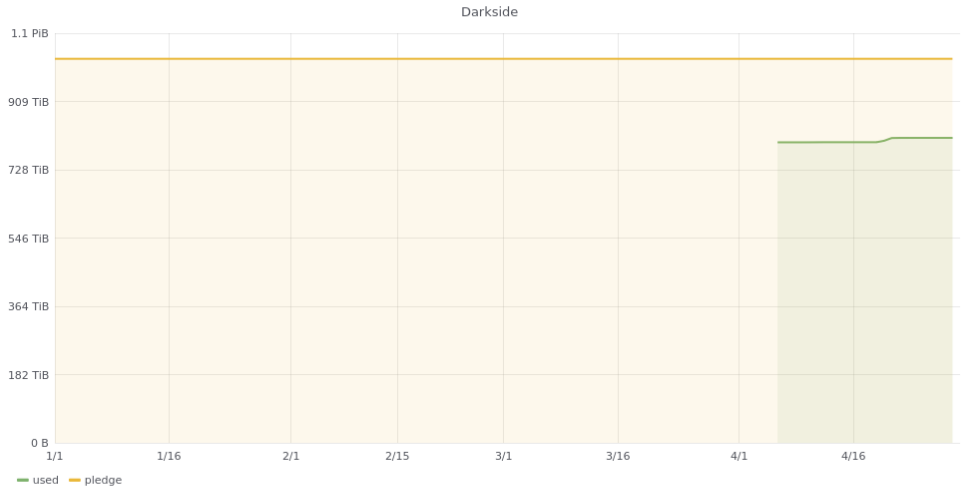

Cosmo wnext
1.4 PB
1.2 PB
1.0 PB
800 TB
600 TB
400 TB
200 TB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

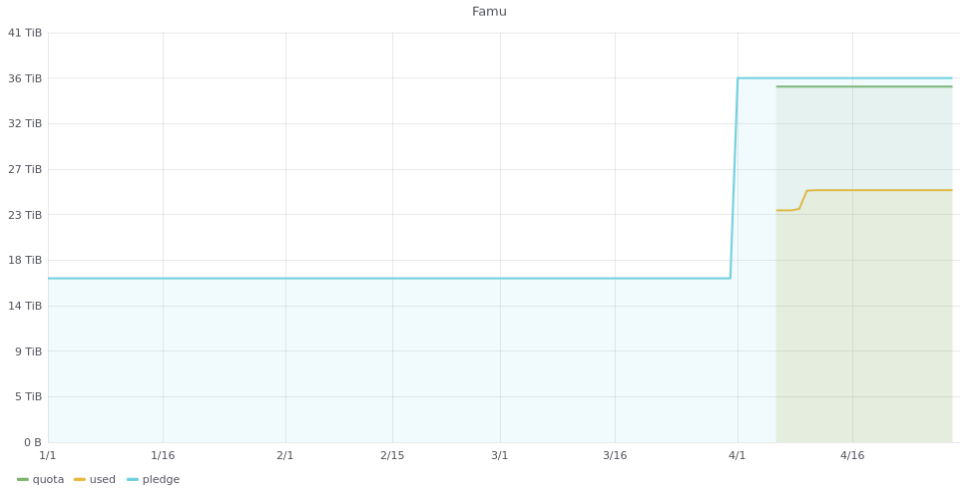

CTA
1.2 PiB
1.1 PiB
909 TiB
728 TiB
546 TiB
364 TiB
182 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

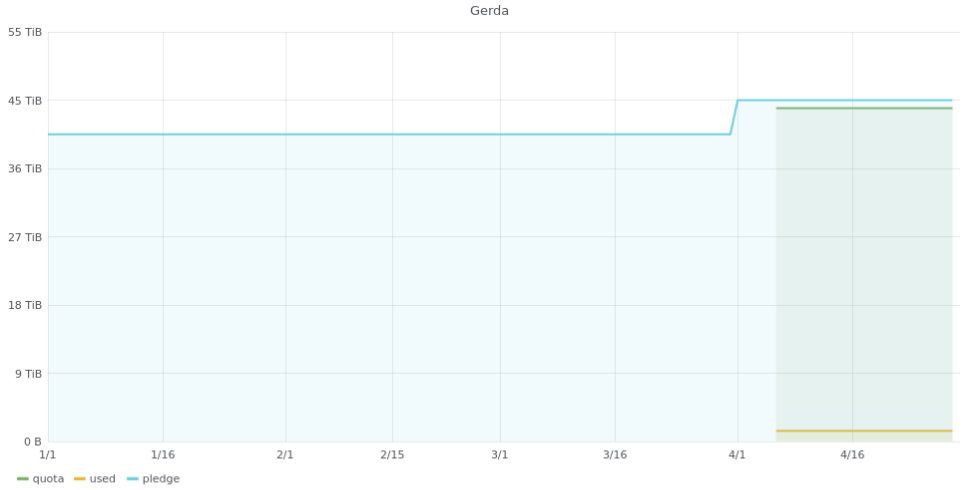

Cuore
273 TiB
227 TiB
182 TiB
136 TiB
91 TiB
45 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

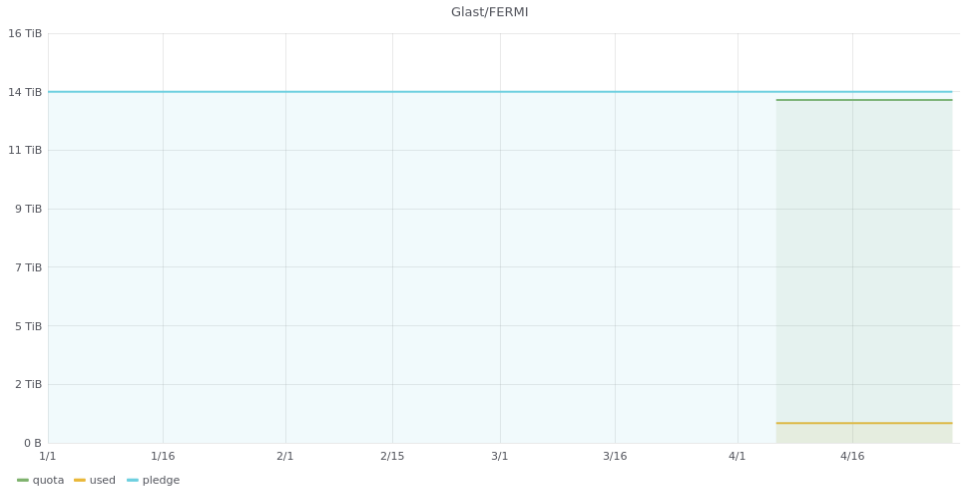

Cupid/LUCIFER
16 TiB
14 TiB
11 TiB
9 TiB
7 TiB
5 TiB
2 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

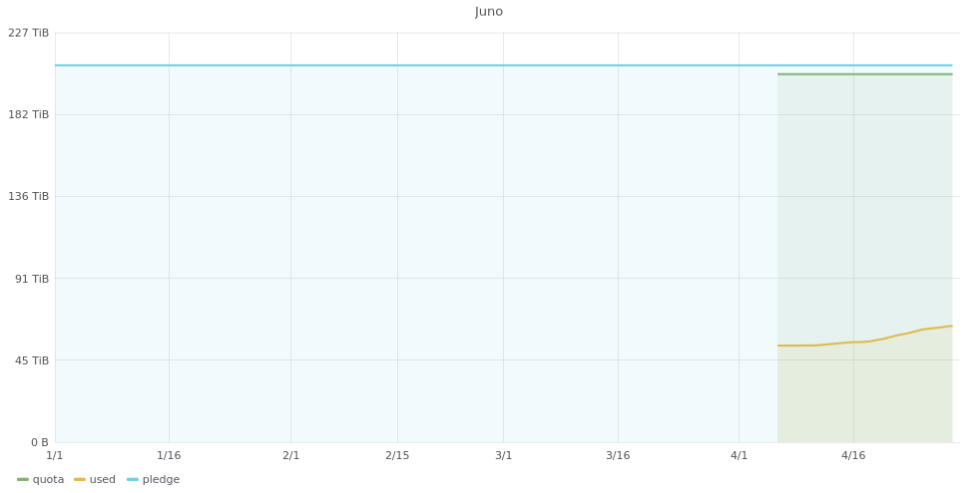

Dampe
318 TiB
273 TiB
227 TiB
182 TiB
136 TiB
91 TiB
45 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

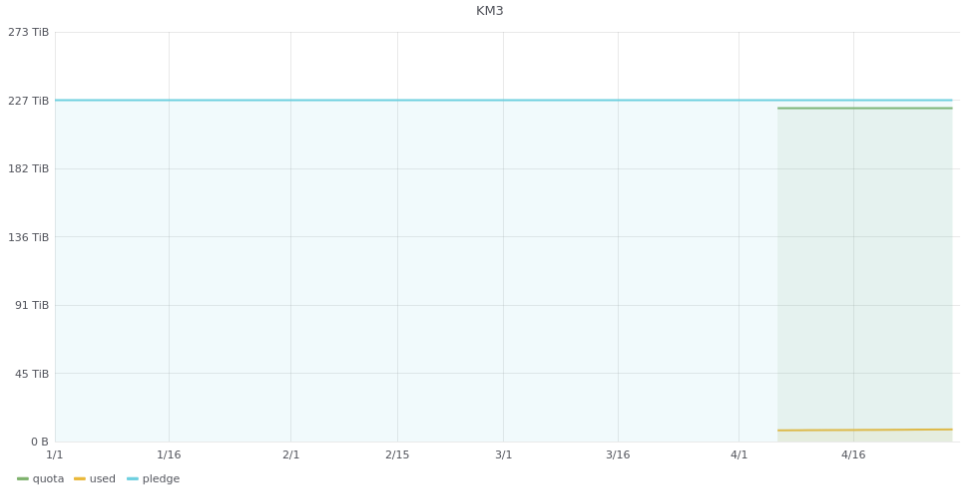

Darkside
1.1 PiB
909 TiB
728 TiB
546 TiB
364 TiB
182 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
used
pledge

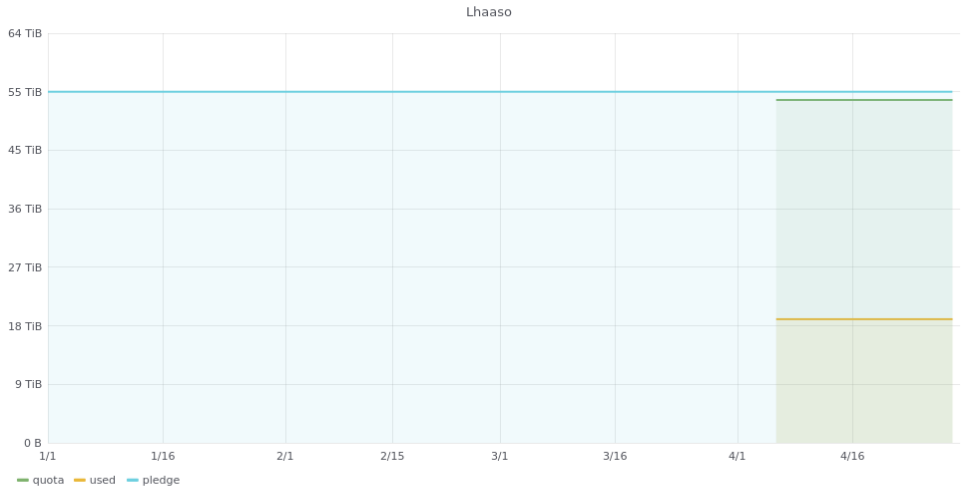

Famu
41 TiB
36 TiB
32 TiB
27 TiB
23 TiB
18 TiB
14 TiB
9 TiB
5 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

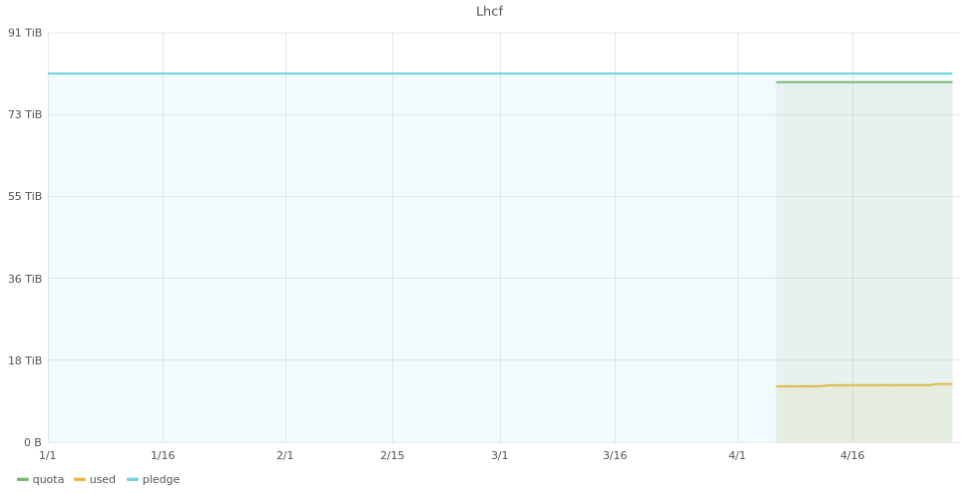

Gerda
55 TiB
45 TiB
36 TiB
27 TiB
18 TiB
9 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

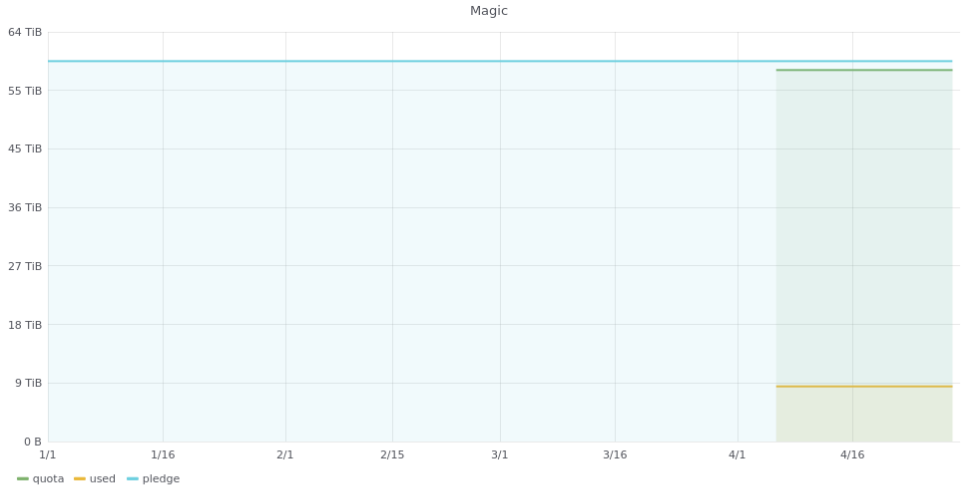

Glast/FERMI
16 TiB
14 TiB
11 TiB
9 TiB
7 TiB
5 TiB
2 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

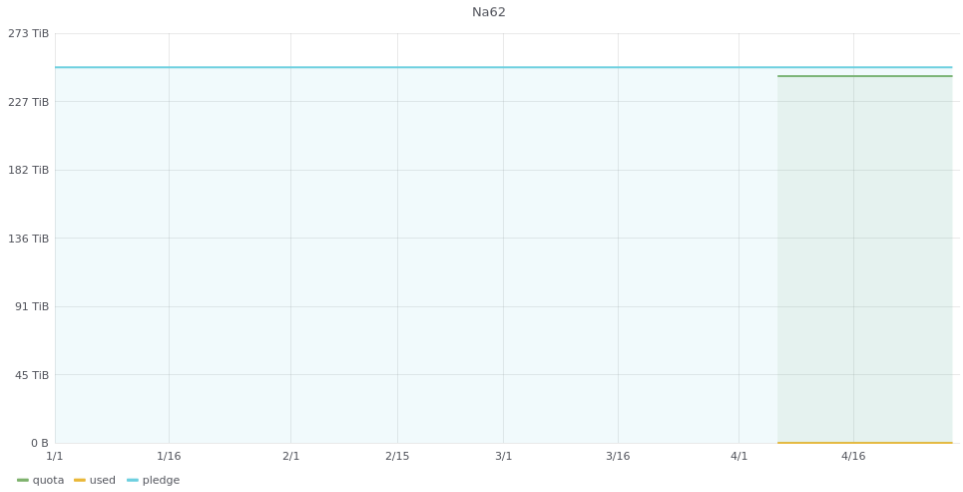

Juno
227 TiB
182 TiB
136 TiB
91 TiB
45 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

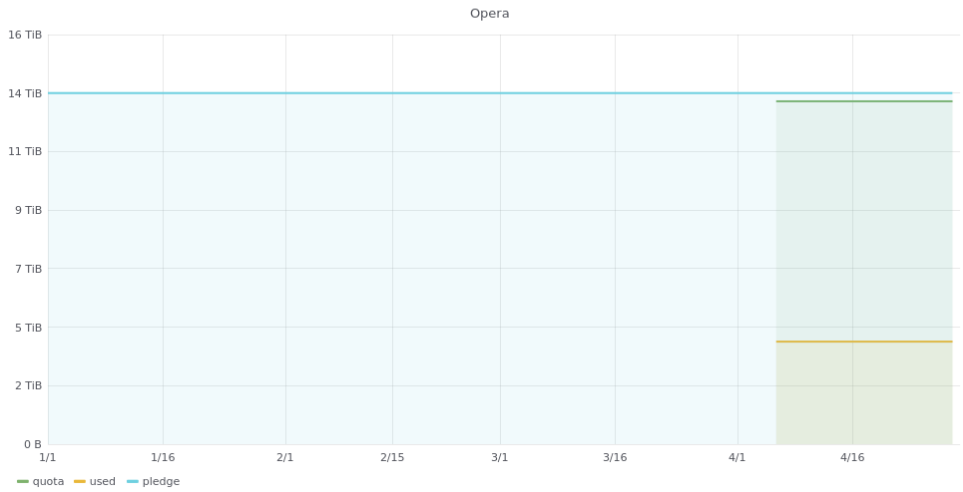

KM3
273 TiB
227 TiB
182 TiB
136 TiB
91 TiB
45 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

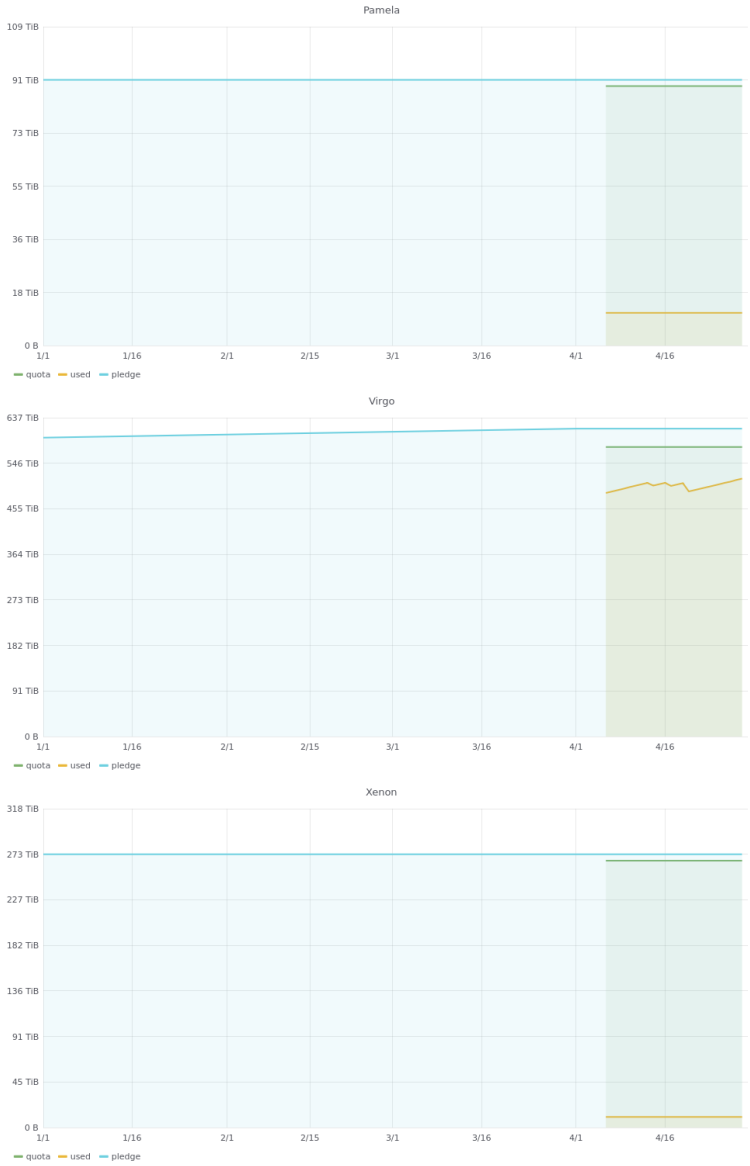

Lhaaso
64 TiB
55 TiB
45 TiB
36 TiB
27 TiB
18 TiB
9 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge


Lhcf
91 TiB
73 TiB
55 TiB
36 TiB
18 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge


Magic
64 TiB
55 TiB
45 TiB
36 TiB
27 TiB
18 TiB
9 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge


Na62
273 TiB
227 TiB
182 TiB
136 TiB
91 TiB
45 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge


Opera
16 TiB
14 TiB
11 TiB
9 TiB
7 TiB
5 TiB
2 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge


Pamela
109 TiB
91 TiB
73 TiB
55 TiB
36 TiB
18 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge
Virgo
637 TiB
546 TiB
455 TiB
364 TiB
273 TiB
182 TiB
91 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge
Xenon
318 TiB
273 TiB
227 TiB
182 TiB
136 TiB
91 TiB
45 TiB
0 B
1/1
1/16
2/1
2/15
3/1
3/16
4/1
4/16
quota
used
pledge

2.3 Consistenza fra accounting CNAF e cataloghi di esperimento nell'uso dello storage

ALICE		
	Catalogo	Accounting CNAF
Disco + Buffer (PB)	5.402	5.403
ATLAS		
	Catalogo	Accounting CNAF
Disco(PB)	6.334	6.32
Nastro (PB)	14.88	14.3
CMS		
	Catalogo	Accounting CNAF
Disco(PB)	4.57	4.73
Nastro (PB)	17.98	17.13
LHCb		
	Catalogo	Accounting CNAF
Disco(TB)	5245	5.802
Nastro + Buffer (TB)	11.415	11.400

3 Availability e reliability

3.1 Availability e reliability WLCG - Marzo

Tabella 1: **ALICE**

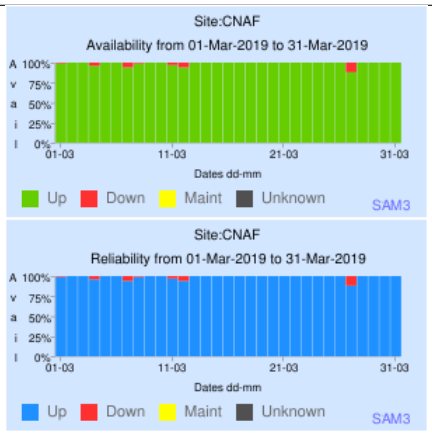
	**Availability e Reliability** ntr

Tabella 2: **ATLAS**

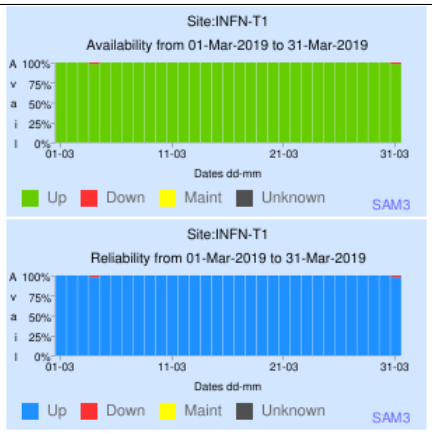
	**Availability e Reliability** ntr

Tabella 3: **CMS**

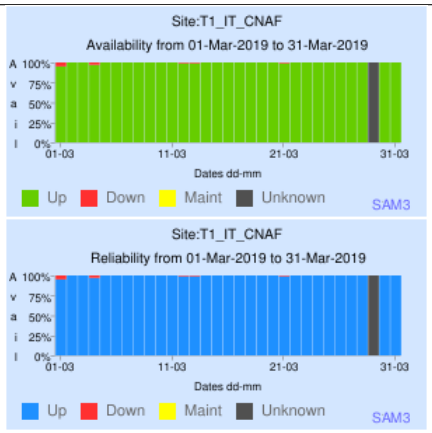
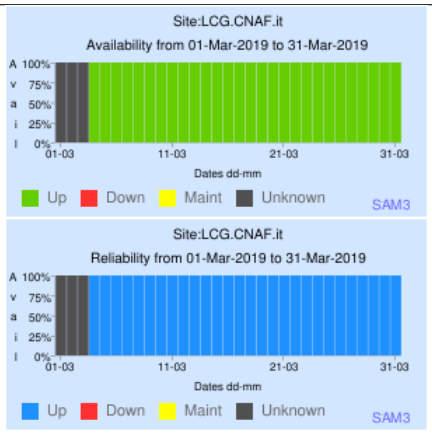
	**Availability e Reliability** 01/03: Failed transfers due to a proxy failure, resolved by restarted both proxy and agents on Phedex ui 04/03: A lot of stucked and failed transfers, resolved by restart of the Phedex agents

Tabella 4: **LHCb**

	**Availability e Reliability** HEP_OSlibs missing, they were not able to submit jobs.

3.2 Availability e reliability WLCG storico

Figura 1: **Availability e Reliability ALICE - storico**

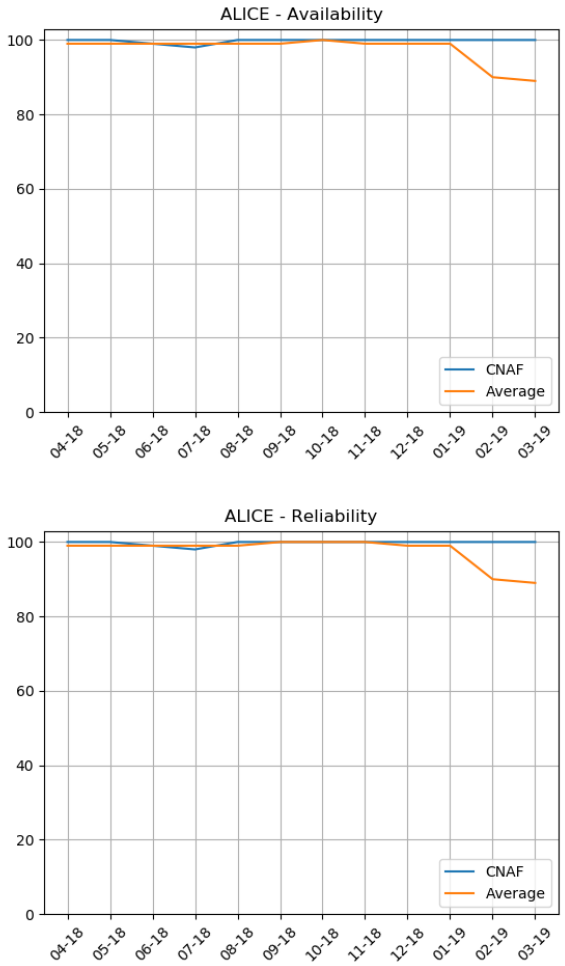


Figura 2: **Availability e Reliability ATLAS - storico**

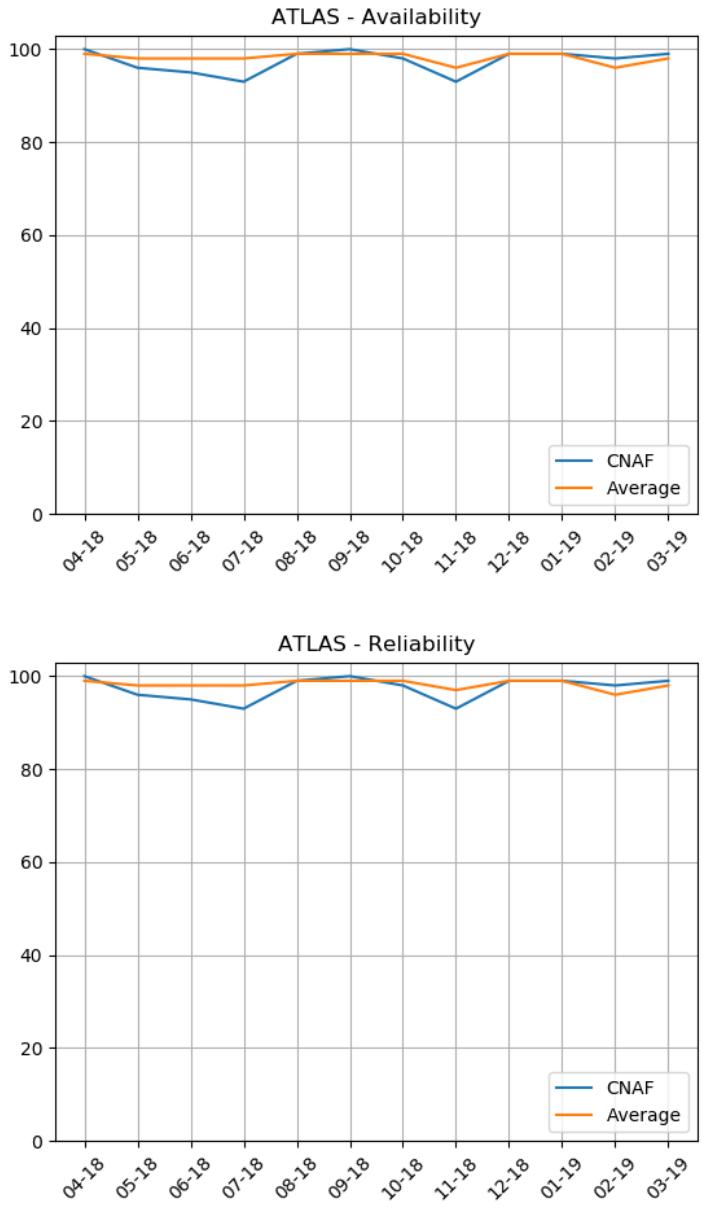


Figura 3: **Availability e Reliability CMS - storico**

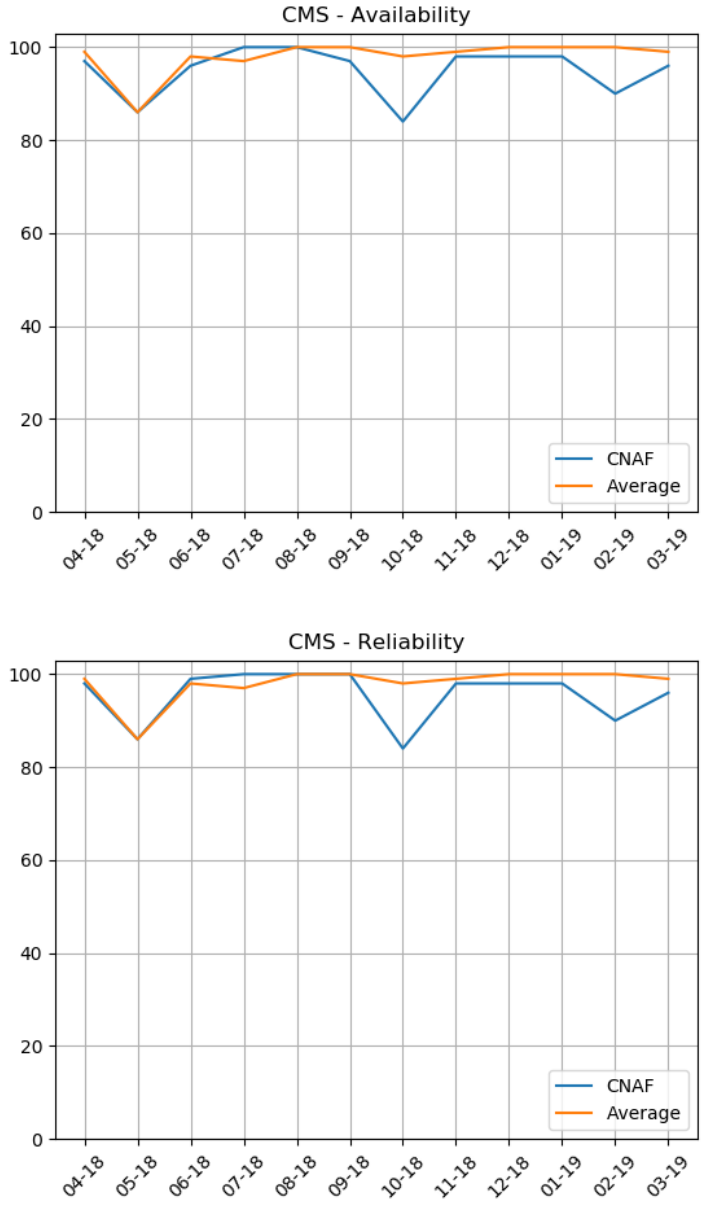
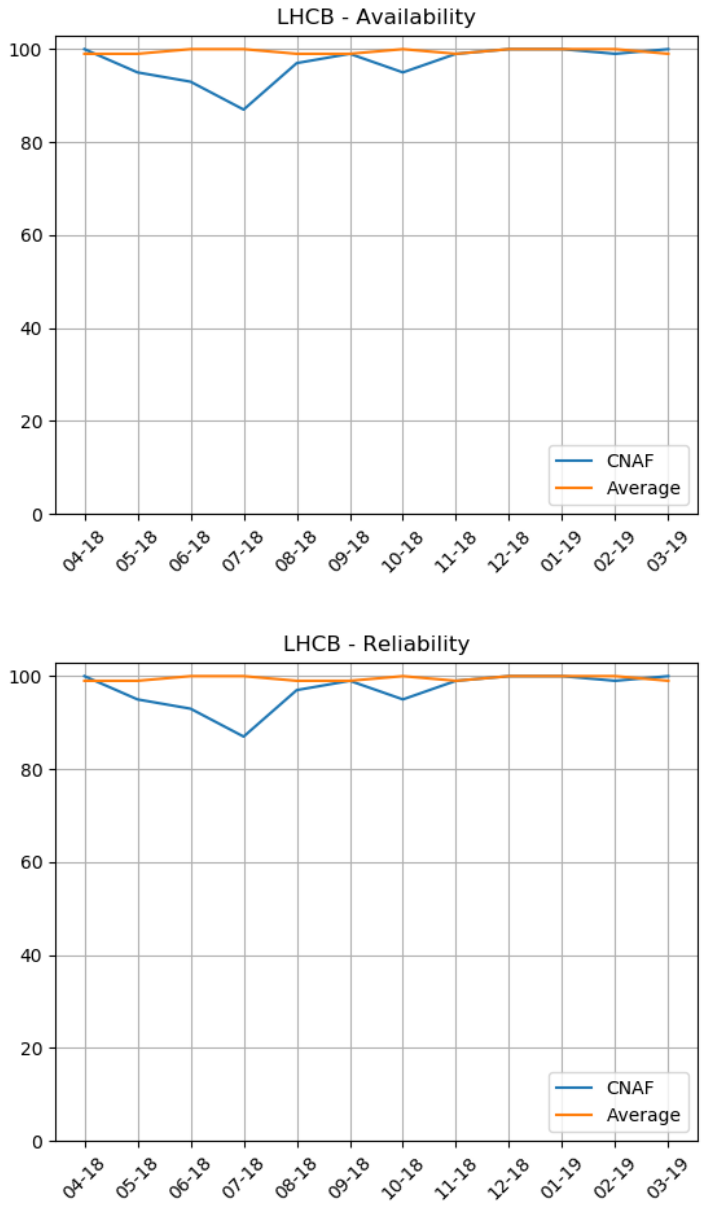


Figura 4: **Availability e Reliability LHCb - storico**



4 Tickets

4.1 Aperti

Ticket-ID	VO	Subject

4.2 Chiusi nell'ultimo mese

Ticket-ID	VO	Subject
140383	alice	
138914	atlas	
139033	atlas	
139201	atlas	
139239	atlas	
139458	atlas	
139572	atlas	
139637	atlas	
140182	atlas	
140362	atlas	
140616	atlas	
138657	belle	
139062	cms	
139138	cms	
139163	cms	
139368	cms	
139679	cms	
139854	cms	
140044	cms	
140046	cms	
140176	cms	
140323	cms	
140499	cms	
139351	dteam	
139449	lhcb	
139608	lhcb	
139392	none	
140197	none	
140432	none	

5 Uso Tape @ CNAF 2019

Tabella 5: Tape: previsioni per il 2019

Esperimento	Utilizzo e throughput previsto
ALICE	
ATLAS	stress test, per misurare il throughput del tape sistem del T1, utiizzando però delle metriche basate sul sistema di trasferimento dati di atlas (rucio). Il test dura una settimana, va bene utilizzare il sistema di produzione. Si pensava settimana del 16 luglio.
CMS	
LHCb	In 2019, re-stripping campaign for the entire RUN 2, recalling all data from 2015 to 2018.
BELLE II	No tape; qualcosa nel 2020 e utilizzo significativo nel 2021
BOREXINO	46TB nel 2019, 51TB nel 2020
CTA	invariato, sempre 120TB
DAMPE	150TB in cui spostare in $3-4$ volte decine di TB
DARKSIDE	invariato, trasferiranno altri dati nei 300TB di adesso
FAMU	una decina di TB
FERMI	massimo 15TB
JUNO	No tape
LIMADOU	1TB per dati raw
NEWCHIM	Nel 2018 dovrebbero occupare 150TB dei 300 previsti. Nel 2019 stimano una crescita fino a 500TB.
PADME	La presa dati inizia ora, $10MB/s$ a regime. Per il 2019, flusso dati analogo.
PAMELA	Invariato.
VIRGO	Throughput minimo continuo Cascina-CNAF di $100MB/s$ (picchi di $200MB/s$), rate di scrittura $50MB/s$)
XENON	No aggiunte al PB del 2018

6 Prossimi Downtime

NTR

7 ALICE

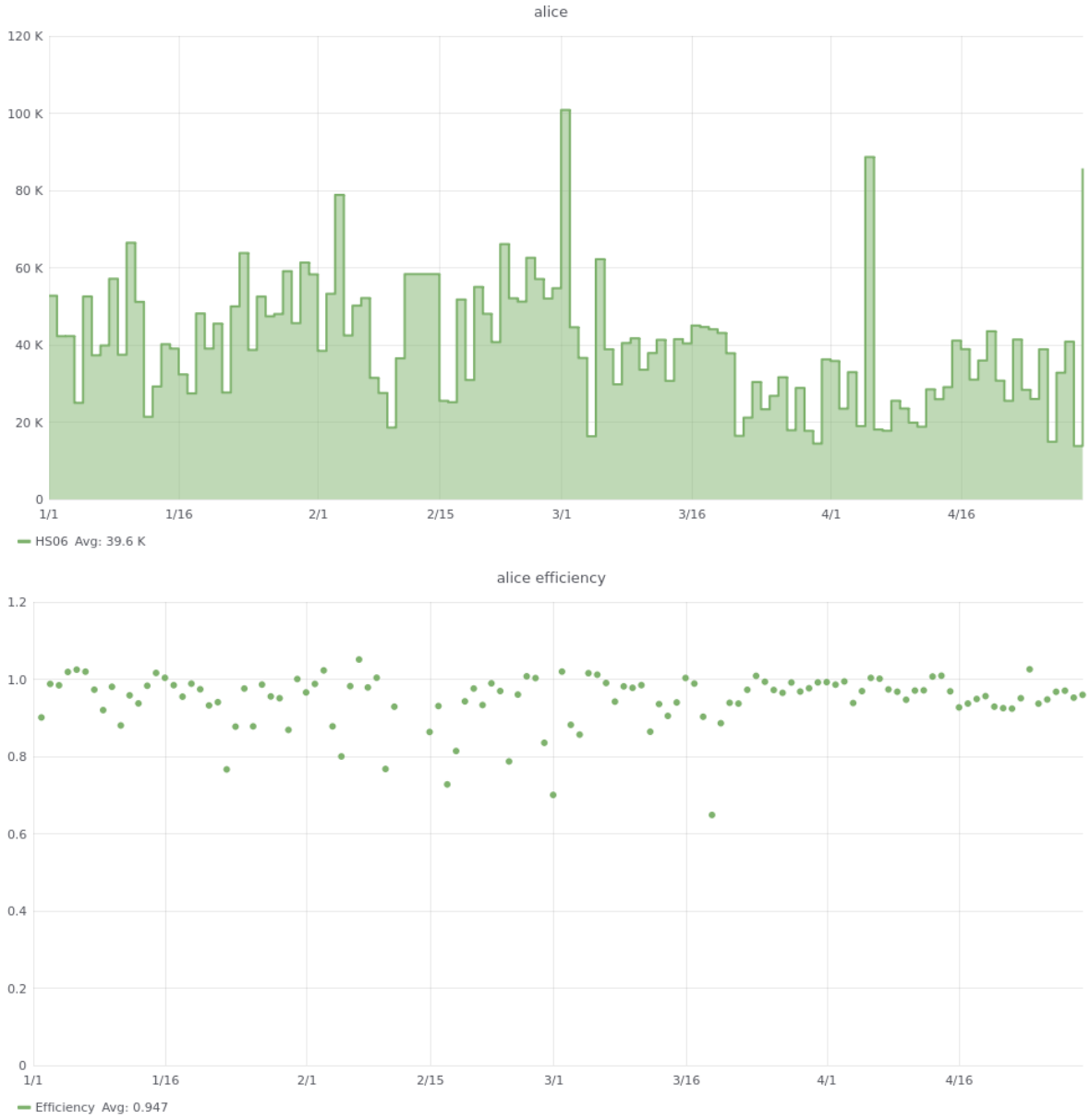


Figura 1: Number of jobs and CPU efficiency - **Alice** (pledge 60600 HS06)

- **Site Availability using ALICE_CRITCAL**

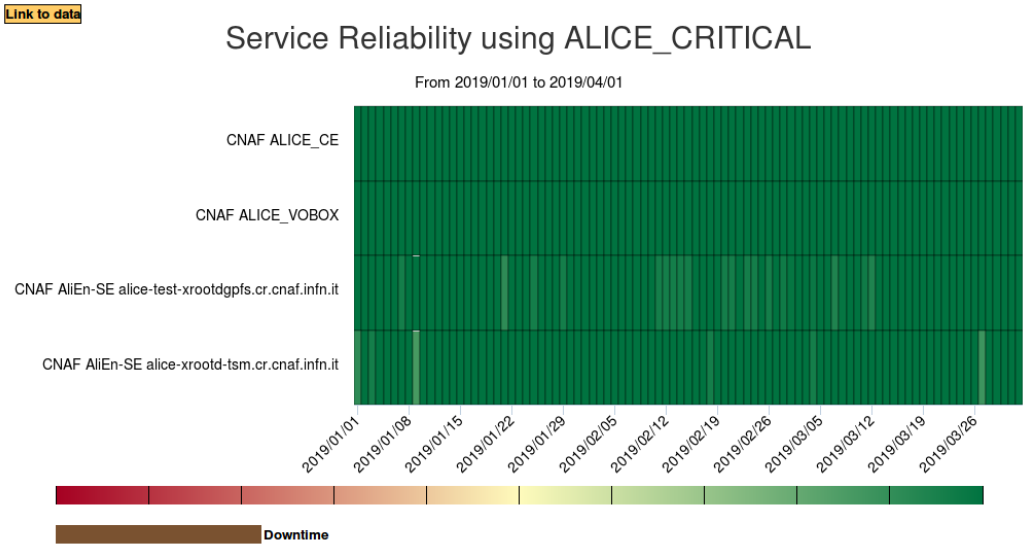


Figura 2: Availability

8 ATLAS

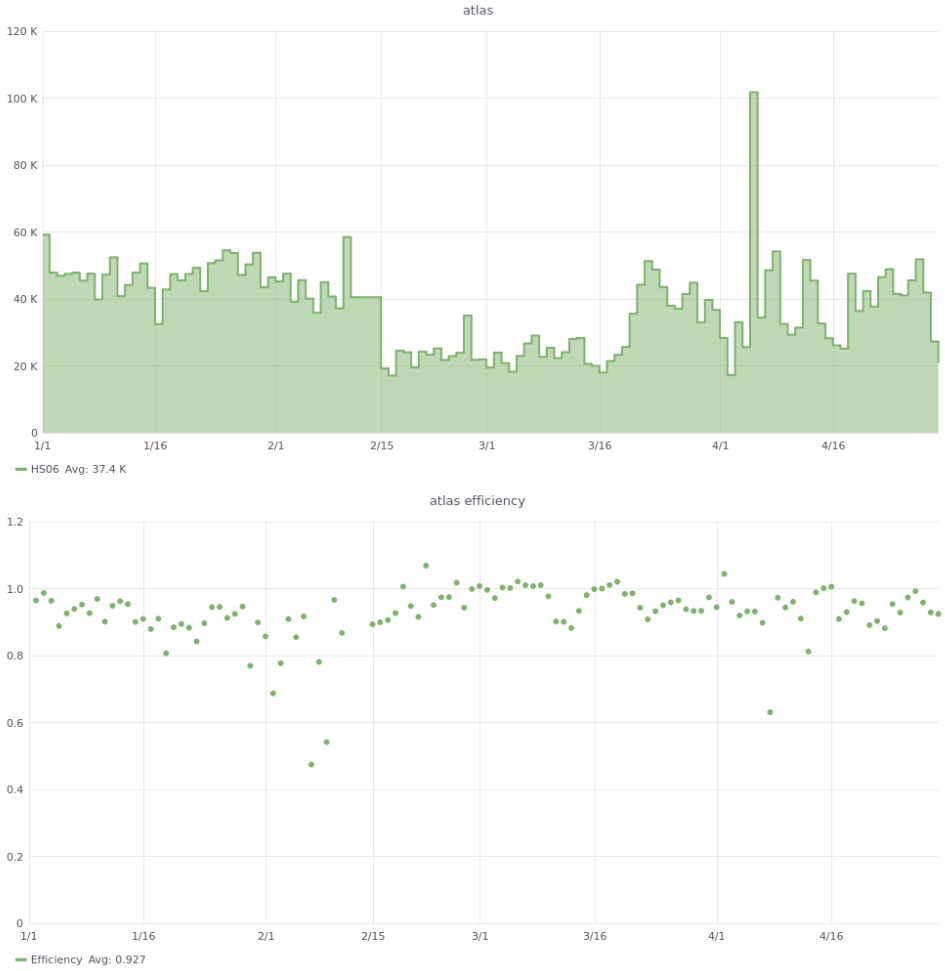


Figura 1: Number of jobs and CPU efficiency - **Atlas** (pledge 90270 HS06)

9 CMS

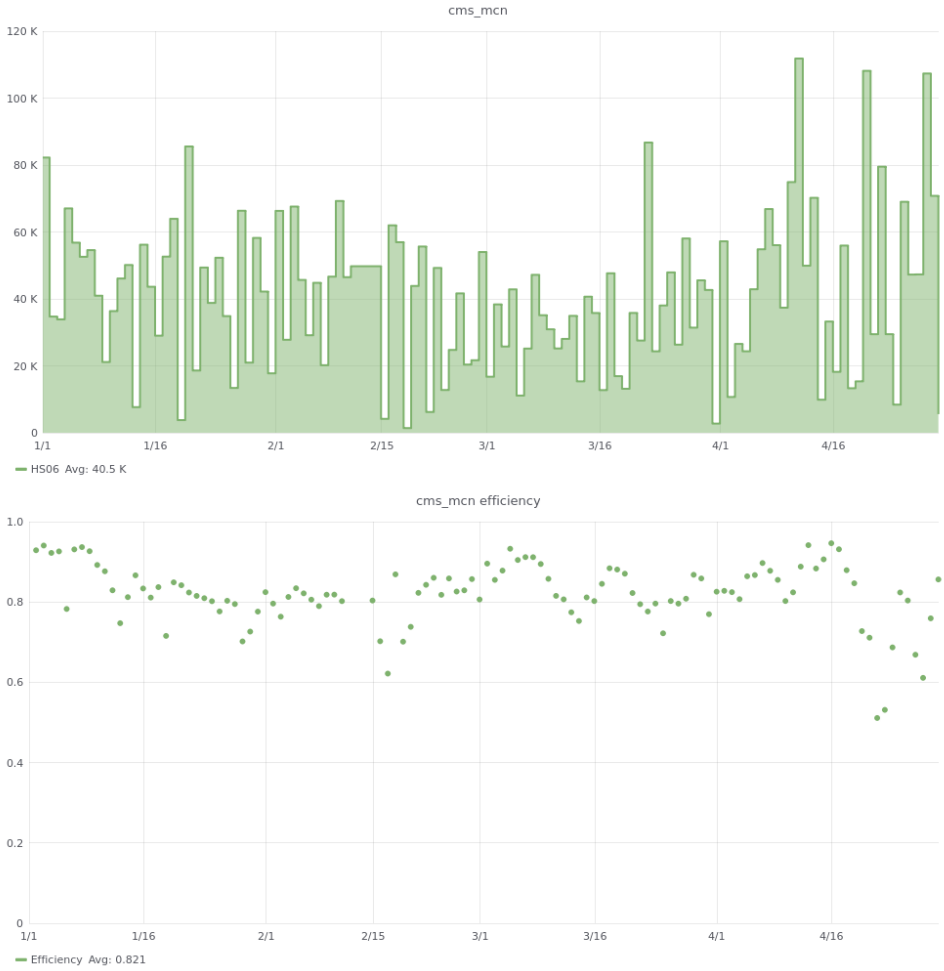
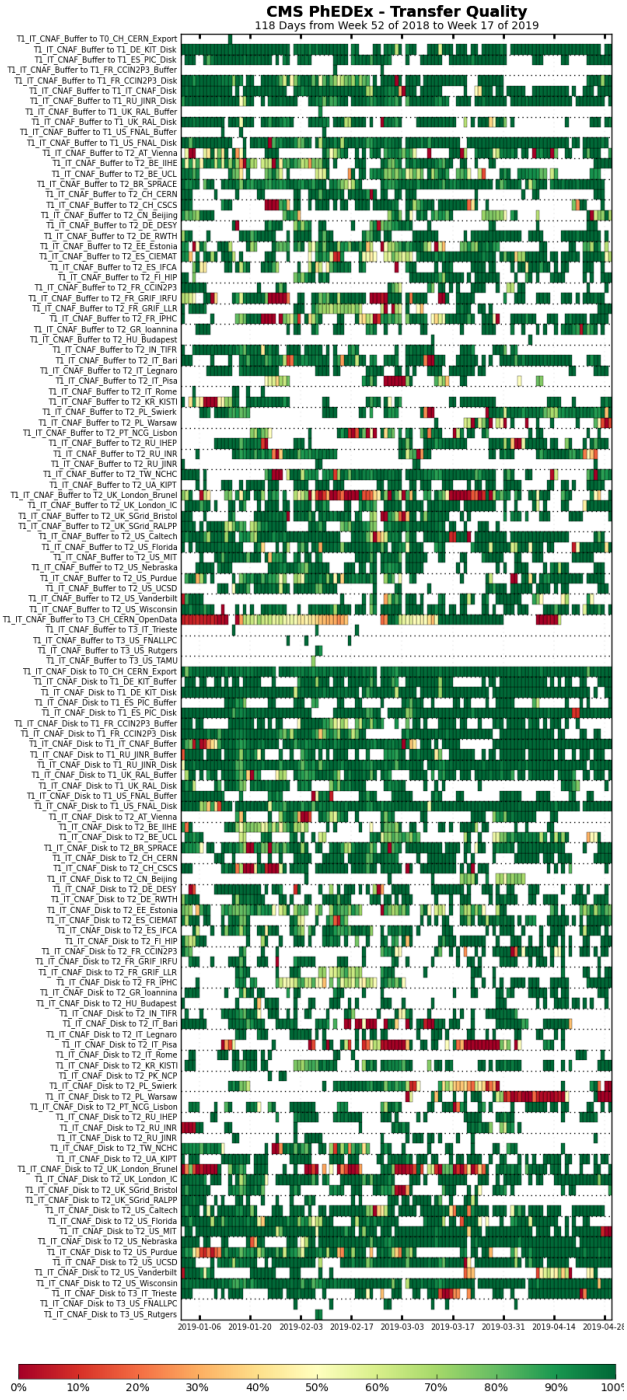


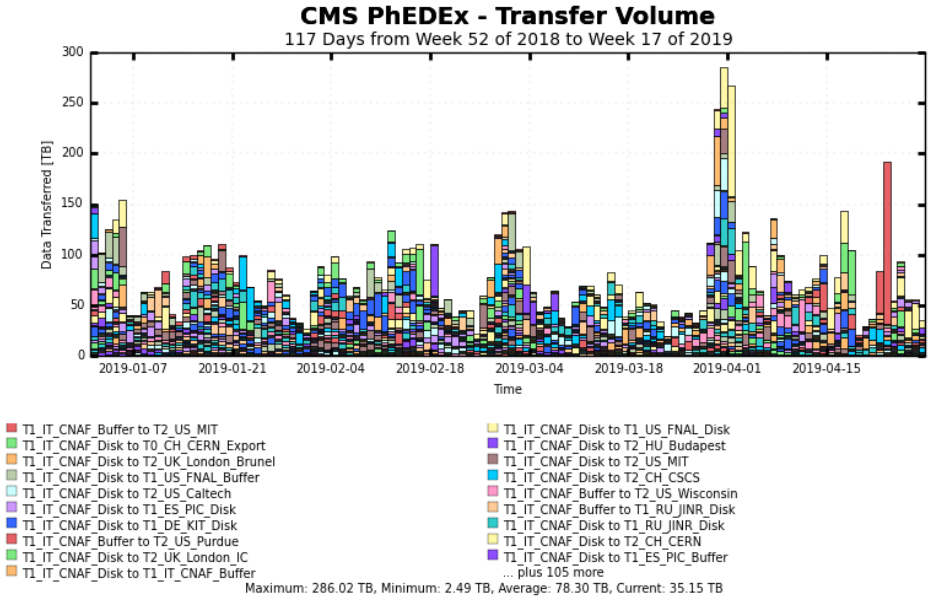
Figura 1: Number of jobs and CPU efficiency - CMS **Multi Core** (pledge 78251 HS06)

Phedex Transfers Quality (CNAF → All)

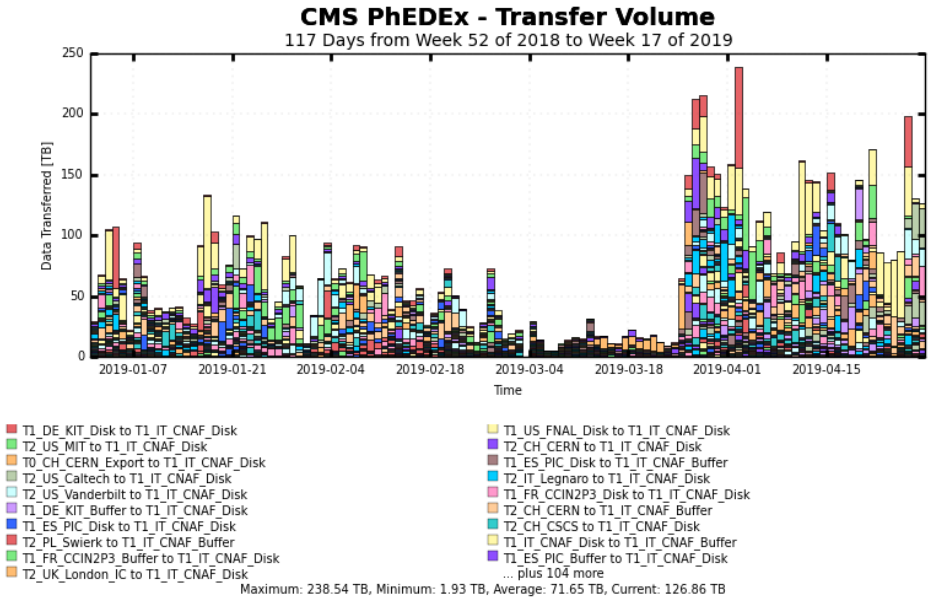


Phedex Transfers Quality (All → CNAF)

Phedex Transfers Volume(CNAF → All)

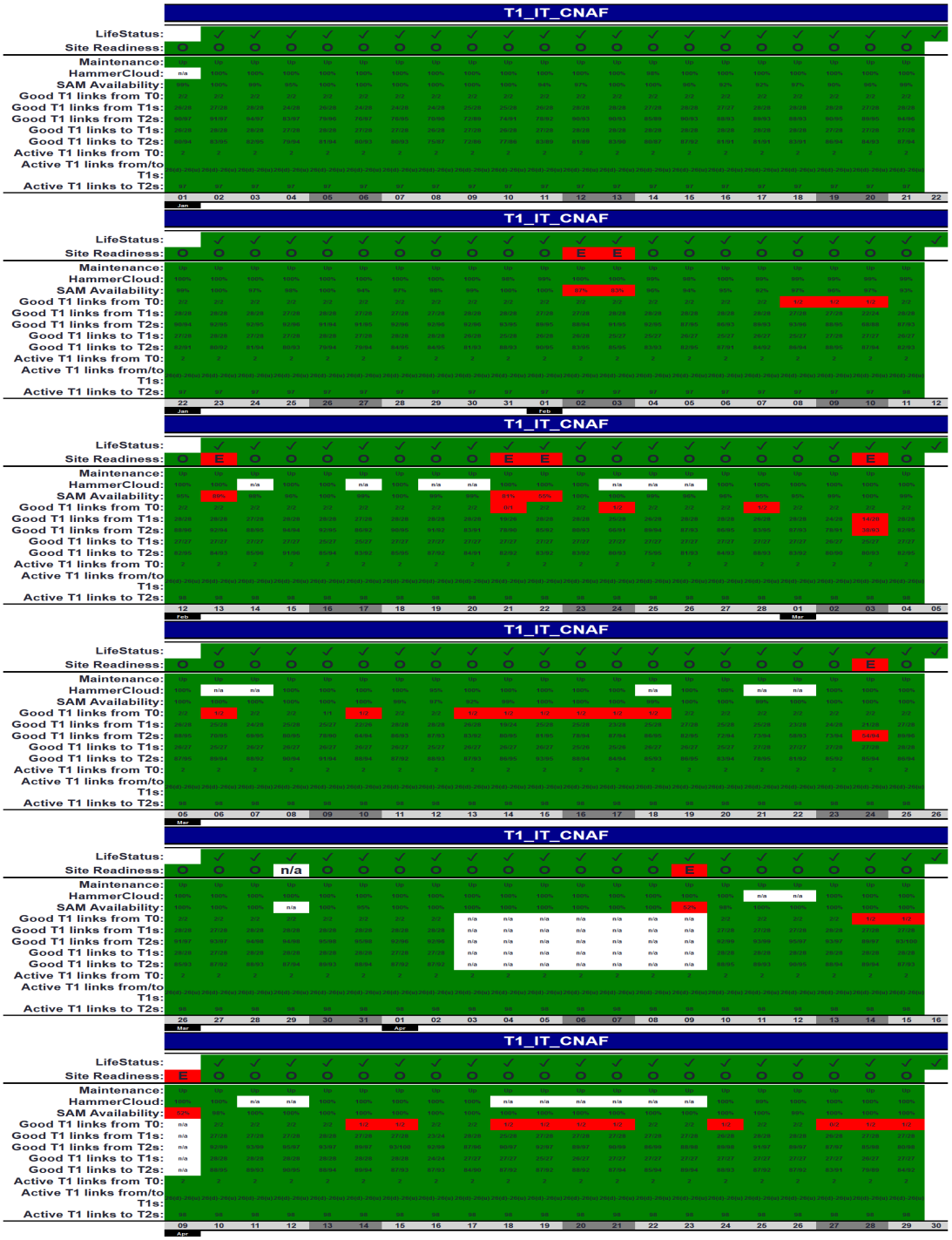


Phedex Transfers Volume (All → CNAF)



Completed jobs status @ T1

Site Readiness



Report:

- 02-03/02: xrootd problems

- 08-10/02: Transfers failing from Pisa to CNAF due to the presence of 0 size files, resolved after a globally invalidation of them

- 13/02: Transfers failing from CNAF tape to OpenData due to the missing checksum in some files at CNAF, resolved putting a patch on all gridftp servers

- 21-22/02: T1_IT_CNAF disk node hostcert expired

- 24/02: transfers not moving from CNAF_Buffer due to proxy down

- 01/03: Failed transfers due to a proxy failure, resolved by restarted both proxy and agents on Phedex ui

- 04/03: A lot of stucked and failed transfers, resolved by restart of the Phedex agents

- 10-24/03: Transfers stuck/failing to CNAF_Disk due to reaching the limit quota for the phedex user, resolved after freeing up some space

- 09/04: Expired credentials at CNAF in dev instance

- 14-21/04: Missing files available only on CNAF, all blocks have been transferred

10 LHCb

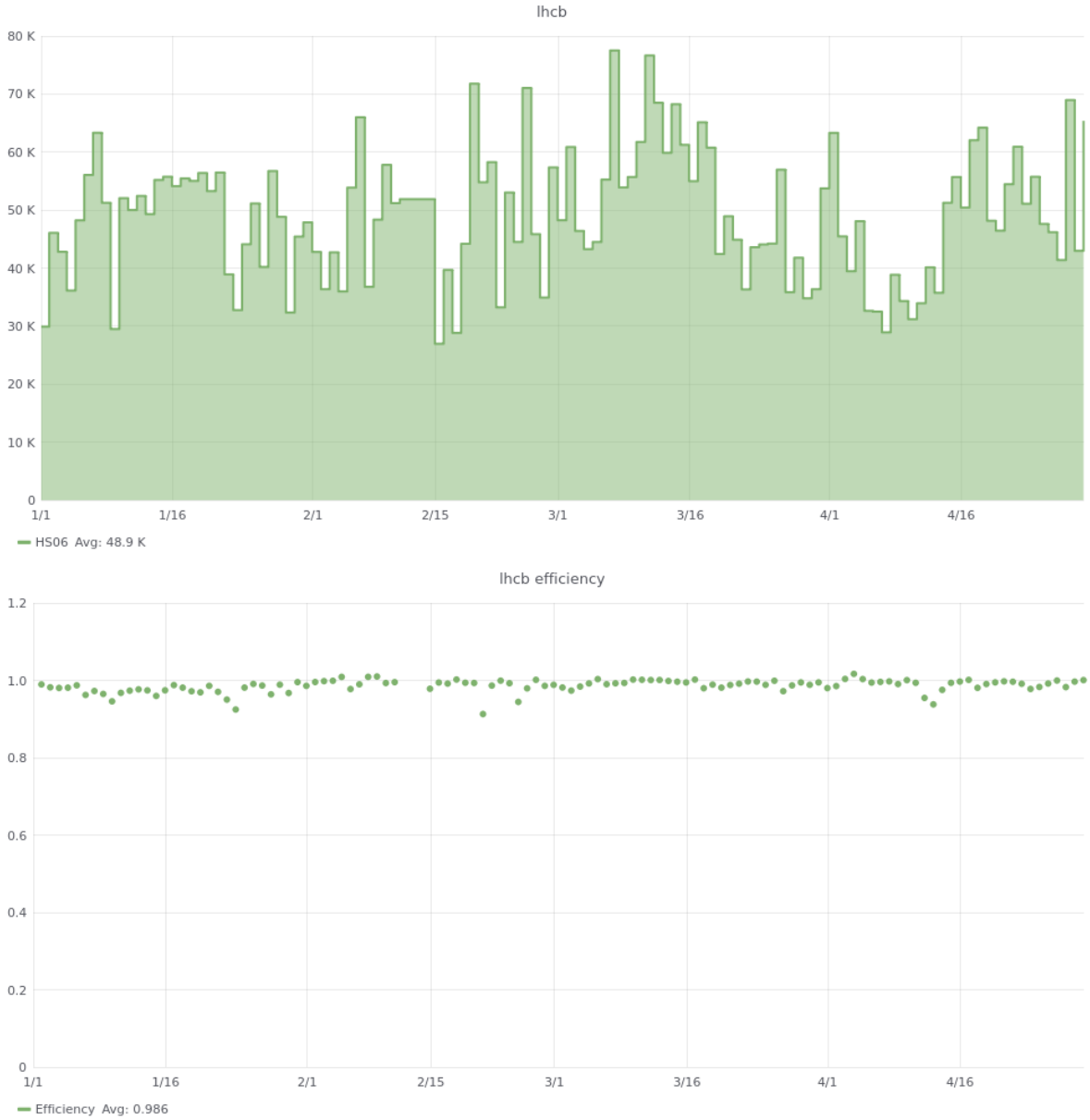
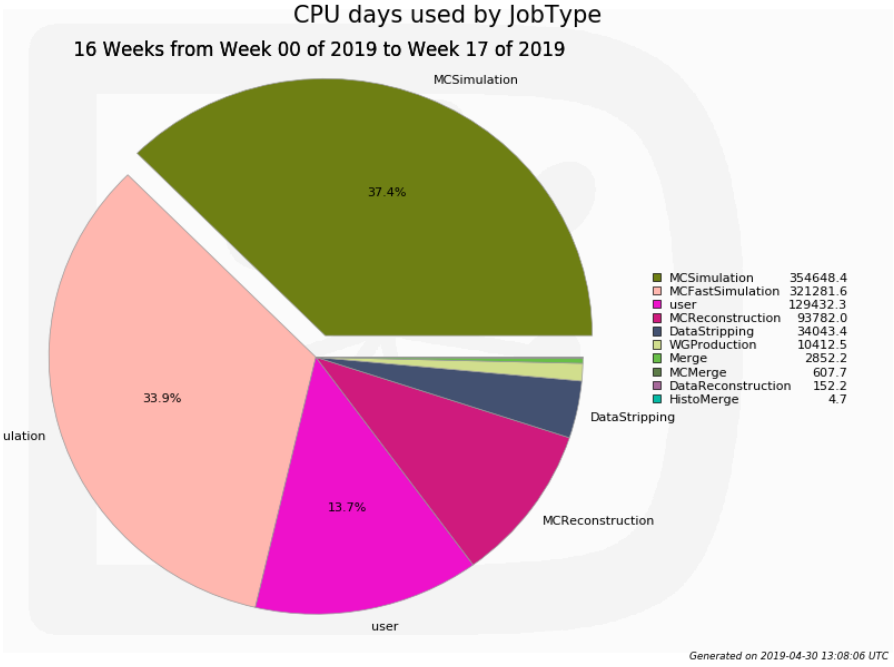
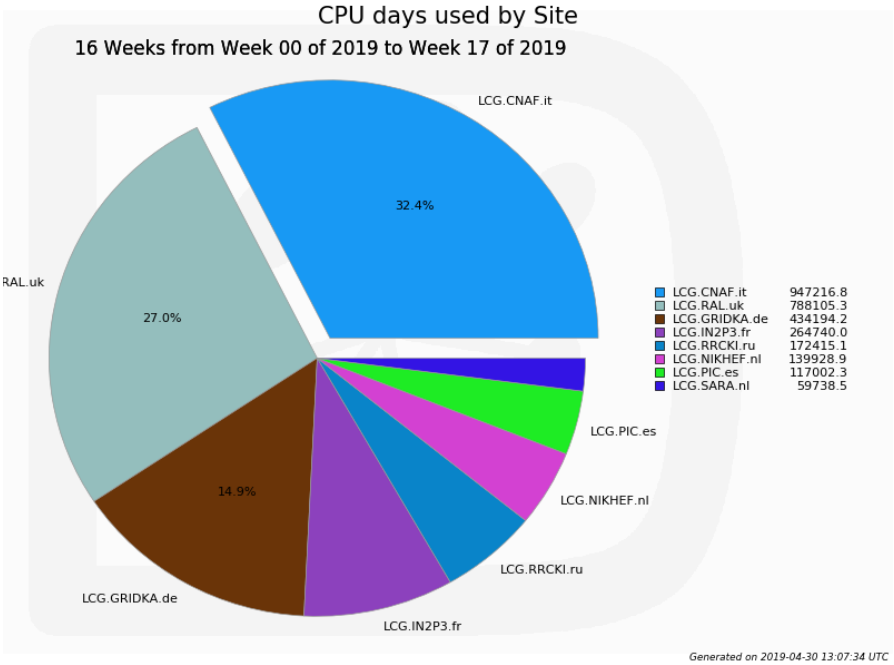
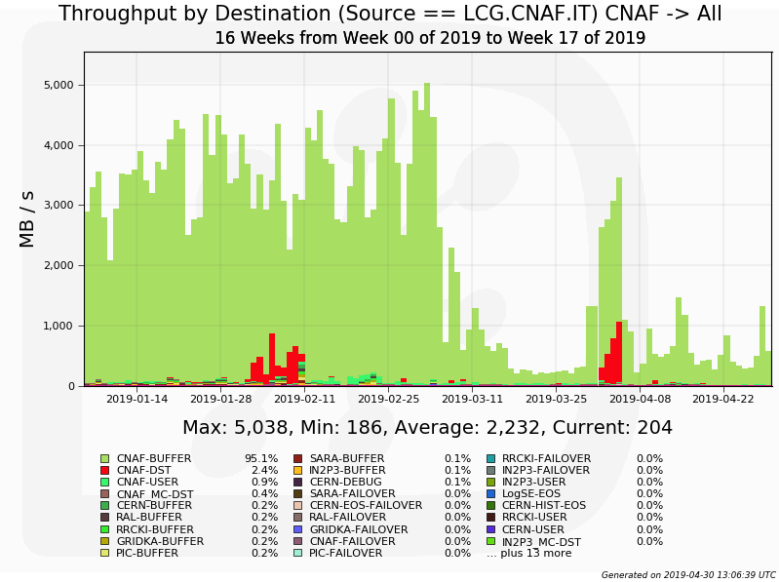
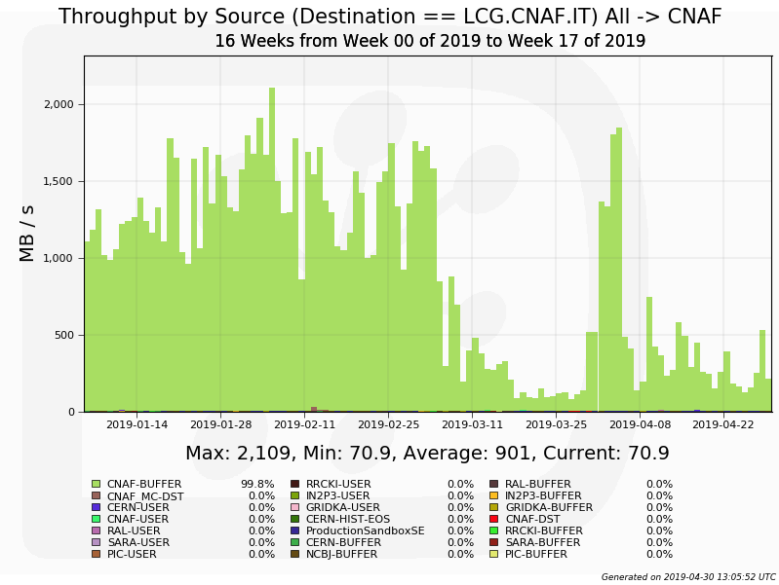


Figura 3: Number of jobs and CPU efficiency - LHCb + LHCb TIER2 (pledge 75564 HS06)


CPU days used by JobType
16 Weeks from Week 00 of 2019 to Week 17 of 2019
MCSimulation
37.4%
33.9%
ulation
13.7%
MCReconstruction
DataStripping
user
MCSimulation 354648.4
MCFastSimulation 321281.6
user 129432.3
MCReconstruction 93782.0
DataStripping 34043.4
WGProduction 10412.5
Merge 2852.2
MCMerge 607.7
DataReconstruction 152.2
HistoMerge 4.7
Generated on 2019-04-30 13:08:06 UTC


CPU days used by Site
16 Weeks from Week 00 of 2019 to Week 17 of 2019
LCG.CNAF.it
32.4%
RAL.uk
27.0%
14.9%
LCG.GRIDKA.de
LCG.IN2P3.fr
LCG.RRCKI.ru
LCG.NIKHEF.nl
LCG.PIC.es
LCG.CNAF.it 947216.8
LCG.RAL.uk 788105.3
LCG.GRIDKA.de 434194.2
LCG.IN2P3.fr 264740.0
LCG.RRCKI.ru 172415.1
LCG.NIKHEF.nl 139928.9
LCG.PIC.es 117002.3
LCG.SARA.nl 59738.5
Generated on 2019-04-30 13:07:34 UTC





11 Esperimenti di Gruppo 2

- **AMS-O2 - Number of jobs and CPU efficiency (pledge 18000** HS06)
  Open Actions:

  - Problemi di esecuzione di alcuni job su nodi Cineca in corso di investigazione.

Report:

- Configurazione di server xrootd e redirector per AMS al CNAF in corso, effettuati alcuni test. In attesa di feedback da esperti.

- Problemi di ricompilazione software (ROOT) dopo aggiornamento macchine a CentOS 7. Risolti.

- Problemi di registrazione alla VO AMS per un indirizzamento al VOMS server sbagliato. Risolti.

- **ARGO-YBJ - Number of jobs and CPU efficiency (pledge 0 HS06)**
  Report:

  - Richiesta di liberare home di argoprod per esaurimento quota. Fatto.

  Open Actions:

  - DB postgres di Argo su ui-tier1 non acceduto dal 2014, proposta di spostarlo in una qualche area gpfs fino a che non ci rispondono.

- **Auger - Number of jobs and CPU efficiency (pledge 2000 HS06)**
  Report:

  - Ultimata installazione librerie per compilazione codice e installazione databases su ui7-auger.

  - Replicati i databases installati su ui7-auger su un set di WN CentOS 7. In attesa di feedback su test di sottomissione jobs.

  - Problemi di accesso all'area software di auger da ui7-auger per una configurazione sbagliata di nfs. Risolti.

- **Borexino - Number of jobs and CPU efficiency (pledge 2083 HS06)**
  Report:

  - Richiesta GPUs, fornito accesso a quelle della farm HPC.

  - richiesta di peak-usage CPU a 7500 HS06 per un mese, fornito a febbraio. Terminato.

- richiesta di overpledge disco da 200 a 215 TB per fase di reprocessing dati. Fornito.

- Problemi di trasferimento di 13 TB di dati da CNAF a Cyfronet (Polonia), fornite istruzioni per trasferimento via gridFTP ma persistono problemi lato polacco. Risolto con uso di rsync.

- **COSMO_WNEXT - Number of jobs and CPU efficiency (pledge 1000 HS06)**
  Report:

  - Calcolo checksum su 35 TB di dati trasferiti da Mare Nostrum (Barcellona). Fatto.

- **CTA - Number of jobs and CPU efficiency (pledge 5000 HS06)**
  Report:

  - Problemi di sottomissione job dovuti a modifica di certificato host del VOMS server di CTA. Risolti.

  - Problemi di sottomissione job dovuti a non corretto utilizzo delle opzioni di LSF. Risolti.

  Open Actions:

  - Richiesta di fondere le risorse CTA e MAGIC al CNAF sotto l'unica sigla CTA. Elaborato piano di azione:

    - eliminare coda MAGIC e aumentare pledge CPU CTA della quota attribuita a MAGIC;
    - aumentare il pledge disco di CTA della quota attribuita a MAGIC e spostare i dati di MAGIC nell'area di CTA;
    - aumentare il pledge tape di CTA della quota attribuita a MAGIC e richiamare i file MAGIC da tape e spostarli sotto CTA mantenendo accesso via storm per CTA;
    - creare home CTA per gli utenti MAGIC, che dovranno richiedere un nuovo account; gli verrà fornito accesso alle home MAGIC così da poter trasferire i dati verso le home CTA.

- **CUORE - Pledge 1900 HS06**
  Open Actions:

- In corso indagini più approfondite su job di analisi che falliscono su nodi Cineca, occasionalmente succede anche per job MonteCarlo.

- In corso aggiornamento dei databases di Cuore/Cupid e di server relativi. Necessari coordinazione con utenti per interruzione sottomissione job interessati e controlli più approfonditi per problemi di sincronizzazione con db di LNGS.

Report:

- Problemi di job lenti/falliti su nodi Cineca, fornite istruzioni per modificare RAM e limiti di CPU time.

- Problemi di rallentamento LSF, risolti.

- **CUPID-0 - Number of jobs and CPU efficiency (pledge 100 HS06)**
  Open Actions:

  - In corso aggiornamento dei databases di Cuore/Cupid e di server relativi. Necessari coordinazione con utenti per interruzione sottomissione job interessati e controlli più approfonditi per problemi di sincronizzazione con db di LNGS.

  Report:

  - NTR.

- **DarkSide-50 - Pledge 2000 HS06**
  Open Actions:

  - Database di integrazione per DarkSide 20K conterrà dati per qualche centinaio di GB e dovrà essere accessibile al mondo sia durante l'integrazione del rivelatore che per l'analisi. Preventivata la necessità, tra repliche e backup, di avere $\sim$ 30 core e $\sim$ 60 GB di RAM. Da valutare possibilità di ospitare servizio su Cloud@CNAF.

  Report:

  - Problemi di trasferimento dati su tape, risolti.

- **Fermi-LAT - Number of jobs and CPU efficiency (pledge 500 HS06)**
  Report:

  - NTR

- **Gerda - Pledge 40 HS06**
  Report:

  - NTR

- **ICARUS - Pledge 4000 HS06**
  Open Actions:

  - Supporto al training di sottomissione job al CNAF via glite/LSF.
  - Configurazione di DIRAC per sottomissione di job e data management al CNAF in corso, per ora preferito LSF a glite.

  Report:

  - Problemi accesso a macchina Cloud@CNAF per test CentOS7, risolti.

- **Juno - Pledge 3000 HS06**
  Open Actions:

  - Discussione con G. Andronico per capire supporto da fornire a juno su vari aspetti (CPU, storage, rete, servizi). Proposta di utilizzo DIRAC per job submission/data management, in corso test di configurazione.

  Report:

  - Configurato PerfSonar per monitoring performance di rete tra CNAF e altri siti juno.
  - Problemi di walltime per alcuni job di lunga elaborazione, aumentato limite globale sulla coda juno.
  - Problemi di sottomissione job via glite, sistemata configurazione dei nodi.
  - Problemi di compatibilità del software di juno con CentOS 7, risolti con uso di Singularity.

- Cominciata nuova produzione juno; problemi di memoria disponibile per job e di CPU complessiva, aumentata memoria e fornito overpledge CPU per un paio di settimane o più (ancora in corso).

- **LHAASO - Number of jobs and CPU efficiency (pledge 0 HS06)**
  Open Actions:

  - NTR.

  Report:

  - NTR.

- **MAGIC - Number of jobs and CPU efficiency (pledge 296 HS06)**
  Open Actions:

  - Richiesta di fondere le risorse CTA e MAGIC al CNAF sotto l'unica sigla CTA. Elaborato piano di azione:
    - eliminare coda MAGIC e aumentare pledge CPU CTA della quota attribuita a MAGIC;
    - aumentare il pledge disco di CTA della quota attribuita a MAGIC e spostare i dati di MAGIC nell'area di CTA;
    - aumentare il pledge tape di CTA della quota attribuita a MAGIC e richiamare i file MAGIC da tape e spostarli sotto CTA mantenendo accesso via storm per CTA;
    - creare home CTA per gli utenti MAGIC, che dovranno richiedere un nuovo account; gli verrà fornito accesso alle home MAGIC così da poter trasferire i dati verso le home CTA.

- **OPERA - Number of jobs and CPU efficiency (pledge 200 HS06)**
  Report:

  - NTR

- **PAMELA - Number of jobs and CPU efficiency (pledge 650 HS06)**
  Report:

- NTR

- **Virgo - Number of jobs and CPU efficiency (pledge 40000 HS06)**
  Open Actions:

  - Fornito quadro relativo ad occupazione del filesystem gpfs al CNAF ed istruzioni per eseguire trasferimento dati tra CNAF e Lione via FTS (previa mappatura DN su gridFTP server di Lione). In attesa di eventuali feedback.

  Report:

  - Problemi di permessi nell'utilizzo di cluster HTCondor per test. Risolti.

  - Problemi di scrittura con tools gfal dovuti a misconfigurazione dei voms-proxy rispetto a LIGO, risolti con utilizzo di grid-proxy.

  - Necessità da parte di job glite di alcune librerie aggiornate sui WNs, risolto tramite utilizzo di installazioni su cvmfs.

  - Necessità da parte di alcuni job di utilizzo di mpi, utente abilitato a uso cluster HPC.

  - Necessità da parte di alcuni job di accesso a dati di LIGO, montato storage cvmfs di LIGO sui WNs della nostra farm HTC. Problemi di configurazione dovuti a disallineamenti con sistema di autenticazione di LIGO. Risolti.

  - Pulizia di home utenti virgo per recupero spazio occupato. Fatto.

- **XENON - Number of jobs and CPU efficiency (pledge 1300 HS06)**
  Report:

  - Portato pledge storage da 200 a 300 TB.

  Open Actions:

  - Problemi con gestione di recall da tape tramite Rucio, risoluzione in corso di valutazione.

12 Altri esperimenti

- **AGATA - Pledge 0 HS06**
  Report:

  - NTR.

- **BELLEII - Number of jobs and CPU efficiency (pledge 13000 HS06)**
  Report:

  - Il software di Belle II funziona solo su SL6. Dopo migrazione a SL7 sui nodi CNAF, necessario utilizzare Singularity con SL6 configurato in maniera automatica su una coda specifica.

  - Richiesta da Belle II di attivazione automatica di Singularity al lancio dei job in modo da evitare modifiche ai pilot di DIRAC.

  - Richiesta da Belle II per utilizzare immagine Singularity con SL6 già preparata da noi per altri esperimenti, fornite istruzioni necessarie.

  Open Actions:

  - Implementare pre-execution script per i job in modo da attivare automaticamente Singularity.

- **CDF - Number of jobs and CPU efficiency (pledge 0 HS06)**
  Report:

  - SAM station che si interfacci con Tape Storage Management del CNAF installata con successo, effettuati test positivi di sottomissione job analisi di CDF in interattivo.

  Open Actions:

  - Ultimare installazione di una seconda SAM station al CNAF che si interfacci con lo storage management (tape/disk) del FNAL.

  - Ottimizzare sistema di autenticazione per utenti CDF che vogliano sottomettere job in interattivo al CNAF. Da valutare installazione Kerberos su server SAM station.

- Controllare eventuale assenza al CNAF di dataset di CDF RUN 2 replicati da FNAL.

- Ultimare il controllo del checksum e dei metadati dei dati CDF già trasferiti da FNAL.

- **COMPASS - Pledge 0 HS06**
  Report:

  - NTR

- **COSINUS - Number of jobs and CPU efficiency (pledge 0 HS06)**
  Report:

  - NTR

  Open Action:

  - NTR

- **CSES-Limadou - Pledge 400 HS06**
  Report:

  - NTR

  Open Action:

  - NTR

- **DAMPE - Pledge 10000 HS06**
  Report:

  - NTR

  Open Action:

  - Richiesta di installazione di DB mysql su ui-dampe.

- **FAMU - Pledge 5250 HS06**
  Report:

- NTR

- **FAZIA - Pledge 0 HS06**
  Report:

  - Le macchine sono nuovamente usate dall'esperimento

- **Gruppi Fisica Teorica - Number of jobs and CPU efficiency**
  Report:

  - NTR

- **KLOE - Pledge 0 HS06**
  Report:

  - NTR

  Open Action:

  - NTR.

- **KM3Net - Pledge 300 HS06**
  Open Actions:

  - Fornire supporto per sottomissione job tramite DIRAC (Marcelo).
  - Trovare un sistema per trasferimento dati/sincronizzazione storage tra CNAF e Lione (Lucia).

  Report:

  - Installazione software su "/opt/exp_software/km3".
  - Fornire macchina per servizio a supporto dell'integrazione del detector (a.k.a. KM3DIA).
  - Installazione e messa in opera di "dataclient" presso i siti di acquisizione dati (Tolone e Capo Passero) per trasferimento dati raw verso storage CNAF.

- **LHCf - Number of jobs and CPU efficiency (pledge 9000 HS06)**
  Report:

  - NTR

- **NEWS - Pledge 300 HS06**
  Report:

  - NTR.

- **NEWCHIM - Pledge 0 HS06**
  Report:

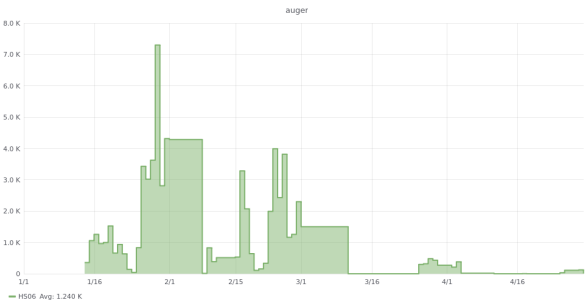
  - NTR.

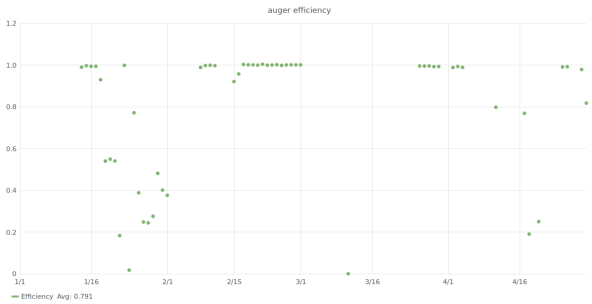
- **PADME - Pledge 6000 HS06**
  Report:

  - NTR

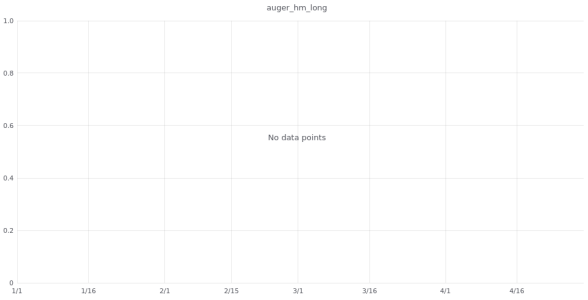

Coda AMS
ams
ams efficiency
HS06 Avg: 6.74 K
Efficiency Avg: 0.908
Coda AMS_PROD
ams_prod
ams_prod efficiency
HS06 Avg: 4.90 K
Efficiency Avg: 0.925
Coda AMS_SHORT
ams_short
ams_short efficiency
HS06 Avg: 193
Efficiency Avg: 0.763

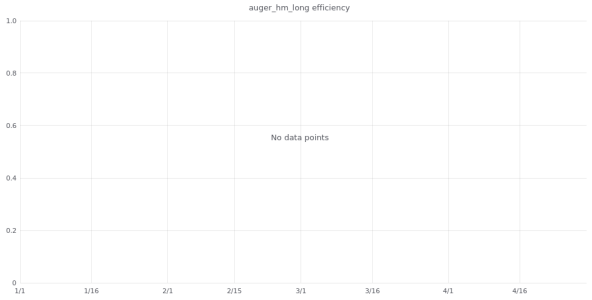
Coda AUGER



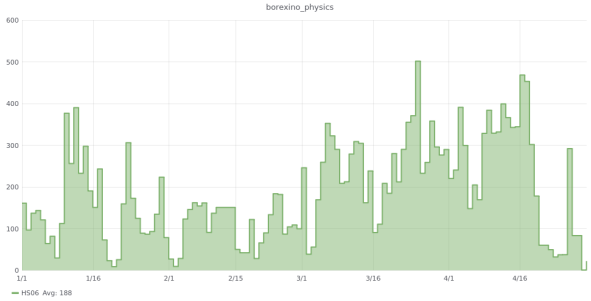


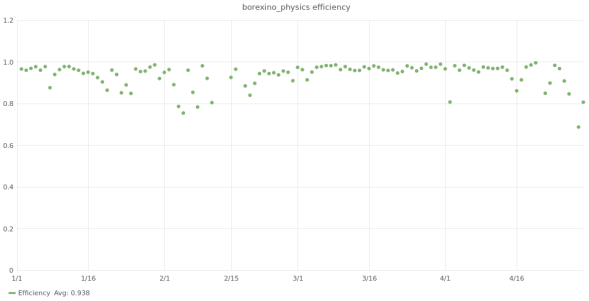
Coda AUGER_HM_LONG



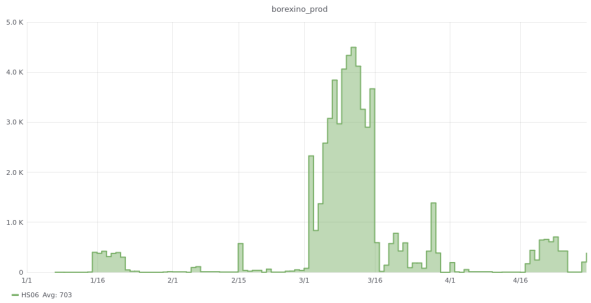


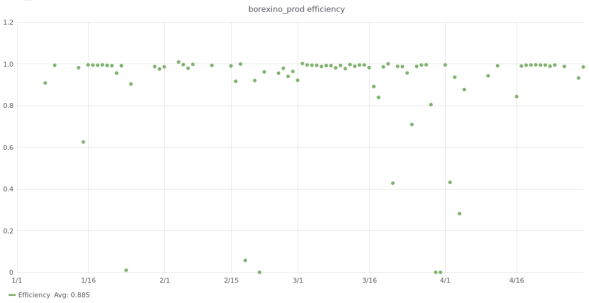
Coda BOREXINO_PHYSICS



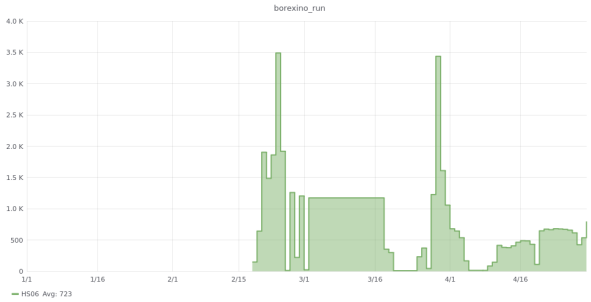


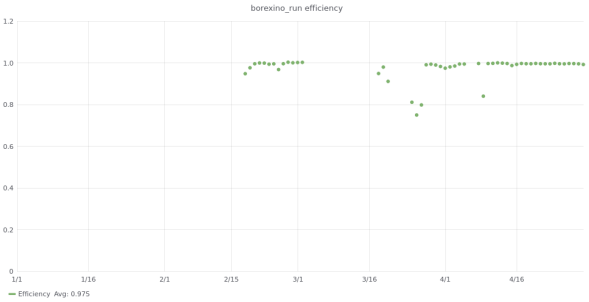
Coda BOREXINO_PROD





Coda BOREXINO_RUN





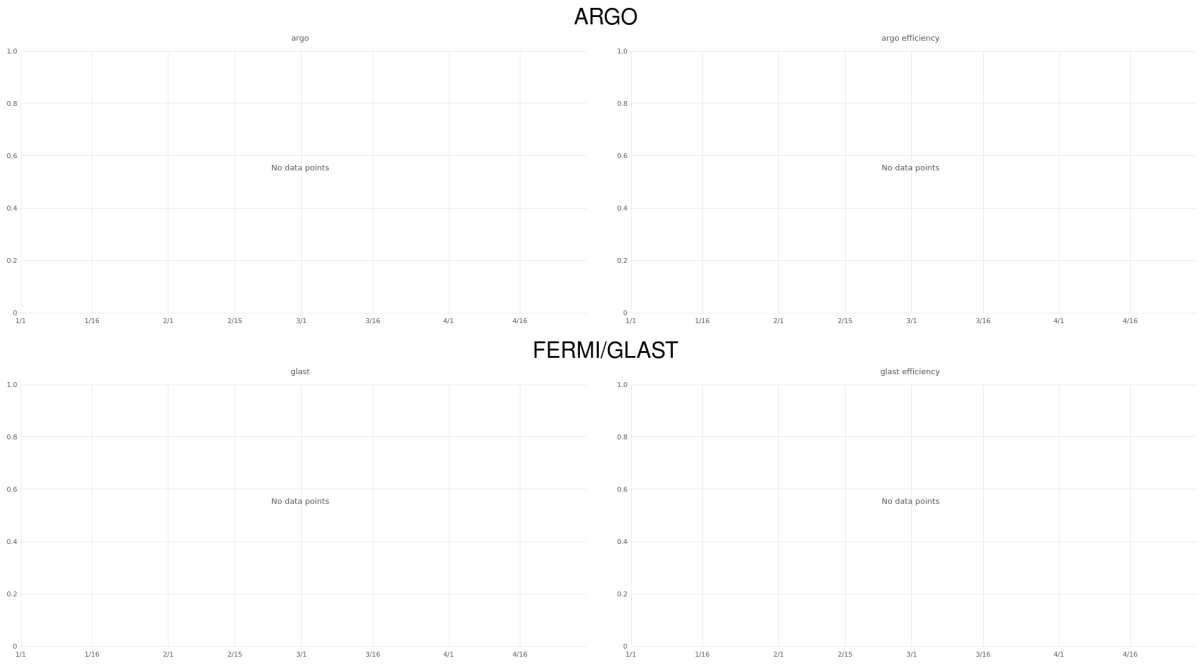


Figura 1

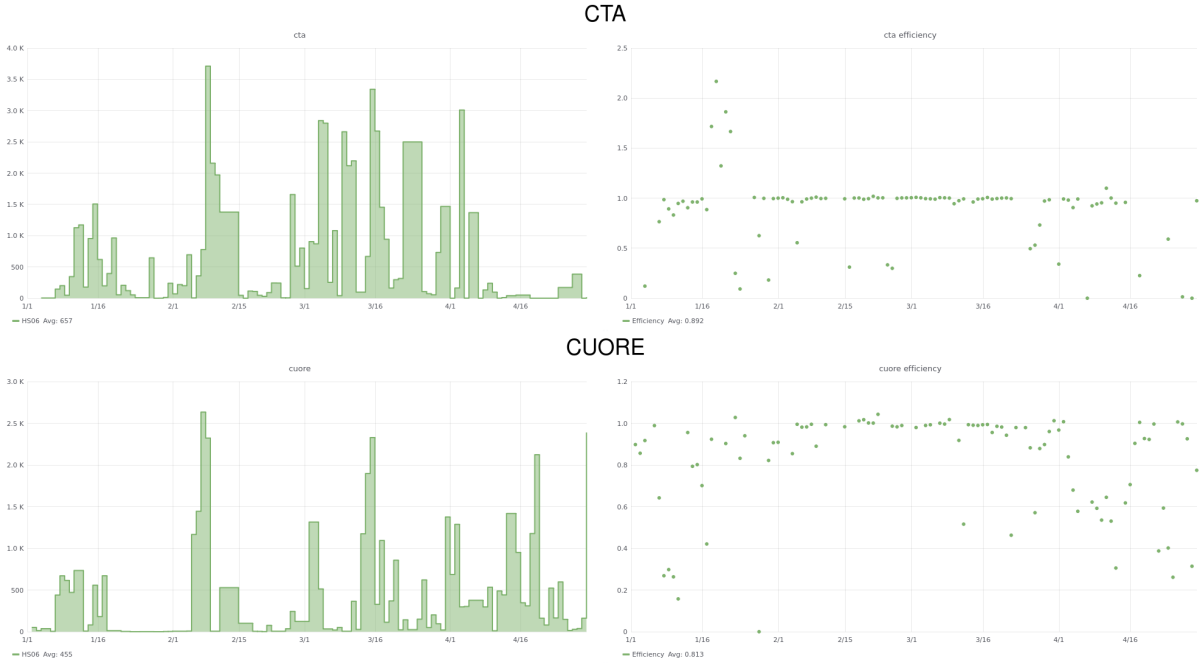


Figura 2

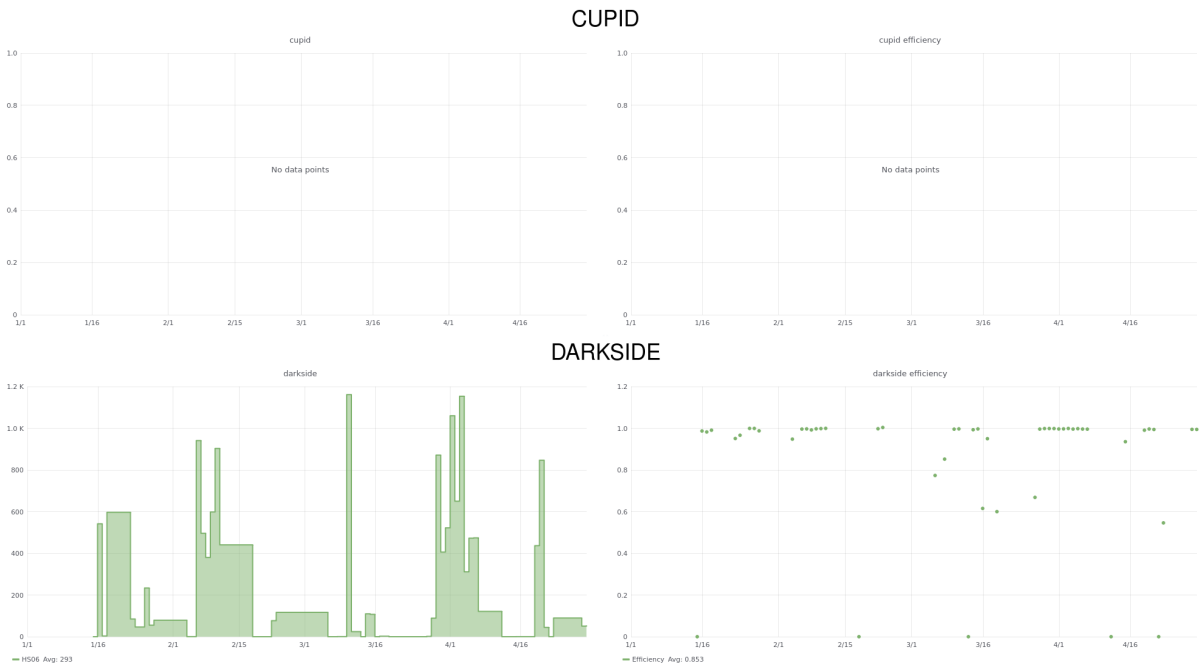


Figura 3

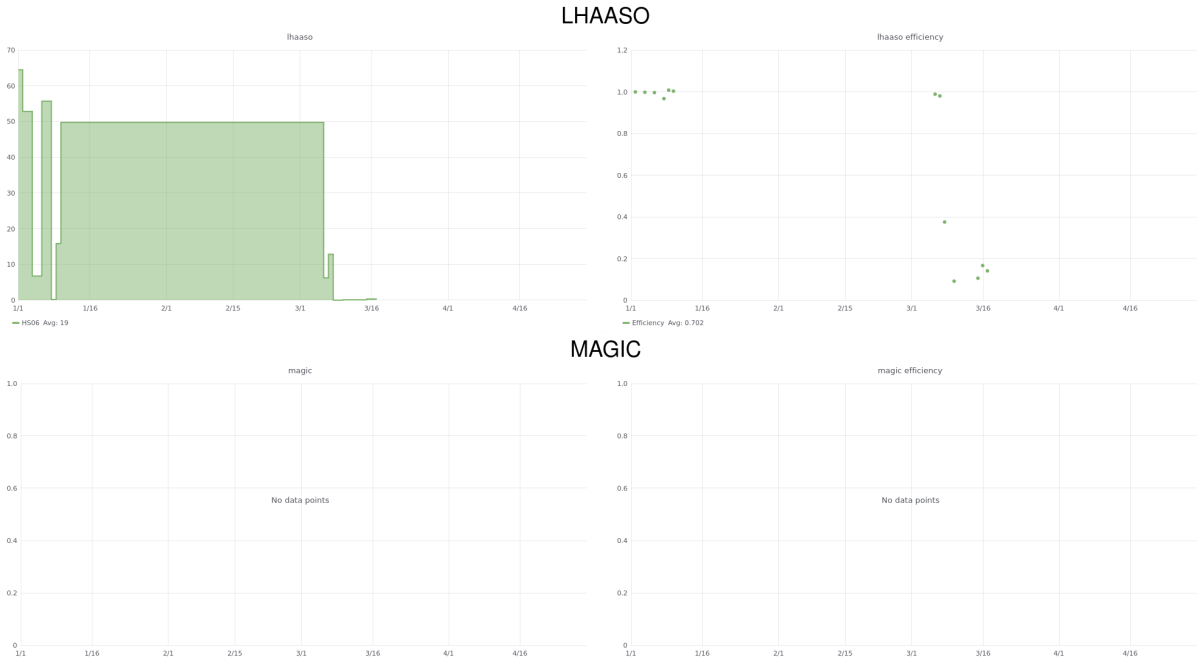


Figura 4

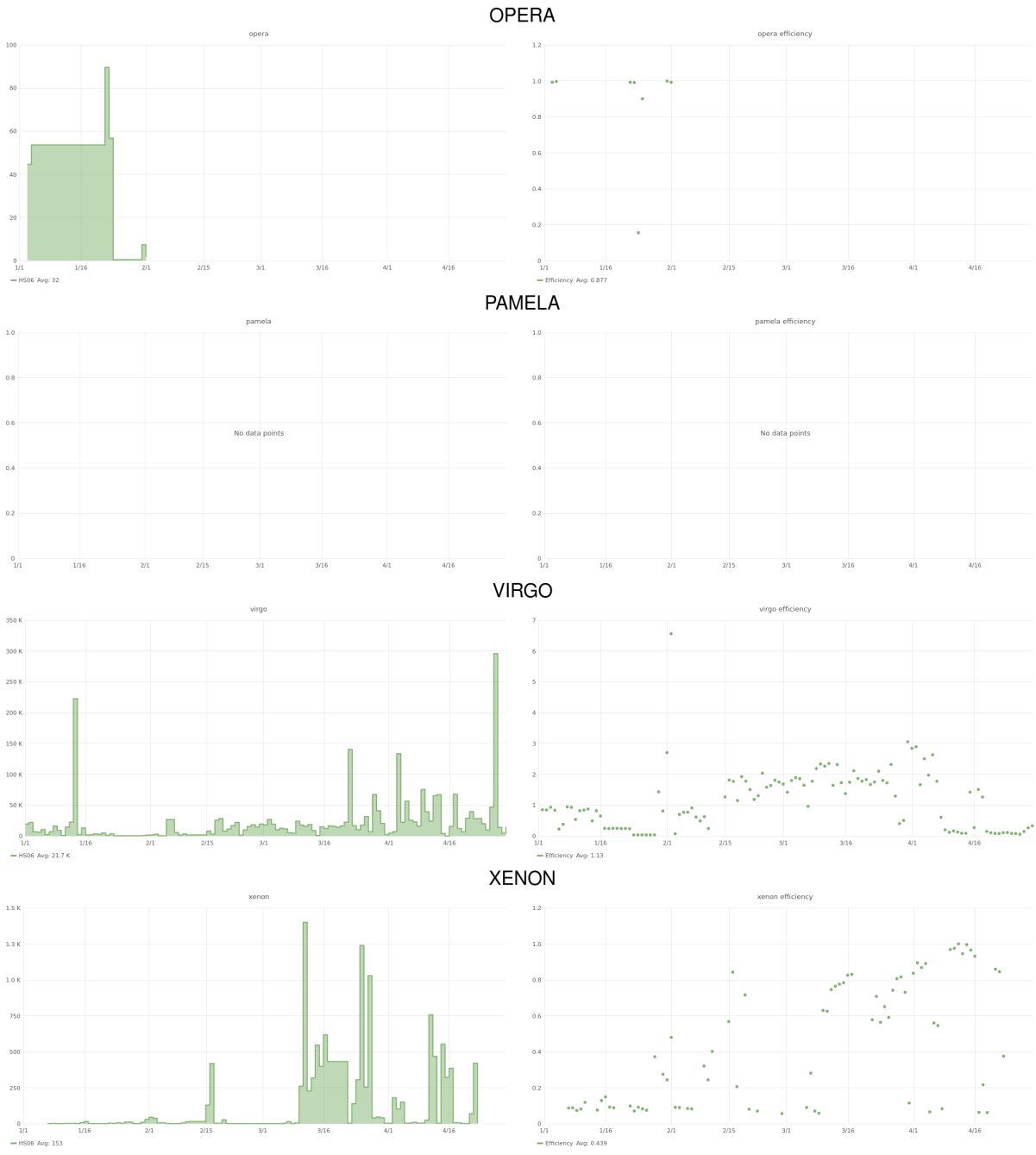

OPERA
opera
opera efficiency
HS06 Avg: 32
Efficiency Avg: 0.877
PAMELA
pamela
pamela efficiency
No data points
No data points
VIRGO
virgo
virgo efficiency
HS06 Avg: 21.7 K
Efficiency Avg: 1.13
XENON
xenon
xenon efficiency
HS06 Avg: 153
Efficiency Avg: 0.439

Figura 5

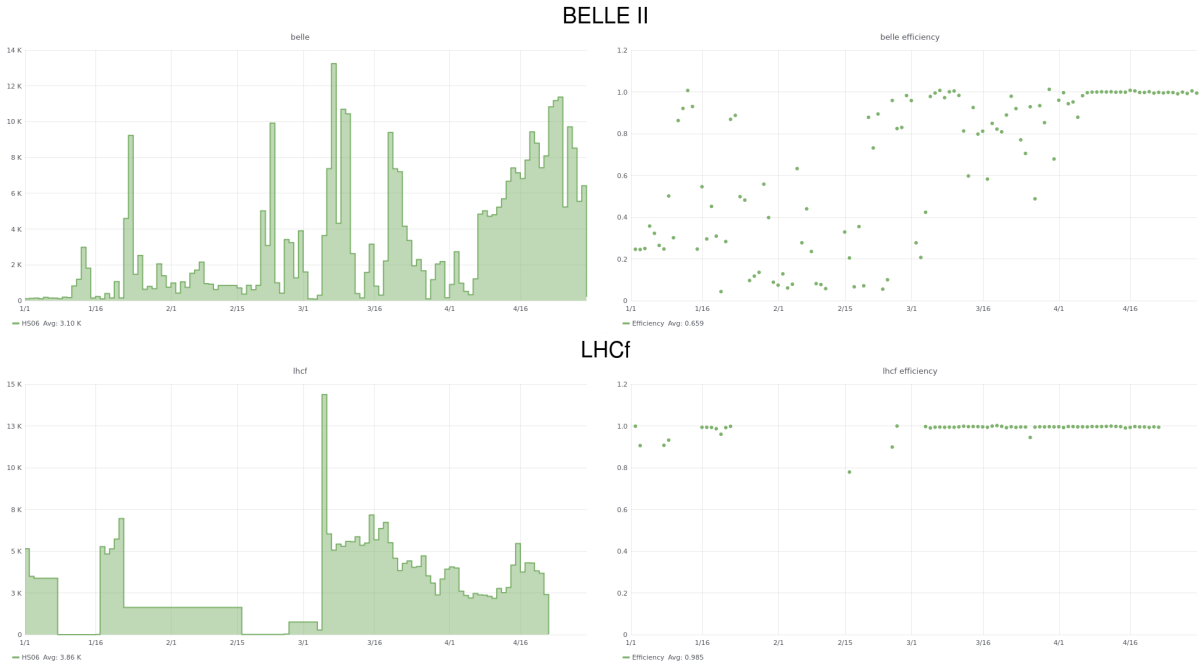

BELLE II
belle
belle efficiency
HS06 Avg: 3.10 K
Efficiency Avg: 0.659
LHCf
lhcf
lhcf efficiency
HS06 Avg: 3.86 K
Efficiency Avg: 0.985

Figura 6