

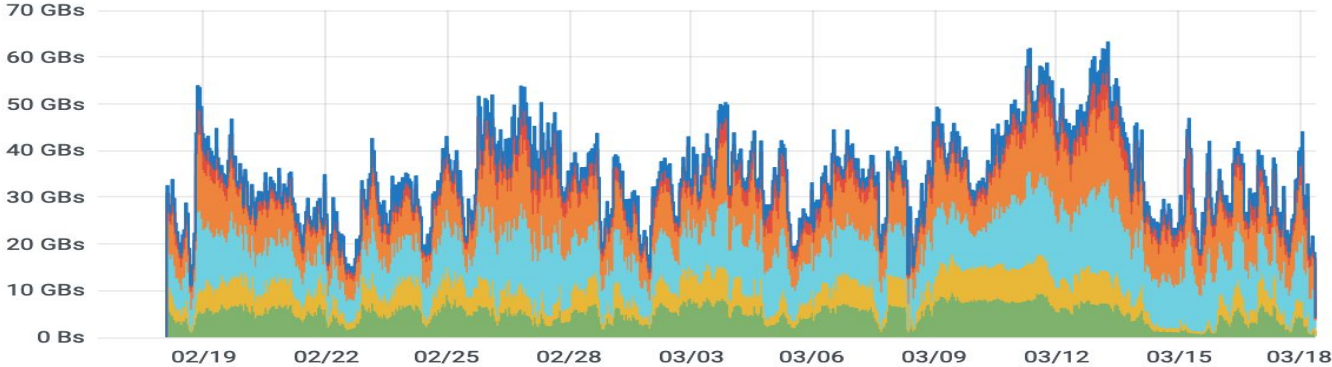
State of Storage

CdG 19th March 2021

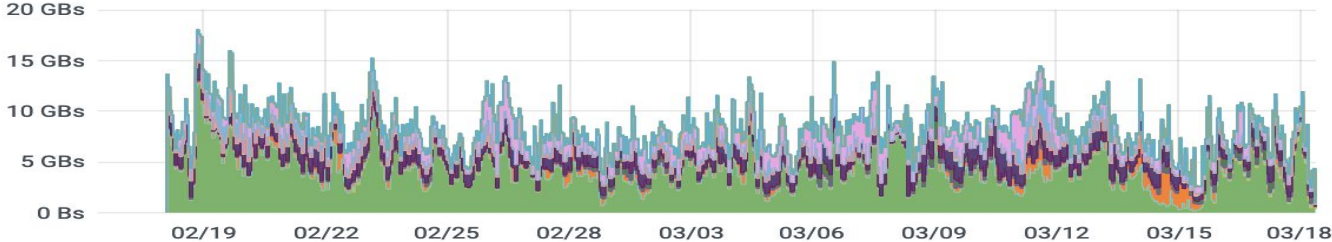


Business as usual

All servers network traffic out (reading)



Gateway traffic out (non POSIX reading)



Disk storage in produzione

Installed: 41.07 PB Pledge 2020: 45 PB Used: **36.1 PB**

Sistema	modello	Capacita', TB	esperimenti	scadenza
ddn-10, ddn-11	DDN SFA12k	10752	Atlas, Alice, AMS	03/2021→ 06/2023
os6k8	Huawei OS6800v3	3400	ALICE, GR2	2022
md-1,md-2,md-3,md-4	Dell MD3860f	2308	DS, Virgo, Archive	11/2021
md-7	Dell MD3820f	20	Metadati, home, SW	04/2021
md-5, md-6	Dell MD3820f	8	metadati	06/2021
os18k1, os18k2	Huawei OS18000v5	7800	LHCb, ALICE	2023
os18k3, os18k5, os18k5	Huawei OS18000v5	11700	ATLAS, CMS	2024
ddn-12, ddn-13	DDN SFA 7990	5060	GR2,GR3	2025
ddn-14, ddn-15	DDN SFA 2000NV	24	metadati	2025

Nuovi installazioni

- Inserimento dei nuovi switch FC nella TAN di produzione - FATTO
- Installazione storage per il momento fermo causa problemi amministrativi

Recent problems

- ATLAS

- Transfers CNAF->AGLT2 show high failure rate, both gsiftp and http (GGUS ticket [150655](#) and [150642](#))
- Problem under investigation by network people from both sides

- VIRGO

- Waiting for the experiment: in order to conclude filesystem migration, they need to remove hardcoded paths from their executables

Novità sui servizi

- Per ATLAS, aggiornato StoRM WebDAV per migliorare il throughput (GGUS ticket [150181](#))
- Per ESCAPE, fornito un server origin XRootD (X509 voms CMS) che espone i dati dal datalake a un CRAB test CMS girato al CINECA.
 - [Press release](#)
- Per JUNO, abilitato checksum sull'endpoint XRootD (usato nel testbed FTS@CNAF)
- Per LITEBIRD, configurata storage area con OIDC auth/z (iam-t1-computing) su endpoint StoRM WebDAV xfer-archive

Stato tape

15 January - 15 March 2021

MSS bytes in/out (per day)



	min	max	avg	current	total
— out traffic (recalls)	2.2 TB	160.6 TB	46.4 TB	56.5 TB	2.7833 PB
— in traffic (migrations)	966 GB	117.4 TB	36.9 TB	11.7 TB	2.2135 PB

- 10 PB liberi (complessivamente sulle 2 librerie). Usati 86 PB
 - Gran parte delle scritture su nuova libreria
 - Tutti LHC
 - Xenon, CTA, Virgo, ARGO
- Valutazioni in corso su futuro della vecchia libreria
 - In vista dello spostamento al tecnopolo

Library	Tape drives	Max data rate/drive, MB/s	Max slots	Max tape capacity, TB	Installed cartridges	Used capacity, PB
SL8500 (Oracle)	16*T10KD	250	10000	8.4	~10000	79
TS4500 (IBM)	19*TS1160	400	6198	20(30)	750	7