

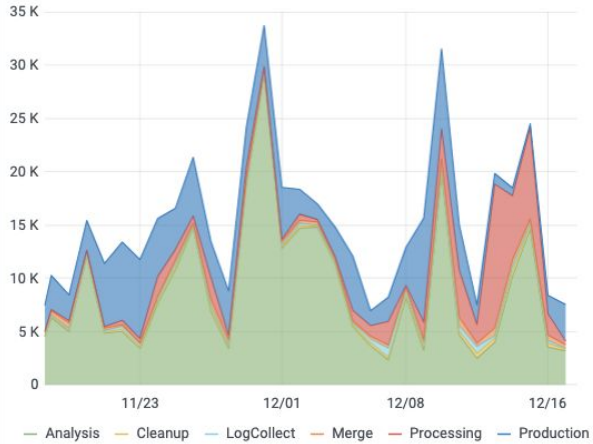
G. Bagliesi
D. Spiga
18-12-2020

CMS - CDG Tier1

Job al CNAF ultimo mese

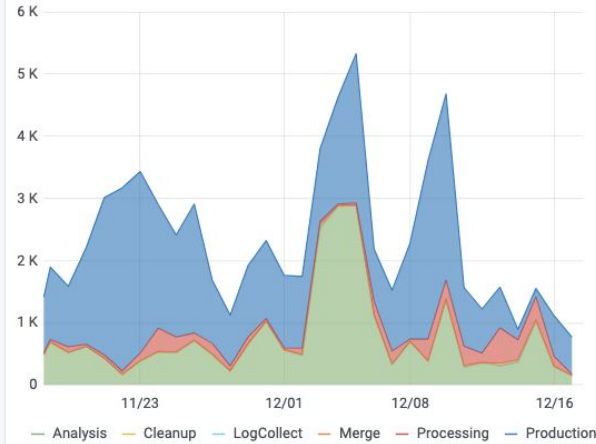
463987 completed

Completed jobs



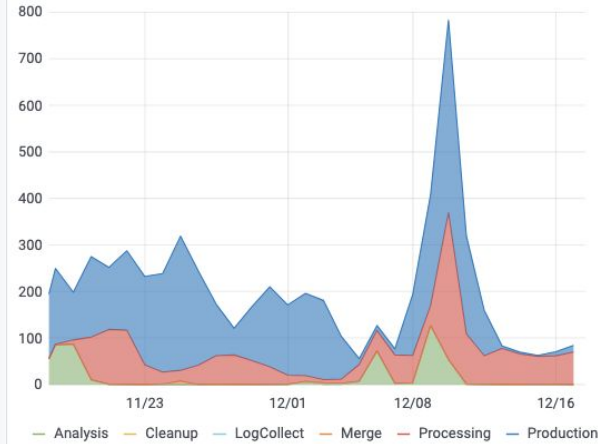
657 running jobs

Running jobs



29 pending jobs

Pending jobs



Total completed jobs



	total	percentage
Analysis	268860	57.9%
Production	114582	24.7%
Processing	55405	11.9%
Merge	10487	2.3%
Cleanup	7616	1.6%

Currently running jobs



	current	percentage
Production	85	77.6%
Analysis	21	19.3%
Processing	3	2.6%
Others	0.58	0.5%

Currently pending jobs



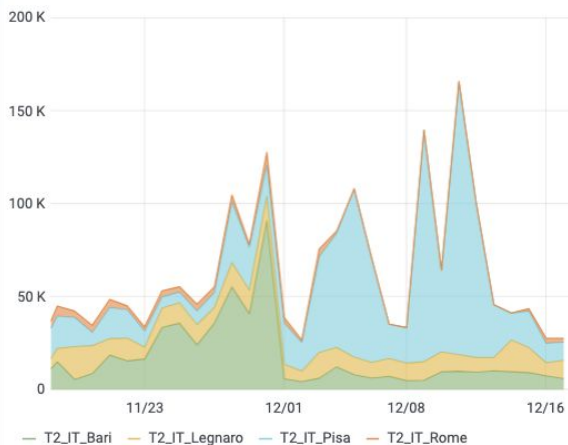
	current	percentage
Processing	10	83%
Production	2	17%
Others	0.03	0%

Job siti italiani ultimo mese

Grosso picco job di analisi a Pisa a meta' dicembre

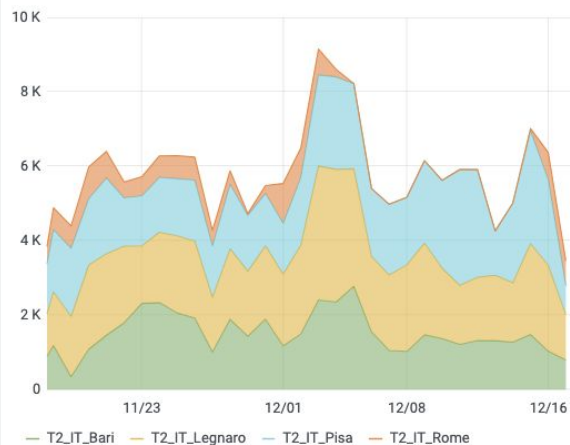
1917311 completed

Completed jobs



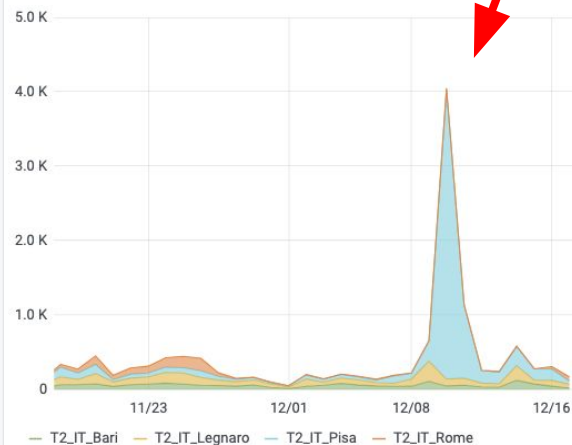
4089 running jobs

Running jobs



183 pending jobs

Pending jobs



Total completed jobs



	total	percentage
T2_IT_Pisa	1009275	52.6%
T2_IT_Bari	530946	27.7%
T2_IT_Legnaro	315074	16.4%
T2_IT_Rome	62016	3.2%

Currently running jobs



	current	percentage
T2_IT_Legnaro	174	35.2%
T2_IT_Bari	114	23.0%
T2_IT_Pisa	111	22.4%
T2_IT_Rome	95	19.3%

Currently pending jobs



	current	percentage
T2_IT_Rome	8	33%
T2_IT_Legnaro	7	29%
T2_IT_Pisa	6	26%
T2_IT_Bari	3	13%

Readiness Tier2

T2_IT_Bari

GGUS Tickets: 148735

Downtimes:

SAM Status: 100% 100% 100% 96% 100% 99% 99% 94% 100% 97% 98% 99% 99% 100% 95% 100%

Hammer Cloud: 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 99% 97%

FTS Status: 97% 100% 97% 100% 100% 96% 96% 96% 96% 98% 93% 97% 97% 95% 100% 98%

Site Readiness: 100% 94% 90% 63% 75% 65% 93% 62% 77% 45% 75% 87% 88% 87% 87% 94%

Life Status:

Prod Status:

CRAB Status:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dec																

T2_IT_Legnaro

GGUS Tickets:

Downtimes:

SAM Status: 100% 100% 100% 100% 99% 99% 99% 98% 97% 99% 100% 100% 100% 100% 100% 99%

Hammer Cloud: 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100%

FTS Status: 98% 100% 98% 99% 98% 98% 97% 94% 98% 99% 98% 99% 99% 98% 98% 98%

Site Readiness: 67% 77% 32% 72% 87% 90% 94% 76% 64% 61% 95% 95% 96% 83% 80% 92%

Life Status:

Prod Status:

CRAB Status:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dec																

T2_IT_Pisa

GGUS Tickets: 149791

Downtimes:

SAM Status: 93% 98% 97% 86% 10% 0% 15% 4% 3% 56% 82% 53% 63% 63% 59% 73%

Hammer Cloud: 100% 100% 100% 100% 100% 100% 90% 98% 89% 80% 92% 86% 84% 96% 84% 85%

FTS Status: 98% 98% 98% 98% 100% 98% 96% 96% 42% 98% 98% 98% 98% 98% 99% 99%

Site Readiness: 49% 70% 40% 33% 5% 0% 10% 2% 1% 19% 34% 29% 25% 44% 24% 30%

Life Status:

Prod Status:

CRAB Status:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dec																

T2_IT_Rome

GGUS Tickets:

Downtimes:

SAM Status: 100% 97% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 94% 70%

Hammer Cloud: 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 99% 97%

FTS Status: 0% 97% 96% 93% 99% 97% 94% 96% 100% 0% 0% 0% 0% 0% 0% 100%

Site Readiness: 0% 18% 26% 53% 2% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 37%

Life Status:

Prod Status:

CRAB Status:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dec																

- Pisa problemi dovuti a saturazione sito ? (under investigation)
- Roma ha attivato gli arc-CE

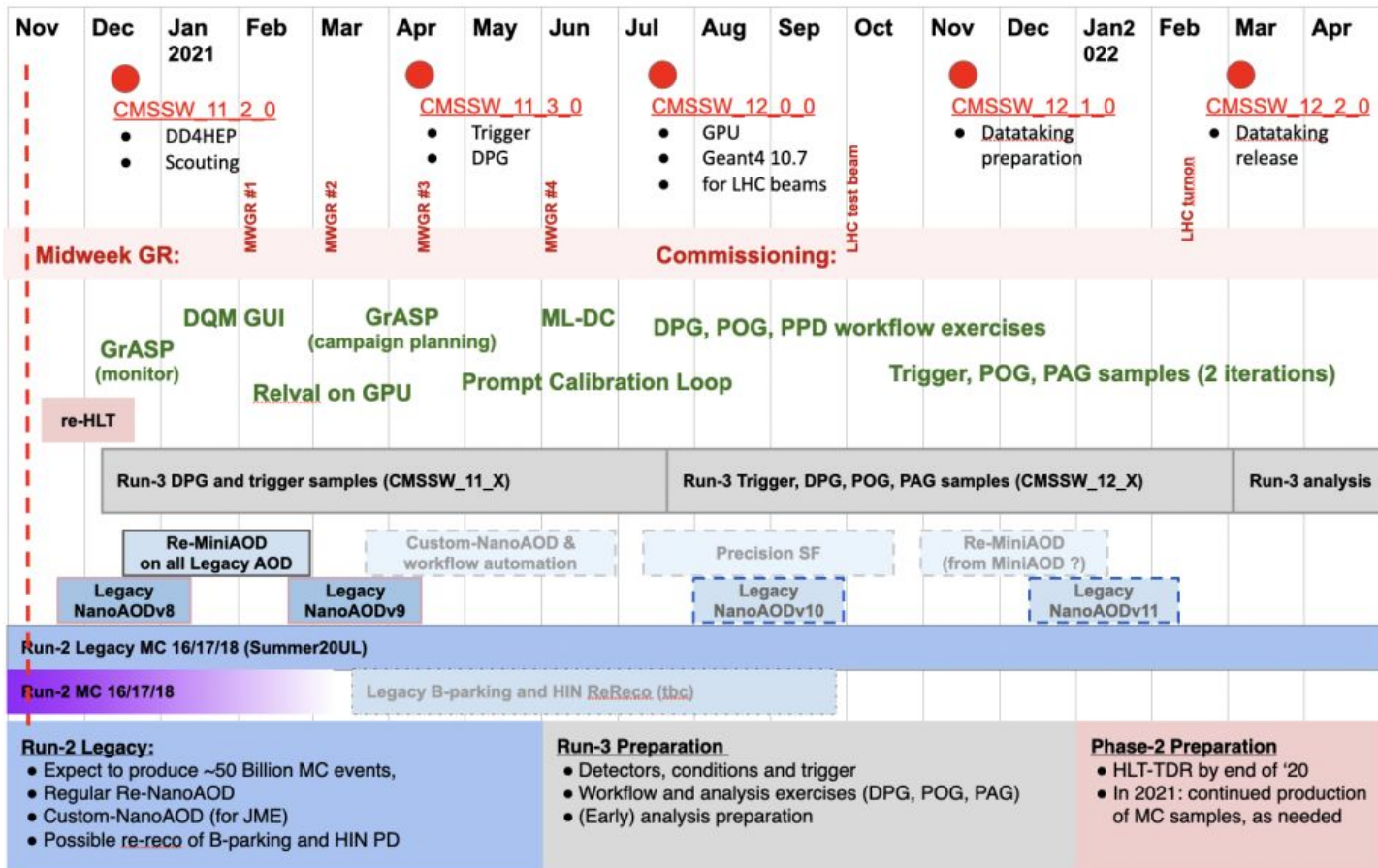
BACKUP

STORM WebDav endpoint per CMS

Informazioni da
Lucia Morganti
Brian Bockelman

- **“GridFTP should be phased out as WAN transfer protocol to be replaced by HTTP/WebDAV”**
- **Test al CNAF**
 - storm webdav endpoint xs-404.cr.cnaf.infn.it
 - Due aree
 - /storage/gpfs_tsm_cms/escape
 - /storage/gpfs_tsm_cms/wlwg
 - GGUS:148379 → attualmente non funziona ancora con PhEDEx
- **Richiesta da Brian (ho chiesto chiarimenti...)**
 - Accedere l'area /store/... tramite webdav con PhEDEx e VOMS proxy authentication
 - Fase di test
 - “However, once confirmed, we are quite interested in moving as soon as possible to production-scale infrastructure...”
- **Implica fare una modifica a**
 - storage.xml → introdurre una nuova rule LFN → PFN (tipo questa)...
 - `<lfn-to-pfn protocol="davs" destination-match=".*" chain="direct" path-match="(.*)" result="davs://xs-404.cr.cnaf.infn.it:1094/$1"/>`
 - FileDownload agent → configurazione in PhEDEx
 - Aggiungere: `-protocols 'srmv2,direct,davs'`
- **Prevedere incremento utilizzo...**

CMS Software & Computing planning fino al 2022



Richieste 2021 CMS: approvate da CRSG

Resource	Site	2020 CMS Approved Request (Spring 19)	2021 CMS Request (Fall 19)	2021 CMS Request (Spring 20)	Increase from 2020 request
CPU (kHS06)	T0+CAF	423	517	500	18%
	T1	650	650	670	3%
	T2	1000	1200	1070	7%
	Total	2073	2367	2240	8%
Disk (PB)	T0+CAF	26.1	31	30	15%
	T1	68.0	77	77	13%
	T2	78.0	93	92	18%
	Total	172.1	201	199	15%
Tape (PB)	T0+CAF	99	144	120	21%
	T1	220	245	230	5%
	Total	319	389	350	10%

- Aumento moderato CPU/tapes
- Aumento piu' sostanzioso del disco
- Italia → 13.5% del totale

CMS-2 C-RSG applauds the CMS collaboration's progress on using heterogeneous computing architectures with CMSSW and the continuation of establishing increasing wide use of the new nanoAOD format for physics analyses.

Preliminary: Computing requests 2022

- CMS input given to C-RSG, final document due in Spring 2021
- Based on parameters communicated by the LPC
 - 70 fb⁻¹
 - Average pileup 35
 - Running 6·10⁶ s pp / 1.2·10⁶ s heavy ions
 - 50% stable beams, fast ramp up to 2018-like conditions
- CMS assumes 14 TeV c.e.m. energy
- HI run similar to 2018
- Potential feedback by the C-RSG as well as additional available information can be accommodated before Spring 2021

Resource	Site	'20 Approved Request Spring 19	'21 Approved Request Spring 20	'22 Preliminary Request Fall 20	Increase wrt 2021
CPU (kHS06)	T0+CAF	423	500	520	4%
	T1	650	670	720	7%
	T2	1000	1070	1190	11%
	Total	2073	2240	2430	8%
Disk (PB)	T0+CAF	26.1	30	35	17%
	T1	68	77	83	8%
	T2	78	92	98	7%
	Total	172.1	199	216	9%
Tape (PB)	T0+CAF	99	120	149	24%
	T1	220	230	250	9%
	Total	319	350	399	14%

Schedule LHC

no EYETS 21-22, ready for Beam 1 Feb 2022

