

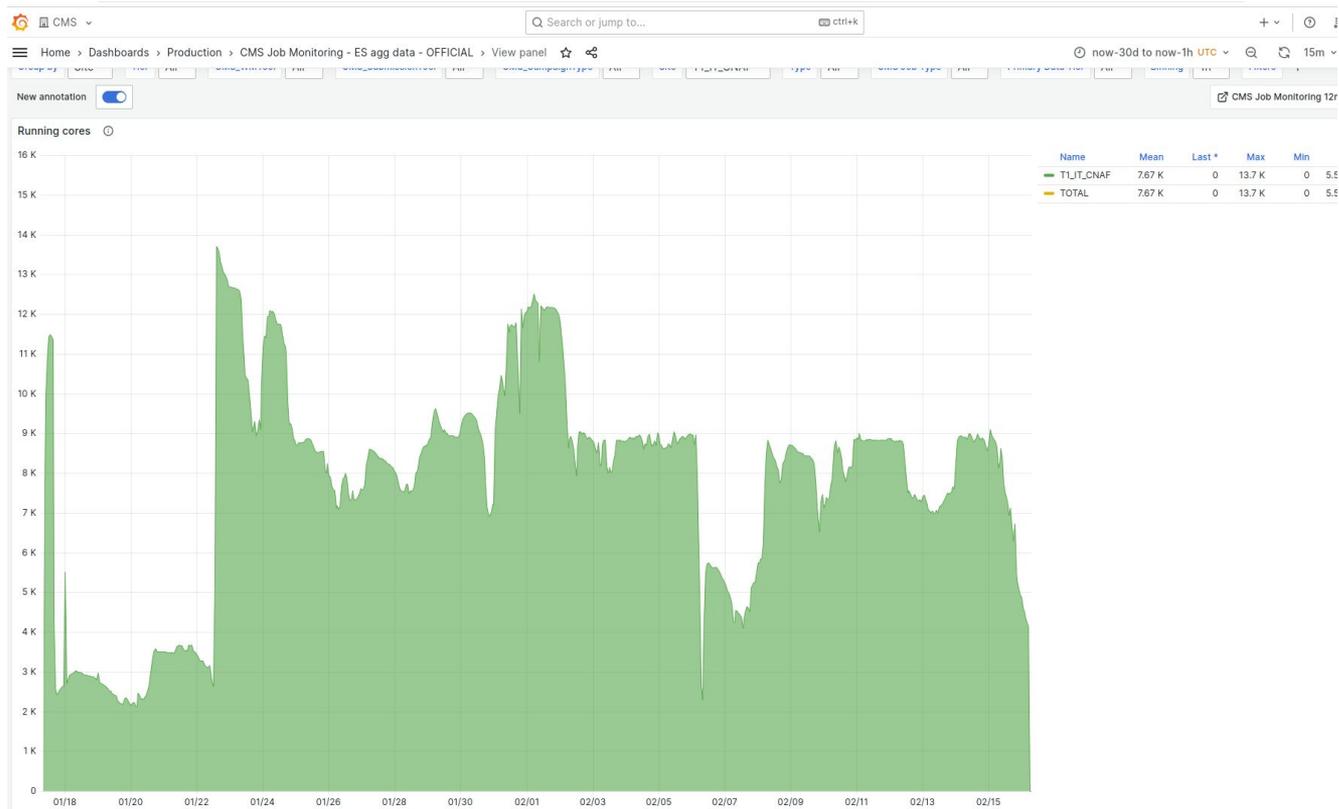
CMS - CdG T1

Daniele Spiga
INFN-PG

16.02.2024



Running cores





Efficienza di CPU (cresce?)

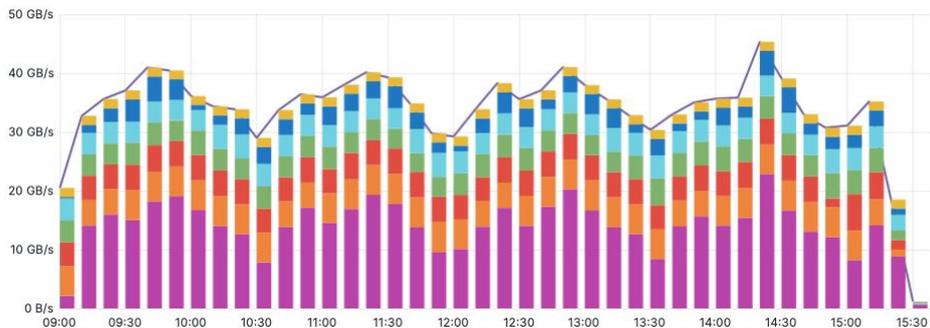


85%



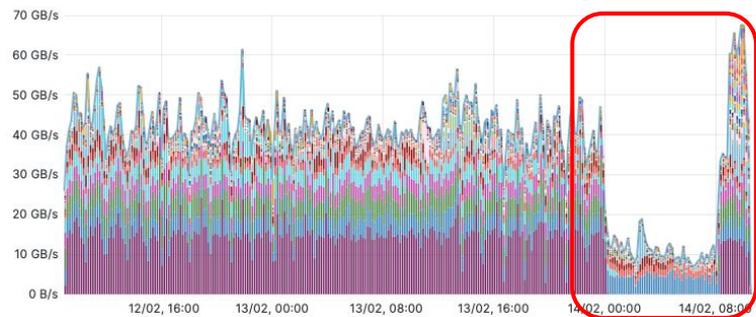
DC24 (ancora in corso)

Live Transfer Throughput (1 month retention)



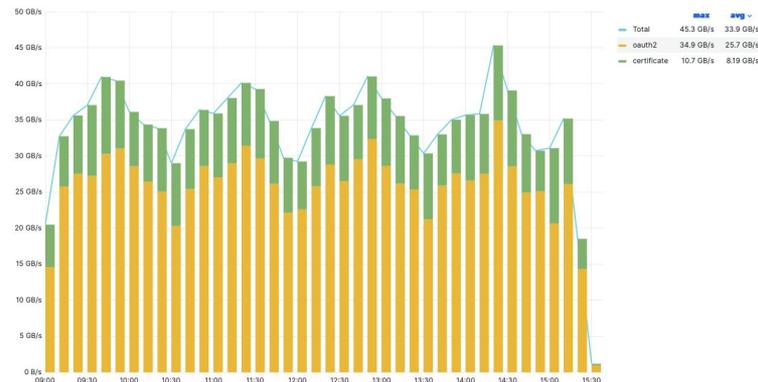
| Category | max | avg |
|--------------------|-----------|-----------|
| Total | 45.3 GB/s | 33.9 GB/s |
| T1_US_FNAL_Disk | 22.9 GB/s | 14.0 GB/s |
| T1_IT_CNAF_Disk | 5.08 GB/s | 4.68 GB/s |
| T1_RU_JINR_Disk | 6.22 GB/s | 4.09 GB/s |
| T1_DE_KIT_Disk | 4.58 GB/s | 3.63 GB/s |
| T1_FR_CCIN2P3_Disk | 4.07 GB/s | 3.55 GB/s |
| T1_UK_RAL_Disk | 4.34 GB/s | 2.45 GB/s |
| T1_ES_PIC_Disk | 1.58 GB/s | 1.50 GB/s |

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| T2_CH_CERN | | |
| UNKNOWN | | |
| T2_US_Caltech_Test | | |

Live Transfer Throughput (1 month retention)



Molti CMS Tier1s stanno supportando tokens via davs.



Uso Nodi ARM a CMS

I nodi sono accessibili via Global Pool di CMS (full production)

- Li stiamo usando per la validazione del software /li vorremmo usare (vedi dopo)

Abbiamo visto dei problemi (con ARM e) IPV6. I pilots partono ma poi non riescono a parlare con il collector della Factory di CMS.

Dobbiamo mettere mano al problema ticket qui [cms](#).

Abbiamo dei problemi di fallimenti. Alcuni si mischiano con problemi di xrootd che ci fa fallire una frazione “troppo alta” di jobs e rende difficile il debugging

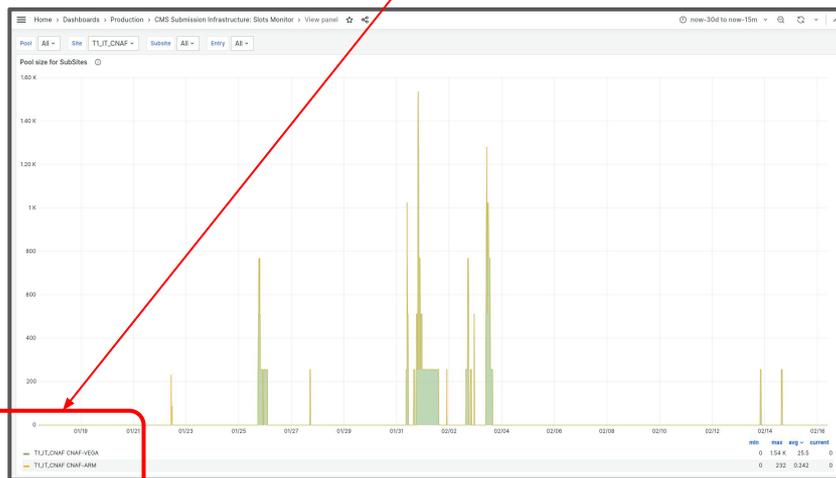
- Potremmo chiedere un posix (non gpfs) su un nodo? Questo ci permetterebbe di fattorizzare i problemi



T1_CNAF extension verso VEGA HPC

Relativamente al Grant di CMS abbiamo questa attività in corso... nulla di particolarmente nuovo rispetto ai test fatti in passato... lo stiamo usando.

Sub-Site monitoring a CMS



GPU slot monitoring a CMS

| Site | Host | N_GPUs | CMS_CUDA_SUP1 | CMS_NVIDIA_DRI | CPUs | TotalMemor | Entry_Name | AssignedGF | Capability | ClockMhz |
|--------------|---------------------|--------|------------------------|----------------|------|------------|-------------------|---------------|------------|----------|
| JS_Purdue | hammer-f012.rcac... | 1 | 10,0,10,1,10,2,110,... | | 8 | 20000 | [*CHSHTPC_T2_... | [*GPU-999... | 7.5 | 1590 |
| JS_Purdue | hammer-f010.rcac... | 1 | 10,0,10,1,10,2,110,... | | 8 | 20000 | [*CHSHTPC_T2_... | [*GPU-460... | 7.5 | 1590 |
| T1_CNAF | gn43.vega.prl | 1 | | | 256 | 515773 | [*CHSHTPC_T1_... | [*GPU-e30... | 8.0 | 1410 |
| JS_Purdue | hammer-f001.rcac... | 1 | 10,0,10,1,10,2,110,... | | 8 | 20000 | [*CHSHTPC_T2_... | [*GPU-705... | 7.5 | 1590 |
| CH_CERN_HLT | dell-c2b01-04-01... | 2 | 10,0,10,1,10,2,110,... | 545.23.08 | 128 | 238926 | [*CHSHTPC_T2_... | [*GPU-157... | 7.5 | 1590 |
| CH_CERN_HLT | dell-c2b01-03-01... | 2 | 10,0,10,1,10,2,110,... | 545.23.08 | 128 | 238926 | [*CHSHTPC_T2_... | [*GPU-c22... | 7.5 | 1590 |
| JS_Purdue | hammer-f006.rcac... | 1 | 10,0,10,1,10,2,110,... | | 8 | 20000 | [*CHSHTPC_T2_... | [*GPU-914... | 7.5 | 1590 |
| JS_Purdue | hammer-f009.rcac... | 1 | 10,0,10,1,10,2,110,... | | 8 | 20000 | [*CHSHTPC_T2_... | [*GPU-a94... | 7.5 | 1590 |
| JS_Purdue | hammer-f005.rcac... | 1 | 10,0,10,1,10,2,110,... | | 8 | 20000 | [*CHSHTPC_T2_... | [*GPU-c06... | 7.5 | 1590 |
| JS_Purdue | hammer-f007.rcac... | 1 | 10,0,10,1,10,2,110,... | | 8 | 20000 | [*CHSHTPC_T2_... | [*GPU-b35... | 7.5 | 1590 |
| JS_Purdue | hammer-f000.rcac... | 1 | 10,0,10,1,10,2,110,... | | 8 | 20000 | [*CHSHTPC_T2_... | [*GPU-f44... | 7.5 | 1590 |
| JS_Purdue | hammer-f008.rcac... | 1 | 10,0,10,1,10,2,110,... | | 8 | 20000 | [*CHSHTPC_T2_... | [*GPU-8f6... | 7.5 | 1590 |
| JS_Wisconsin | g38h05.hep.wisc... | 1 | 10,0,10,1,10,2,110,... | 545.23.08 | 8 | 20240 | [*CHSHTPC_T2_... | [*GPU-bf5... | 7.5 | 1590 |