

# Offline analysis in Lyon

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F2F meeting

Virgo – computing centers

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EGO

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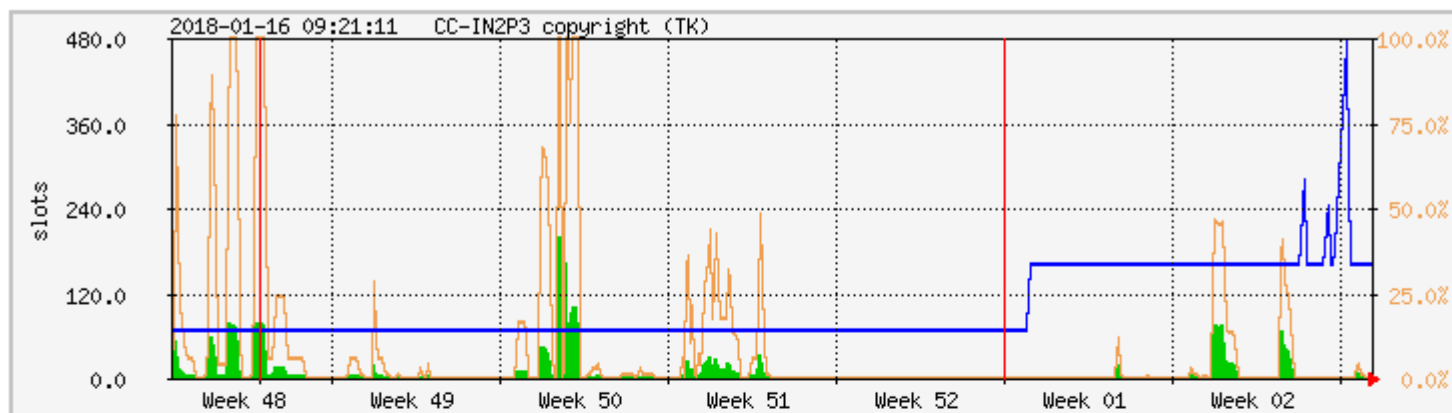
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# Offline analysis at CCIN2P3 : status

- All LIGO/Virgo data in HPSS (~1 peta Bytes)
  - **Catalogue of data handled by hand** (ffl files stored in /sps/virgo/BKDB/)
- Data access through XrootD disk cache : **offline access satisfactory**.
  - Small volume – h(t) : offline jobs accessing- low failure rate.
  - Large volume – raw data : requires staging.
- Still no satisfactory solution for interactive data display (not an « offline activity» subject per se).
- **Offline activities :**
  - LIGO/Virgo cosmic string search.
  - EM-follow up studies.
  - Detchar studies + data quality flags reprocessing (access to raw data).
  - OSG LSC jobs (totally transparent).
- **Cluster availability :**
  - Number of jobs sometimes limited by sps disk resource. Some jobs are stressing /sps/virgo/. Working with Lyon to find a solution.
  - Need to stress more Lyon with more users !

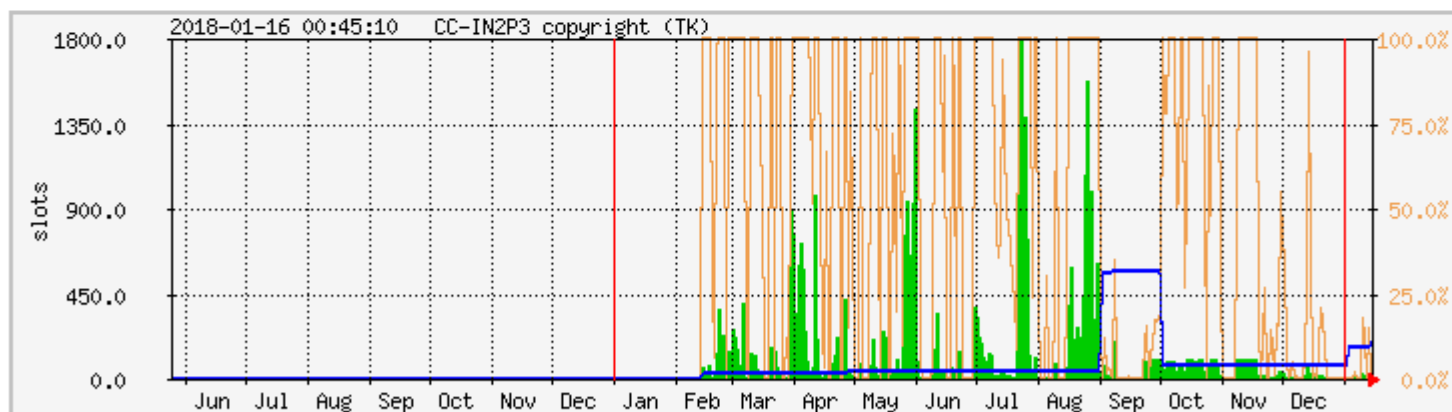
# Slots usage

## Monthly Graph (2 Hour Average)



	Max	Average	Current
Used:	200.0 slots	7.0 slots	0.0 slots
Objectives:	472.0 slots	96.0 slots	160.0 slots
Percentage	303.0 %	7.0 %	0.0 %

## Yearly Graph (1 Day Average)



	Max	Average	Current
Used:	1783.0 slots	65.0 slots	1.0 slots
Objectives:	562.0 slots	53.0 slots	204.0 slots
Percentage	5403.0 %	122.0 %	0.0 %

# Offline analysis at CCIN2P3 : future

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- Past activity : test of dirac (postponed because of lack of users ...)
- Recent activity : Virgo software ported on **CentOS7**.
- Middle term activity :
  - **Cluster accessibility** : consolidation & more users.
  - **Data transfer** : understand and fix all O2 failures

# CCIN2P3 evolution

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- **GPU** : the current platform consists of 10 DELL C4130 with 4 GPUs and 16 CPU cores per machine :
    - 2 Xeon E5-2640v3 (8c @2.6 GHz)
    - 128 GB RAM
    - 2 Nvidia Tesla K80 → 4 GPU Nvidia GK210 with 12 GB DDR5
  - **Data management plans** : all experiments are required to provide one this year ! They will be revised periodically
  - **Virtualisation** : start using singularity for te jobs needed it.
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