

ISS contribution to LUXE computing resources

Veta Ghenescu, Alina Neagu, Mihai Potlog

Institute of Space Science, Bucharest, ROMANIA

LUXE Computing Meeting - 31/08/2022

Computing resources – ISS capability



ISS – is a certified Tier-2 center of the LHC Computing Grid project;



- → Designed for high density computing (Hot Aisle, InRow cooling);
- → Scalable solution for future investments;
- → UPS Power : 48 kVA (with N+1 redundancy power units);
- → Cooling capacity : 80 kW installed (2N capacity redundancy)

Cluster	Cores*/storage
ISS-ALICE	1424 / 2.41 PB
RO-13-ISS	128 / 100 TB
Euclid- OpenStack	1536 / 30 TB
Total	3088 / 2.54 PB
*HT is activated	

- ISS-ALICE use AliEn Grid Framework, dedicated to CERN ALICE Collaboration;
- RO-13-ISS use Unified Middleware Distribution (UMD) and the resources are used by Alice Collaboration and Auger Collaboration;
- Euclid-OpenStack is used by ESA Euclid and Planck missions.

Computing resources for LUXE experiment



ISS – designed and installed a dedicated server for ECAL-LUXE group;

Actual configuration:

- CPU model/make: AMD EPYC 7713P 64-Core Processor
- CPU Core: 64
- Thread per core: 2
- Total threads: 128
- Total memory: 258 GB
- Storage : 6 x 12 TB drives in RAID6
- Total storage: 44 TB
- Operating system: CentOS Linux
- CernVM File System installed (cvmfs)
- Access via SSH using Public Key Authentication
- ~350 GB of TB2021 data stored on the LUXE server

Future plan - increase the storage capacity, hope to double it.