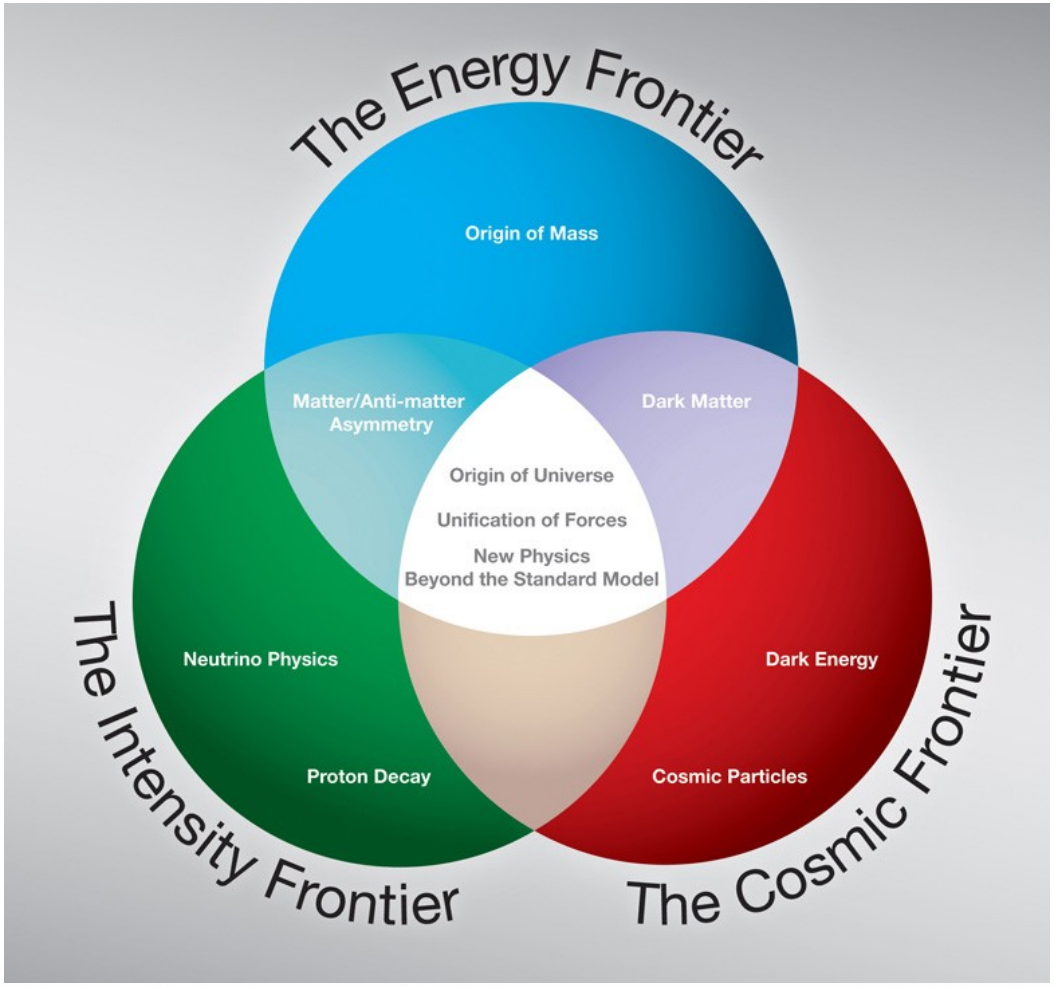
Fermilab VO (Intensity Frontier)



Fermilab VO presentation

Steven Timm
OSG VO Forum 7/14/2011

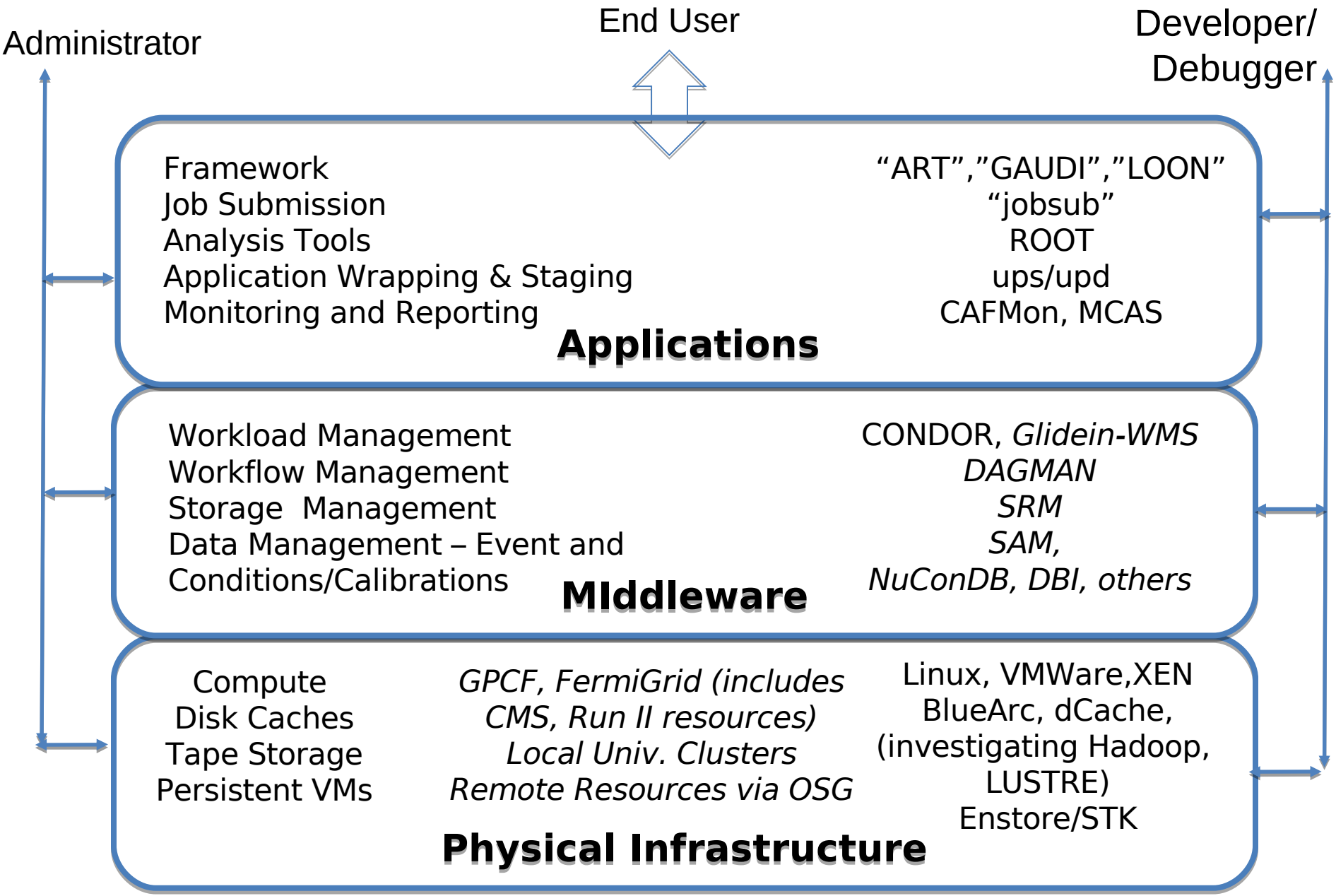
Fermilab VO projects

- All Fermilab employees and users part of Fermilab VO
- Only certain subgroups exported to OSG
- Intensity frontier experiments
  - Running or ran recently: MINOS, MiniBooNE, MINERvA, NOvA, ArgoNeuT, MIPP
  - Building/Planning: MicroBooNE, Mu2e, LBNE (soon to be own VO), Muon g-2
- Accelerator and beamline simulation
  - Project X, Muon accelerator program, Numi, muon collider detector/physics
- Theoretical simulation (PATRIOT)
- Cosmic frontier—Cryogenic Dark Matter Search

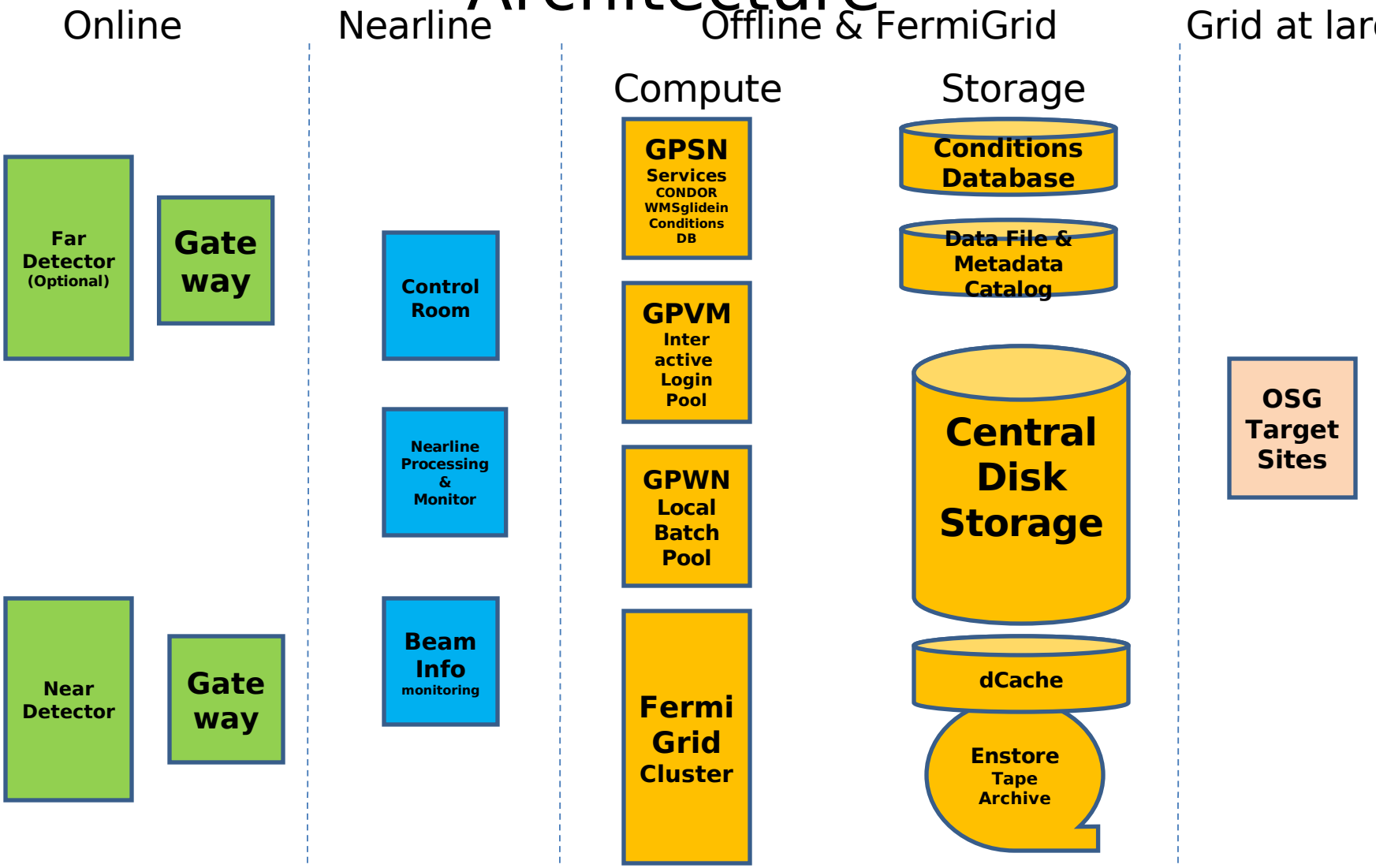
Fermilab VO OSG usage

- All jobs on FermiGrid are OSG jobs.
- 32M wall hours used by Fermilab VO since OSG started
- Anticipated use of 10M wall hours this year, grow to 13M wall hours next year.
- Heavily dependent on glideinWMS
- Dependent on successful completion of VOMRS->VOMS transition
- Currently run mostly on FermiGrid itself.
- Active research ongoing to allow analysis at remote sites, main hurdles are finding substitutes for bluearc NFS server and good way to distribute code.

Intensity Frontier Hardware Architecture



Intensity Frontier Hardware Architecture



Mu2E High-statistics Background Simulation