IFront GRID Details

Lee Lueking
REX GRID X-Training
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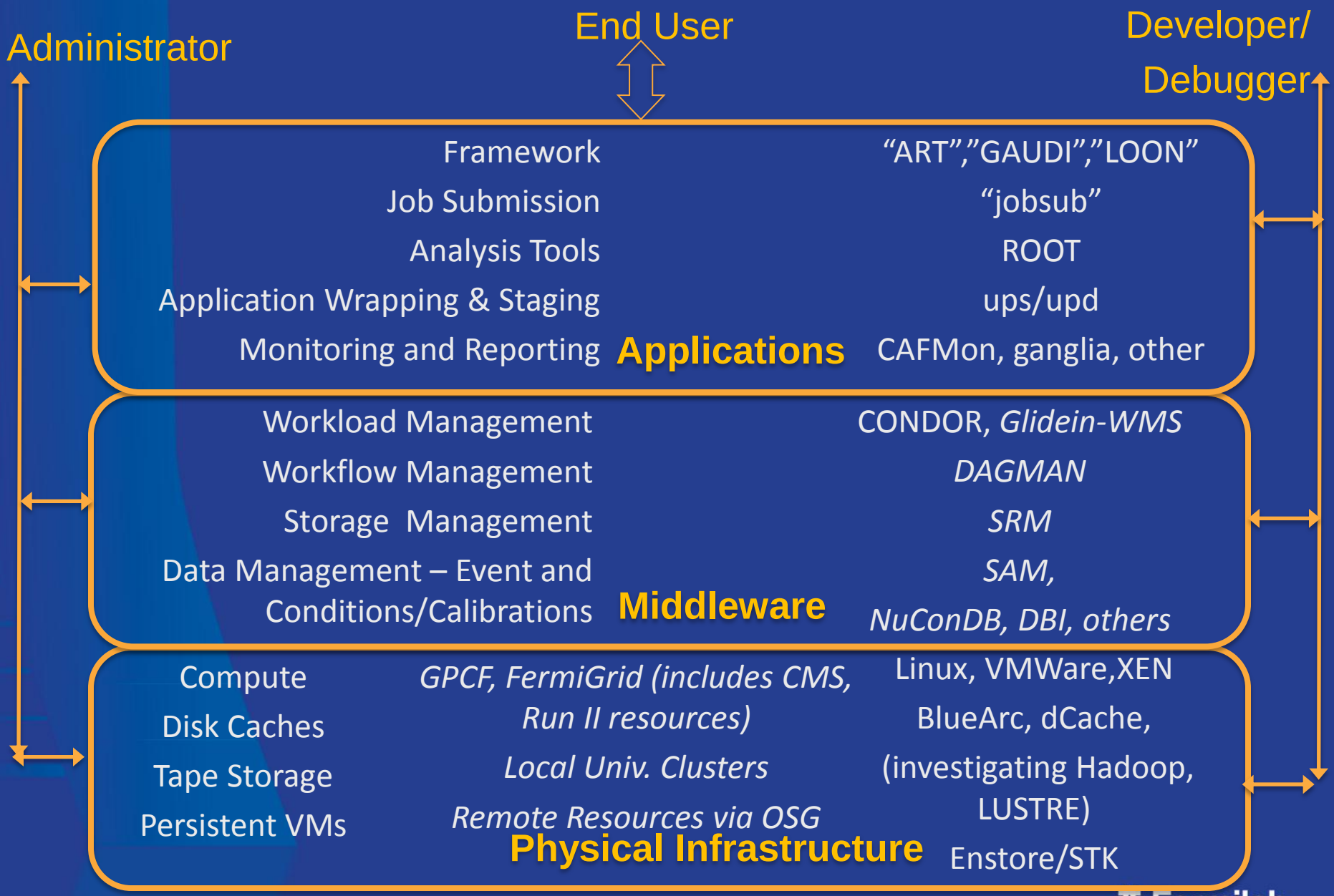
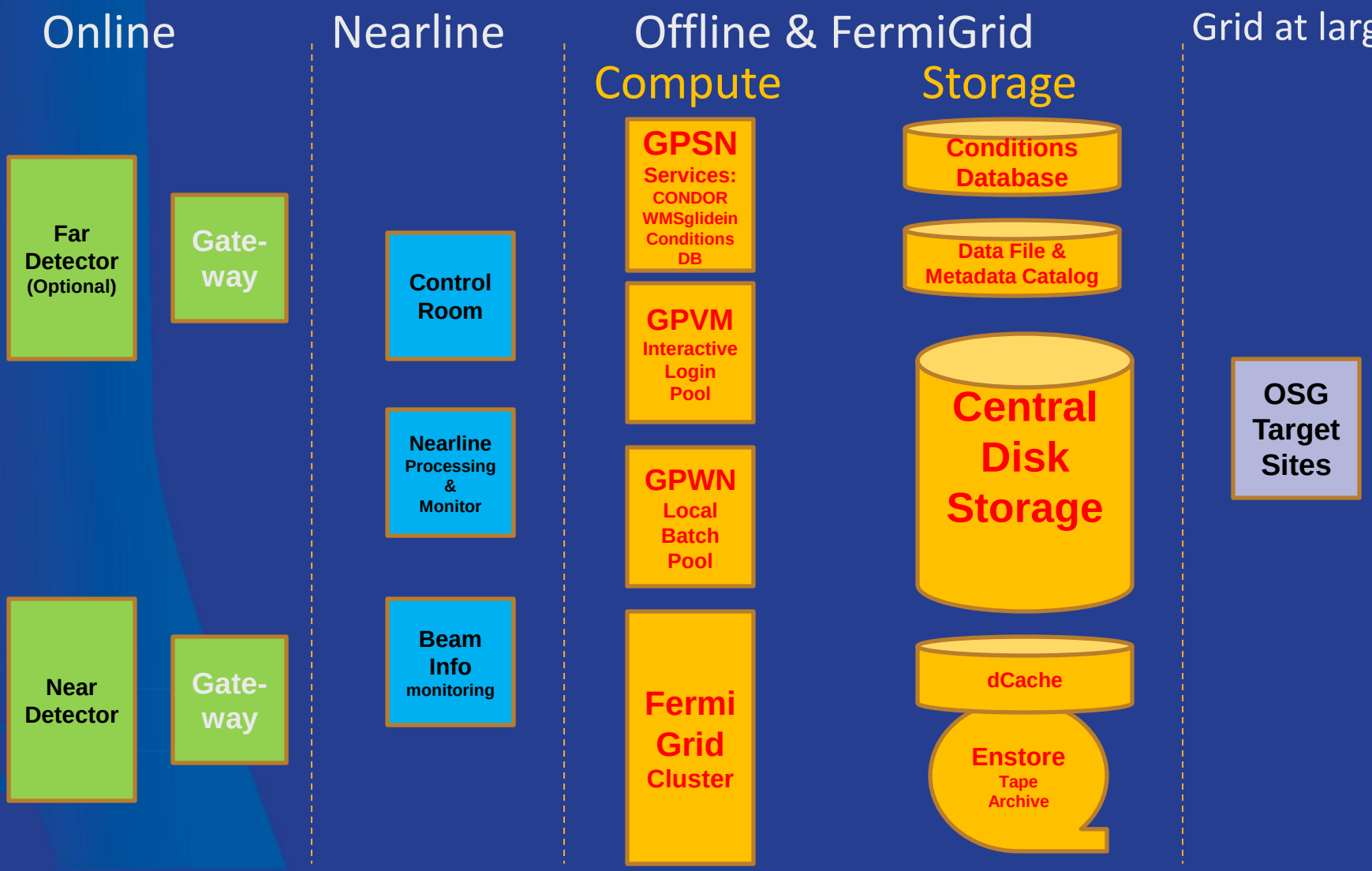
Intensity Frontier Software Architecture



Intensity Frontier Hardware Architecture



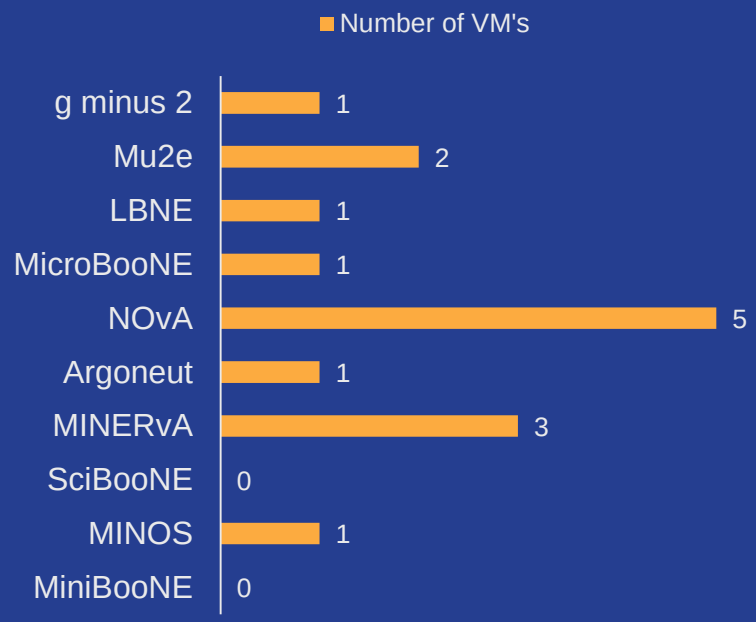
Fermilab

GPCF: General Physics Computing Facility

What is GPCF?

- Interactive login VM's (Virtual Machines) and "Local" Condor Batch slots.
- Each VM comprises 4 computing cores and 4GB memory.
- Central Disk Storage mounted as appropriate for each experiment.
- MINOS and MINERvA have their own dedicated clusters.
- Home areas: user in /afs, group in BlueArc.

GPCF Virtual Machine Assignment

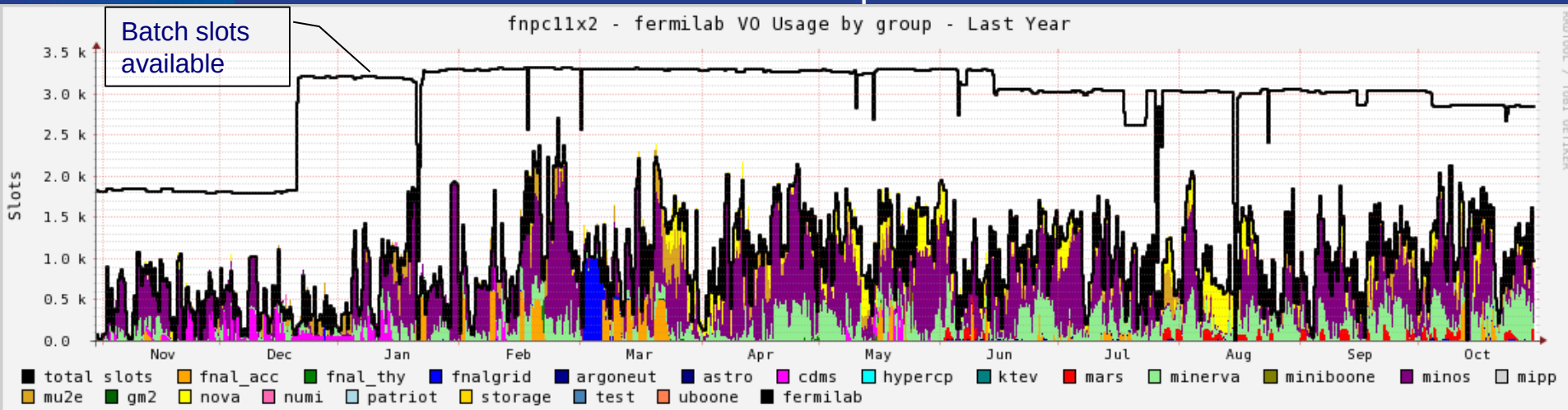


GPCF Local Batch

- GPCF Local Batch is for running small jobs and preparing jobs for the GRID.
- GPCF
  - Head node GPSN01 (condor submission, gfactory, gfrontend)
  - Worker nodes gpwn001-007
  - provides 80 batch slots.
  - BlueArc mounts: All IF mounts - /*/data, /*/app, /grid/*
- MINERvA
  - Head node IF01 (condor submission, gfactory, gfrontend)
  - Batch slots on if01-05
  - Provides 30 batch slots.
  - BlueArc mounts: /minerva/data, /minerva/app, /minos/data, /nusoft/*, /grid/*
- MINOS
  - Head node MINOS25 (condor submission)
  - GlideinWMS node MINOS54
  - Batch slots on MINOS50-53
  - Provides 28 batch slots.
  - BlueArc mounts: /minos/data, /minos/app, /nusoft/*, /grid/*

GP GRID usage (last 12 m)

GP GRID=Fermilab General Purpose Grid Cluster



	Maximum	Average	Minimum	LastVal
total slots	3299	2930.27	0	2841
fermilab	2691	953.82	0	967
fnal_acc	600	36.73	0	0
fnal_thy	399	1.32	0	0
fnalgrid	1000	15.14	0	1
argoneut	25	1.64	0	1
astro	0	0.00	0	0
cdms	442	23.34	0	0
hypercp	0	0.00	0	0
ktev	0	0.00	0	0
mars	191	12.20	0	149
minerva	667	170.64	0	58
miniboone	290	0.48	0	0
minos	1960	516.74	0	674
mipp	147	1.11	0	0
mu2e	649	83.11	0	2
gm2	3	0.04	0	0
nova	661	110.09	0	83
numi	120	0.84	0	0
patriot	176	2.02	0	0
storage	258	2.56	0	0
test	0	0.00	0	0
uboone	0	0.00	0	0

Data for fnpc11x2 between 30-Oct-2010 and 01-Nov-2011
Plot generated at 01-Nov-2011 07:26:48 on fermigrid0.fnal.gov

- MARS (*)
- MINERvA
- MiniBooNE
- MINOS
- MIPP
- Mu2e
- Gm2
- NOvA

Use of this resource by D0, CDF, and OSG are not shown.

* mars, marslbne, marsgm2, marsmu2e

IF Operations Resources

- IF JIRA projects
  - MINERVA – Minerva issues
  - NOVA – Nova issues
  - IFRONT – General IF issues
  - MINOSDATA – MINOS data issues (~ Art K.)
  - IFCTLROOM – IF control room issues (~ John U., FEF)
- IFront project page wiki
  - https://cdcvs.fnal.gov/redmine/projects/ifront/wiki
- DEMO goes here