

Summary

Institution	# cores 2012	# cores 2013	# cores 2014	# cores 2015	GPU-cores 2012	GPU-cores 2013	GPU-cores 2014	GPU-cores 2015	Disk space 2012	Disk space 2013	Disk space 2014	Disk space 2015
CMU	640	640	1664	1408	0	0	0	0	180	180	360	360
FSU	272	272	272	272	0	0	0	0	85	85	85	85
IU	24	24	24	24	3584	3584	3584	3584	0	0	0	0
Total	936	936	1960	1704	3584	3584	3584	3584	265	265	445	445

CMU

At CMU: These resources are split with our lattice QCD group with whom we share operations of the cluster. All CPUs are roughly 2.4GHz nodes and all are under three years old at the moment.

32 dual-quad core AMD machines -> 256 compute cores 1GB core per CPU
 12 quad-eight-core AMD machines -> 384 compute cores 2GB core per CPU
 180TB of RAID storage spread across several servers
 10Giga-bit backbone from the RAID servers to the switches and 2Giga-bit connections to each compute node.

Over the next few years, we anticipate purchasing around 16 boxes of the next generation of CPUs (quad-sixteen or thirty-two core boxes). We also expect to double our disk storage capability as we start to retire some of our very old few-TB servers.

	2012	2013	2014	2015
Dual-quads	32	32	32	
Quad-eights	12	12	12	12
Quad-sixteens			16	16
Disk (TB)	180	180	360	360

FSU

At FSU: this is what we have at the moment:

4 AMD Opteron 48-core computing servers --> 192 cores
 20 Intel quad-core computing servers --> 80 cores
 300 GB of RAM
 85 TB of storage across 6 RAID servers
 1 Giga-bit network connections between servers and 10 Giga-bit network backbone from campus.

	2012	2013	2014	2015
48-cores	4	4	4	4
Quad-cores	20	20	20	20
Disk (TB)	85	85	85	85

IU

Here are the specs for our system.

We have two machines, each machine has:

2 x six-core Intel Xenon 2.66 GHz processors
 4 x Tesla C2070 GPUs, each with 448 computing cores clocked at about 1.1 GHz and 6 GB of RAM

So that's about 24 x 2.66 GHz processors and roughly 3600 GPU computing cores.

This is still probably peanuts compared with, for example, the lattice GPU farm at JLab.

Total cost for the two machines was \$38K, but we spared no expense. We actually had to wait a days for the first C2070's to ship from NVIDIA. Up to that point we were working with a \$300 card we bought at newegg.com. Matt

	2012	2013	2014	2015
12-cores	2	2	2	2
448 GPU-cores	8	8	8	8