Tri-lab PSAAP Compute Resources

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SITE	MACHINE	ARCH	OS	Nodes	Cores per Node	Total Cores	Memory per Node	Peak Tflops	Peak Gflops per Node	Network	Max Nodes / Cores per Job	Max Time per Job	MORE INFO
LANL	**moonlight**	Intel Xeon E5-2670 @2.6 GHz	Linux	294	16	4,704	64 GB	488	1,660	4x-QDR IB	294 / 4704	16 hr	hpc.lanl.gov
		NVIDIA Tesla M2090		2 per node	1,024	353,976	-			-	-	-	
	lightshow	Intel Xeon X5650 @2.6 GHz	Linux	16	12	192	96 GB	4.1	256	4x-QDR IB	-	-	
		NVIDIA Quadro 5000/6000		2 per node									
	pinto	Intel Xeon E5-2670 @2.6 GHz	Linux	154	16	2,464	64	51.3	332.8	4x-QDR IB	154 / 2464	16 hr	
	wolf	Intel Xeon E5-2670 @2.6	Linux	616	16	9,856	64	205	333	4x-QDR IB	616 / 9856	16 hr	
LLNL	**vulcan**	IBM BG/Q PowerPC A2 @1.6 GHz	micro/CNK	24,576	16	393,216	16 GB	5,000 (5 Pflop)	204.8	5D Torus	8,192 / 131,072	12 hr	hpc.llnl.gov/hardware/platforms Quartz note: PSAAP allocation is ~35% of the cluster.
	quartz	Intel Xeon E5-2695 v4 @ 2.1 GHz	Linux	2,688	36	96,768	128 GB	3251.5	1209.6	Intel Omni-Path 100 Gb/s	1200 / 43,200	24 hr	
	cab	Intel Xeon E5-2670 @2.6 GHz	Linux	1,296	16	20,736	32 GB	431.3	332.8	4x-DDR IB	258 / 4128	16 hr weekday 24 hr weekend	
	surface	Intel Xeon E5-2670 @2.6 GHz	Linux	162	16	2,592	256 GB	53.9	332.8	4x-QDR IB	50 / 800	24 hr	
		NVIDIA Tesla K40		2 per node	5,760	910,080	12 GB per GPU	452	2860	-	-	-	
SNL	**serrano**	Intel Xeon E5-2695 v4 @ 2.1 GHz	Linux	1,122	36	40,392	128 GB	1357.2	1209.6	Intel Omni-Path 100 Gb/s	50% of cluster	48 hr	computing.sandia.gov/platforms/ (requires authentication)
	solo	Intel Xeon E5-2695 v4 @ 2.1 GHz	Linux	187	36	6,732	128 GB	226.2	1209.6	Intel Omni-Path 100 Gb/s	50% of cluster	48 hr	

Sandia Advanced Systems Technology Test Beds

For most recent / additional information see: http://www.sandia.gov/asc/computational_systems/HAAPS.html

Machine	Nodes	CPU	Accelerator	Cores per Accelerator	Interconnect	Other
Bowman	32	Intel Xeon Phi	None	N/A	Intel OmniPath	Trinity Phase 2 processor; Limited access
Compton	42	Dual Socket Intel Xeon Sandy Bridge, 2.6 GHz 8-core	Intel Xeon Phi Co-processor (Knights Corner) 2 per node	57 1.1GHz cores	Mellanox Quad Data Rate InfiniBand	80GB SSD per node
Cooper	36	AMD Kaveri A10-7580K, 4 cores	Radeon R7 Graphics	N/A	Mellanox Fourteen Data Rate (FDR) InfiniBand	PowerInsight V2 monitoring device
Curie	52	AMD Opteron Interlagos 2.1 GHz 16-core	NVIDIA Kepler K20X	2688 732 MHz cores	Gemini	Cray XK7, Full featured monitoring and control system on restricted network
Hammer	40	ARM X-Gene 1 processors from APM	None	N/A	10 gigE	Unique CPU architecture
Hansen	3	Dual socket Intel Xeon Haswell, 16 cores	2 nodes have NVIDIA K80m GPUs	2496x2 562 MHz cores	Mellanox FDR InfiniBand	SSD; reduced access
Morgan	9	Five dual socket Intel IvyBridge with Xeon Phi co-processor and four Intel 32-core Haswell nodes	Intel Xeon Phi co-processor (Knights Corner) 2 per node	Three with 57 1.1 GHz cores; Two with 61 1.238 GHz cores	Mellanox Quad Data Rate InfiniBand	Hetero testbed on restricted network
Ride	4	Dual IBM Power8, 10 cores			InfiniBand Other	On restricted network; reduced access
Shannon	32	Dual socket Intel Xeon Sandy Bridge 8-core	NVIDIA Kepler K20X 2 per node	2688 732 MHz cores	Mellanox Quad Data Rate InfiniBand	Full PCI Generation 3 NVIDIA GPU Direct
Shepard	36	Dual socket Intel Haswell, 16 cores	None	N/A	Mellanox Fourteen Data Rate InfiniBand	Comparable processor to Trinity first delivery; PowerInsight V2 monitoring device
Shiller	3	Dual socket Intel Xeon Haswell, 16 cores	NVIDIA K80m GPUs	2496x2 562 MHz cores	Mellanox Fourteen Data Rate InfiniBand	SSD; on restricted network; reduced access
Teller	104	AMD A10-5800K (Piledriver) 3.8GHz Quad-core	Radeon HD-7660D (Northern Islands) with on-die integration	384 800MHz cores	QLogic Quad Data Rate InfiniBand	Integrated CPU/GPU+ 256GB SSD and a
Volta	56	Dual Intel Xeon Ivy Bridge 2.4 GHz, total 24 cores	None	N/A	Aries	Cray XC30m, Full featured RAS system including power monitoring and control capabilities
White	9	Dual IBM Power 8, 10 cores	NVIDIA K40 2 per node	N/A	Fourteen Data Rate InfiniBand	Technology on the path to anticipated CORAL systems