Terascale Simulation Facility

World-Class Center for Multiple Generations of Supercomputers

Four-Story Office Tower

121,600 square feet for 285 offices

Visualization theater

150-seat auditorium

Conference rooms

Machine Floor

48,000 square feet unobstructed computer room floor

30 megawatts machine power capacity

7,200 tons of air conditioning capacity

Mechanical Cooling System

At full capacity, air can be exchanged in under 45 seconds

Cooling towers total capacity: 12,600 gallons per minute

Chiller plant total capacity: 7,200 tons

Air handlers total capacity: 2,720,000 cubic feet per minute

For more information

See the ASC at Livermore Web site: https://asc.llnl.gov/

LLNL-MI-413166

System	Top500 Rank	Program	Manufacture/ Model	OS	Inter-connect	Avg Power Demand (KW)	Nodes	Cores	Memory (GB)	Peak TFLOP/s	Notes
Unclassified Network (OCF)										**872.6**	
Sierra	TBD	M&IC	Dell	Linux	IB QDR	TBD	1,944	23,328	46,656	261.3	1
uBG/L	7*	ASC+M&IC	IBM BG/L	Linux	IBM	673	40,960	81,920	21,504	229.4	
Hera (TLCC)	44	ASC+M&IC	Appro	Linux	IB DDR	492	864	13,824	27,648	127.2	
Hyperion		ASC	Dell	Linux	IB DDR	248	1,152	9,216	11,520	90.3	
Atlas (Peloton)	150	M&IC	Appro	Linux	IB DDR	573	1,152	9,216	18,432	44.2	
Ansel	TBD	M&IC	Dell	Linux	IB QDR	TBD	324	3,888	7,776	43.5	
Zeus (Peloton)		M&IC	Appro	Linux	IB DDR	143	288	2,304	6,912	22.1	2
Aztec		M&IC	Dell	Linux	N/A	TBD	96	1,152	4,608	12.9	
uPurple		ASC	IBM SP	AIX	Federation	139	108	864	3,456	6.6	
Yana		M&IC	Appro	Linux	N/A	53	80	640	1,600	3.1	
Prism		M&IC	GraphStream	Linux	IB SDR	55	128	256	2,048	1.2	
Edge		M&IC	Appro	Linux	IB QDR	165	216	2,592	20,736	29.0	
Hive		M&IC	Appro	Linux	IB DDR	7	6	96	1,088	0.9	
Ebert		M&IC	Appro	Linux	N/A	7	6	96	192	0.9	
Classified Network (SCF)										**1,616.0**	
Dawn	11	ASC	IBM BG/P	Linux	IBM	1,260	36,864	147,456	147,456	501.4	
BlueGene/L	7*	ASC	IBM BG/L	Linux	IBM	1,077	65,536	131,072	49,152	367.0	
Muir	TBD	ASC	Dell	Linux	IB QDR	TBD	1,296	15,552	31,104	174.2	1
Juno (TLCC)	27	ASC	Appro	Linux	IB DDR	600	1,152	18,432	36,864	162.2	
Graph	57	ASC	Appro	Linux	IB DDR	429	576	13,824	72,960	110.6	
Purple	66	ASC	IBM SP	AIX	Federation	3,360	1,532	12,288	49,152	93.4	
Coastal		Other	Dell	Linux	IB DDR	399	1,152	9,216	27,648	88.5	
Eos (TLCC)		ASC	Appro	Linux	IB DDR	150	288	4,608	9,216	40.6	
Minos (Peloton)	272	ASC	Appro	Linux	IB DDR	308	864	6,912	13,824	33.2	
Rhea (Peloton)		ASC	Appro	Linux	IB SDR	157	576	4,608	9,216	22.1	
Inca		ASC	Dell	Linux	N/A	TBD	96	1,152	4,608	12.9	
Hopi		ASC	Appro	Linux	N/A	80	112	1,152	2,896	7.6	
Gauss		ASC	GraphStream	Linux	IB SDR	198	256	512	3,072	2.5	
Tempest		ASC	IBM	AIX	N/A	28	12	84	672	0.6	

1	Scheduled Delivery	4QFY10
2	Upgrade Complete	30 Jul 10

LA = Limited Availability
GA = General Availability

* Top500 rank for combined system
* Top500 rank for combined system

System Category	TFLOP/s	% of Total
Unclassified	**872.6**	**35%**
Capability	534.9	61%
Capacity	200.3	23%
Serial	16.9	2%
Visualization	30.2	3%
Collaboration	90.3	10%
Classified	**1,616.0**	**65%**
Capability	961.7	60%
Capacity	346.5	21%
Serial	20.5	1%
Visualization	287.2	18%