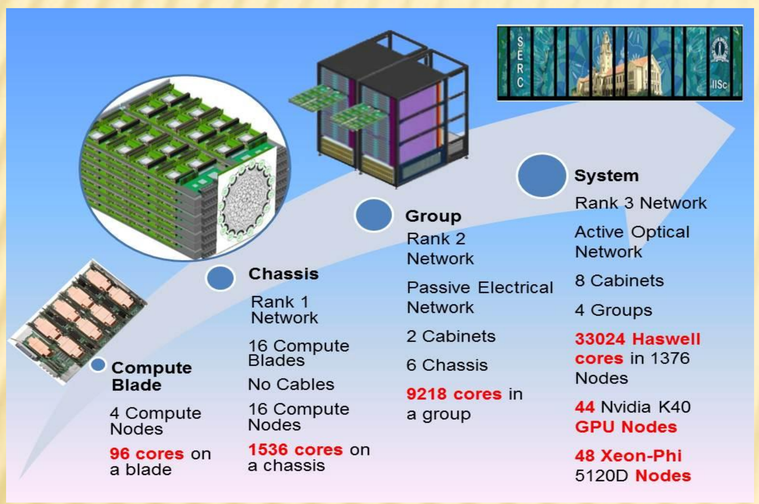
CRAY XC40

Fastest Supercomputer in India as on Feb. 2015

System Building Blocks



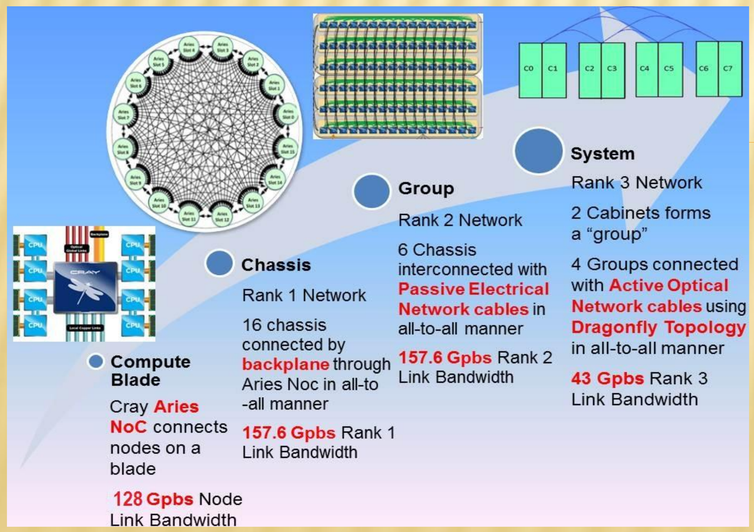
System Performance

Type of node	Number of Nodes	HPL (sustained)
Compute cluster	1296	901 TeraFlops
GPU cluster	44	52 TeraFlops
Xeon Phi cluster	42	28 TeraFlops

Storage Configuration

No. of cabinets	No. of Enclosures/ cabinet	No. of disks/ enclosure	Total no. of disks	Total Raw Capacity	Total Usable File System Capacity	IOR Performance	
						Read	Write
4	5	48 X 3 TB	960	2.88 PB	2 PB	27.7 GB/sec	32.2 GB/sec

Interconnection Building Blocks



System Configuration

Type of node	Processor Make	No. of CPU cores/ node	RAM / node	Total No. of Nodes	Total cores	Total RAM
Compute nodes	Intel Haswell processor 12 core operating at 2.5 GHz	24	128 GB	1376	33024	172 TB
Intel Xeon phi nodes	Intel IvyBridge processor 12 core operating at 2.4 GHz	12(CPU)+1(Phi 5120D card)	64 GB	48	576(CPU)+2928(MIC cores)	3 TB
GPU nodes	Intel IvyBridge processor 12 core operating at 2.4 GHz	12(CPU)+1(GPU K40 card)	64 GB	44	528(CPU)+ 126720(cuda cores)	2.75 TB
Service/login nodes	Intel SandyBridge processor 8 core operating at 2.6 GHz	8	32 GB	15	240	480 GB
DVS nodes	Intel Haswell processor 12 core operating at 2.5 GHz	24	128 GB	8	192	1 TB

Tools and Libraries