PARAM Yuva II

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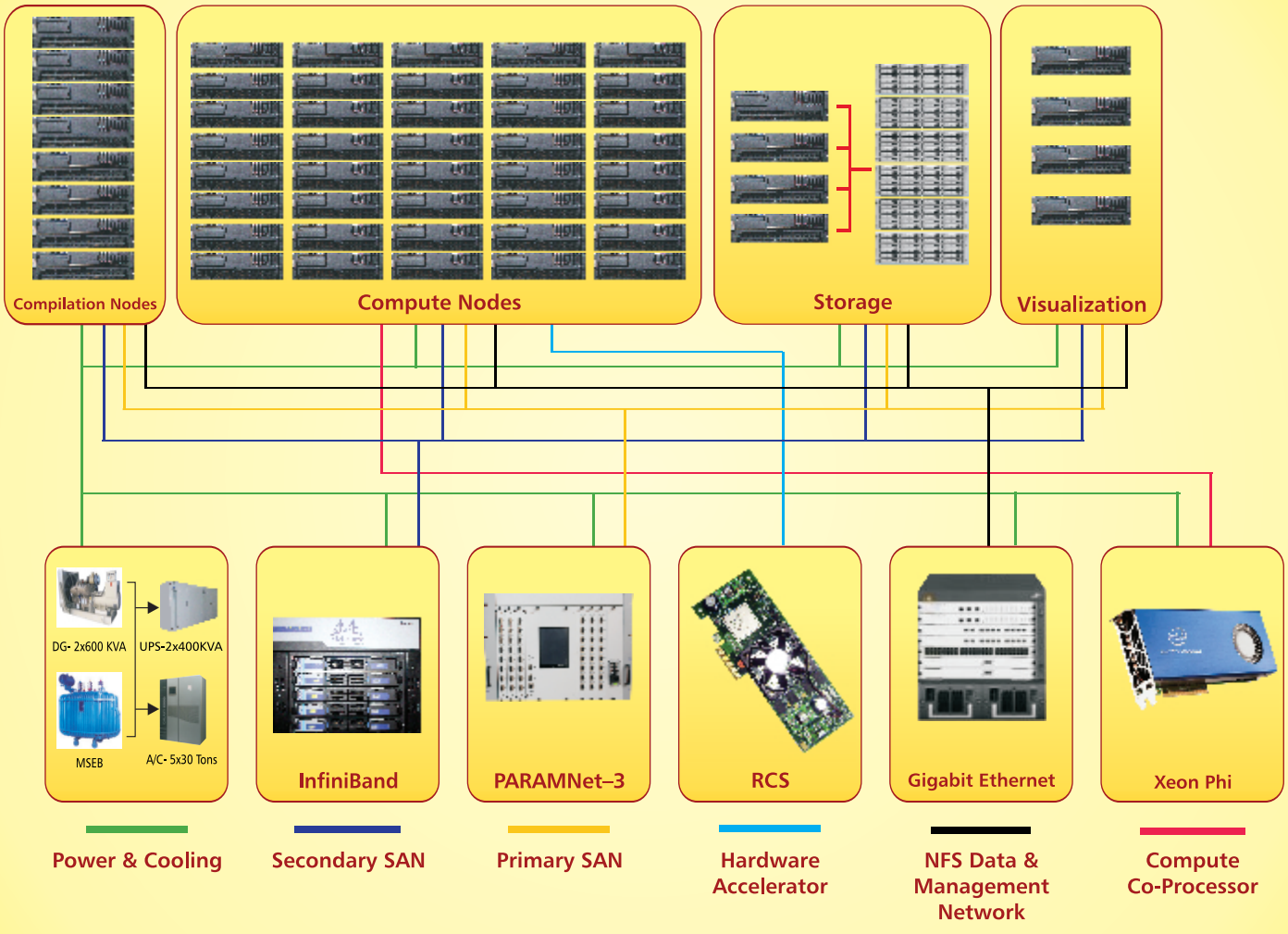
Housed at C-DAC premises in Pune University Campus, PARAM Yuva II is a eight core, dual socket node based hybrid compute cluster with multiple interconnects, compute co-processor, hardware accelerators, high performance storage and supporting softwares for parallel computing. Arranged in 19" racks occupying 5000 sq.ft space, the ecosystem is designed for power efficiency and optimal cooling. In the PARAM series of supercomputers, Yuva II, an updated version of Yuva, is yet another step towards creating a general purpose research-oriented computational environment architected to solve bigger problems and provide an opportunity for scientific breakthroughs. The increase in peak compute power from 54 Teraflop/s to more than half a Petaflop/s is achieved without any increase in the electrical power consumed by the facility.



PARAM Yuva II

Compute Node

Make	Intel
Model	R2208GZ
Processor	Intel® Xeon E5 2670
Co-Processor	Intel® Xeon Phi
Cores / Node	16
Core Frequency	2.6 GHz
Peak Performance / Node	2.33 TF
Memory	64 GB
Operating System	Linux

Compute Cluster

Nodes	225
Peak Performance	529.74 TF
Sustained Performance (Linpack)	386.708 TF

Hardware Accelerator

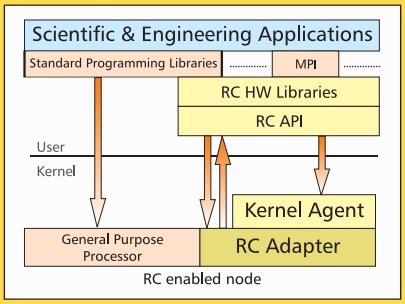
Reconfigurable Computing System with multiple FPGA based Processing Engines (PE)

Networks

Primary System Area Network	InfiniBand FDR
Secondary System Area Network	PARAMNet-3
Management Network	Gigabit Ethernet

Storage

HPC Scratch Area with 10GB/s write bandwidth over Parallel File System	100TB
Reliable User Home Area	100TB
Backup	400TB



Software

Intel Development Tools
Intel MPI
Math Kernel Library
NAG Statistical Libraries
Kshipra programming environment for PARAMNet-3
Varada programming environment for RCS

C-DAC Param Yuva Leaflet_jan13

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