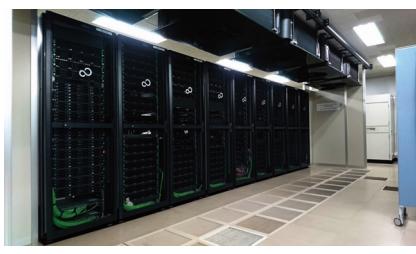


Supercomputer system at ITC, Nagoya University

Specifications



Fujitsu PRIMEHPC FX100



Fujitsu PRIMERGY CX400

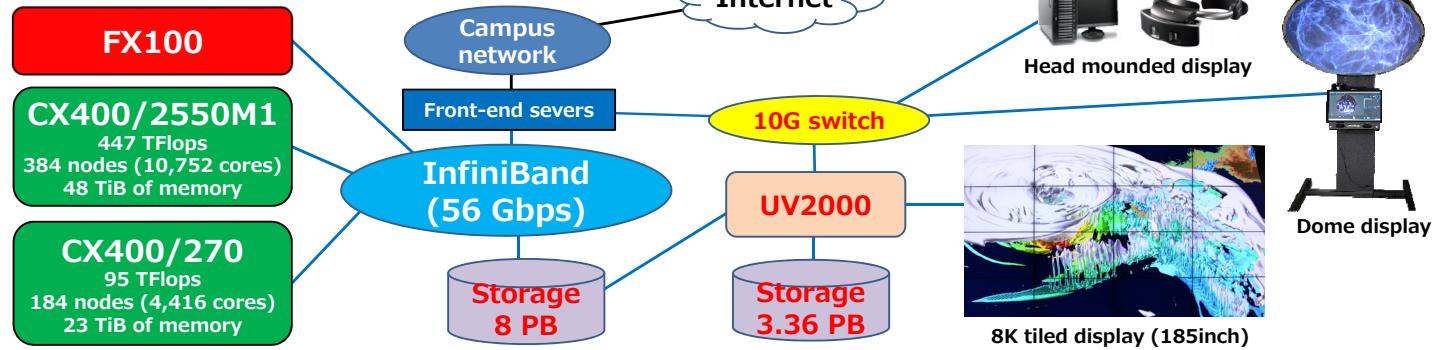


SGI UV2000

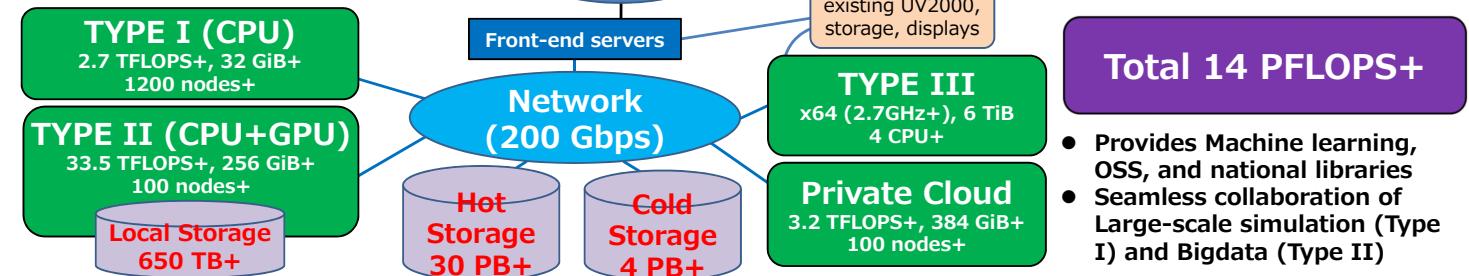
PRIMEHPC FX100	Node	Fujitsu SPARC64 XIfx (2.2GHz, 32 cores), 32GiB
	No. of nodes	2,880 (92,160 cores)
	Theo. peak	3.2 Pflops
	Total memory	90 TiB
	Interconnect	Tofu2
	Languages	Fortran, C, C++ (Fujitsu), OpenMP, XFORTRAN
	Libraries	MPI, BLAS, LAPACK, ScalAPACK, Fujitsu SSL II, C-SSL II, SSL II/MPI, NUMPAC, FFTW, HDF5
	Application programs	LS-DYNA, Gaussian09, AVS/Express Dev/PCE, EnSight HPC, IDL, ENVI, ParaView, OpenFOAM, Gromacs, LAMMPS, Quantum, ESPRESSO
	Benchmark scores	Linpack 2,910 TFLOPS, HPCG 86.53 TFLOPS
PRIMERGY CX400	Node CX2550 M1	Intel Xeon E5-2697v3 (Haswell, 2.6GHz, 14 cores) x2, 128GiB
	Node CX270	Intel Xeon E5-2697v2 (IvyBridge, 2.7GHz, 12 cores) x2, 128GiB
	No. of nodes	568 (15,168 cores)
	Theo. peak	542 Tflops
	Total memory	73 TiB
	Languages	Fortran, C, C++ (Fujitsu & Intel), OpenMP, XFORTRAN, Python
	Libraries	MPI, BLAS, LAPACK, ScalAPACK, Fujitsu SSL II, C-SSL II, SSL II/MPI, Intel MKL, NUMPAC, FFTW, HDF5, Intel IPP
	Application programs	STAR-CCM+, OpenFOAM, LS-DYNA, AMBER, GAMESS, Gaussian09, Gromacs, LAMMPS, NAMD, HyperWorks, AVS/Express Dev/PCE, EnSight Gold, IDL, ENVI, ParaView, NTChem, MODYLAS, SMASH, OpenMX, SALMON, HΦ
	UV2000	
UV2000	Processor	Intel Xeon E5-4650 (SandyBridge, 2.4GHz, 8 cores)
	No. of CPUs	64 (512 cores)
	Theo. peak	9.8 Tflops
	Total memory	8 TiB
	GPU	NVIDIA Quadro K5000 (1,536 CUDA cores, GDDR 4GiB) x 8 units
	Languages	Fortran, C, C++ (Intel), OpenMP, Python
	Libraries	SGI MPT, Intel MKL, FFTW, HDF5, NetCDF, scikit-learn, TensorFlow
	Application programs	LS-prepost, AVS/Express Dev/PCE, EnSight HPC, IDL, ENVI, Fieldview Parallel, ParaView, ffmpeg, ffplay, osgviewer, vmd, 3DAVSpayer, SGI NICE DCV, POV-Ray

Note: Software in blue is available for both academic and industrial uses.

Current System



Next System (2020 July-) under procurement



Fusion system of numerical calculation and data science

Total 14 PFLOPS+

- Provides Machine learning, OSS, and national libraries
- Seamless collaboration of Large-scale simulation (Type I) and Bigdata (Type II)

