

Easley Cluster

The Easley High Performance Computing (HPC) cluster provides advanced computational capacity to over 600 Auburn researchers across campus in multiple academic domains. The cluster is implemented, administered, and maintained by Auburn University's Office of Information Technology.

The Dell PowerEdge-based HPC cluster has 209 nodes with over 11,000 cores and a combined theoretical Rpeak of approximately 900 TFLOPS. The 209 compute nodes are comprised of the following classes:

- 151 "Standard" nodes (192 GB RAM, 2x Intel(R) Xeon (R) Gold 6248R CPU at 3.00 GHz CPUs, or 24 cores/CPU)
- 23 Type I Large Memory nodes (384 GB RAM)
- 11 Type II Large Memory nodes (768 GB RAM)
- 9 Type I GPU nodes with 2x nVidia Tesla T4 GPUs
- 2 Type II GPU nodes with 4x nVidia Tesla T4 GPUs
- 13 AMD Nodes with 2x AMD EPYC 7662 64-Core Processor

Additional computational capacity is available from 187 legacy nodes from the previous Hopper cluster.

For storage capacity, the Easley Cluster has 4 Dell PowerEdge R440 servers equipped with powerful Intel Xeon Gold 5220 CPUs that operate at 2.20 GHz. There are 2 dedicated management nodes and 2 storage nodes, specifically designed to handle the General Parallel File System (GPFS). The Dell ME 4084 Storage Controllers are configured to manage 4 petabytes (PB) of disk storage, accessible to all InfiniBand EDR-connected nodes via GPFS.

Servers, network infrastructure, and other supporting equipment are housed in multiple geographically dispersed, fault-tolerant data centers. Each data center is equipped with redundant network switching, fault-tolerant power infrastructure, and HVAC to ensure high availability.

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