Collaboration Showcase: Dell EMC, TACC and Intel join forces on Stampede2 performance studies

Dell EMC Solutions, June 2018

Stampede2 system, is the result of collaboration between the Texas Advanced Computing Center (TACC), Dell EMC and Intel. Stampede2 consists of 1,736 Dell EMC PowerEdge C6420 nodes with dual-socket Intel Skylake processors, 4,204 Dell EMC PowerEdge C6320P nodes with Intel Knights Landing bootable processors, a total of 5,940 compute nodes, and 24 additional login and management servers, Dell EMC Networking H-series switches, all interconnected by an Intel Omni-Path Architecture (OPA) fabric.

Two technical white papers were recently published through the joint efforts of TACC, Dell EMC and Intel. One white paper describes the Network Integration and Testing Best Practices on the Stampede2 cluster. The other white paper discusses the Application Performance of Intel Skylake and Intel Knights Landing Processors on Stampede2 and highlights the significant performance advantage of Intel Skylake processor at a multi node scale in four commonly used applications: NAMD, LAMMPS, Gromacs and WRF. For build details, please contact your Dell EMC representative. If you have VASP license, we are happy to share VASP benchmark results as well.

[Deploying Intel Omni-Path Architecture Fabric in Stampede2 at the Texas Advanced Computing Center- Network Integration and Best Practices (H17245)](#)

[Application Performance of Intel Skylake and Intel Knights Landing Processors on Stampede2 (H17212)](#)

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