



TEXAS ADVANCED COMPUTING CENTER  
THE UNIVERSITY OF TEXAS AT AUSTIN

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Mr. John Towns  
National Center for Supercomputing Applications  
University of Illinois at Urbana-Champaign  
Campus Mail Code: MC-257  
1205 W. Clark St., Room 1008  
Urbana, IL 61081

Dear John,

The Texas Advanced Computing Center (TACC) at The University of Texas at Austin wishes to participate in the XSEDE Federation and SP Forum as a Level 1 Service Provider (SP) through the provision and support of the Dell Visualization Cluster **Longhorn** (OCI-0906379). In addition, TACC will continue to contribute to the overall XSEDE project by participation in efforts within the Project Office, Operations, User Services, Extended Collaborative Support Services, Educations and Outreach, and Technology Insertion Service.

Longhorn is a large visualization cluster designed for remote interactive visualization and data analysis. The system consists of 256 dual-socket nodes, each with significant computing and graphics capability. Total system resources include 2048 compute cores (Nehalem quad-core), 512 GPUs (128 NVIDIA QuadroPlex S4s, each containing 4 NVIDIA FX 5800s), 13.5 TB of distributed memory and a 210 TB local Lustre file system. It can enable these remote visualization jobs using multiple software packages (Paraview, VisIt, etc.) and it provides an innovative web-based portal for executing remote visualization jobs. In addition to interactive remote visualization jobs, Longhorn supports production, compute-intensive calculations on both the CPUs and GPUs. The large, per-node memory is intended to support serial and parallel visualization and analysis applications that take advantage of large memories, multiple computing cores, and multiple graphics processors. Longhorn is an ideal companion resource for working with large data sets created on Ranger and Lonestar but too big to visualize on those systems. In particular, it can directly access Ranger's Lustre parallel file system. Longhorn users also have access to the Ranch storage facility for long-term data storage.

Integration of Longhorn and the supporting TACC infrastructure into XSEDE provides the user community with access to visualization and compute (CPU and GPU) in the same platform, increasing user productivity and further enabling

scientific discovery. TACC's contribution to XSEDE via Longhorn and support of other XSEDE resources and services as an integral part of the XSEDE team will continue to remain of utmost priority.

TACC's participation in the XSEDE program has enabled the center to contribute to a national team effort to provide visualization and compute resources along with the expertise required to effectively use such resources, to researchers around the world. In addition, participation in the XSEDE project has enabled TACC to provide users across the state of Texas with access to resources they would otherwise not have access to and making it possible for them to expand their research efforts and eventually take advantage of other resources available within the partnership.

We have reviewed the *XD Service Providers Forum: Charter, Membership, and Governance* document (version 10.1, dated 2 February 2012, at: [https://www.xsede.org/documents/10157/281380/SPF\\_Definition\\_v10.1\\_120228.pdf](https://www.xsede.org/documents/10157/281380/SPF_Definition_v10.1_120228.pdf)) defining the mutual responsibilities of XSEDE and an SP and are confident that we can and will fulfill our obligations as described therein.

In the event that you have an issue with our performance, please contact me directly. Similarly, if we perceive an issue, we will contact you. In either case we commit to working with you to resolve any issues.

We at TACC look forward to working with XSEDE to advance the mission of XSEDE and the NSF in advancing the nation's research capability.

Sincerely,



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