

**XSEDE Technology Insertion Service  
Technology Evaluation Report**

**October 22, 2013**

**Document XSEDE-TIS-Eval-2013-001-HPNSSH.docx  
HPN-SSH Evaluation**

**Report**

The TIS evaluation team performed an evaluation of the HPN-SSH patch set for OpenSSH.

The HPN-SSH patches that provide increased OpenSSH network performance through various methods while still retaining compatibility with non-patched OpenSSH clients and servers. Increased performance is achieved through buffer size increases as well as user defined ciphers.

We tested for compatibility, and data transfer performance. Compatibility testing was done with non-patched OpenSSH clients and servers. The data transfer performance tests were conducted via a high performance WAN link.

In our evaluation of HPN-SSH we encountered no compatibility issues. Additionally we were able to observe increased network performance, the most of which occurred when disabling the cipher used to encrypt the data transfer. The evaluation team concludes that HPN-SSH is a reliable way to increase SSH network performance.