



March 27, 2013

## **Extreme Networks BlackDiamond X8 Provides 40GbE Network for National Center for Supercomputing Application (NCSA)'s 'Blue Waters' Petascale Supercomputer**

SANTA CLARA, Calif., March 27, 2013 /PRNewswire/ -- Extreme Networks, Inc. (NASDAQ: EXTR) today announced that it is assisting the NCSA at the University of Illinois at Urbana-Champaign to power the Blue Waters petascale computing project that implements very high-speed network connectivity within the storage environment and externally with researchers across the nation. The Blue Waters supercomputer provides sustained performance of 1 petaFLOPS for a range of real-world science and engineering applications.

NCSA selected the [BlackDiamond® X8](#) switch from Extreme Networks to support the 25PB (petabytes) of disk storage transported by the Ethernet network. The system offers up to 1.1TBps of aggregate bandwidth over 40Gbps Ethernet featuring Extreme Networks BlackDiamond X8 at its core. Overall, the Blue Waters system connects 237 Cray XE6 cabinets using 380,000 AMD Opteron 6200 Series x82 processors and more than 30 cabinets of the Cray XK6 supercomputer with NVIDIA® Tesla™ GPU computing capabilities.

The Blue Waters project required the latest generation of performance, reliability, low latency and port density for 40 Gigabit Ethernet to enable scientists and engineers nationally to use the power of Blue Waters to tackle a wide range of challenging problems, from predicting the behavior of complex biological systems to simulating the evolution of the cosmos.

"We are using the 40Gbit Ethernet network from Extreme to provide access to all the data movement machines for the Blue Waters environment; there are 78 host connections for that purpose," said Michelle Butler, senior technical program manager for NCSA. "The BlackDiamond X8 switch has been successfully running the network without fail."

"The BlackDiamond X8 was an excellent choice for the Blue Waters supercomputing project, supporting the system's data transfer requirements at line rate through our resilient non-blocking architecture, making it a single-box solution that optimizes all ports in a mesh configuration," said David Ginsburg, CMO for Extreme Networks. "We are very proud that the NSCA has deployed our switch in an innovative project like Blue Waters where we could really show our performance and cost optimization."

The Extreme Networks BlackDiamond X8 switch offers 2.56Tbps per slot capacity and more than 20Tbps total switching capacity with 768 ports of line rate 10GbE or 192 ports of line rate 40GbE in a single chassis. According to Tim Boerner, senior network engineer for NCSA, the organization uses approximately 90 percent of the ports on the BlackDiamond switch. The switch prevents single points of failure in hardware components through isolated control and data planes, fully redundant 1+1 management modules, N+1 redundancy for the switching fabric, and N+1 redundancy at the fan level combined with dynamic temperature control.

### **About National Center for Supercomputing Applications**

The National Center for Supercomputing Applications (NCSA), located at the [University of Illinois at Urbana-Champaign](#), provides powerful computers and expert support that help thousands of scientists and engineers across the country improve our world. For more information, see [www.ncsa.illinois.edu](http://www.ncsa.illinois.edu).

### **About Extreme Networks, Inc.**

Extreme Networks is a technology leader in high-performance Ethernet switching for cloud, data center and mobile networks. Based in Santa Clara, CA, Extreme Networks has more than 6,000 customers in more than 50 countries. For more information, visit <http://extremenetworks.com>

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Except for the historical information contained herein, the matters set forth in this press release, including without limitation statements as to products and product features, are forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements speak only as of the date. Because such statements deal with future events, they are subject to risks and uncertainties, including network design and actual results of use of the product in different environments. We undertake no obligation to update the forward-looking information in this release. Other important factors which could cause actual results to differ materially are contained in the Company's 10-Qs and 10-Ks which are on file with the Securities and Exchange Commission. <http://www.sec.gov>

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