



For Immediate Release

New World Record Set for TCP Disk-to-Disk Bulk Transfer

Kirkland, WA – December 10, 2002. YottaYotta (www.yottayotta.com), the Yottabyte NetStorage™ Company, today announced a new world record for TCP disk-to-disk data transfer using the company's NetStorager® System. The bulk data transfer used a Storage Wide Area Network architecture consisting of conventional fiber channel over TCP/IP encapsulation. The record-breaking demonstration transferred 5 terabytes of data between Chicago, Illinois to Vancouver, British Columbia and Ottawa, Ontario, at a sustained average throughput of 11.1 gigabits per second. Peak throughput exceeded 11.6 gigabits per second. These results are more than 15-times faster than previous records for TCP transfer from disk-to-disk. The average utilization of available bandwidth was in excess of 93%, with available WAN bandwidth being the primary constraint on transmission. This record was achieved in conjunction with seven key partners: CANARIE, WestGrid, BCNET, StarLight, Netera Alliance, The Logistical Computing and Internetworking Laboratory at the University of Tennessee and The Physics Department at Carleton University.

“This is a new world record, equivalent to transferring all printed collections from the Library of Congress within two hours time,” said Wayne Karpoff, vice president and CTO for YottaYotta. “It’s proof that YottaYotta uniquely enables the global sharing of massive amount of information in ways that today’s business applications and recovery schemes require. Additionally, emerging GRID computing schemas will demand the type of data accessibility and transfer that YottaYotta is delivering today.”

Loop-back experiments were also conducted where data was transmitted “round-trip” from Vancouver to Chicago and then back to Vancouver again, a distance of approximately 6,214 miles or 10,000 kilometers. YottaYotta’s NetStorager System provides extra reliability and error correction services in addition to those provided by conventional TCP. The end result is a far greater assurance of data integrity than can be achieved with TCP alone.

YottaYotta’s achievement is unique in several ways.

1. YottaYotta has chosen to employ TCP transmission techniques to ensure that the target receives every single packet sent. Other transmission techniques, such as UDP, provide no such guarantee.
2. Data was both read and written onto physical media at both locations.
3. The NetStorager System demonstrated 93% sustained utilization of bi-directional bandwidth.
4. The total throughput for this trial was limited only by the available bandwidth on the test network, 12 gigabits per second.

YottaYotta provided the NetStorager System, the high-performance storage wide area network solution, and the overall project management for the collaborative test. CANARIE, BCNET, and StarLight contributed optical network infrastructure to the project. WestGrid, Netera Alliance, the Logistical Computing and Internetworking Laboratory at the University of Tennessee and the Department of Physics at Carleton University supported the project with WAN networking expertise and assisted in securing network infrastructure.

About YottaYotta

YottaYotta's NetStorager[®] System, the next generation storage solution, converges storage and communications technologies to enable globally networked, coherent storage. The YottaYotta distributed system architecture delivers continuous information access, while providing unprecedented levels of data protection. Operated and managed as a single entity, the NetStorager System improves operational costs and maximizes resource utilization through sharable infrastructure. YottaYotta's business solution enables the creation of differentiated value added services that can be managed, delivered and tracked on a subscriber basis. Founded in January 2000, YottaYotta[®] is privately funded with offices in Kirkland, WA; Edmonton, AB; and Boulder, CO.

About Project Partners

- CANARIE (www.canarie.ca) is Canada's advanced Internet development organization and a not-for-profit corporation supported by its members, project partners and the Federal Government.
- WestGrid (www.westgrid.ca) is an 8-institution project for high-performance computing and advanced visualization and collaboration in Western Canada
- BCNET (www.bc.net) is a non-profit society developing advanced Internet networks for education, health and research facilities in British Columbia.
- StarLight (www.startap.net/starlight) is an advanced optical infrastructure and proving ground for network services optimized for high-performance applications.
- Netera Alliance (www.netera.ca) is Alberta's not-for-profit corporation of universities, research institutions, government and private-sector companies developing advanced information infrastructure.
- The Logistical Computing and Internetworking Laboratory at the University of Tennessee (www.loci.cs.utk.edu) is devoted to information logistics in distributed compute systems and networks.
- The Physics Department at Carleton University (www.physics.carleton.ca) is a member of ATLAS, a Particle Physics Experiment at CERN that will require high bandwidth long distance data transfer capabilities.

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