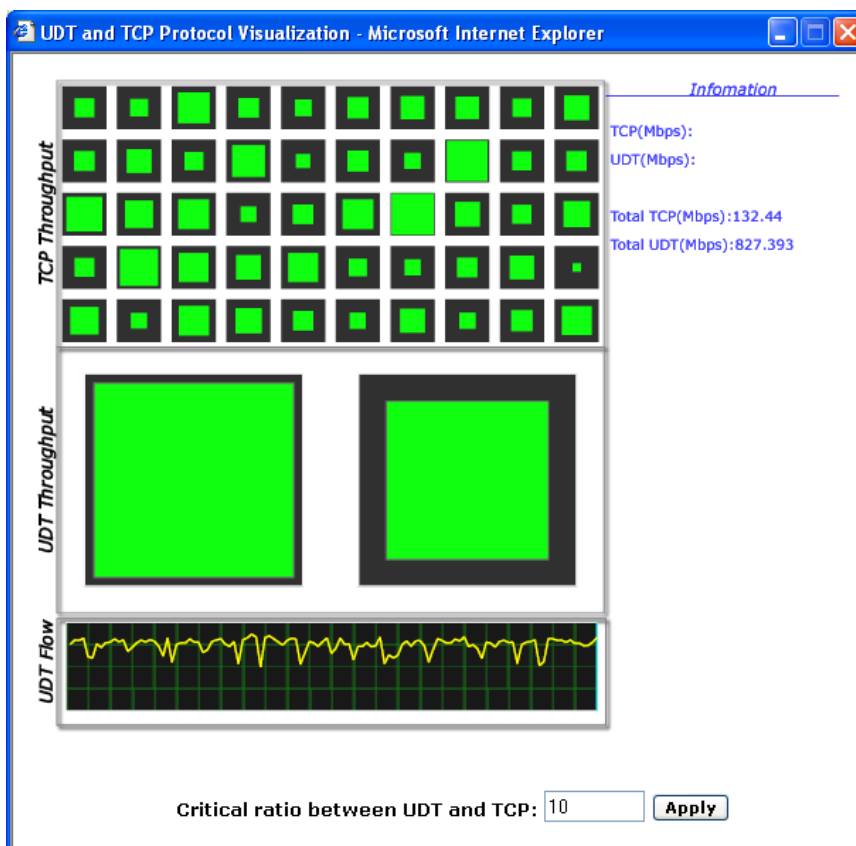


National Center for Data Mining at the University of Illinois at Chicago

The Laboratory for Advanced Computing and National Center for Data Mining at the University of Illinois at Chicago recently released Version 1.1 of the UDP-based Data Transfer Protocol or UDT.

- UDT is an open source library that is freely available for use by both the academic and commercial communities. The source code can be found at sourceforge.net/projects/dataspace.
- An NS-2 simulation is available from the DataSpace Source Forge project also.
- A multi-stream aggregated version of UDT recently moved 1.4 terabytes of data from Amsterdam to Chicago in 30 minutes.
- A single stream version of UDT was tested by the University of Amsterdam at 5.4 Gb/s.
- Experimental studies and simulations have demonstrated the friendliness of UDT with hundreds of concurrent TCP flows and its fairness with dozens of concurrent UDT flows.
- An RFC draft was recently submitted to the IETF
- UDT can be used as the network transport layer to support high performance web services such as Open DMIX. UDT is also a layer in the Photonic Data Services stack, which provides high performance data services for lambda grids, such as the OptIPuter.



Caption. A performance analysis of the UDT protocol using the Tera Wide Data Mining Grid Testbed. The chart shows the bandwidth of two UDT flows and 50 TCP flows over a 1 Gb/s route between StarLight in Chicago and SARA in Amsterdam (110 ms RTT). The aggregate bandwidth is 959 Mb/s. Two high performance UDT streams are sharing about 827 Mb/s of aggregate bandwidth, illustrating the intra-protocol fairness of UDT. Over the same link, 50 TCP streams are sharing an aggregate bandwidth of about 132 Mb/s, illustrating the TCP friendliness of UDT. A single UDT flow over a 1 Gb/s link can move data at over 950 Mb/s. For more information, see www.ncdm.uic.edu.