BoF Report for "The UDT Forum: A Community for UDT Developers and Users"
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The UDT BoF at SC13 consisted of a short presentation of the current state and future roadmap of UDT and UDT-based applications followed by a lively discussion. The presentation included information about our tuning experiences with UDT over the last year. For example, the fact that CPU clock scaling has a pretty large affect on the performance of UDT, in our tests we found it reduced the performance by half. Therefore, we recommend turning it off when maximum performance is required. We described several new features of UDR, which is a lightweight wrapper around rsync which allows it to use UDT. More information, including the source, for UDT can be found at: https://github.com/LabAdvComp/UDR. UDR now has rsync-like server capabilities and is being used in several production systems. We also described a new tool called "udpipe" which functions like netcat, but uses UDT and also has encryption capabilities built in. This includes new multi-threaded encryption to improve performance. The udpipe code and information is also hosted on our github site: https://github.com/LabAdvComp/udpipe. We then presented a roadmap for testing and improving UDT on 40G and 100G paths.

After the presentation, the discussion began with users describing how they use UDT, the issues they've faced and what features/improvements would be most helpful for their applications. Many agreed that continuing to improve tools like UDR and udpipe that make it easier for non-programmers to utilize UDT is important for its adoption. Another major topic was that while UDT is proven to work well over wide-area 10G paths, it is not clear how it performs over wide-area 40G and 100G paths. The network engineers in the room agreed to follow up on creating a testbed for this purpose. Finally, there was the suggestion that this BoF can be expanded for SC14 to generally cover transport protocols for large quantities of data over high-performance wide-area networks.