



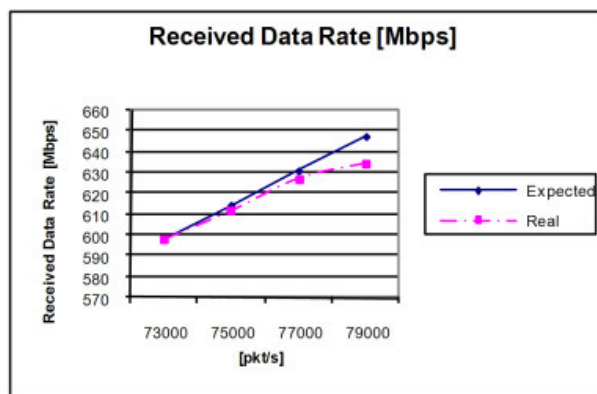
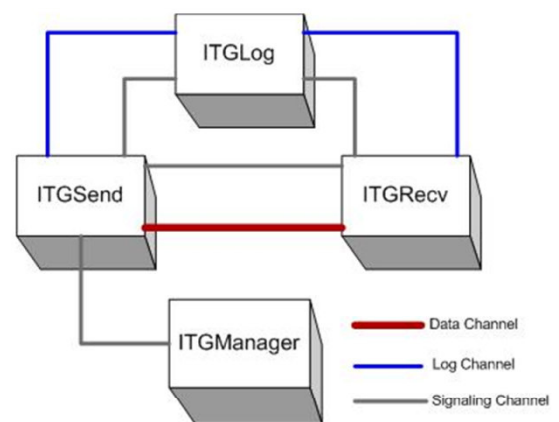
D-ITG Distributed Internet Traffic Generator

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<http://www.grid.unina.it/software/ITG>

Distributed Internet Traffic Generator (D-ITG) is a platform capable to produce IPv4/IPv6 traffic (network, transport and application layer) accurately replicating appropriate stochastic processes for both IDT (Inter Departure Time) and PS (Packet Size) random variables. D-ITG is conceived to be used as a distributed active measurement tool, able to perform measurements of **One-way-delay** (OWD), **round-trip-time** (RTT), **packet loss rate**, **jitter**, and **throughput** using the various platform components: (i) sender; (ii) receiver; (iii) decoder; (iv) log server.

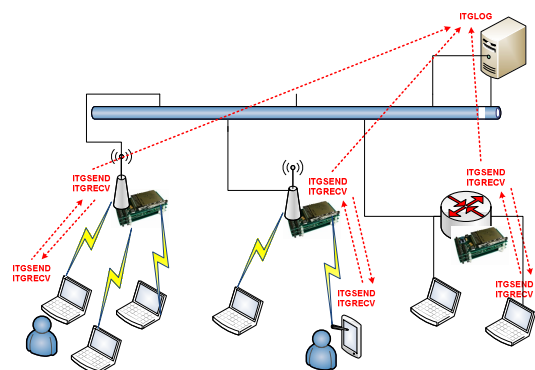
Some features

- Protocols supported : **TCP, UDP, ICMP, SCTP, and DCCP**
- Application layer protocols statistically replicated at packet level: Telnet, VoIP (G.711, G.723, G.729, Voice Activity Detection, Compressed RTP), DNS, network games...
- **TOS** (DS) and **TTL** IP header fields are settable
- Logs can be stored locally on *sender, receiver*, or remotely to a *log server* (useful for devices with limited storage as PDAs, Palmtops, Network Processors, etc.)



D-ITG is able to reach the highest (receiver and sender) data rates among opensource software traffic generators. For example, with two Linux boxes connected with a Gb Ethernet the maximum achieved data rate is **612 Mbps**.

A multithread implementation of D-ITG is currently available for **Linux, Windows, Linux Familiar, Snapgear, Montavista** platforms, able to run on x86 architectures, ARM based palmtops, and Intel IXP network processors.



D-ITG is part of a more general research framework on Network Traffic Analysis. You can find more information on our site <http://www.grid.unina.it/Traffic>, from which our software is freely available.