

# TULIP Distance Calculation based on RTT

Extra

We began our analysis with the fixed alpha values, but now we are heading towards another dimension in TULIP which is calculating the distance based on the RTT's. We start our work by pinging each landmark to another landmark as we already have landmark latitudes and longitudes we can easily find the distance between the two. These results are in the form of tsv file containing the records for *landmark source* to *landmark destination* their *rtt* and *distance* an example of this file is given below

Landmark Source	Landmark Destination	RTT	Distance
icfamon.rl.ac.uk	csplanet02.cs-ncl.net	19.242	83.02
planetlab1.cs.vu.nl	csplanet02.cs-ncl.net	22.986	357.77
host4-plb.loria.fr	csplanet02.cs-ncl.net	33.77	548.47

After getting these results, I then edited the available schema of TULIP database and added a new table to cater for this change. The schema for new table is given below:

Field	Type	Null	Key	Default	Extra
ipv4Add_f	varchar (50)	YES		NULL	
ipv4Add_t	varchar (50)	YES		NULL	
rtt	varchar (50)	YES		NULL	
distance	varchar (50)	YES		NULL	

This table is then populated with recently collected data with the help of perl script "*rttdistinput.pl*" deployed at:

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/afs/slac.stanford.edu/package/pinger/tulip
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