get-servers.py v0.0.1

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Explanation

get-servers.py is a simple tool which can be used to select a server or many servers based on round-trip-delay (RTT) values received by exchanging Internet Control Message Protocol (ICMP) packets which are sent out by the system on which get-servers.py is executed.

As of now, get-servers.py will output a sorted list of 320 PlanetLab nodes based on the RTT values. ICMP belongs to the network layer and thus information gathered from RTT values at this layer could prove beneficial for topology related studies. When dealing with applications, it is preferred to use application layer RTT readings. For example, how long does it take to bind to a socket on the server?

The program only probes those nodes which are active or, more correctly, listed active and which respond within a time limit to the ICMP messages. A timeout of 3 seconds is used after which the program assumes the server is inactive or too slow. These features can always be changed according to the desired results.

About

get-servers.py was tested on Ubuntu 7.04 *Fiesty Fawn* using Python 2.5.1c1. The average running time for polling all 320 PlanetLab servers was 2.25 minutes of execution time. In the following page the results are presented based on the first 100 PlanteLab nodes.

get-servers.py is not available for download, but will be soon.

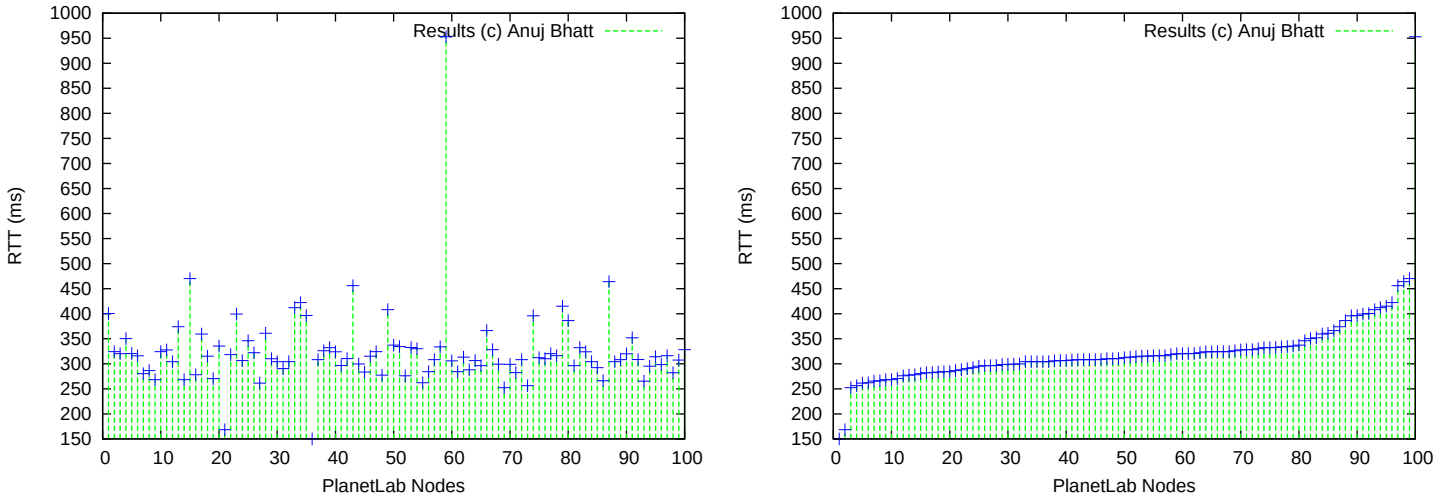

Figure 1: Basic function of get-servers.py shown here with the first 100 PlanetLab nodes. The Figure on the left indicates the RTT values for the nodes and is the input to the program. The Figure on the right is the output − a sorted list of nodes based on RTT values