

Network tomography is the problem of discovering the delay and loss rate of the internal links of a network, assuming the internal nodes are not cooperating. The first step to solving this problem is finding network topology. Well known tools such as traceroute solve this problem, however they depend on cooperation of the internal nodes.

This paper studies the problem of topology identification without relying on the cooperation of the internal nodes of the network. First, we suggest a novel probing scheme which is based on end-to-end unicast delay measurements. We then introduce a topology inference algorithm which uses the information from this probing scheme to find the topology of the network. Our experiments show that this approach improves the topology identification process compared to previous methods.