Public Review for  
Estimating Network Proximity and Latency  
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Given all the previous work, is there space for improvement in this problem? This paper shows that this is actually the case. First, Sharma et al. focus on a different version of the problem: what if a client wants to find out the nearest server that offers a certain service without knowing the actual IP addresses of the candidate servers? Second, even though their scheme, called Netvigator, requires some landmarks, they find a practical way to increase the set of nodes that are used as landmarks based on latency responses from the routers along the path to each landmark (the responses can be collected with a tool such as traceroute). This simple idea can have a major impact on accuracy, without requiring additional installed infrastructure in the form of more landmarks. The paper also presents interesting measurement results from two actual deployments, one over Planetlab and another over a large corporate intranet.

The reviewers were mostly positive about the paper and they liked the approach of using traceroute and router responses for expanding the latency information provided to the clustering algorithms. They also expressed some concerns, however, that the reader should be aware of. First, the comparison of Netvigator with GNP and Vivaldi may be unfair, to a certain degree, for the reason that Netvigator uses a larger number of effective landmarks (when we consider the router-milestones as landmarks). Similarly, the overhead comparisons are also not obvious, given that Netvigator introduces an indirect overhead due to router ICMP responses. Finally, the reviewers also pointed out that a comparison with Meridian would be more appropriate, as both Netvigator and Meridian take the approach of avoiding coordinate systems in order to find the closest server to a given node.

As it usually happens with problems that have already seen several possible solutions, a quantitative comparison with previous work is important, but also quite difficult. It is possible, in my opinion, that the solutions that eventually prevail in the field are not always the most accurate or elegant but those that satisfy the needs of actual applications in a practical way.

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