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A Real-Time Testbed for Routing Network

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Abstract

Existing network testbeds can enable developers to evaluate the performance of different routing protocols in a network and help students to enhance their hands-on experiences and understand complex and abstract concepts of routing protocols by allowing them to carry out real-world experiments, but they are either limited in features or expensive to establish and manage. To address the problem, this paper presents ARTNet - A Real-Time Testbed for Routing Network – which supports almost all the popular routing protocols for typical applications in a cost-effective manner. ARTNet has been implemented on a multiprocessor server for users to create and manage their routing networks. Performance and functionality evaluations on the ARTNet platform show that it is a promising approach.

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simulation is *used* to *perform large-scale routing experiments*, it is *hard* to *add* non-built-in traffic. 4. It should support **....** to text or command-line based methods. And it also helps to avoid *making* configuration mistakes. **..... *Petac* and *Musat* [*21*]** built a *platform* which *includes Cisco routers* and computers running GNU Zebra **...**

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