3rd International Conference on Advances in Computing, Communication, & Engineering (ICACCE-2016), Coastlands Umhlanga Hotel & Resorts, Durban, 28-29 November 2016

SDN-enabled dynamic WDM networks to address routing information inaccuracy

L. Ravhuanzwo, A. Lysko, T.Nyandeni Council for Scientific and Industrial Research Pretoria, South Africa {lravhuanzwo, alysko, tnyandeni}@csir.co.za

Abstract

Large dynamic wavelength-division multiplexed (WDM) networks based on the distributed control mechanism are susceptible to routing information inaccuracies. Factors such as non-negligible propagation delays, infrequent network state updates, and topology aggregation contribute to these inaccuracies. The focal point of this paper is on the routing inaccuracy caused by the frequency of link-state advertisements. This paper reviews some of the existing proposed solutions to address the routing inaccuracy problem, and proposes SDN as a promising candidate that can potentially minimise routing information inaccuracy to improve blocking performance.