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Butterfly traffic pattern in selection algorithm on Hierarchical Torus Network (Conference Paper)

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Abstract

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A Hierarchical Torus Network (HTN) is a 2D-torus network of multiple basic modules, in which the basic modules are 3D-torus networks that are hierarchically interconnected for higher-level networks. The combination of link selection and channel selection (LS+CS) algorithm improves the dynamic communication performance of the HTN by efficient use of physical links and virtual channels. In this paper, we have evaluated the dynamic communication performances of an HTN is evaluated by using dimension-order routing and LS+CS algorithm under butterfly traffic pattern. It is found that the dynamic communication performance of an HTN using the LS+CS algorithm is better than when the dimension-order routing is used. © 2015 IEEE.

Author keywords

butterfly traffic pattern | dynamic communication performance | HTN | selection algorithm

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