

عنوان مقاله:

Traffic-Aware Selection Strategy for Application-Specific 3D NoC

محل انتشار:

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خلاصه مقاله:

Three-dimensional stacking of silicon layers is emerging as a promising solution to handle the design complexity and heterogeneity of Systems on Chips (SoCs). The use of Networks on Chips (NoCs) to connect components in a 3D chip is a necessity. NoC performance largely depends on the underlying deadlock-free and efficient routing algorithm. In this paper a novel selection strategy LATEX1, is proposed that can be used with any adaptive routing algorithm for specified applications on 2D or 3D topologies. The selection function, which decides the final output channel when a set of admissible output channels exist, is essential for an adaptive routing algorithm. The objective of the proposed selection strategy is to efficiently balance traffic load and reach better performance. Experimental results show that the proposed selection strategy applied to routing algorithm improves average delay and throughput

کلمات کلیدی:

3D, Networks on Chip, Application-Specific, Selection Strategy, Contention

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