Abstract

Network on Chips are a method of interconnecting Processing Elements, such as processors and communication controllers, through a high scalability interconnect architecture. Planning and implementing NoCs is a complex task, and simulating them at the RTL level is time consuming which has motivated the implementation of a big number of cycle accurate and behavioral simulators. In this paper, we join the effort of NoC simulation platform implementation and we introduce a high level NoC simulation platform that is based on Mathworks Simulink and the SimEvents discrete event simulation engine. We, then, model a 2D and a 3D mesh NoCs using this method and we evaluate their performances. The obtained results are, then, validated using the booksim2 cycle accurate NoC simulator.

References

1. Partha Pratim Pande, Cristian Grecu, Michael Jones, Andre Ivanov, and Resve Saleh.


Index Terms

Computer Science
Software Engineering

Keywords

2D, 3D NoC, Latency, Throughput