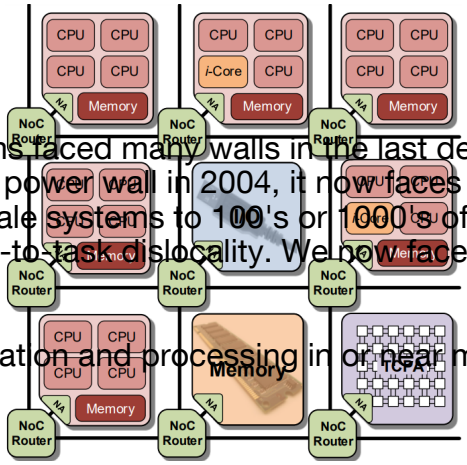
Chair for Integrated Systems
TUM Department of Electrical and Computer Engineering
Technical University of Munich

Master's Thesis

Simulator Support for Dynamic Data Migration

Description



Hitting a wall is not a pleasant thing. Computer systems faced many walls in the last decades.Being able to break the memory wall in the mid 90's and the power wall in 2004, it now faces the next crucial barrier for scalabilty. Although being able to scale systems to 100's or 1000's of cores through NoCs, performance doesn't scale due to data-to-task dislocality. We now face the locality wall.

The newest trend to tackle this issue is data-task migration and processing in or near memory.

Goal

The goal of this project is to implement dynamic data migration into a trace-based simulator and to evaluate its potential.

Prerequisites

To successfully complete this project, you should already have the following skills and experiences.

- Very good programming skills in C++ or SystemC
- Good comprehension of a complex system
- Very good knowledge about hardware development.

Contact

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