

Paper: Traffic Management: A Holistic Approach to Memory Placement on NUMA System

This paper shows what is the largest overhead in modern NUMA system and how to solve it with Carrefour. This paper shows that in modern NUMA system, remote memory access impacts less than 20% comparing with local memory access. However, congestion in interconnect and memory controllers impacts more in modern NUMA system. Therefore, they used page re-location, interleaving, and replication policies and enable/disable those policy only in particular situation. By using Carrefour they can reduce imbalance. By this paper, researchers not only consider increasing local access ratio, but also consider the congestion which dramatically impacts to performance in modern NUMA system.