-Week 10-

2019710305

이호영

1. Traffic Management: A Holistic Approach to Memory Placement on NUMA Systems

The modern NUMA architecture has congestion on memory controllers and interconnects problem, caused by data-intensive application. This require new technique beyond locality optimization. So, This paper proposes a novel meory placement algorithms, called Carrefour, that address this problem. The Carrefour improves performance of up to 3.6X relative to the Linux kernel on NUMA. But, I think that the Carrerfour needs to be added locality optimization strategy.

2. Regularities Considered Harmful: Forcing Randomness to Memory Accesses to Reduce Row Buffer Conflicts for Multi-Core, Multi-Bank Systems

This paper proposes a new kernel-level memory allocator, called M3. The M3 has two features for the scalable memory allocation. First, The M3 introduces a memory container that is the granularity of memory allocation assigning a the minimum number of page frames to each core to parallelize memory allocation. Second, The M3 manage page frame allocation so that each pages are allocated randomly. that helps reducing inter-thread access interference on the row buffer. I think that the M3 could increase time to access page frame because of his random allocation characteristic. So, I want to propose scheme that can decrease access time.