

MEMORY MANAGEMENT SUPPORTING HUGE PAGES

ABSTRACT

Methods, systems, and apparatus for receiving a request to access, from a main memory, data contained in a first portion of a first page of data, the first page of data having a first page size; initiating a page fault based on determining that the first page of data is not stored in the main memory; allocating a portion of the main memory equivalent to the first page size; transferring the first portion of the first page of data from the secondary memory to the allocated portion of the main memory without transferring the entire first page of data; and updating a first page table entry associated with the first portion of the first page of data to point to a location of the allocated portion of the main memory to which the first portion of the first page of data is transferred.

FIG. 1