ABSTRACT

Embodiments of the present disclosure provide an address translation method, a rapid mapping table construction method, a device, a storage medium, and a program product. In an embodiment of the present disclosure, a first RMAP table adapted to an EPT is constructed, address information of a last-level page table entry corresponding to each of at least one GPA in the EPT is stored in the first RMAP table, and a rapid mapping relationship between a GPA and an HPA is established based on the first RMAP table, to achieve rapid address translation from the GPA to the HPA. Furthermore, a second RMAP table is created for the EPT, and address translation information from at least one HPA to a corresponding GPA is stored in the second RMAP table, to establish a rapid mapping relationship between the HPA and the GPA, achieving rapid address translation from the HPA to the GPA. Bidirectional rapid mapping can be achieved based on the first RMAP table and the second RMAP table, improving address translation efficiency.

Fig. 1a