

OFFLOADING METHOD AND DEVICE FOR SHARED DIRECTORY FILE SYSTEM BETWEEN HOST AND VIRTUAL MACHINE

ABSTRACT

The present disclosure provides an offloading method and device for a shared directory file system
5 between a host and a virtual machine, and relates to the field of virtual machine technologies. The method
includes: offloading a VIRTIOFS process on a host to a DPU; establishing a DMA communication channel
through a DMA driver front-end controller configured in a first operating system in the host and a DMA driver
back-end controller configured in a second operating system in the DPU; and controlling, through the data
processing unit DPU, the VIRTIOFS process to communicate with a virtual machine deployed on the host
10 based on the DMA communication channel, to implement access to and data processing of the shared directory
file system. According to the present disclosure, the VIRTIOFS process and the shared directory file system
can be migrated from the host to the DPU, and the shared directory can be implemented through a direct
memory access technology, so that performance of the host and/or the virtual machine can be improved.

15 FIG. 4