ABSTRACT

A system and a method for managing a namespace of an offloading card and processing an input/output request. The system for managing the namespace of the offloading card (300) includes a host (301) and an offloading card (302) connected to the host (301), where the host (301) has multiple applications issuing an input/output request running thereon, and the host (301) sends a namespace creation request to the offloading card (302), the offloading card (302) creates corresponding multiple namespaces for the multiple applications according to the namespace creation request, the offloading card (302) allocates multiple hardware queues corresponding to the created multiple namespaces according to the namespace creation request and binds the allocated multiple hardware queues respectively to the corresponding namespaces; multiple namespaces can be created, and dedicated hardware queues can be dynamically allocated for respective namespaces, so that namespace resources in hardware level is achieved, an application can use its own corresponding hardware queue, the performance isolation capability and reliability of namespaces are greatly improved.

Fig. 3