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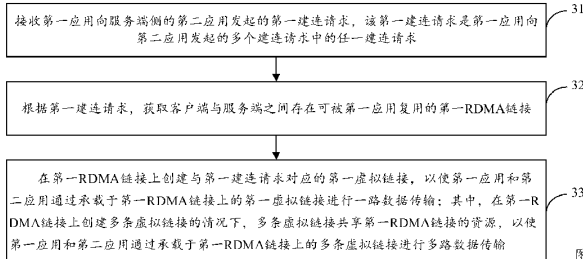
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(54) Title: RDMA-BASED LINK ESTABLISHMENT METHOD AND APPARATUS, AND DEVICE AND STORAGE MEDIUM

(54) 发明名称: 基于 RDMA 的建连方法、装置、设备及存储介质



31 Receive a first link establishment request that a first application initiates to a second application of a server side, wherein the first link establishment request is any one of a plurality of link establishment requests that the first application initiates to the second application

32 According to the first link establishment request, acquire a first RDMA link, which is present between a client and a server and can be multiplexed by the first application

33 Create, on the first RDMA link, a first virtual link corresponding to the first link establishment request, such that the first application and the second application perform one-path data transmission by means of the first virtual link borne on the first RDMA link, wherein when a plurality of virtual links are created on the first RDMA link, the plurality of virtual links share resources of the first RDMA link, such that the first application and the second application perform multi-path data transmission by means of the plurality of virtual links borne on the first RDMA link

图 3a

(57) Abstract: Provided in the embodiments of the present application are an RDMA-based link establishment method and apparatus, and a device and a storage medium. In the embodiments of the present application, for a scenario where a plurality of communication links are required to be established between upper-layer applications of two sides, i.e., a client and a server, virtual links are abstracted on an RDMA link, a plurality of virtual links are allowed to be created on one RDMA link, and the plurality of virtual links share resources of one RDMA link, such that the upper-layer applications of the two sides realize multi-path data transmission by means of the plurality of virtual links borne on the same RDMA link. In this way, not only can the problem of a plurality of communication links being required between the upper-layer applications of the two sides be solved, but the problem of RDMA link establishment being slow can also be avoided to a certain extent due to the same RDMA link bearing the plurality of virtual links to reduce the number of RDMA links, and particularly, when a relatively large number of links are required, the overall link establishment speed can be significantly increased.

(57) 摘要: 本申请实施例提供一种基于 RDMA 的建连方法、装置、设备及存储介质。在本申请实施例中, 针对客户端与服务端两侧上层应用之间需要建立多条通信链接的场景, 在 RDMA 链接之上抽象出虚拟链接, 允许在一条 RDMA 链接上创建多条虚拟连接, 多条虚拟链接共享一条 RDMA 链接的资源, 使得两侧上层应用通过承载于同一 RDMA 链接的多条虚拟链接实现多路数据传输, 这样既能解决两侧上层应用之间需要多条通信链接的问题, 又能因为同一 RDMA 链接会承载多条虚拟链接而减少 RDMA 链接的数量, 一定程度上规避了 RDMA 建连慢的问题, 尤其是在所需链接数量较多的情况下能够显著提高整体的建连速度。

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— 关于申请人有权要求在先申请的优先权(细则
4.17(iii))
本国际公布:
— 包括国际检索报告(条约第21条(3))。