



US 20230231914A1

(19) **United States**

(12) **Patent Application Publication**  
**Belkar et al.**

(10) **Pub. No.: US 2023/0231914 A1**

(43) **Pub. Date: Jul. 20, 2023**

(54) **DEVICES AND METHODS FOR REMOTE  
DIRECT MEMORY ACCESS**

(52) **U.S. Cl.**  
CPC ..... **H04L 67/1097** (2013.01)

(71) Applicant: **HUAWEI TECHNOLOGIES CO.,  
LTD.**, Shenzhen (CN)

(57) **ABSTRACT**

(72) Inventors: **Ben-Shahar Belkar**, Hod Hasharon  
(IL); **Dima Ruinskiy**, Hod Hasharon  
(IL); **Lior Khermosh**, Hod Hasharon  
(IL)

A requesting device includes a memory, a controller, and a communication interface. The memory is configured to store a plurality of work elements in one or more requesting queues. Each work element indicates a requestor, a responder, and an operation. The controller is configured to retrieve at least a first work element of the plurality of work elements from the memory, generate a first hint message that includes an indication of at least one operation of the first work element, and transmit the first hint message to a first responding device over the communication interface. The first responding device corresponds to a first responder of the first work element. The controller is further configured to transmit a first request relating to the at least one operation of the first work element to the first responding device over the communication interface. The first request indicates the at least one operation.

(21) Appl. No.: **18/178,355**

(22) Filed: **Mar. 3, 2023**

**Related U.S. Application Data**

(63) Continuation of application No. PCT/EP2020/  
074693, filed on Sep. 4, 2020.

**Publication Classification**

(51) **Int. Cl.**  
**H04L 67/1097** (2006.01)

