(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2024/0214345 A1**

Li et al. (43) **Pub. Date:** **Jun. 27, 2024**

(54) **MESSAGE FORWARDING AND DOMAIN NAME ADDRESS QUERYING**

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(21) Appl. No.: **17/755,187**

(22) PCT Filed: **Oct. 23, 2020**

(86) PCT No.: **PCT/CN2020/123378**

§ 371 (c)(1),
(2) Date: **Mar. 2, 2023**

(30) **Foreign Application Priority Data**

Oct. 25, 2019 (CN) 201911024527.7

Publication Classification

(51) **Int. Cl.**
H04L 61/4511 (2006.01)
H04L 61/25 (2006.01)

(52) **U.S. Cl.**
CPC **H04L 61/4511** (2022.05); **H04L 61/25** (2013.01)

(57) **ABSTRACT**

The present disclosure provides a message forwarding method and apparatus, a domain name address query method and apparatus, a network address translation device, and a computer-readable medium. The message forwarding method includes: receiving a first address query request for a target domain name sent by a client; if not finding the network address corresponding to the target domain name locally, sending a second address query request for the target domain name to a domain name system; receiving a second response message returned by the domain name system for the second address query request, which includes a first network address and address translation information; sending a first response message to the client; and after receiving a service message whose destination address is the first network address sent by the client, according to the address translation information, translating the destination address of the service message to the second network address, and sending the service message with the translated destination address to the target server. The method can realize the automatic operation and maintenance of the network address translation equipment and ensure the timely and accurate cross-protocol forwarding of network messages.

receiving a first address query request sent by a client for a target domain name, wherein the client uses a first Internet protocol, and a target server corresponding to the target domain name uses a second Internet protocol ⟶ S101

if a network address corresponding to the target domain name is not found locally, sending a second address query request for the target domain name to the domain name system ⟶ S102

receiving a second response message returned by the domain name system for the second address query request. The second response message records the first network address and the address translation information between the first network address and the second network address ⟶ S103

sending a first response message for the first address query request to the client, wherein the first response message includes the first network address ⟶ S104

receiving a service message with a destination address of the first network address sent by the client; translating, according to the address translation information, the destination address of the service message into the second network address; and sending the service message with the translated destination address to the target server ⟶ S105