US 20240214346A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2024/0214346 A1**

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

(54) **RESOLVING DOMAIN NAME SYSTEM (DNS) REQUESTS VIA PROXY MECHANISMS**

(71) Applicant: **Vercare, LLC**, Sterling, VA (US)

(72) Inventors: **Rodney Lance JOFFE**, Tempe, AZ (US); **David Link KING**, Cave Creek, AZ (US)

(73) Assignee: **Vercare, LLC**, Sterling, VA (US)

(21) Appl. No.: **18/535,480**

(22) Filed: **Dec. 11, 2023**

Related U.S. Application Data

(63) Continuation of application No. 17/937,937, filed on Oct. 4, 2022, now Pat. No. 11,902,243, which is a continuation of application No. 15/805,075, filed on Nov. 6, 2017, now Pat. No. 11,463,400.

(60) Provisional application No. 62/417,807, filed on Nov. 4, 2016.

Publication Classification

(51) **Int. Cl.**

H04L 61/4511	(2006.01)
H04L 61/4552	(2006.01)
H04L 61/59	(2006.01)
H04L 67/56	(2006.01)
H04L 101/618	(2006.01)

(52) **U.S. Cl.**

CPC ***H04L 61/4511*** (2022.05); ***H04L 61/4552*** (2022.05); ***H04L 61/59*** (2022.05); ***H04L 67/56*** (2022.05); *H04L 2101/618* (2022.05)

(57) **ABSTRACT**

Systems and methods are described herein for providing proxy mechanisms for DNS services, such as resolving DNS requests. In some embodiments, the systems and methods establish a Proxy DNS module at a DNS resolver of an internet service provider, and access, with the proxy DNS module, DNS queries destined for a public name server. The name server may be accessible by the DNS resolver via a publically-accessible network. Further, the systems and methods may route the accessed DNS queries to a private name server associated with the proxy DNS module and accessible via a private communications channel, and receive, from the private name server and via the private communications channel, IP addresses associated with the DNS queries.