

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2024/0214354 A1 Prodoehl et al.

(43) **Pub. Date:**

Jun. 27, 2024

(54) CONNECTION MANAGEMENT OVER RESTRICTED NETWORK

(71) Applicant: Connectify, Inc., Philadelphia, PA (US)

(72) Inventors: Brian Prodoehl, Plymouth Meeting, PA (US); Brian Lutz, Philadelphia, PA

(US); Kevin Cunningham,

Swarthmore, PA (US); Alexander Gizis,

Philadelphia, PA (US)

(21) Appl. No.: 18/600,038

(22) Filed: Mar. 8, 2024

Related U.S. Application Data

- (63) Continuation of application No. 18/198,271, filed on May 16, 2023, now Pat. No. 11,956,217, which is a continuation of application No. 17/848,558, filed on Jun. 24, 2022, now Pat. No. 11,689,504, which is a continuation of application No. 17/064,846, filed on Oct. 7, 2020, now Pat. No. 11,405,362.
- Provisional application No. 62/913,352, filed on Oct. 10, 2019.

Publication Classification

(51) Int. Cl. H04L 9/40

(2006.01)

U.S. Cl.

CPC H04L 63/0272 (2013.01); H04L 63/0428 (2013.01); **H04L 63/08** (2013.01)

(57)ABSTRACT

One example may include receiving data, via a client device, from a virtual private network (VPN) server over a first connection of a first network, sending a request sent outside the VPN server, via the client device, to access a second network detected by the client device while the client device is communicating with the VPN server over the first network, responsive to receiving a captive portal from the second network, forwarding, via the client device, authentication information over a second connection to the second network, and receiving additional data, by the client device, from the VPN server over the first connection provided by the first network and a second connection provided by the second network after the authentication information is approved.

