



US 20240214228A1

(19) **United States**(12) **Patent Application Publication**  
**Huntley**(10) **Pub. No.: US 2024/0214228 A1**(43) **Pub. Date: Jun. 27, 2024**(54) **BLOCKCHAIN BASED PUBLIC KEY  
INFRASTRUCTURE**(52) **U.S. Cl.**CPC ..... *H04L 9/50* (2022.05); *H04L 9/30*  
(2013.01); *H04L 9/3247* (2013.01)(71) Applicant: **VMware, Inc.**, Palo Alto, CA (US)(72) Inventor: **Sean James Huntley**, Sydney (AU)(21) Appl. No.: **18/087,437**(22) Filed: **Dec. 22, 2022****Publication Classification**(51) **Int. Cl.***H04L 9/00* (2006.01)*H04L 9/30* (2006.01)*H04L 9/32* (2006.01)(57) **ABSTRACT**

Disclosed are various embodiments for blockchain based public key infrastructure. A public key associated with a network address and an identifier of a certifying smart contract for a certifying entity associated with the public key can be obtained from an identity smart contract hosted by a blockchain network. Then, a certifying public key and a signature for the public key associated with the network address are obtained from the certifying smart contract. Subsequently, the signature of the public key associated with the network address can be verified using the certifying public key.

