

Time

Client

Server

public n , e
random x
 $m = \text{OAEP}(\text{H}(n, x) \parallel x)$
nonce r
 $\text{token} = m \cdot r^e$

token

price, addr

BTC

$\text{bond} = (m^d \cdot r) \cdot r^{-1} = m^d$

check bond:
 $(m^d)^e == m$
 $\text{OAEP}^{-1}(m) == \text{H}(n, x) \parallel x$

sign token: $(m \cdot r^e)^d$
 $\text{protobond} = m^d \cdot r$

protobond

bond, addr

REDEEMER

check bond:
 $(m^d)^e == m$
 $\text{OAEP}^{-1}(m) == \text{H}(n, x) \parallel x$
compare m vs. blacklist
add m to blacklist

BTC