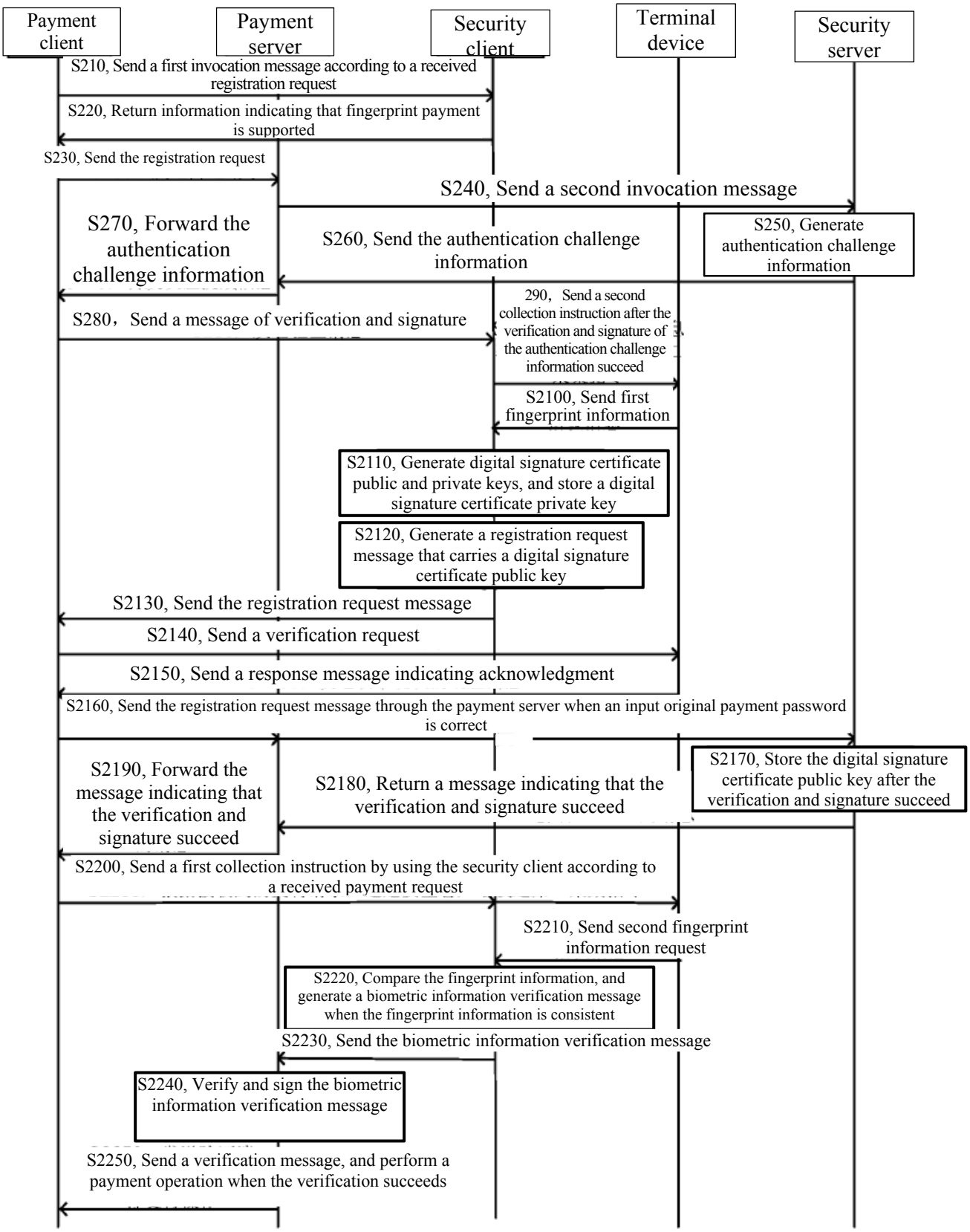
Payment client
Payment server
Security client
Terminal device
Security server
S210, Send a first invocation message according to a received registration request
S220, Return information indicating that fingerprint payment is supported
S230, Send the registration request
S240, Send a second invocation message
S270, Forward the authentication challenge information
S260, Send the authentication challenge information
S250, Generate authentication challenge information
290, Send a second collection instruction after the verification and signature of the authentication challenge information succeed
S280, Send a message of verification and signature
S2100, Send first fingerprint information
S2110, Generate digital signature certificate public and private keys, and store a digital signature certificate private key
S2120, Generate a registration request message that carries a digital signature certificate public key
S2130, Send the registration request message
S2140, Send a verification request
S2150, Send a response message indicating acknowledgment
S2160, Send the registration request message through the payment server when an input original payment password is correct
S2190, Forward the message indicating that the verification and signature succeed
S2180, Return a message indicating that the verification and signature succeed
S2170, Store the digital signature certificate public key after the verification and signature succeed
S2200, Send a first collection instruction by using the security client according to a received payment request
S2210, Send second fingerprint information request
S2220, Compare the fingerprint information, and generate a biometric information verification message when the fingerprint information is consistent
S2230, Send the biometric information verification message
S2240, Verify and sign the biometric information verification message
S2250, Send a verification message, and perform a payment operation when the verification succeeds

FIG. 2