Abbreviations
~X_1 = (hash(Client1(rpid_5,challenge_4)),senc(Auth1(username_5,rpid_5,skA_2),wk_2),HMACipinAuth_3,hash(Client1(rpid_5,challenge_4))))
~X_2 = (Auth2(h(rpid_5),aaguid_4,senc(Auth1(username_5,rpid_5,skA_2),wk_2),spk(skA_2)),sign(Auth3(Auth2(h(rpid_5),aaguid_4,senc(Auth1(username_5,rpid_5,skA_2),wk_2),spk(skA_2)),hash(Client1(rpid_5,challenge_4))),skA_2))
~X_3 = (Auth2(h(rpid_5),aaguid_4,senc(Auth1(username_5,rpid_5,skA_2),wk_2),spk(skA_2)),sign(Auth3(Auth2(h(rpid_5),aaguid_4,senc(Auth1(username_5,rpid_5,skA_2),wk_2),spk(skA_2)),hash(Client1(rpid_5,challenge_4))),skA_2),Client1(rpid_5,challenge_4))
~M_4 = h(rpid_5)
~M_5 = aaguid_4
~M_6 = senc(Auth1(username_5,rpid_5,skA_2),wk_2)
~M_7 = spk(skA_2)
~M_8 = sign(Auth3(Auth2(h(rpid_5),aaguid_4,senc(Auth1(username_5,rpid_5,skA_2),wk_2),spk(skA_2)),hash(Client1(rpid_5,challenge_4))),skA_2)
~M_9 = rpid_5
~M_10 = challenge_4
~X_4 = (Auth2(h(rpid_5),aaguid_4,senc(Auth1(username_5,rpid_5,skA_2),wk_2),spk(skA_2)),sign(Auth3(Auth2(h(rpid_5),aaguid_4,senc(Auth1(username_5,rpid_5,skA_2),wk_2),spk(skA_2)),hash(Client1(rpid_5,challenge_4))),skA_2),Client1(rpid_5,challenge_4))

A trace has been found.