Abbreviations
~X_1 = (a_4,discoveredParticipant,participant_data(~M_7, ~M_4,~M_10,discoveryRegister)) = (a_4,discoveredParticipant, participant_data(GUIDA_4,Topic_bd_4,QoSA_2,discoveryRegister))
~M_22 = sign_cert(GUIDA_4,pk(PrivKA_1),SN_CI,SK_CI)
~M_23 = sign_perm(GUIDA_4,DGA_1,PPA_1,SK_Perm)
~M_24 = GUIDA_4
~M_25 = Topic_bd_4
~M_26 = QoSA_2
~M_27 = discoveryRegister
~M_28 = ID_G
~M_29 = DH_RSA
~M_30 = SHA256
~M_31 = hash(SHA256,Clist2bit(make_C_list(sign_cert(GUIDA_4,pk(PrivKA_1),SN_CI,SK_CI),sign_perm(GUIDA_4, DGA_1,PPA_1,SK_Perm),participant_data(GUIDA_4, Topic_bd_4,QoSA_2,discoveryRegister),make_algo(ID_G,DH_RSA),SHA256)))
~M_32 = ChallengeA_5
~M_33 = dh_pub(ID_G,dh_k(s_5))
~X_2 = (a_5,discoveredParticipant,participant_data(~M_7, ~M_4,~M_10,discoveryRegister)) = (a_5,discoveredParticipant, participant_data(GUIDA_4,Topic_bd_4,QoSA_2,discoveryRegister))
~M_34 = sign_cert(GUIDA_4,pk(PrivKA_1),SN_CI,SK_CI)
~M_35 = sign_perm(GUIDA_4,DGA_1,PPA_1,SK_Perm)
~M_36 = GUIDA_4
~M_37 = Topic_bd_4
~M_38 = QoSA_2
~M_39 = discoveryRegister
~M_40 = ID_G
~M_41 = DH_RSA
~M_42 = SHA256
~M_43 = hash(SHA256,Clist2bit(make_C_list(sign_cert(GUIDA_4,pk(PrivKA_1),SN_CI,SK_CI),sign_perm(GUIDA_4, DGA_1,PPA_1,SK_Perm),participant_data(GUIDA_4, Topic_bd_4,QoSA_2,discoveryRegister),make_algo(ID_G,DH_RSA),SHA256)))
~M_44 = ChallengeA_6
~M_45 = dh_pub(ID_G,dh_k(s_6))
~X_3 = (make_C_list(~M_22,~M_23,participant_data(~M_7, ~M_4,~M_10,discoveryRegister),make_algo(ID_G,DH_RSA), SHA256),hash(SHA256,Clist2bit(make_C_list(~M_22, ~M_23,participant_data(~M_7,~M_4,~M_10,discoveryRegister), make_algo(ID_G,DH_RSA),SHA256))),~M_44,~M_45) = (make_C_list(sign_cert(GUIDA_4,pk(PrivKA_1),SN_CI, SK_CI),sign_perm(GUIDA_4,DGA_1,PPA_1,SK_Perm), participant_data(GUIDA_4,Topic_bd_4,QoSA_2,discoveryRegister), make_algo(ID_G,DH_RSA),SHA256),hash(SHA256,Clist2bit(make_C_list(sign_cert(GUIDA_4,pk(PrivKA_1),SN_CI, SK_CI),sign_perm(GUIDA_4,DGA_1,PPA_1,SK_Perm), participant_data(GUIDA_4,Topic_bd_4,QoSA_2,discoveryRegister), make_algo(ID_G,DH_RSA),SHA256))),ChallengeA_6, dh_pub(ID_G,dh_k(s_6)))

A trace
has been found.