Abbreviations
~X_1 = Request(Header(~M_14732,~M_14733,~M_14734,~M_14735, ~M_14736),~M_14725,CoAP_Option_OSCORE(~M_14729, ~M_14730,~M_14731),payload_from_ciphertext(~M_14728)) = Request(Header(CoAP_versionOne,CoAP_nonConfirm, CoAP_tokenLength(token_12949),CoAP_GETCode,messageID_12950), token_12949,CoAP_Option_OSCORE(partial_iv_12946, IDir_12942,idcontext_12945),payload_from_ciphertext(enc_COSE_ciphertext(toKey(HKDF(msecret_12943,msalt_12944, info(IDir_12942,idcontext_12945,default_aead_algorithm, label_key),alg_key_length(default_aead_algorithm, label_key))),aead_nonce(IDir_12942,toIV(HKDF(msecret_12943, msalt_12944,info(emptyId,idcontext_12945,default_aead_algorithm, label_iv),alg_key_length(default_aead_algorithm, label_iv))),partial_iv_12946),(CoAP_POSTCode,payload_12951), AAD(encrypt0_context,encrypt0(oscore_version_one, default_aead_algorithm,IDir_12942,partial_iv_12946)))))
~X_2 = Request(Header(a_12934,a_12935,a_12936,a_12937, a_12938),a_12939,CoAP_Option_OSCORE(~M_14729,~M_14730, ~M_14067),payload_from_ciphertext(~M_14728)) = Request(Header(a_12934,a_12935,a_12936,a_12937, a_12938),a_12939,CoAP_Option_OSCORE(partial_iv_12946, IDir_12942,idcontext_12945),payload_from_ciphertext(enc_COSE_ciphertext(toKey(HKDF(msecret_12943,msalt_12944, info(IDir_12942,idcontext_12945,default_aead_algorithm, label_key),alg_key_length(default_aead_algorithm, label_key))),aead_nonce(IDir_12942,toIV(HKDF(msecret_12943, msalt_12944,info(emptyId,idcontext_12945,default_aead_algorithm, label_iv),alg_key_length(default_aead_algorithm, label_iv))),partial_iv_12946),(CoAP_POSTCode,payload_12951), AAD(encrypt0_context,encrypt0(oscore_version_one, default_aead_algorithm,IDir_12942,partial_iv_12946)))))
~X_3 = Request(Header(a_12934,a_12935,a_12936,a_12937, a_12938),a_12939,CoAP_Option_OSCORE(~M_14729,~M_14730, ~M_14067),payload_from_ciphertext(~M_14728)) = Request(Header(a_12934,a_12935,a_12936,a_12937, a_12938),a_12939,CoAP_Option_OSCORE(partial_iv_12946, IDir_12942,idcontext_12945),payload_from_ciphertext(enc_COSE_ciphertext(toKey(HKDF(msecret_12943,msalt_12944, info(IDir_12942,idcontext_12945,default_aead_algorithm, label_key),alg_key_length(default_aead_algorithm, label_key))),aead_nonce(IDir_12942,toIV(HKDF(msecret_12943, msalt_12944,info(emptyId,idcontext_12945,default_aead_algorithm, label_iv),alg_key_length(default_aead_algorithm, label_iv))),partial_iv_12946),(CoAP_POSTCode,payload_12951), AAD(encrypt0_context,encrypt0(oscore_version_one, default_aead_algorithm,IDir_12942,partial_iv_12946)))))
~X_4 = Request(Header(~M_16667,~M_16668,~M_16669,~M_16670, ~M_16671),~M_16660,CoAP_Option_OSCORE(~M_16664, ~M_16665,~M_16666),payload_from_ciphertext(~M_16663)) = Request(Header(CoAP_versionOne,CoAP_nonConfirm, CoAP_tokenLength(a_12939),CoAP_CHANGEDCode,responseMessageId_16655), a_12939,CoAP_Option_OSCORE(emptyIv,emptyId,emptyIdC), payload_from_ciphertext(enc_COSE_ciphertext(toKey(HKDF(msecret_12943,msalt_12944,info(IDri_12941, idcontext_12945,default_aead_algorithm,label_key), alg_key_length(default_aead_algorithm,label_key))), aead_nonce(IDir_12942,toIV(HKDF(msecret_12943, msalt_12944,info(emptyId,idcontext_12945,default_aead_algorithm, label_iv),alg_key_length(default_aead_algorithm, label_iv))),partial_iv_12946),(generateResponseCode(CoAP_POSTCode,payload_12951),generateResponsePayload(CoAP_POSTCode,payload_12951)),AAD(encrypt0_context, encrypt0(oscore_version_one,default_aead_algorithm, IDri_12941,partial_iv_12946)))))

A trace has been found.