Abbreviations  $\sim$ M 27 = VERSION  $\sim$ M 28 = CHALLENGE AUTH

~M\_29 = extLSB(hash(cert(IDPTx,spk(sskPTx),sign(( IDPTx,spk(sskPTx)),sskCA\_1))))

~M\_30 = sign((hash(cert(IDPTx,spk(sskPTx),sign((IDPTx, spk(sskPTx)),sskCA\_1))),VERSION,CHALLENGE,nonce\_1, VERSION, CHALLENGE\_AUTH, extLSB (hash(cert(IDPTx,

sskPTx)  $\sim$ X\_1 = (VERSION,CHALLENGE\_AUTH,extLSB( $\sim$ M\_23), $\sim$ M\_30)

spk(sskPTx),sign((IDPTx,spk(sskPTx)),sskCA\_1))))),

A trace has been found.

(VERSION, CHALLENGE\_AUTH, extLSB (hash (cert(IDPTx, spk(sskPTx),sign((IDPTx,spk(sskPTx)),sskCA\_1)))), sign((hash(cert(IDPTx,spk(sskPTx),sign((IDPTx, spk(sskPTx)),sskCA\_1))),VERSION,CHALLENGE,nonce\_1, VERSION, CHALLENGE\_AUTH, extLSB (hash(cert(IDPTx, spk(sskPTx),sign((IDPTx,spk(sskPTx)),sskCA\_1))))), sskPTx))

