Abbreviations
$\sim$ M_4924 = a1_4785
$\sim$ M_4926 = a2_4778
$\sim$ M_4927 = emptyset
~M_4922 = cellidSource_4783
~M_4923 = cellidTarget_4887
~M_5044 = sign((kdf(cellidSource_4783,kdf(cellidSource_4783,

keyAKA\_4784)),consset(a1\_4785,consset(a2\_4778,

A trace has been found.

emptyset))),skSE\_4786) **Honest Process** Attacker {1}new a1\_4785 {2}new a2\_4778 {3}new keyAKA\_4784 {4}new skSE\_4786 {5}new skTE\_4779 {6}new skMME\_4787 {10}new cellidSource\_4783 {11}new cellidTarget\_4887 (consset(~M\_4924,consset(~M\_4926,~M\_4927)),~M\_4922, ~M\_4923) Beginning of process UE(consset(a1\_4785,consset(a2\_4778,emptyset)), kdf(cellidSource\_4783,keyAKA\_4784), cellidSource\_4783) Beginning of process SeNodeB(consset(a1\_4785,consset(a2\_4778,emptyset)), kdf(cellidSource\_4783,keyAKA\_4784), cellidSource\_4783, skSE\_4786, spk(skTE\_4779)) {17}new radioSignal\_4781 {18}new PCI\_4782 Beginning of process TeNodeB(cellidTarget\_4887, kdf(cellidSource\_4783,keyAKA\_4784), skTE\_4779, spk(skSE\_4786), spk(skMME\_4787))

Beginning of process MME(kdf(kdf(kdf(cellidSource\_4783, keyAKA\_4784), keyAKA\_4784), keyAKA\_4784), keyAKA\_4784), keyAKA\_4784), skMME\_4787, spk(skTE\_4779)) {19}event UESendsMeasurementReport(radioSignal\_4781, PCI\_4782)  $(\sim M_5017, \sim M_5018) = (radioSignal_4781, PCI_4782)$ (a\_4777,a\_4776) {30} event SNSendsHORequiredToTE(cellidSource\_4783) {32}event kenbstarSE(kdf(cellidSource\_4783,kdf(cellidSource\_4783,kdf(cellidSource\_4784))) ~M\_5044 ~M\_5044 [48] event TNReceivesHORequestFromSE(cellidTarget\_4887) {49}event kenbstarTE(kdf(cellidSource\_4783,kdf(cellidSource\_4783,kdf(cellidSource\_4784)))  $\sim$ M\_5099 = sign((a2\_4778,hndCMD),\$kTE\_4779)  $\sim$ M\_5099 = sign((a2\_4778,hndCMD),skTE\_4779) ~M\_5111 = sign((kdf(cellidSource\_4783,kdf(cellidSource\_478\beta, keyAKA\_4784)),hndCMDACK),skSE\_4786) okHandover [40] event SNReceivesHOCommandFromTE(a2\_4778)  $\sim$ M\_5117 = a2\_4778 {42}new snTransfer\_4780 {43}event startTransfer(snTransfer\_4780)