Abbreviations

-M_5310 = a1_4614

-M_5312 = a2_4615

-M_5313 = emptyset

-M_5308 = cellidSource_4609

-M_5309 = cellidTarget_4756

-M_5640 = sign((consset(a1_4614,consset(a2_4615, emptyset)),kdf(kdf(kdf(cellidSource_4609,keyAKA_4610), keyAKA_4610),keyAKA_4610),cellidSource_4609),skMME_4616)

Honest Process Attacker {1}new a1_4614 {2}new a2_4615 {3}new keyAKA_4610 {4}new skSE_4613 {5}new skTE_4617 {6}new skMME_4616 {10}new cellidSource_4609 {11}new cellidTarget_4756 (consset(~M_5310,consset(~M_5312,~M_5313)),~M_5308, ~M_5309) Beginning of process UE(consset(a1_4614,consset(a2_4615,emptyset)), kdf(kdf(kdf(cellidSource_4609,keyAKA_4610),keyAKA_4610),keyAKA_4610), cellidSource_4609) Beginning of process UE(consset(a1_4614,consset(a2_4615,emptyset)), kdf(kdf(kdf(cellidSource_4609,keyAKA_4610),keyAKA_4610),keyAKA_4610), cellidSource_4609) Beginning of process MME(consset(a1_4614,consset(a2_4615,emptyset)), kdf(kdf(kdf(cellidSource_4609, keyAKA_4610),keyAKA_4610),keyAKA_4610), skMME_4616, spk(skSE_4613), spk(skTE_4617)) Beginning of process TeNodeB(cellidTarget_4756, skTE_4617, spk(skMME_4616), spk(skSE_4613))

Beginning of process TeNodeB(cellidTarget_4756, skTE_4617, spk(skMME_4616), spk(skSE_4613)) Beginning of process SeNodeB(cellidSource_4609, skSE_4613, spk(skMME_4616))

Beginning of process SeNodeB(cellidSource_4609, skSE_4613, spk(skMME_4616)) {18}new radioSignal_4981 {18}new radioSignal_5511 {19}new PCI_5512 {19}new PCI_4982 {20}event UESendsMeasurementReport(radioSignal_5511, PCI_5512) {20}event UESendsMeasurementReport(radioSignal_4981, PCI_4982) $(\sim M_5515, \sim M_5516) = (radioSignal_5511, PCI_5512)$ $(\sim M_5519, \sim M_5520) = (radioSignal_4981, PCI_4982)$ a_4603 {23}event UEReceivesHOComand(a_4603) {23}event UEReceivesHOComand(a_4603) (a_4605,a_4604) {32}new targetCellID_4612 {33}new handoverType_4611 {35}event SNSendsHORequiredToMME(targetCellID_4612) ~M_5554 = sign((handoverType_4611,targetCellID_4612, cellidSource_4609),skSE_4613) $(a \perp 4605, a \perp 4604)$ {32}new targetCellID_5120 {33}new handoverType_5119 {35}event SNSendsHORequiredToMME(targetCellID_5120) ~M_5578 = sign((handoverType_5119,targetCellID_5120, cellidSource_4609),skSE_4613) ~M_5578 = sign((handoverType_5119,targetCellID_5120, cellidSource_4609),skSE_4613) {67}event kenbstarMME(kdf(cellidSource_4609,kdf(kdf(kdf(cellidSource_4609,keyAKA_4610),keyAKA_4610), keyAKA_4610))) ~M_5640 ~M_5640 [49] event TNReceivesHORequestFromMME(cellidSource_4609) {52}event kenbstarTE(kdf(cellidSource_4609,kdf(kdf(kdf(cellidSource_4609,keyAKA_4610),keyAKA_4610), keyAKA_4610))) \sim M_5689 = sign((a1_4614,cellidSource_4609,cellidTarget_4 † 56), skTE_4617) [49] event TNReceivesHORequestFromMME(cellidSource_4609) {52}event kenbstarTE(kdf(cellidSource_4609,kdf(kdf(kdf(cellidSource_4609,keyAKA_4610),keyAKA_4610), keyAKA_4610)))