

Abbreviations
$\sim X\_1 = (\sim M\_1, \sim M\_2, \sim M\_3) = \text{choice}[(\text{attvid\_12}, \text{attsk\_12}, \text{cert}(\text{attvid\_12}, \text{pk}(\text{attsk\_12}), \text{cask\_12})), (\text{attvid\_13}, \text{attsk\_13}, \text{cert}(\text{attvid\_13}, \text{pk}(\text{attsk\_13}), \text{cask\_13}))]$
$\sim M\_5 = \text{choice}[\text{aenc}(\text{groupkey\_request}, \text{sign}(\text{groupkey\_request}, \text{vsk\_25}), \text{cert}(\text{vid\_61}, \text{pk}(\text{vsk\_25}), \text{cask\_12})), \text{pk}(\text{cask\_12}))], \text{aenc}(\text{groupkey\_request}, \text{sign}(\text{groupkey\_request}, \text{vsk\_26}), \text{cert}(\text{vid\_62}, \text{pk}(\text{vsk\_26}), \text{cask\_13})), \text{pk}(\text{cask\_13}))]$
$\sim M\_7 = \text{choice}[\text{aenc}(\text{groupkey\_request}, \text{sign}(\text{groupkey\_request}, \text{vsk\_24}), \text{cert}(\text{vid\_60}, \text{pk}(\text{vsk\_24}), \text{cask\_12})), \text{pk}(\text{cask\_12}))], \text{aenc}(\text{groupkey\_request}, \text{sign}(\text{groupkey\_request}, \text{vsk\_27}), \text{cert}(\text{vid\_63}, \text{pk}(\text{vsk\_27}), \text{cask\_13})), \text{pk}(\text{cask\_13}))]$
$\sim M\_8 = \text{choice}[\text{aenc}(((\text{groupkey\_response}, \text{vid\_61}, \text{gsk}(\text{vid\_61}, \text{gmsk\_12}), \text{gpk}(\text{gmsk\_12})), \text{sign}((\text{groupkey\_response}, \text{vid\_61}, \text{gsk}(\text{vid\_61}, \text{gmsk\_12}), \text{gpk}(\text{gmsk\_12})), \text{cask\_12})), \text{pk}(\text{vsk\_25})), \text{aenc}(((\text{groupkey\_response}, \text{vid\_62}, \text{gsk}(\text{vid\_62}, \text{gmsk\_13}), \text{gpk}(\text{gmsk\_13})), \text{sign}((\text{groupkey\_response}, \text{vid\_62}, \text{gsk}(\text{vid\_62}, \text{gmsk\_13}), \text{gpk}(\text{gmsk\_13})), \text{cask\_13})), \text{pk}(\text{vsk\_26})))]$

A trace has been found.

