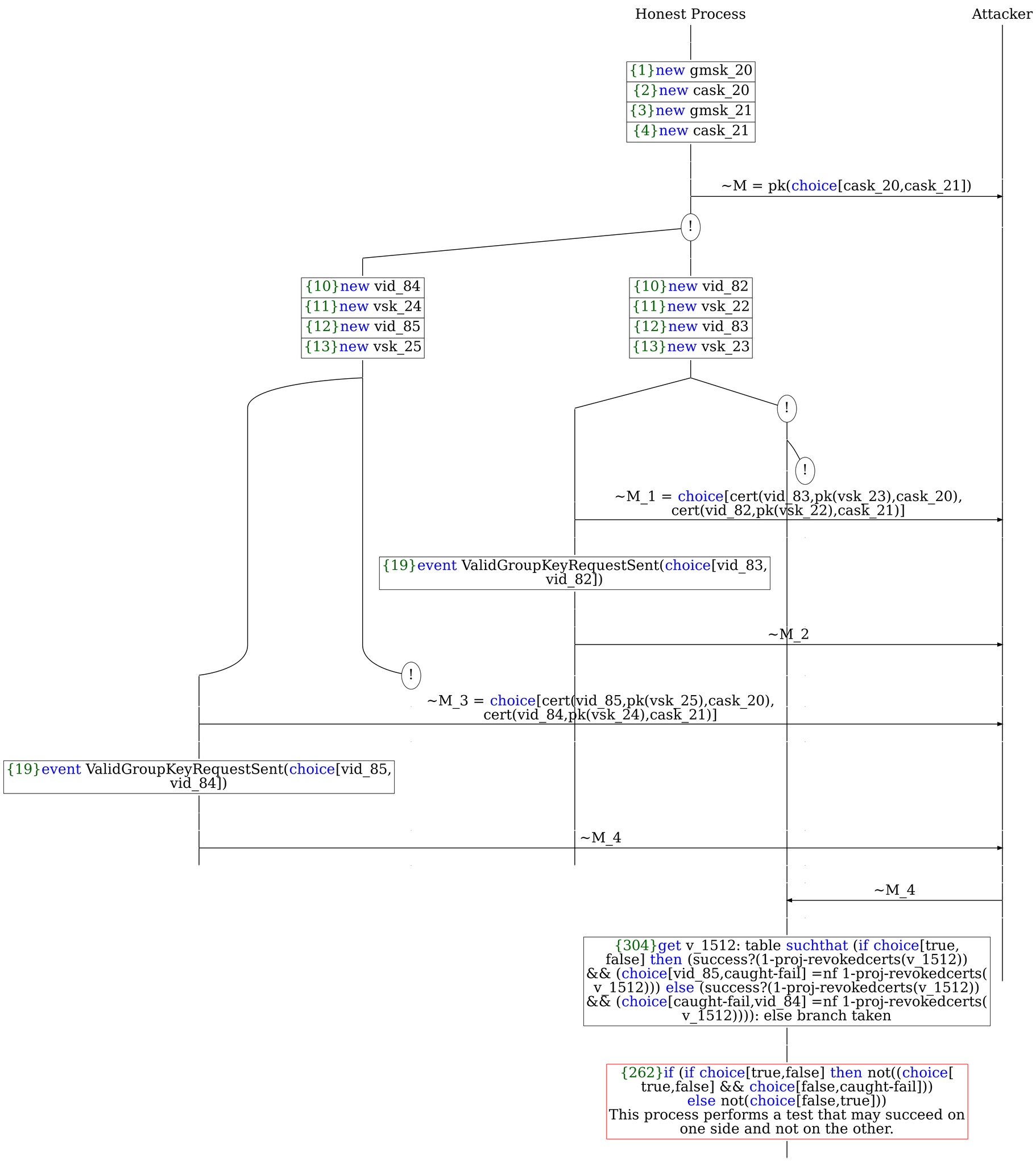
Abbreviations
~M_2 = choice[aenc((groupkey_request,sign(groupkey_request, vsk_23),cert(vid_83,pk(vsk_23),cask_20)),pk(cask_20)), aenc((groupkey_request,sign(groupkey_request,vsk_22), cert(vid_82,pk(vsk_22),cask_21)),pk(cask_21))]
~M_4 = choice[aenc((groupkey_request,sign(groupkey_request, vsk_25),cert(vid_85,pk(vsk_25),cask_20)),pk(cask_20)), aenc((groupkey_request,sign(groupkey_request,vsk_24), cert(vid_84,pk(vsk_24),cask_21)),pk(cask_21))]

A trace has been found.