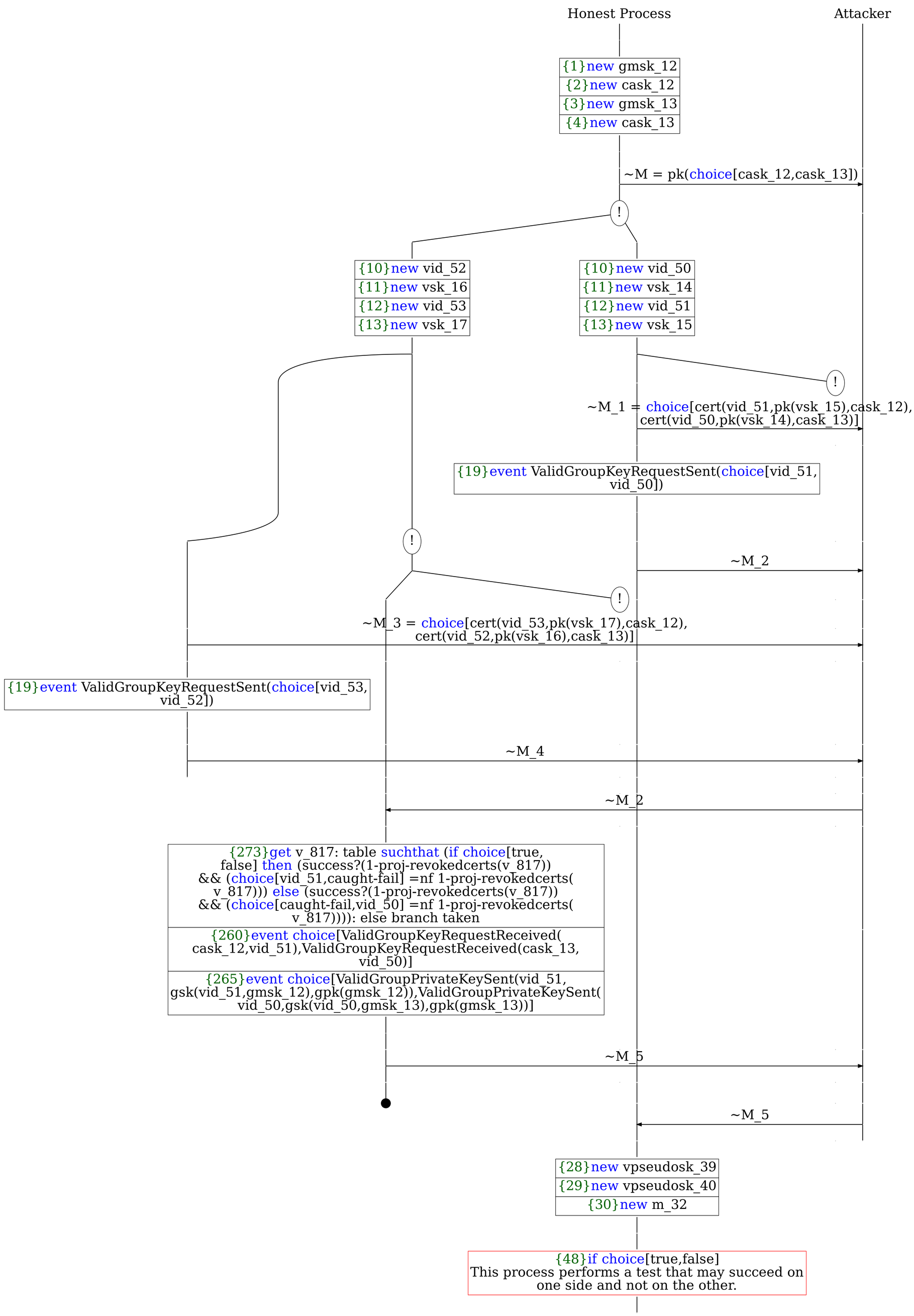
Abbreviations
~M_2 = choice[aenc((groupkey_request,sign(groupkey_request, vsk_15),cert(vid_51,pk(vsk_15),cask_12)),pk(cask_12)), aenc((groupkey_request,sign(groupkey_request,vsk_14), cert(vid_50,pk(vsk_14),cask_13)),pk(cask_13))]
~M_4 = choice[aenc((groupkey_request,sign(groupkey_request, vsk_17),cert(vid_53,pk(vsk_17),cask_12)),pk(cask_12)), aenc((groupkey_request,sign(groupkey_request,vsk_16), cert(vid_52,pk(vsk_16),cask_13)),pk(cask_13))]
~M_5 = choice[aenc(((groupkey_response,vid_51, gsk(vid_51,gmsk_12),gpk(gmsk_12)),sign((groupkey_response, vid_51,gsk(vid_51,gmsk_12),gpk(gmsk_12)),cask_12)), pk(vsk_15)),aenc(((groupkey_response,vid_50,gsk(vid_50,gmsk_13),gpk(gmsk_13)),sign((groupkey_response, vid_50,gsk(vid_50,gmsk_13),gpk(gmsk_13)),cask_13)), pk(vsk_14))]

A trace has been found.