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(54) Title: PREVENTING FRAUDULENT ROLLBACK OF A TRUSTED APPLICATION

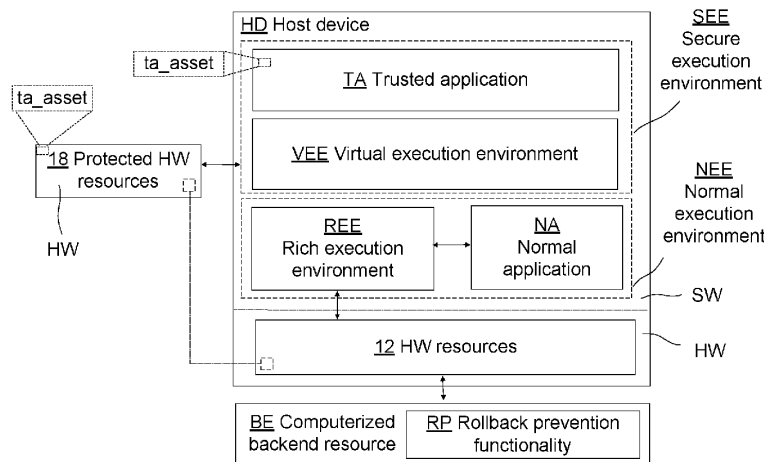


FIG. 1B

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(57) **Abstract:** A method (500) of preventing fraudulent rollback of a trusted application (TA) involving repeatedly recording (510) an execution state of the trusted application (TA); repeatedly causing (520) recording of the execution state in an entity external to the trusted application (TA); upon occurrence of an event in the trusted application (TA), sending (530) a request (Sec_Update_Req, Issuer_Update_Req; Device_SE_Sign_Req) to said external entity; receiving (540) a response (Issuer_Update_Resp; Device_SE_Sign_Resp, Sec_Update_Resp) to said request including information which enables verification by the trusted application (TA) that a present execution state within the trusted application (TA) is not older than a most recent execution state as recorded by the external entity; and controlling (550) access to the protected asset (ta asset) depending on an outcome of the verification. The external entity signs the response (Issuer_Update_Resp; Device_SE_Sign_Resp, Sec_Update_Resp) with a private cryptographic key (issuer_priv_key; de-

[Continued on next page]

HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA,
NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO,
RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,
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vice_se_priv_key), and the trusted application (TA) verifies the signature.