

(19) World Intellectual Property
Organization
International Bureau



162162

(43) International Publication Date
10 November 2005 (10.11.2005)

PCT

(10) International Publication Number
WO 2005/107130 A1

(51) International Patent Classification⁷: **H04L 9/00,**
G06F 13/14, 12/14

(21) International Application Number:
PCT/CA2004/002041

(22) International Filing Date:
26 November 2004 (26.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/568,119 4 May 2004 (04.05.2004) US

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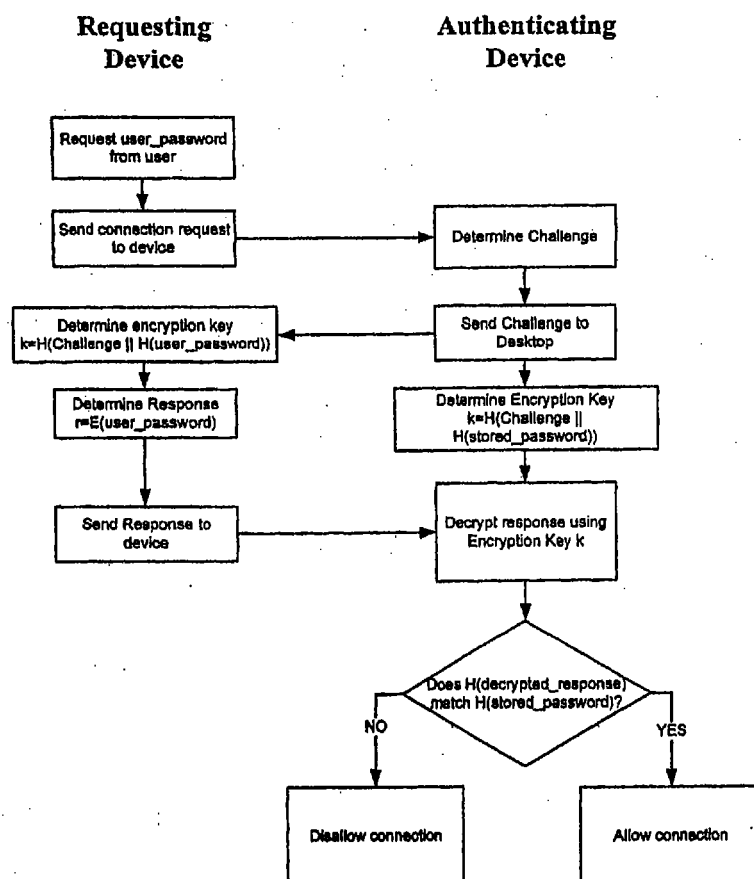
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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

[Continued on next page]

(54) Title: CHALLENGE RESPONSE SYSTEM AND METHOD



(57) Abstract: A challenge response scheme includes the authentication of a requesting device by an authenticating device. The authenticating device generates a challenge that is issued to the requesting device. The requesting device combines the challenge with a hash of a password provided by a user of the requesting device, and the combination of the hash of the password and the challenge is further hashed in order to generate a requesting encryption key that is used to encrypt the user supplied password. The encrypted user supplied password is sent to the authenticating device as a response to the issued challenge. The authenticating device generates an authenticating encryption key by generating the hash of a combination of the challenge and a stored hash of an authenticating device password. The authenticating encryption key is used to decrypt the response in order to retrieve the user-supplied password. If a hash of the user-supplied password matches the stored hash of the authenticating device password, then the requesting device has been authenticated and the authenticating device is in possession of the password.



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TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,

Published:

— with international search report

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