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12/143,392 20 June 2008 (20.06.2008) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))

[Continued on next page]

(54) Title: DIGITALLY SIGNING DOCUMENTS USING IDENTITY CONTEXT INFORMATION

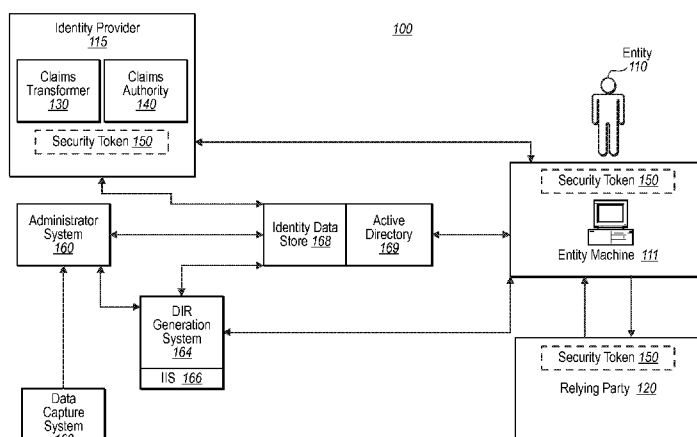


FIG. 1

(57) Abstract: Creating a token for use by an entity when digitally signing documents. In a computing environment, a digital identity representation for an entity is accessed. The digital identity representation includes information identifying identity attributes about the entity and capabilities of an identity provider that provides tokens for use by the entity. Context information is accessed. The context information includes information about one or more of which, how or where the attributes for the entity identified in the digital identity representation will be used. A security token is created from the information in the digital identity representation and the context information. The security token makes assertions by the identity provider. The assertions are based on the information in the digital identity representation. The token further includes information related to at least a portion of the context information.

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15 April 2010

A. CLASSIFICATION OF SUBJECT MATTER**G06F 21/00(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC8 : G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) "Security, Information, Identity, token, context, entity"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| X A | US 6515988 B1 (MARGE ELDRIDGE et al.) 04 February 2003 See abstract; column 6, line 17 - column 8, line26; claims 1-9; figure 3. | 1-11 12,17 |
| Y A | US 2007-204168 A1 (KIM CAMERON et al.) 30 August 2007 See abstract; paragraphs [0058]-[0128]; figures 3,9. | 12 1-11,17 |
| Y A | US 2006-015933 A1 (KEITH W. BALLINGER et al.) 19 January 2006 See abstract; paragraphs [0039]-[0060]; claim 1; figures 2,3. | 12 1-11,17 |
| X A | US 2006-174334 A1 (ERIC C. PERLIN et al.) 03 August 2006 See abstract; paragraphs [0043]-[0069]; claim 1; figures 7-12. | 17 1-12 |

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

30 DECEMBER 2009 (30.12.2009)

Date of mailing of the international search report

30 DECEMBER 2009 (30.12.2009)

Name and mailing address of the ISA/KR

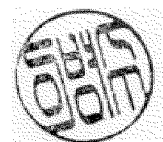
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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: 13-16,18-20
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

These claims are unclear by the reasonings described in the accompanying written opinion of the ISA (see Box. No. III).

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

The present invention can be divided into 3 groups.

Claims 1-11 are related to a method of creating a token for use by an entity when digitally signing documents comprising the steps listed in claim 1.

Claim 12 is related to a method of facilitating selection of a token for use by an entity when digitally signing documents comprising the steps listed in claim 12.

Claim 17 is related to a method of evaluating document signatures and tokens used to sign the document comprising the steps listed in claim 17.

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2009/046460

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|--|------------------|---|--|
| US 6515988 B1 | 04.02.2003 | EP 0893759 A2 EP 0893759 A3 JP 04-302206 B2 JP 11-120204 A | 27.01.1999 03.08.2005 01.05.2009 30.04.1999 |
| US 2007-204168 A1 | 30.08.2007 | US 2007-204325 A1 | 30.08.2007 |
| US 2006-015933 A1 | 19.01.2006 | US 07434252 B2 | 07.10.2008 |
| US 2006-174334 A1 | 03.08.2006 | None | |