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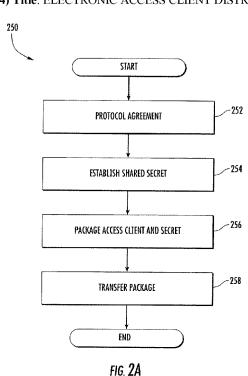
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[Continued on next page]

(54) Title: ELECTRONIC ACCESS CLIENT DISTRIBUTION APPARATUS AND METHODS



(57) Abstract: Apparatus and methods for distributing access control clients. In one exemplary embodiment, a network infrastructure is disclosed that enables delivery of electronic subscriber identity modules (eSIMs) to secure elements (e.g., electronic Universal Integrated Circuit Cards (eUICCs), etc.) The network architecture includes one or more of: (i) eSIM appliances, (ii) secure eSIM storages, (hi) eSIM managers, (iv) eUICC appliances, (v) eUICC managers, (vi) service provider consoles, (vii) account managers, (viii) Mobile Network Operator (MNO) systems, (ix) eUICCs that are local to one or more devices, and (x) depots. Moreover, each depot may include: (xi) eSIM inventory managers, (xii) system directory services, (xiii) communications managers, and/or (xiv) pending eSIM storages. Functions of the disclosed infrastructure can be flexibly partitioned and/or adapted such that individual parties can host portions of the infrastructure. Exemplary embodiments of the present invention can provide redundancy, thus ensuring maximal uptime for the overall network (or the portion thereof).



(84) Designated States (unless otherwise indicated, for every Published: kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))
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A. CLASSIFICATION OF SUBJECT MATTER INV. H04W4/00

ADD.

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) H04W - H04L - G06F

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

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

EPO-Internal, WPI Data

C. DOCOM	ENTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
А	US 2010/311468 A1 (SHI GUANGMING [US] ET AL) 9 December 2010 (2010-12-09) abstract paragraph [0042] paragraph [0060]	1-6
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Further documents are listed in the continuation of Box C.	X See patent family annex.				
* Special categories of cited documents :	"T" later document published after the international filing date or priority				
"A" document defining the general state of the art which is not considered to be of particular relevance	date and not in conflict with the application but cited to understand the principle or theory underlying the invention				
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive				
"L" document which may throw doubts on priority claim(s) or which is	step when the document is taken alone				
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"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family				
Date of the actual completion of the international search	Date of mailing of the international search report				
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C(Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Α	US 2009/239503 A1 (SMEETS BERNARD [SE]) 24 September 2009 (2009-09-24) abstract paragraph [0018] - paragraph [0034] figure 2	1-6
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C(Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	
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E	EP 2 509 342 A2 (APPLE INC [US]) 10 October 2012 (2012-10-10) the whole document	8-12

International application No. PCT/US2012/035297

INTERNATIONAL SEARCH REPORT

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:
Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
Claims Nos.: 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:
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:
see additional sheet
1. X 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 fees, this Authority did not invite payment of additional fees.
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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-6

A method and system for distributing eSIMs

2. claim: 7

A method for checking the integrity of transmitted cryptographic materials to a destination device

3. claim: 8

A method for checking the integrity of transmitted cryptographic materials to a destination device;

4. claims: 9-12

A method for ensuring secure delivery of one or more cryptographic materials from any of the plurality of network entities

Information on patent family members

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