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[Continued on next page]

(54) Title: SECURE TOKEN IMPLEMENTATION

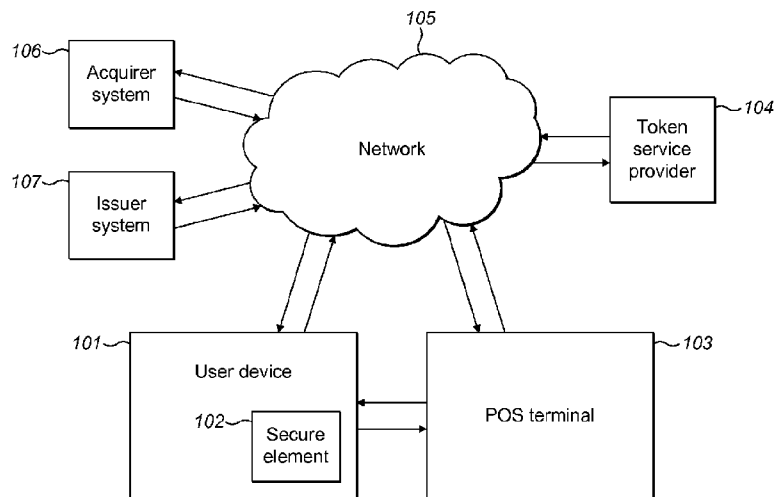


FIG. 1

(57) Abstract: To ensure security of token provision to a user device, token request by (or on behalf of) the user device, token generation at a token service provider and token provision from the token service provider each make use of data stored within a secure element, SE, of an SE module of the user device. Tokens are generated in dependence on the obtained data: storage and communications of the tokens are also secured using the obtained data. Advantageously, the data required to generate a token request is securely stored on a user device itself and not a server remote from the user device.

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Published:

- *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))*

(88) Date of publication of the international search report:

24 March 2016

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2015/058981

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.:
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:

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:

see additional sheet

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 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.:

1-10

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

International application No
PCT/EP2015/058981

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06Q20/32 G06Q20/38
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)
G06Q
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. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2014/049136 A1 (BELL IDENTIFICATION BV [BE]; BOUDA MOHAMMED CHAKIB [BE]) 3 April 2014 (2014-04-03) abstract page 1, line 28 - page 8, line 19 page 21, line 22 - page 31, line 21 -----	1-10
X	WO 2009/112793 A1 (BRITISH TELECOMM [GB]; SHERLOCK GERARD [GB]; PILKINGTON JOHN DAVID RIC) 17 September 2009 (2009-09-17) abstract page 8, line 30 - page 11, line 29 page 2, line 11 - page 4, line 8 claims 1-10; figures 1,2 ----- -/--	1-10

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	"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
"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 step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 23 October 2015	Date of mailing of the international search report 05/02/2016
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Diepstraten, Marc
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INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2015/058981

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2014/025958 A1 (CALMAN MATTHEW A [US]) 23 January 2014 (2014-01-23) abstract paragraph [0003] - paragraph [0006] paragraph [0016] - paragraph [0030] -----	1-10
A	US 2014/090045 A1 (SANCHEZ J SCOTT [US] ET AL) 27 March 2014 (2014-03-27) the whole document -----	1-10
A	WO 2012/002852 A1 (ERICSSON TELEFON AB L M [SE]; JOHANSSON MATTIAS [SE]; ARVIDSSON PETTER) 5 January 2012 (2012-01-05) the whole document -----	1-10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/EP2015/058981

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			WO 2012002852 A1 05-01-2012

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-10

Providing a transaction token by a server to a user device

2. claims: 11-29

Generating transaction tokens and cryptograms by a user device

3. claims: 30-41

Transferring a token into a secure element of a user device

4. claims: 42-47

Obtaining and decrypting an encrypted token for use in a transaction
