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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(H))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(Hi))

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))

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(54) Title: SYSTEMS AND METHODS FOR AN EXTENSIBLE AUTHENTICATION FRAMEWORK

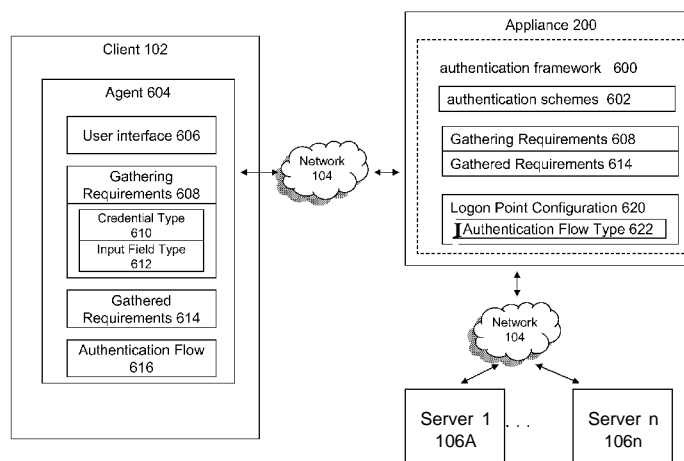


FIG. 6

(57) Abstract: The present disclosure describes systems and methods of an authentication framework to implement varying authentication schemes in a configurable and extendable manner. This authentication framework provides a level of abstraction in which requirements for credential gathering and authentication workflow are independent from the agents or authentication implementation that does the credential gathering and authentication workflow. A higher level of abstraction and a more comprehensive authentication framework allows handling the associated authentication transactions of complex authentication schemes without requiring any specific understanding of their internals. For example, the requirements to gather certain credentials for a particular authentication scheme may be configured and maintained separately from the client-side authentication agent that gathers the credentials. The flexible, configurable and extendable authentication framework supports a wide variety of authentication scheme and supports third party, proprietary and customized authentication schemes.



WO 2012/012434 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2011/044545

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04L29/06
 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)
H04L

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 practical, search terms used)
EPO-Internal , INSPEC, 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	US 2003/115142 AI (BRICKELL ERNIE F [US] ET AL) 19 June 2003 (2003-06-19) abstract paragraph [0024] - paragraph [0029] paragraph [0036] - paragraph [0049] paragraph [0057] - paragraph [0058] paragraph [0071] - paragraph [0072] figures 3,6, 10A, 10B -----	1-16
X	US 2006/282660 AI (VARGHESE THOMAS E [US] ET AL VARGHESE THOMAS EMMANUAL [US] ET AL) 14 December 2006 (2006-12-14) abstract paragraph [0067] - paragraph [0082] paragraph [0136] - paragraph [0152] figures 5-7 , 13A, 13B -----	1-16

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

* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"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.</p> <p>"&" document member of the same patent family</p>
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Date of the actual completion of the international search 21 December 2011	Date of mailing of the international search report 12/03/2012
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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 Dujardi n , Cori nne
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/044545

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.:

1-16

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/US2011/044545

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003115142	A1	19-06-2003	NONE

US 2006282660	A1	14-12-2006	NONE

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-16

method comprising:

- (a) receiving, by an agent executing on a client, authentication implementation information from a device intermediary to the client and one or more servers, the authentication implementation information identifying an authentication scheme, an authenticator and one or more parameters for authenticating via the authenticator;
- (b) obtaining, by the agent, the one or more parameters of the authentication implementation information to perform the authentication scheme identified by the authentication implementation information; and
- (c) transmitting data, by the agent, to the identified authenticator.

2. claims: 17-20

method for providing an authentication flow type for authenticating via a specified logon point, the method comprising:

- (a) receiving, by an agent executing on a client, a logon point configuration from a device intermediary to the client and one or more servers, the logon point configuration identifying one of a plurality of authentication flow types, the identified authentication flow type comprising one of: a single scheme authentication flow, a multiple scheme authentication flow, a cascading authentication flow, and a conditional authentication flow;
- (b) detecting, by the agent, a request to access a logon point corresponding to the logon point configuration; and
- (c) executing, by the agent responsive to the detection, an authentication flow identified by the authentication flow type.
