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(54) Title: ACCESS CONTROL OF DATA BASED ON PURPOSE AND/OR CONSENT

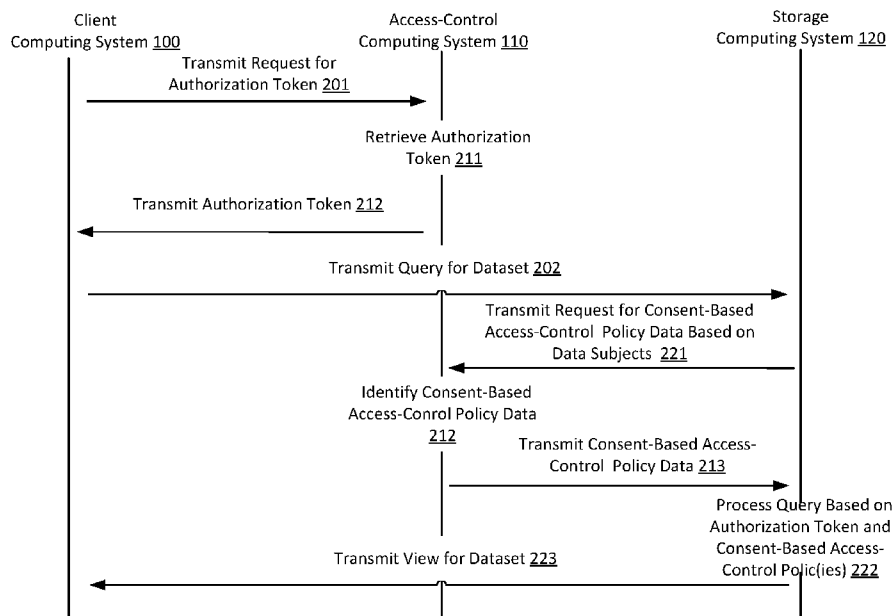


FIG. 2

(57) Abstract: Aspects of the present invention provide methods, apparatuses, systems, computing devices, computing entities, and/or the like for implementing and managing access to particular data based on access controls for implementing purpose restrictions and/or consent restrictions. In various aspects, a method is provided that comprises: receiving a request transmitted by an application executing on a client computing system and requesting access to a dataset, wherein each data record of the dataset comprises data elements; identifying, based on the application, a purpose for the application requesting access to the dataset; referencing, based on the purpose, an applicable purpose-based access-control policy to identify an authorization token; and providing the authorization token, wherein the storage computing system provides the client computing system with a view of the dataset based on the token with the view having a data element returning modified data in a manner compliant with the applicable purpose-based access-control policy.



RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,
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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))*

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- *with international search report (Art. 21(3))*
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(88) Date of publication of the international search report:

21 September 2023 (21.09.2023)

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2023/011446

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F21/62 G06F21/84
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)

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. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2018/082024 A1 (CURBERA FRANCISCO P [US] ET AL) 22 March 2018 (2018-03-22) paragraph [0008] - paragraph [0047] -----	1-7
X	CA 3 056 394 A1 (TORONTO DOMINION BANK [CA]) 23 March 2021 (2021-03-23) paragraph [0001] - paragraph [0165] -----	1, 3-7
Y	US 2019/294822 A1 (HENNEBERT CHRISTINE [FR]) 26 September 2019 (2019-09-26) paragraph [0045] - paragraph [0160]; figure 5 -----	2
X	US 2019/294822 A1 (HENNEBERT CHRISTINE [FR]) 26 September 2019 (2019-09-26) paragraph [0045] - paragraph [0160]; figure 5 -----	1-7
Y	US 2021/314328 A1 (SIMONS JORDAN [US]) 7 October 2021 (2021-10-07) -----	2
A	paragraph [0036] - paragraph [0077] -----	1, 3-21
	-/--	



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 another citation or other special reason (as specified)

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"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

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2023/011446

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.:

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/US2023/011446

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>HAMMER E ET AL: "The OAuth 2.0 Authorization Framework; draft-ietf-oauth-v2-27.txt", THE OAUTH 2.0 AUTHORIZATION FRAMEWORK; DRAFT-IETF-OAUTH-V2-27.TXT, INTERNET ENGINEERING TASK FORCE, IETF; STANDARDWORKINGDRAFT, INTERNET SOCIETY (ISOC) 4, RUE DES FALAISES CH- 1205 GENEVA, SWITZERLAND, 8 June 2012 (2012-06-08), pages 1-71, XP015083227, [retrieved on 2012-06-08] the whole document</p> <p>-----</p>	1-7
X	<p>US 2021/350022 A1 (BRANNON JONATHAN BLAKE [US] ET AL) 11 November 2021 (2021-11-11) paragraph [0005] - paragraph [0756]</p> <p>-----</p>	7-21
X	<p>US 2022/004663 A1 (BRANNON JONATHAN BLAKE [US] ET AL) 6 January 2022 (2022-01-06)</p> <p>paragraph [0284] - paragraph [0333]</p> <p>-----</p>	7-11, 13-18, 20,21
X	<p>US 2021/192082 A1 (JONES KEVIN [US] ET AL) 24 June 2021 (2021-06-24)</p> <p>paragraph [0473] - paragraph [0550]</p> <p>-----</p>	7-11, 13-18, 20,21
A	<p>US 2018/285592 A1 (SHARIFI MATTHEW [CH] ET AL) 4 October 2018 (2018-10-04) paragraph [0066] - paragraph [0099]</p> <p>-----</p>	8-21

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-7

Token based access control method of data records, wherein the token depends on the purpose of access of the data. Purpose-based access-control policies are implemented by using the token.

2. claims: 8-21

Consent-based access-control method wherein consent data are provided for different data and access is based on the consent data being obtained and not being obtained.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2023/011446
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2023/011446

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2018285592	A1	04-10-2018	NONE
