

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:

WRIGHT, LAURIE C.
c/o BLAKE, CASSELS & GRAYDON LLP
199 BAY ST SUITE 4000
COMMERCE COURT WEST
TORONTO, Ontario
Canada, M5L 1A9

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing
(day/month/year)

17 April 2024 (17-04-2024)

Applicant's or agent's file reference
190424-00348

FOR FURTHER ACTION

See paragraphs 1 and 4 below

International application No.
PCT/CA2024/050025

International filing date
(day/month/year)

10 January 2024 (10-01-2024)

Applicant
ABSOLUTE SOFTWARE CORPORATION

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.
Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

 When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

 How? Directly to the International Bureau preferably through ePCT, or on paper to:
 The International Bureau of WIPO, 34, chemin des Colombettes, 1211 Geneva 20, Switzerland

 For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 B 9.011.
2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
 - ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the any request to forward the texts of both the protest and the decision thereon to the designated Offices.
 - ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.
4. **Reminders**
The applicant may **submit comments on an informal basis on the written opinion of the International Searching Authority** to the International Bureau. These comments will be made available to the public after international publication. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established.
Shortly after the expiration of **18 months from the priority date, the international application will be published** by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90bis.1 and 90bis.3).
Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for **entry into the national phase** before those designated Offices. In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months. For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.
Within **22 months from the priority date, the applicant may request that a supplementary international search be carried out** by a different International Searching Authority that offers this service (Rule 45bis.1). The procedure for requesting supplementary international search is described in the *PCT Applicant's Guide*, International Phase, paragraphs 8.006-8.032.

Name and mailing address of the ISA/CA
Canadian Intellectual Property Office
Place du Portage I, C114 - 1st Floor, Box PCT
50 Victoria Street
Gatineau, Quebec K1A 0C9
Facsimile No.: 819-953-2476

Authorized officer

Marina White (819) 230-7248

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 190424-00348		FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below
International application No. PCT/CA2024/050025	International filing date (<i>day/month/year</i>) 10 January 2024 (10-01-2024)	(Earliest) Priority date (<i>day/month/year</i>) 10 January 2023 (10-01-2023)
Applicant ABSOLUTE SOFTWARE CORPORATION		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed.
- ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

- ☒ as suggested by the applicant.
- ☐ as selected by this Authority, because the applicant failed to suggest a figure.
- ☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CA2024/050025

A. CLASSIFICATION OF SUBJECT MATTER IPC: <i>G01S 5/00</i> (2006.01), <i>G06F 16/29</i> (2019.01), <i>H04W 64/00</i> (2009.01) CPC: G01S 5/0036 (2020.01), <i>G06F 16/29</i> (2020.01), <i>H04W 64/003</i> (2020.01), <i>G01S 2205/00</i> (2020.05) 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) IPC: <i>G01S 5/00</i> (2006.01), <i>G06F 16/29</i> (2019.01), <i>H04W 64/00</i> (2009.01) Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used) Databases: Canadian Patent Database, Questel Orbit Keywords: BSSID, location, database		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US7245900B1 (LAMB RC et al.) 17 July 2007 (17-07-2007) * claims 1, 17; column 1, line 46 - column 2, line 26; column 4, lines 33-63; column 7, lines 41-57; column 9, lines 22-41*	1-3, 8-17
Y	WO2017214979A1 (TAO Q et al.) 21 December 2017 (21-12-2017) *paragraphs 0010-0017, 0068-0071, 0079-0081*	1-3, 8-17
Y	US2020019580A1 (KIM J et al.) 16 January 2020 (16-01-2020) * claims 1, 12; paragraphs 0007-0010, 0060, 0064, 0092-0095, 0107-0112, 0142-0150*	1-3, 8-17
☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* "A" "D" "E" "L" "O" "P"	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance document cited by the applicant in the international application earlier application or patent but published on or after the international filing date 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) document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed	"T" "X" "Y" "&"
Date of the actual completion of the international search 21 February 2024 (21-02-2024)		Date of mailing of the international search report 17 April 2024 (17-04-2024)
Name and mailing address of the ISA/CA Canadian Intellectual Property Office Place du Portage I, C114 - 1st Floor, Box PCT 50 Victoria Street Gatineau, Quebec K1A 0C9 Facsimile No.: 819-953-2476		Authorized officer Paul Sabharwal (819) 639-3264

PATENT COOPERATION TREATY

RECEIVED

By CYS at 1:56 pm, 4/24/24

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:
WRIGHT, LAURIE C.
c/o BLAKE, CASSELS & GRAYDON LLP
199 BAY ST SUITE 4000
COMMERCE COURT WEST
TORONTO, Ontario
Canada, M5L 1A9

Date of mailing 17 April 2024 (17-04-2024)
(day/month/year)

Applicant's or agent's file reference
190424-00348

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/CA2024/050025

International filing date (day/month/year)
10 January 2024 (10-01-2024)

Priority date (day/month/year)
10 January 2023 (10-01-2023)

International Patent Classification (IPC) or both national classification and IPC
IPC: **G01S 5/00** (2006.01), **G06F 16/29** (2019.01), **H04W 64/00** (2009.01)

CPC: **G01S 5/0036** (2020.01), **G06F 16/29** (2020.01), **H04W 64/003** (2020.01), **G01S 2205/00** (2020.05)

Applicant
ABSOLUTE SOFTWARE CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/CA
Canadian Intellectual Property Office
Place du Portage I, C114 - 1st Floor, Box PCT
50 Victoria Street
Gatineau, Quebec K1A 0C9
Facsimile No.: 001-819-953-2476

Date of completion of this opinion

15 March 2024 (15-03-2024)

Authorized officer
Paul Sabharwal (819) 639-3264

Box No I

Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed.
- ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(b))

3. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:

- a. ☐ forming part of the international application as filed:
- b. ☐ furnished subsequent to the international filing date for the purposes of international search only:
- ☐ accompanied by a statement to the effect that the sequence listing does not go beyond the disclosure in the international application as filed.

4. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, this opinion has been established to the extent that a meaningful opinion could be formed without a WIPO Standard ST.26 compliant sequence listing.

5. Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1-20	YES
	Claims NONE	NO
Inventive step (IS)	Claims 4-7	YES
	Claims 1-3, 8-17	NO
Industrial applicability (IA)	Claims 1-20	YES
	Claims NONE	NO

2. Citations and explanations:

D1: US7245900B1 (LAMB RC et al.) 17 July 2007 (17-07-2007)
D2: WO2017214979A1 (TAO Q et al.) 21 December 2017 (21-12-2017)
D3: US2020019580A1 (KIM J et al.) 16 January 2020 (16-01-2020)

Novelty (N)

Claims 1-20 are novel and therefore comply with PCT Article 33(2).

Claim 1 relates to receiving a geolocation payload from a first device having a receiver, the geolocation payload comprising a first plurality of basic service set identifications (BSSID) detected by the first device; determining a location of the first device by searching, using the first plurality of BSSIDs, a database including a second plurality of BSSIDs and location data associated with the second plurality of BSSIDs. Independent claim 17 recites a first device, a database, and second device and involves similar subject matter as claim 1.

D1 (claims 1, 17; column 1, line 46 - column 2, line 26; column 4, lines 33-63; column 7, lines 41-57; column 9, lines 22-41) discloses a plurality of wireless access points communicatively coupled to a VoP network, each of said wireless access points being associated with a respective basic service set identifier (BSSID); an access point database, said access point database storing BSSIDs and locations of said wireless access points; an automatic location information (ALI) database, said ALI database storing information regarding areas served by each of said PSAPs; and a proxy server communicatively coupled to said VoP network, access point database, and said ALI database, wherein said proxy server consults said access point database and said ALI database.

However, the formative features recited in D1 relate to an automatic location information (ALI) database in a VoP network. As such, the features in claims 1 and 17 are considered to be novel over D1.

Therefore, claims 1-17 are considered to be novel in view of D1, and are compliant with PCT Article 33(2).

Inventive Step (IS)

Claims 1-20 involve an inventive step and comply with PCT Article 33(3).

Claim 1 relates to receiving a geolocation payload from a first device having a receiver, the geolocation payload comprising a first plurality of basic service set identifications (BSSID) detected by the first device; determining a location of the first device by searching, using the first plurality of BSSIDs, a database including a second plurality of BSSIDs and location data associated with the second plurality of BSSIDs. Independent claim 17 recites a first device, database, and second device and involves similar subject matter as claim 1.

Continued in Supplemental Box.

Box No. VII **Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

Claims 12, 13 do not comply with PCT Article 6. These claims not concise, because they are identical or are so close in content that they address the same subject matter.

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**

Continuation of: **Box No. V**

D1 (claims 1, 17; column 1, line 46 - column 2, line 26; column 4, lines 33-63; column 7, lines 41-57; column 9, lines 22-41) discloses a plurality of wireless access points communicatively coupled to a VoP network, each of said wireless access points being associated with a respective basic service set identifier (BSSID); an access point database, said access point database storing BSSIDs and locations of said wireless access points; an automatic location information (ALI) database, said ALI database storing information regarding areas served by each of said PSAPs; and a proxy server communicatively coupled to said VoP network, access point database, and said ALI database, wherein said proxy server consults said access point database and said ALI database.

D2 (paragraphs 0010-0017, 0068-0071, 0079-0081) discloses the use of BSSID information via a first valid-location table, a second valid-location table, and an invalid-location table which are stored in a terminal. Rapid positioning of a mobile terminal is implemented by means of determining in the first valid-location table, the second-valid location table or the invalid-location table location information corresponding to identity information, and transmitting the determined location information to an application that launched a positioning request. The first valid-location table, the second-valid location table, and the invalid-location table stored in the terminal are amended with more accurate positioning data, thus solving the problem of inaccurate geographic locations being returned by a positioning server.

D3 (claims 1, 12; paragraphs 0007-0010, 0060, 0064, 0092-0095, 0107-0112, 0142-0150) discloses a memory configured to store a first database including identifiers of access points and location information; and configured to receive, from an external electronic device through the communication interface (i) an identifier of at least one access point, including a first access point collected by the external electronic device, and (ii) an identifier of a base station, in order to identify location information matching the identifier of the at least one access point or the identifier of the base station in the first database, and to update location information matching the identifier of the first access point in the first database based on the identified location information.

Based on the information disclosed in D1 and D2, or D3 and D2, the features in claim 1 are considered to be lacking an inventive step. Claim 17 relates to a system for determining a location of a first device using a receiver for detecting a first plurality of BSSIDs, a processor for assembling a geolocation payload comprising the detected BSSIDs, and a database comprising a second plurality of BSSIDs, which perform the method of claim 1. As such, claim 17 is similarly considered to be lacking an inventive step in view of D1 and D2, or D3 and D2.

Dependent claims 2-3 and claims 8-16 disclose additional features such as: determining the location using an alternative location lookup such as a geolocation API, or a location determined using global navigation satellite system (GNSS); determining the location of the device which searches the second plurality of BSSIDs from a first time period; the database includes stored device IP addresses associated with the location data; the database comprises previously stored location data of the first device or a second device; enforcing device rules based on the determined location of the device; updating the database with the determined location, the first plurality of BSSIDs and a timestamp of the geolocation payload; and verifying the determined location against a previous location of the first device. The aforementioned features are considered to be lacking ingenuity in view of the common general knowledge in this field and the information disclosed in D1 and D2, or D3 and D2.

Claim 4 is considered to involve an inventive step as no combination of D1-D3 discloses or suggests: “assembling the first plurality of BSSIDs into received BSSID combinations, each received BSSID combination including a first number of BSSIDs from the first plurality of BSSIDs, wherein the second plurality of BSSIDs are stored as stored BSSID combinations, each stored BSSID combination including the first number of BSSIDs from the second plurality of BSSIDs, and wherein the determining of the location searches using the received BSSID combinations for matches in the stored BSSID combinations”. As such, claims 4 and claims 5-7 incorporating the features of claim 4 are considered to involve an inventive step.

Therefore, claims 1-3 and claims 8-17 are not compliant with PCT Article 33(3). Claims 4-7 are considered to involve an inventive step over D1-D3 and are compliant with PCT Article 33(3).

Industrial Applicability (IA)

The subject matter of claims 1-17 is considered to be industrially applicable and thus complies with the requirements of Article 33(4) of the PCT.

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CA2024/050025

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
US7245900B1	17 July 2007 (17-07-2007)	None	
WO2017214979A1	21 December 2017 (21-12-2017)	CN107771408A CN107771408B	06 March 2018 (06-03-2018) 21 February 2020 (21-02-2020)
US2020019580A1	16 January 2020 (16-01-2020)	US11086952B2 CN112400346A EP3799699A1 EP3799699A4 KR20200007607A KR102537840B1 WO2020013607A1	10 August 2021 (10-08-2021) 23 February 2021 (23-02-2021) 07 April 2021 (07-04-2021) 07 July 2021 (07-07-2021) 22 January 2020 (22-01-2020) 31 May 2023 (31-05-2023) 16 January 2020 (16-01-2020)