

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**
(PCT Rule 43*bis*.1)

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2018/048213

International filing date (day/month/year)
28.08.2018

Priority date (day/month/year)
07.09.2017

International Patent Classification (IPC) or both national classification and IPC
INV. G05B15/02

Applicant
SIEMENS INDUSTRY, INC.

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 43*bis*.1(a)(i) with regard to novelty, inventive step and 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 usually 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 66.1*bis*(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:



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see form
PCT/ISA/210

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Box No. I Basis of the 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(a))
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:
 - in the form of an Annex C/ST.25 text file.
 - on paper or in the form of an image file.
 - b. furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. furnished subsequent to the international filing date for the purposes of international search only:
 - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
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)	Yes: Claims	<u>4-7, 14-16, 20-22</u>
	No: Claims	<u>1-3, 8-13, 17-19, 23</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-23</u>
Industrial applicability (IA)	Yes: Claims	<u>1-23</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

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

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1 Reference is made to the following documents:

D1 US 2017/051933 A1 (VERHOEVEN PIETER [US] ET AL) 23 February 2017 (2017-02-23)

D2 US 2012/204169 A1 (BREITER GERD [DE] ET AL) 9 August 2012 (2012-08-09)

Independent claims

2 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of **claim 1** is not new.

2.1 D1 discloses a method for a multiple services for integrated building system to access data in elements of building automation system (*D1; figure 2; paragraphs 69-70*), comprising:

executing a virtual node hosting environment by a controller; generating at least one virtual node in the virtual node hosting environment for communication with elements of the BAS, where the virtual node hosting environment allocates memory and processor resources to the at least one virtual node; (*D1; figures 3 and 4; paragraphs 70 and 71*)

configuring a plurality of services for communicating with elements of the BAS; (*D1; figures 3 and 4; paragraph 71*)

collecting data from the elements of the BAS via the configured services; and providing the collected data to one or more data consumers (*D1; figures 3 and 4; paragraph 71*).

2.2 The same reasoning applies, *mutatis mutandis*, to the subject-matter of the corresponding independent **claims 11 and 18**, which therefore are also considered not new.

Dependent claims

3 Dependent **claims 2-10, 12-17 and 19-23** do not contain any features which, in combination with the features of any claim to which it/they refers/refer, meet the requirements of the PCT in respect of novelty and/or inventive step. Regarding these claims, there are two aspects:

(i) claims 2, 3, 8-10, 12, 13, 17 19, 20 and 23 relate to further aspects of the BAS architecture.

(ii) claims 4-7, 14-16 and 20-22 relate to particular aspects of the service platform.

In order to facilitate the argumentation, they have been grouped in two sections and not in claim order.

3.1 Regarding **claims 2 and 12**, their additional features (data collection at a predetermined update interval) is also disclosed in D1 (*D1; paragraph 71*).

3.2 Regarding **claims 3, 13 and 19**, their additional features (mandatory services) is also disclosed in D1 (*D1; paragraph 71*).

3.3 Regarding **claims 8-10, 17 and 23**, their additional features (collecting data from elements of a BAS and communicating via the Internet, also with elements of other BAS) is also disclosed in D1 (*D1; figure 3; paragraphs 72-73*).

3.4 Regarding **claims 4, 5, 14 and 20**, their additional features (supervisor and polling time for mandatory services) are obvious features of a services platform and are disclosed in D2 (*D2; paragraph 86-88; supervisor is called workload manager in D2*). A skilled person who wanted to know how to implement the details of the services platform of D1 would certainly look in documents related specifically to this sort of systems, would find D2 and would readily

combine the technical knowledge of both documents to arrive to the subject-matter of the above claims, which therefore are not inventive.

3.5 Regarding **claims 6, 15 and 21**, their additional features (restarting services that fail) are obvious features of a services platform and are disclosed in D2 (*D2; paragraph 173*). A skilled person who wanted to know how to implement the details of the services platform of D1 would certainly look in documents related specifically to this sort of systems, would find D2 and would readily combine the technical knowledge of both documents to arrive to the subject-matter of the above claims, which therefore are not inventive.

3.6 Regarding **claims 7, 16 and 22**, their additional features (verifying licensing) are obvious features of a services platform and are disclosed in D2 (*D2; paragraph 56*). A skilled person who wanted to know how to implement the details of the services platform of D1 would certainly look in documents related specifically to this sort of systems, would find D2 and would readily combine the technical knowledge of both documents to arrive to the subject-matter of the above claims, which therefore are not inventive.

Re Item VII

Certain defects in the international application

- 4 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
- 5 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D1 is not mentioned in the description, nor are these documents identified therein.