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**Datasheet for the decision
of 8 July 2016**

Case Number: T 2177/11 - 3.4.01

Application Number: 06405173.3

Publication Number: 1850142

IPC: G01R31/327

Language of the proceedings: EN

Title of invention:

System level testing for substation automation systems

Patent Proprietor:

ABB Research Ltd.

Opponents:

Siemens Aktiengesellschaft
Omicron electronics GmbH

Headword:

Relevant legal provisions:

RPBA Art. 12(2)
EPC Art. 123(2)
EPC 1973 Art. 54, 56

Keyword:

Statement of grounds of appeal - party's complete case (no)

Amendments - added subject-matter (no)

Novelty - (yes)

Inventive step - (yes)

Decisions cited:

T 0667/08

Catchword:



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Case Number: T 2177/11 - 3.4.01

D E C I S I O N
of Technical Board of Appeal 3.4.01
of 8 July 2016

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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted on 4 August 2011
revoking European patent No. 1850142 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman G. Assi
Members: P. Fontenay
 C. Schmidt

Summary of Facts and Submissions

- I. The appeal lies from the decision of the opposition division to revoke European patent No. 1 850 142.

The impugned decision was remitted to the post on 4 August 2011.

- II. Two oppositions had been filed against the patent as a whole. The opponents I and II had relied on the ground for opposition of Article 100(a) EPC 1973. More concretely, the opponents held that the claimed invention lacked novelty (Articles 52(1) and 54 EPC 1973) and did not involve an inventive step (Articles 52(1) and 56 EPC 1973).

In support for their oppositions, opponent I cited documents D1 to D11 and opponent II further documents D12, D13 (alleged public prior use) and D14 (utility program "NetworkView").

- III. In the "Reasons" for the decision to revoke the patent, the opposition division held that the subject-matter of claim 5 of the patentee's sole request then on file lacked novelty with regard to document:

(D1) International standard IEC 61850, "*Communication networks and systems in substations*", Part 10, Conformance testing, First Edition 2005-05.

Said claim 5 resulted, in essence, from a combination of independent claim 6 and claim 2 of the patent as granted.

The finding of the opposition division relied on a broad interpretation of the expression "*capable of*" followed by the evocation of various functionalities to

be performed by the claimed test environment. Said expression was equated with the further expression "*suitable for*" and did not require, in the judgement of the opposition division, that the claimed test environment be really programmed to perform said functionalities. It was therefore sufficient that a test environment known from the prior art be "*programmable*" to carry out the recited operations for the claimed subject-matter to be anticipated.

As *obiter dictum*, the opposition division expressed the view that the subject-matter of claim 1, relating to a method of performing a system level test and resulting from a combination of claims 1 and 2 of the patent as granted, did involve an inventive step in the sense of Article 56 EPC 1973.

- IV. With letter dated 29 September 2011, the appellant (patentee) filed an appeal against the decision of the opposition division to revoke the patent. The appeal fee was paid on the same day. The statement setting out the grounds for the appeal was filed on 5 December 2011.

- V. The appellant requested, as a main request, maintenance of the patent in amended form based on amended claims 1 to 9, as attached to the statement of grounds of appeal. The claims of the main request differed from the claims of the request underlying the impugned decision in that the expression "*capable of*" in independent claim 5 had been replaced by the expression "*configured to*". In the appellant's view, this amendment made clear that the claimed test environment was not only suitable to perform the recited tasks if programmed appropriately, but was indeed adapted to or programmed to perform said tasks.

As an auxiliary request, the appellant requested maintenance of the patent in amended form based on claims 1 to 4, as attached to the statement of grounds of appeal. The auxiliary request differed from the main request in that claims 5 to 8 concerning a test environment had been cancelled.

Moreover, the appellant "*suggested*", with regard to both requests, to remit the case to the opposition division in order to discuss the inventive merits of the claimed subject-matter.

- VI. With letter dated 10 April 2012, respondent I (opponent I) requested the revocation of the patent as amended according to the appellant's main request and auxiliary request.

Concerning the main request, opponent I submitted that the expression "*configured to*" in claim 5 did not affect the finding of the opposition division. The expression "*configured to*" followed by the evocation of various tasks or operations to be performed by the claimed test environment still encompassed the mere possibility of carrying out said recited tasks and did not imply any additional limitation so that the claimed test environment was not novel.

- VII. With letter dated 19 June 2012, respondent II (opponent II) requested that the appeal be dismissed. Respondent II objected to claim 5 of the appellant's main request under Article 123(2) EPC, submitting that the application documents neither disclosed any "*means for identifying IEDs of the SA system not installed in the test environment*" nor any "*means for monitoring a*

behaviour of the first IED (21) in response to said network messages".

Moreover, respondent II held that the subject-matter of claim 5 of the appellant's main request was not new in view of document:

(D12) US-A-2002/0173927.

The same finding applied when considering D1 (see above) and the further documents:

(D10) A. Apostolov et al., "*Functional Testing of IEC Based IEDs and Systems*" IEEE PES Power Systems Conference & Exposition, 2004, pages 640-645,

(D11) A. Apostolov et al., "*Automated Testing of Communications Based Schemes in Transmission Line Protection Relays*", International Conference on Power Industry Computer Applications 2001, pages 318-324).

Moreover, even if the expression "*configured to*" was given the restricted meaning intended by the appellant, the claimed test system would result in an obvious manner from the prior art.

The respondents further reiterated the view that the subject-matter of claim 1 of the appellant's auxiliary request was not new or not inventive.

VIII. All parties requested oral proceedings as an auxiliary measure.

IX. Summons to attend oral proceedings were issued on 26 April 2016.

- X. With letter dated 17 May 2016, respondent I indicated that it shared the view of respondent II under Article 123(2) EPC and added, in this respect, that the expression "*configured to*" in claim 5 of the appellant's main request, associated with various tasks to be performed by the environment system, was deprived of any support in the original application documents.
- XI. On 2 June 2016, the Board issued a communication pursuant to Article 15(1) RPBA, expressing its provisional opinion with regard to the parties' submissions and requests then on file.
- XII. With letter dated 7 June 2016, the appellant requested, as a new main request, that the patent be maintained as granted. The former main request and auxiliary request were maintained as new first auxiliary request and new second auxiliary request, respectively.
- XIII. With letter of 15 June 2016, opponent I objected to the admissibility of the appellant's new main request.

Firstly, the request for maintenance of the patent as granted did not form part of the patentee's requests on which the opposition division decided.

Secondly, contrary to Article 12(2) RPBA, the statement of grounds of appeal did not contain the appellant's complete case.

Finally, said request could have been presented as a main request in the first instance proceedings (Article 12(4) RPBA).

XIV. Oral proceedings before the Board took place on 8 July 2016. All parties were represented. The respondents' objections were discussed. With regard to the alleged public prior use D13, respondent II acknowledged that D13 was not more relevant than D1.

XV. The final requests of the parties were as follows:

The appellant requested, as a main request, that the decision under appeal be set aside and the patent be maintained as granted.

Alternatively, the appellant requested that the patent be maintained as amended according to the first or second auxiliary requests, as filed with letter of 7 June 2016.

Respondents I and II requested that the appeal be dismissed.

XVI. Claim 1 of the granted patent (appellant's main request) reads:

"1. A method of performing a system level test of a first Intelligent Electronic Device (IED) (21) of a Substation Automation (SA) system, in which test a system level function of the SA system, involving the first IED (21) and a second IED (22), is tested based on network messages that are received by the first IED (21) over a communication network (20), the method comprising
- connecting a testing device (30) different from the second IED (22) to the communication network (20),
- reading, by the testing device (30), a standardized description of implemented device functions of the second IED (22),

- sending, by the testing device (30), network messages indicative of the behaviour of the second IED (22) in accordance with said system level function over the communication network (20) to the first IED (21), and
- monitoring a behaviour of the first IED (21) in response to said network messages."

Claim 2 of the granted patent reads:

"2. The method according to claim 1, characterized in that it comprises
- installing a fraction of a totality of the IEDs of the SA system in a test environment,
- detecting, by the testing device (30), the IEDs installed in the test environment,
- identifying IEDs of the SA system not installed in the test environment, and
- sending, by the testing device (30), network messages indicative of the behaviour of IEDs of the SA system not installed in the test environment."

Claim 6 of the granted patent reads:

"6. A test environment for a Substation Automation (SA) system level test of a first Intelligent Electronic Device (IED) (21), in which test a system level function of a SA system involving the first IED (21) and a second IED (22) is tested based on network messages that are received by the first IED (21) over a communication network (20), the test environment comprising
a first testing device (30) different from the second IED (22), connected to the communication network, capable of reading a standardized description of implemented device functions of the second IED (22) and capable of sending network messages indicative of the

behaviour of the second IED (22) in accordance with said system level function over the communication network (20) to the first IED (21)."

Claims 3 to 5 and 7 to 10 of the granted patent depend, respectively, on claims 1 and 6.

XVII. Claim 1 of appellant's first auxiliary request reads:

"1. A method of performing a system level test of a first Intelligent Electronic Device (IED) (21) of a Substation Automation (SA) system, in which test a system level function of the SA system, involving the first IED (21) and a second IED (22), is tested based on network messages that are received by the first IED (21) over a communication network (20), the method comprising

- installing a fraction of a totality of IEDs of the SA system in a test environment,*
- connecting a testing device (30) different from the second IED (22) to the communication network (20),*
- detecting, by the testing device (30), the IEDs installed in the test environment,*
- identifying IEDs of the SA system not installed in the test environment,*
- reading, by the testing device (30), a standardized description of implemented device functions of the second IED (22),*
- sending, by the testing device (30), network messages indicative of the behaviour of the second IED (22) in accordance with said system level function over the communication network (20) to the first IED (21),*
- sending, by the testing device (30), network messages indicative of the behaviour of IEDs of the SA system not installed in the test environment, and*

- monitoring a behaviour of the first IED (21) in response to said network messages."

Independent claim 5 of appellant's first auxiliary request 1 reads:

"5. A test environment for a Substation Automation (SA) system level test of a first Intelligent Electronic Device (IED) (21), in which test a system level function of a SA system involving the first IED (21) and a second IED (22) is tested based on network messages that are received by the first IED (21) over a communication network (20), the test environment comprising

- a fraction of a totality of IEDs of the SA system,*
- a first testing device (30) different from the second IED (22), connected to the communication network, configured to read a standardized description of implemented device functions of the second IED (22) and configured to send network messages indicative of the behaviour of the second IED (22) in accordance with said system level function over the communication network (20) to the first IED (21), the first testing device (30) being further configured to detect IEDs installed in the test environment and to send network messages indicative of the behaviour of IEDs of the SA system not installed in the test environment,*
- means for identifying IEDs of the SA system not installed in the test environment, and*
- means for monitoring a behaviour of the first IED (21) in response to said network messages."*

Claims 2 to 4 and 6 to 9 of appellant's first auxiliary request depend, respectively, on independent claims 1 and 5.

XVIII. Appellant's second auxiliary request differs from first auxiliary request in that claims 5 to 9 have been cancelled.

Reasons for the Decision

1. *Applicable law*

It is noted that the revised version of the Convention (EPC 2000) does not apply to European patent applications pending at the time of its entry into force (13 December 2007), unless otherwise provided. In the present decision, where Articles or Rules of the former version of the EPC apply, their citation is followed by the indication "1973".

2. *Admissibility of the appeal*

2.1 The notice of appeal and the statement of grounds of appeal comply with the requirements of Articles 106 to 108 EPC and Rule 99 EPC.

In particular, the appellant is adversely affected by the decision of the examining division in the sense of Article 107 EPC since both requests for maintenance of the patent in amended form underlying the decision were rejected and the patent was revoked. The fact that, later on in the course of the appeal proceedings, the appellant requested, as its main request, that the patent be maintained as granted does not affect this finding.

2.2 The appeal is thus admissible.

3. *Admissibility of appellant's main request*

- 3.1 The appellant requested, as a main request, that the decision under appeal be set aside and the patent be maintained as granted. This request was filed on 7 June 2016 in the letter of reply to the communication of the Board pursuant to Article 15(1) RPBA.
- 3.2 The Board observes that the granted version of the patent had never been defended by the patentee in opposition proceedings. In this respect, a summary of the relevant events which took place in the course of the opposition proceedings and ensuing appeal proceedings appears to be expedient.
- 3.2.1 In response to the communication of the opposition division, dated 18 December 2009, requesting the patentee to file its observations to the notices of opposition, the patentee merely commented in its letter of reply of 19 April 2010 on the objections raised against dependent claim 2 of the granted patent. Since no formal request had been formulated in the patentee's letter of reply, it was assumed, at that stage of the proceedings, that the patentee implicitly requested maintenance of the patent as granted.

In the annex to the summons to attend oral proceedings, the patentee was informed of the assumption made by the opposition division with regard to the patentee's request.

In response to the summons, the patentee filed, in a letter of 20 May 2011, a set of amended claims 1 to 10 "*as a basis for the oral proceedings*" in which independent claims 1 and 6 had been amended by incorporating features of original claim 2. The patentee further indicated that it fully concurred with

the favourable findings of the opposition division expressed in the annex to the summons regarding original claim 2. The letter of 20 May 2011 did not contain any further indication concerning the patentee's requests.

During the oral proceedings before the opposition division, the patentee stated that the (implicit) request of 20 May 2011 represented its main request and that it intended, in the meantime, to replace said request by a new main request. The new main request consisted of claims 1 to 9, claim 1 being an almost exact combination of granted claims 1 and 2 (cf. minutes of the oral proceedings before the opposition division, point 5). This request was then admitted into the opposition proceedings by the opposition division and defined the main request underlying the decision in suit.

3.2.2 The claims of the main request filed with the statement of grounds of appeal differ from the claims of the request underlying the impugned decision, for the essential, in that the expression "*capable of*" in independent claim 5 has been replaced by the expression "*configured to*".

3.3 It thus appears that the patentee never commented on the objections raised by the opponents against claim 1 of the granted patent and that it never explicitly filed any request for maintenance of the patent as granted. By filing a request for maintenance of the patent as granted at a late stage of the appeal proceedings, the patentee sought to open a debate on questions which it deliberately abstained to address in the course of the opposition proceedings.

Article 12(2) RPBA specifies that "*The statement of grounds of appeal and the reply shall contain a party's complete case.*" A discretion is recognised to the Board to admit and consider amendments to a party's case after it has filed its grounds of appeal under Article 13(1) RPBA. Such discretion shall be exercised in view *inter alia* of the current state of the proceedings and the need for procedural economy.

Under the present circumstances, the Board notes that the appellant's new main request was filed at a particularly late stage of the appeal proceedings. The admission of the main request into the appeal proceedings would be, in view of the present circumstances for which the appellant is the sole responsible, in direct contradiction with the principle of procedural economy referred to in Article 13(1) RPBA. It could indeed imply a remittal of the case to the opposition division in order for the respondents to benefit from two instances. Moreover, the admission of the main request into the appeal proceedings would require that the parties, the opposition division and/or the Board debate, for the first time, on aspects that have never been addressed before.

3.4 For these reasons, the appellant's main request is not admitted into the appeal proceedings.

4. *Appellant's first auxiliary request*

4.1 *Added subject-matter*

4.1.1 *Expression "configured to"*

The respondents objected to the use of the expression "*configured to*" in claim 5 of appellant's first

auxiliary request. Said expression replaced "*capable of*" in the corresponding claim decided upon by the opposition division but was not to be found in the original application documents when associated with various functionalities of the test environment. In the respondents' view, the new amended wording thus contradicted the requirements of Article 123(2) EPC.

In a previous decision (cf. decision T 667/08, not published), the present Board, in a different composition, expressed the view that literal support is not required by the wording of Article 123(2) EPC. It is namely essential, when deciding on issues of added subject-matter, to identify the actual teaching conveyed by the original disclosure.

Original claim 6 constitutes the basis for claim 5 of appellant's first auxiliary request. Original claim 6 comprises the feature of "*a first testing device different from the second IED [...] capable of reading a standardized description of implemented device functions of the second IED and capable of reading network messages indicative of the behaviour of the second IED ...*". In the Board's judgement, the expressions "*configured to*" and "*capable of*" are equivalent and imply, in the context of the invention, that the first testing device is able to carry out the recited functionalities without requiring any modification of any kind, i.e. neither necessitating an adaptation of the structure of the testing device (hardware) nor a change in the way it has been programmed (software).

Moreover, original claim 2, which depends on original claim 1 as to a method of performing a system level test, explicitly comprises the step of "*detecting by*

the testing device (30), the IEDs installed in the test environment". This step to be performed by the testing device implies that it has been conceived accordingly, i.e. that it has been "*configured to*" detect IEDs installed in the test environment, as now recited in claim 5 of appellant's first auxiliary request. Similarly, the step of "*sending by the testing device, network messages indicative of the behaviour of IEDs of the SA system not installed in the test environment*" in original claim 2 constitutes a sufficient basis for the testing device being "*configured to*" send said network messages, as recited in claim 5 of appellant's first auxiliary request.

4.1.2 *Expression "means for"*

The respondents further objected to the use of the expression "*means for*" in claim 5 of appellant's first auxiliary request in association with the functions of identifying IEDs of the SA system not installed in the test environment and of monitoring a behaviour of the first IED in response to said network messages. The description did not disclose such means as recited in claim 5. There was no support in the original documents for such broad definitions. In particular, the expression "*means for*" appeared to constitute an unallowable generalisation of the testing device disclosed throughout the original application.

The Board, however, observes that original claim 1, which concerns a method of performing a system level test, comprises the step of "*monitoring a behaviour of the first IED in response to said network messages*". Similarly, original claim 2 includes the step of "*identifying IEDs of the SA system not installed in the test environment*". The reference to these

functionalities implies the existence of corresponding means, considering that the context of the invention makes it abundantly clear that these operations are not to be performed by human operators. In this respect, the broad definition in claim 5, as it results from the use of "*means for*", i.e. without specifying any dedicated structural elements, merely reflects the evocation in original claims 1 and 2 of the corresponding functionalities.

4.1.3 It follows that claim 5 of appellant's first auxiliary request derives directly and unambiguously from claims 6 and 2 of the original disclosure.

4.1.4 Appellant's first auxiliary request thus meets the requirements of Article 123(2) EPC.

4.2 *Novelty*

4.2.1 The respondents' objections of lack of novelty over D1 of the test environment of claim 5 according to appellant's first auxiliary request relied on the broad interpretation of the expression "*configured to*" (cf. point 4.1.1 above). In the respondents' view, the mere ability of a known test system to be programmed to do so was sufficient to anticipate the corresponding features.

As already expounded above, the Board rejects this interpretation. The functional definitions introduced by the expression "*configured to*" in claim 5 imply that the test device is indeed able to carry out said functions without requiring any modification affecting its hardware or software.

None of the available documents of the prior art discloses a test environment as claimed in claim 5 of appellant's first auxiliary request.

In particular, the method disclosed in document D1 does not comprise the steps of:

- identifying IEDs of the SA system not installed in the test environment, and
- sending by the testing device network messages indicative of the behaviour of IEDs of the SA system not installed in the test environment.

There is accordingly no indication in D1 that the test environment is indeed configured to perform said operations.

4.2.2 It follows that claim 5 of appellant's first auxiliary request is novel over D1.

4.2.3 Appellant's first auxiliary request thus meets the requirements of Article 54(1), (2) EPC 1973.

4.3 *Inventive step*

4.3.1 The appellant requested remittal of the case to the opposition division to discuss the issue of inventive step.

In the decision under appeal, however, the opposition division extensively addressed this issue by way of an *obiter dictum*. In particular, relying on the teaching of document D1 considered to illustrate the closest prior art, the opposition division came to the finding that the subject-matter of claim 1 of the request underlying the impugned decision would appear to satisfy the requirements of Article 56 EPC 1973. With

the Board's understanding of the expression "*configured to*", the reasoning developed by the opposition division (cf. section 19 of the decision under appeal) would also apply to claim 5 of the present appellant's first auxiliary request.

Therefore, considering the argumentation of the opposition division with regard to the issue of inventive step, even though it does not form part of the reasons of the decision under appeal, the Board shares the respondents' view that a remittal would not be expedient under the present circumstances.

Consequently, the appellant's request for remittal to the opposition division to rule on the inventive merits of the claimed invention is rejected.

- 4.3.2 In respondent I's view, the method according to claim 1 of appellant's first auxiliary request was not inventive. In particular, the claimed method derived in an obvious manner from document D1.

Reference was made to Figure 2 in document D1 and also to page 19, lines 14-17, of document:

- (D3) International standard IEC 61850-6,
"*Communication networks and systems in substations*", Part 6, Configuration description language for communication in electrical substations in IEDs, First Edition 2004-03.

D3 related to the same standard as D1 and provided details as to the communication within substations. The structure disclosed in document D1 thus had to be construed according to the additional teaching provided by D3.

As illustrated in Figure 2 of D1, a device under test would have access to the complete information concerning the substation, i.e. an SCD file which itself contained a complete set of configuration files describing all IEDs within the substation. The conformance tests were thus performed on the basis of the information gathered from the various IEDs description as might be found in the central SCD file (cf. D1, section 5.2) by way of messages issued by the testing device (cf. D1, section 6.1).

The claimed method thus differed from the method disclosed in D1 in that it included the steps of:

- detecting by the testing device the IEDs installed in the test environment, and
- identifying IEDs of the SA system not installed in the test environment.

The distinguishing features permitted to identify both the IEDs present within the substation and those which were not present when carrying out the tests .

Attention was also drawn to document:

(D8) DE-A-103 33 889.

D8 concerned the control and monitoring of automatic processes taking place, for example, in electric power systems. As disclosed with regard to Figure 3 and in paragraphs [0032] to [0034], the testing processes required the elaboration of a functional structure reflecting the system to be monitored. Such a structure implied the automatic identification of all units present in the system.

Applied to the system disclosed in Figure 2 of D1, the identification of all IEDs present would also lead to the identification of the IEDs not present within the substation since the SCD file comprised the information relating to all IEDs normally present within said network.

For respondent I, the method of claim 1 thus resulted in an obvious manner from document D1 when considering the teaching of document D8.

A similar finding applied, according to respondent I, when considering the teaching of document:

(D9) DE-A-103 33 885.

The integration of additional IEDs in a system would have also implied the identification of IEDs not present in the system environment.

4.3.3 The Board rejects the analysis developed by respondent I.

While it is acknowledged that the system reproduced in Figure 2 of D1 provides all the means actually required to carry out the invention, it does not proceed with the available data in the way it is done according to the claimed invention. In particular, there is no explicit mention in D1 of the step of identifying IEDs of the SA system not installed in the test environment and of the testing device sending network messages indicative of the behaviour of said IEDs not installed in the test environment.

The missing steps are also not implicit from document D1. As emphasized by the appellant, the configuration

referred to in D1 is conceived to carry out standard tests and is not adapted to deal with situations where one or more IEDs may be absent from the test environment (cf. D1, page 12, second paragraph). In this respect, the fact that claim 1 does not distinguish between standard and specific system related tests is not essential, since what actually matters is that the distinguishing features identified above allow the claimed process to proceed with such realistic situations.

Document D8 defines a process which permits to develop a structural model of a complex automated system which may be used to carry out compliance tests. There is no indication in D8 that the configuration of the system underlying the model may be modified prior to tests being carried out. A search for not installed IEDs is thus not envisaged in the context of D8. It is also not envisaged in the context of document D9.

For these reasons, the Board considers that the skilled person, starting from the disclosure of D1 would have not even considered D8, or D9, when elaborating test processes reflecting realistic situations.

- 4.3.4 Respondent II objected to claim 1 of appellant's first auxiliary request under Article 56 EPC 1973 because it resulted, in its view, in an obvious manner from a combination of document:

(D12) US-A-2002/0173927, or
(D2) US-B-6 795 789),

considered to illustrate the closest prior art, and D8.

Document D12 is the US patent application corresponding to the patent identified as document D2. The two documents are equivalent insofar as the present analysis is concerned.

In the view of respondent II, document D12 disclosed a system for testing IEDs according to the standard disclosed in document D1. Document D12 and D1 were for the essential equivalent in that they conveyed the same teaching in order to test IEDs in a test environment. The disclosure of D12 differed, however, from that of D1 in that it contained a clear hint to consider IEDs not installed within the test environment. Reference was made, in this respect, to paragraphs [0027] and [0028] in D12, and more particularly to the statement in paragraph [0028] according to which "*a simulation state include simulation of a virtual IED through control and status messages transmitted to the device under test 204 from the test device 202*".

As put forward by respondent II during the oral proceedings, the reference to a virtual IED was to be construed as referring to IEDs which were not connected to the substation system when the tests were carried out. Such stimulation of virtual IEDs implied their identification during a preliminary phase of the tests.

The skilled person, relying on the teaching of document D8, would then be in a position to implement in an automated system the process disclosed in D12.

- 4.3.5 The Board is however not convinced by this analysis. Concretely, the Board does not share the interpretation of the notion of "*virtual IED*" in D12, as relied upon by respondent II. In this respect, the appellant put forward that the concept of "*virtual IED*" was commonly

used to distinguish such IEDs from "*physical IEDs*" and not from "*real IEDs*". Although not supported by any evidence, the Board concurs with the appellant that the term "*virtual IED*" may be construed, in the context of D12, as identifying IEDs which possibly do not even exist in the physical world and does not necessarily refer to specific real IEDs expected to be present in a test environment. The Board, thus, does not equate the concept of "*virtual IED*" with that of an IED which would be missing, i.e. not installed in the test environment. The skilled person had thus no reason for identifying in the test environment of D12 those IEDs which are not installed.

- 4.3.6 None of the other available prior art appears to render the claimed method obvious. The same finding applies to the test environment defined in independent claim 5.

Consequently, the subject-matter of claims 1 and 5 does not derive in an obvious manner from the prior art.

- 4.3.7 Appellant's first auxiliary request thus meets the requirements of Article 56 EPC 1973.

- 4.4 In conclusion, appellant's first auxiliary request is allowable.

5. Appellant's second auxiliary request

Since appellant's first auxiliary request is allowable, there is no need for the Board to rule on the merits of second auxiliary request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division with the order to maintain the patent with claims 1 to 9 of appellant's first auxiliary request of 7 June 2016 (corresponding to the main request as filed with the grounds of appeal of 5 December 2011) and a description to be adapted.

The Registrar:

The Chairman:



R. Schumacher

G. Assi

Decision electronically authenticated