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**Datasheet for the decision
of 6 March 2024**

Case Number: T 0247/22 - 3.5.03

Application Number: 12166876.8

Publication Number: 2661050

IPC: H04L29/08, G01D4/00, G06F8/654

Language of the proceedings: EN

Title of invention:
Efficient firmware update in a narrow bandwidth system

Patent Proprietor:
Itron, Inc.

Opponent:
QUNDIS GmbH

Headword:
Firmware update/ITRON

Relevant legal provisions:
EPC Art. 83, 104(1)
RPBA 2020 Art. 12(8), 16(1)

Keywords:

Decision in written proceedings - (yes): cancellation of arranged oral proceedings following proprietor's indication of non-attendance

Sufficiency of disclosure - main request, 1st and 2nd auxiliary requests (no): undue burden for the skilled person

Apportionment of costs - (no): not equitable



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Case Number: T 0247/22 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 6 March 2024

Appellant: QUNDIS GmbH
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Respondent: Itron, Inc.
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Representative: Howson, Richard Giles Bentham
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
29 November 2021 concerning maintenance of the
European Patent No. 2661050 in amended form.**

Composition of the Board:

Chair K. Bengi-Akyürek
Members: N. H. Uhlmann
R. Romandini

Summary of Facts and Submissions

- I. The appellant (opponent) appealed against the opposition division's decision to maintain the European patent in suit in amended form according to a "second auxiliary request".
- II. The board summoned the parties to oral proceedings and set out its provisional opinion in a communication under Article 15(1) RPBA.
- III. On 31 January 2024, the respondent informed the board that it will not be attending the scheduled oral proceedings.
- IV. The oral proceedings were thus cancelled (cf. Article 12(8) RPBA).
- V. By letter dated 1 February 2024, the appellant requested that the respondent be ordered to bear the costs of the appellant under Article 16(1) RPBA.
- VI. By letter of 22 February 2024, the respondent submitted that the costs not be awarded to the appellant alongside arguments in support of its request.
- VII. Final requests of the parties
 - The appellant requested that the decision under appeal be set aside, that the patent be revoked and that costs be apportioned.

- The respondent requested that the appeal be dismissed (**main request**), i.e. that the patent be upheld as maintained by the opposition division, or, as an alternative, that the patent be maintained in amended form according to the claims of **auxiliary request 1 or 2**, both as filed with the written reply to the statement of grounds of appeal.

VIII. Claim 1 of the **main request** (patent as maintained) reads as follows:

"A method of updating firmware in a plurality of endpoints (104) configured as an advanced metering infrastructure 'AMI' network configured for automated meter reading 'AMR', the method to be executed on a data collector (102) of the AMI network, the data collector having a data collecting function, wherein it collects consumption data from the plurality of endpoints, the method comprising steps of:

sending (804) an announcement of a firmware update to be received at a future time to the plurality of endpoints (104) configured as the AMI network;

multicasting (808) the firmware update a plurality of times, as indicated by the announcement, wherein multicasting (808) the firmware update comprises multicasting according to an interference matrix that segregates multicast times of nearby data collectors to reduce collisions of packets;

receiving (812) indications of missing blocks from a plurality of endpoints (104) that did not successfully receive all blocks of the multicast firmware update; and

sending (816) missing blocks to the plurality of endpoints (104) that did not successfully receive all

blocks of the multicast firmware update according to the indications."

- IX. Claim 1 of **auxiliary request 1** includes the features of claim 1 of the main request and adds the following clause between the "sending (804)" and the "multicasting (808)" steps:

"wherein sending (804) the announcement of the firmware update comprises:

unicasting the announcement to each endpoint (104) during a window (406) following receipt of metering data from the respective endpoint (104);

wherein the announcement tells the respective endpoint (104) when to receive the firmware update;"

- X. Claim 1 of **auxiliary request 2** is identical to claim 1 of auxiliary request 1.

Reasons for the Decision

1. Main request - claim 1 - Article 83 EPC

- 1.1 This request is the same as the "second auxiliary request" underlying the contested decision. Present **claim 1** includes the following limiting features (board's labelling):

1.1 A method of updating firmware in a plurality of endpoints configured as an AMI network configured for AMR,

1.2 the method to be executed on a data collector of the AMI network,

- 1.3 the data collector having a data collecting function,
- 1.4 it collects consumption data from the plurality of endpoints,
the method comprising steps of
- 1.5 sending an announcement of a firmware update to be received at a future time to the plurality of endpoints configured as the AMI network,
- 1.6 multicasting the firmware update a plurality of times, as indicated by the announcement,
- 1.7 multicasting the firmware update comprises multicasting according to an interference matrix that segregates multicast times of nearby data collectors to reduce collisions of packets,
- 1.8 receiving indications of missing blocks from a plurality of endpoints that did not successfully receive all blocks of the multicast firmware update,
- 1.9 sending missing blocks to the plurality of endpoints that did not successfully receive all blocks of the multicast firmware update according to the indications.

1.2 The appellant argued that the application as filed did not disclose **feature 1.7** in a sufficiently clear and complete manner to be carried out by the skilled person, contrary to Article 83 EPC.

1.3 The board agrees. The reasons are as follows. Multicasting according to an "interference matrix" is mentioned only in claim 3, in paragraph [0051] and Figure 1 of the application as filed. The original application, however, does not include any example of such "matrix" and does not describe its structure and content. In particular, there is no specific

explanation regarding the structure of a setup including a plurality of data collectors. Paragraph [0051] of the application as filed teaches that

- "a plurality of data collectors may be configured according to an interference matrix",
- "the interference matrix may ... prevent adjacent data collectors from transmitting at the same time",
- "the data collectors may be segregated to prevent nearby data collectors from transmitting at the same time times[sic], to thereby reduce collisions of packets",
- "the interference matrix may segregate data collectors physically and/or by time", and
- "[t]ransmission of the firmware update may be received by more endpoints is done according to the interference matrix".

These passages in fact describe *functions* of the "interference matrix", but they do not allow the skilled person to actually implement that matrix. In particular, it is not apparent whether the matrix shall be one-, two-, or three-dimensional, etc. It is similarly open how many elements are to be included in the matrix. Finally, it is not defined how to establish the values of the elements in the matrix and what the functional meaning of these values should be. Overall, the application as filed as well as the patent in suit do not include specific information describing in

detail at least one way of carrying out this claimed feature. To the contrary, the functional definition of the "interference matrix" is no more than an invitation to perform a research programme, where the skilled person is only able to establish through trial-and-error whether the claimed subject-matter was indeed enabled. This, however, amounts to an undue burden for the skilled person.

Furthermore, for the aim set out in these claimed features "to reduce collisions of packets", it is of importance that in addition to the "nearby data collectors" also "nearby endpoints" connected to distant data collectors may lead to "collisions of packets". Additionally, the communication channel between the "data collectors" and the "endpoints" may be wired or wireless (cf. paragraph [0022] as filed) and a high number of not further specified data collectors and endpoints may have to be considered. Hence, the skilled person striving to reproduce the invention as claimed is confronted with a complex network topology in which reduction of collisions of packets is to be achieved. Even if the person skilled in the art was able to observe whether a "collision" is occurring, by way of trial-and-error experiments, they cannot derive, either from the specification or on the basis of common general knowledge, adequate information leading necessarily and directly towards the claimed invention, i.e. towards an appropriately configured matrix, through the evaluation of initial failures. This kind of experiments, however, amounts to an undue burden for the skilled person.

1.4 For these reasons, the main request is not allowable under Article 83 EPC.

2. Auxiliary requests 1 and 2

The objections under Article 83 EPC raised in point 1 above applies equally to auxiliary requests 1 and 2. Thus, these requests are not allowable under Article 83 EPC either.

3. Apportionment of costs - Article 16 RPBA

3.1 The appellant requested that the respondent be ordered to bear the costs of the appellant (cf. point V above), in particular costs incurred by the appellant's representative and two technical experts in the course of the preparation

- of the appellant's letter dated 16 January 2024 and
- for the oral proceedings before the board.

The reason was that the respondent did not reply in due time to the board's communication under Article 15(1) RPBA and announced its non-participation in the oral proceedings less than seven days in advance, i.e. "untimely and late". No oral proceedings was requested in connection with this request for a different apportionment of costs.

3.2 This request constitutes an "amendment" to the appellant's appeal case. However, the board considered that it was made in response to the respondent's decision not to participate in the oral proceedings before the board. The board therefore decided to admit the request and to consider the respective arguments.

- 3.3 The respondent replied to this request on 22 February 2024, i.e. after the date originally scheduled for the oral proceedings (6 February 2024). In view of the board's decision to refuse the request for a different apportionment of costs (cf. point 3.4 below), there was no need to consider this submission.
- 3.4 The appellant's request for a different apportionment of costs must be refused for the following reasons.
- 3.4.1 It is quite common for parties to prepare themselves thoroughly for imminent oral proceedings. As a matter of principle (cf. Article 104(1), first sub-sentence, EPC), each party must bear the costs it has incurred. In general, it is up to a party to decide how and when to prepare its case, whether on the days shortly before the scheduled oral proceedings or at an earlier date so as to decide whether, for instance, further submissions are necessary.
- 3.4.2 As explained by the appellant itself, "[d]ue to the statements of the Board of Appeal in the summons, at least under points 5.6 and 8, the Appellant was forced to prepare a reply and statement of position in good time and to file it on 16 January 2024" (board's emphasis). Hence, the work involved as regards this kind of preparation was apparently not caused by the actual conduct on the part of the respondent. Parties are by no means procedurally obliged to respond, let alone within a time limit, to a board's communication pursuant to Article 15(1) RPBA, even where the board's preliminary opinion is prejudicial to their interests. An allegedly late reaction to such a negative preliminary, non-binding opinion of the board (cf. Article 17(2) RPBA) could therefore not constitute *per se* a malicious or irresponsible behaviour that

automatically amounts to an "abuse of procedure" within the meaning of Article 16(1)(e) RPBA.

- 3.4.3 The appellant further argued that the patent in suit was an essential patent with respect to the standard "EN 13757-3". Thus, the respondent should have responded to the board's communication in time.

This argument is not convincing. Especially when allegedly standard-essential patents are concerned, it is conceivable that it takes longer to decide on the further procedural steps to be taken.

- 3.4.4 In the present case, the sole reaction of the respondent to the board's preliminary opinion had been its statement that it will not be attending the scheduled oral proceedings (cf. point III above). This made possible - in combination with the appellant's final requests - the cancellation of those oral proceedings, so that the situation foreseen under Article 16(1)(c) RPBA does not apply. In addition, the cancellation of the oral proceedings rendered the overall proceedings simpler: in fact, it resulted in time savings for the appellant associated at least with its attendance at those oral proceedings.

- 3.5 For these reasons, it is not equitable to order a different apportionment of costs within the meaning of Article 104(1) EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.
3. The appellant's request for a different apportionment of costs is refused.

The Registrar:

The Chair:



B. Brückner

K. Bengi-Akyürek

Decision electronically authenticated