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**Datasheet for the decision  
of 18 July 2022**

**Case Number:** T 2124/17 - 3.5.07

**Application Number:** 12818407.4

**Publication Number:** 2734928

**IPC:** G06F15/173, H04L12/26,  
H04L12/24

**Language of the proceedings:** EN

**Title of invention:**

SYSTEMS AND METHODS FOR NETWORK MONITORING AND TESTING USING  
DIMENSION VALUE BASED KPIS

**Applicant:**

Empirix Inc.

**Headword:**

Network monitoring and testing using KPIs/EMPIRIX

**Relevant legal provisions:**

EPC Art. 56, 111(1)

**Keyword:**

Remittal to the department of first instance



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Case Number: T 2124/17 - 3.5.07

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.07**  
**of 18 July 2022**

**Appellant:** Empirix Inc.  
(Applicant) 600 Technology Park Drive  
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**Representative:** Carpmaels & Ransford LLP  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 27 March 2017  
refusing European patent application No.  
12818407.4 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chair** J. Geschwind  
**Members:** C. Barel-Faucheux  
R. de Man

## **Summary of Facts and Submissions**

- I. The appeal lies from the decision of the examining division to refuse European patent application No. 12818407.4, which was published as international application WO 2013/016242 A2.

The following documents were cited in the decision:

D1: K. McCloghrie and M. Rose, "Management Information Base for Network Management of TCP/IP-based internets: MIB-II", IETF RFC 1213, March 1991

D6: US 6 208 720 B1 published on 27 March 2001

The examining division decided that the subject-matter of the claims of the main, first and second auxiliary requests was not inventive over document D1 and the knowledge of the skilled person illustrated by document D6.

- II. With the statement of grounds of appeal, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request or one of the first and second auxiliary requests considered in the appealed decision and resubmitted with the statement of grounds.
- III. In a communication pursuant to Article 15(1) RPBA, the board expressed the view that document D1 was not a suitable starting point for assessing inventive step while document D6 appeared to be a suitable starting point for assessing inventive step. Therefore, the board intended to remit the case to the examining

division for further prosecution. The board further made non-binding comments on the technicality of certain claim features.

IV. With a letter of reply within one month of notification of the board's communication, the appellant withdrew its request for oral proceedings.

V. The board cancelled the oral proceedings.

VI. Claim 1 of the main request reads as follows:

"A method of configuring key performance indicators, KPIs, for monitoring and testing a network, comprising the steps of:

defining a set of event rules (302) for generating one or more key performance indicator, KPI, events (304) based on one or more events (300);

defining a set of aggregation rules for aggregating the one or more KPI events based on a time period (500);

monitoring a plurality of events generated by one or more devices in the network;

matching an event from the plurality of events with the set of event rules;

generating a KPI event based on the event and the set of event rules;

aggregating the KPI event with other KPI events generated over the time period by applying aggregation operations defined by the set of aggregation rules to generate an aggregated KPI indicative of a performance of the network (502), wherein the set of event rules or the set of aggregation rules is dynamically updated based on user input describing one or more KPIs of interest."

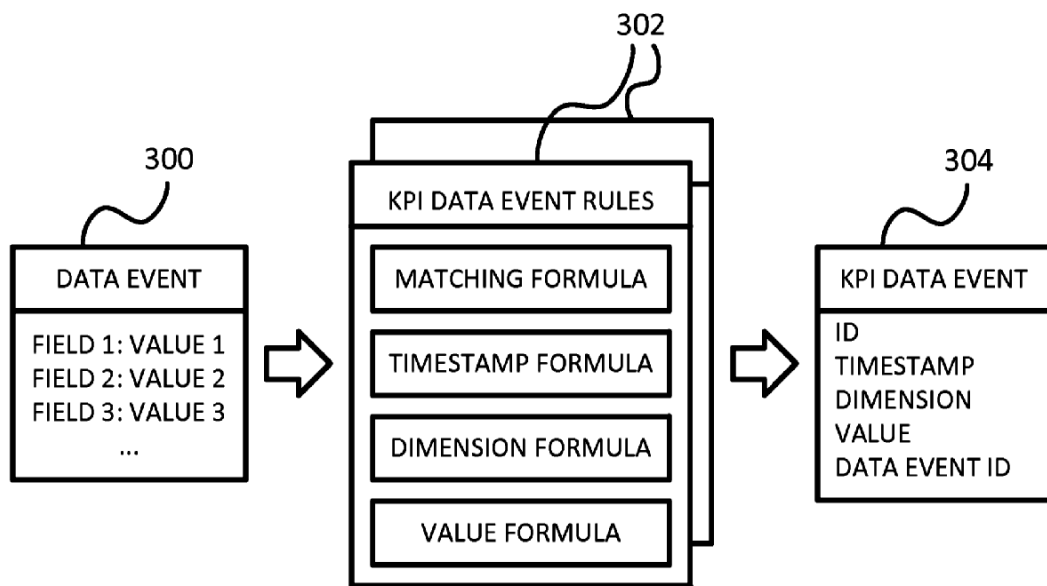
VII. The text of the claims of the first and second auxiliary requests is not relevant to this decision.

### **Reasons for the Decision**

#### *Application*

1. The application relates to a generic data mediation platform for use in real-time network monitoring (voice over internet protocol networks, voice quality monitoring and quality of user experience in networks), testing and analytics. It uses "dimension-value" based key performance indicators (KPIs) configured and calculated from a stream of homogeneous or heterogeneous data events (see paragraphs [0002] to [0005] and [0026] of the international publication).
2. The invention is described in the context of calculating KPIs for call detail records for computer telephony events (such as minimum voice quality score per user, average call duration per network node, number of calls per region, average number of calls per customer with a low mean opinion score, etc.) (paragraph [0025]).
3. The aim of the invention is to provide a flexible KPI description methodology that can be used to implement KPIs, allow users to modify existing KPIs and to implement additional KPIs when needed. By using a set of rules and formulas to define KPIs and the calculations associated with KPIs, a user can simply modify a configuration file, rather than having to change the source code of the system (paragraph [0032]).

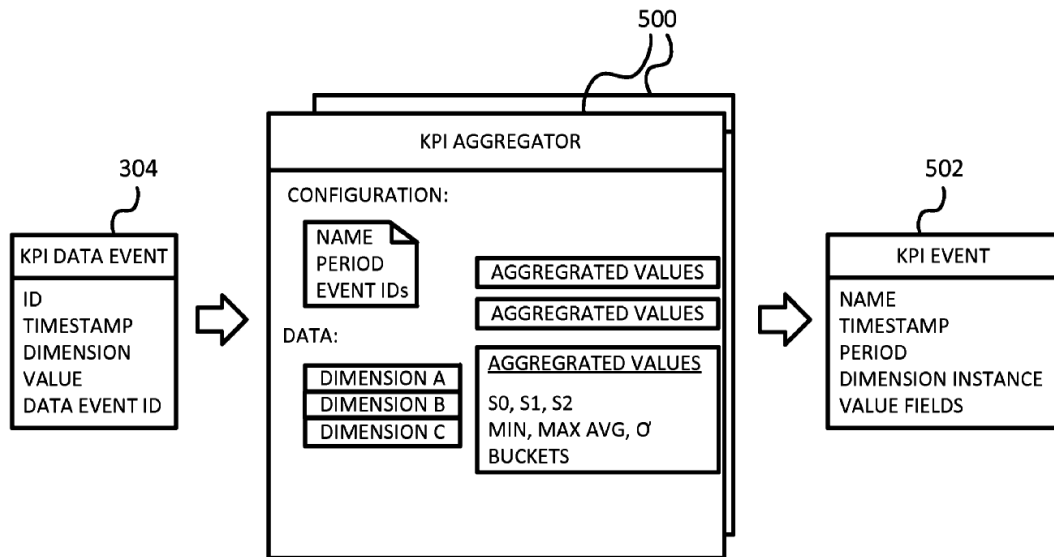
4. The data events 300, consisting of a set of field-value pairs, are processed by KPI data event rules 302. KPI data event rules 302 include the use of four types of rules to generate KPI data events 304: matching formula, timestamp formula, dimension formula and value formula (paragraph [0036] and Figure 3 reproduced below).



**FIG. 3**

5. A KPI aggregator 500 uses a set of configuration rules to process a plurality of KPI data events 304 that occurred during an aggregation time period. The configuration of KPI aggregators can include rules indicating the name of events to be processed, the time interval for which events are being processed and aggregated, the event IDs to be processed, etc. (paragraph [0044] and Figure 5 reproduced below). The aggregated KPI events 502 generated by aggregators are comprised of a set of name-value pairs including a name for the KPI event, a timestamp, an aggregation time period, a dimension instance and aggregated value

fields, such as minimum, maximum, mean, standard deviation, buckets, etc. (paragraph [0045] and Figure 5).



**FIG. 5**

*Main request - inventive step*

6. Document D1 was considered by the examining division to be the prior art closest to the subject-matter of claim 1. It discloses a virtual information store (second version of Management Information Base or MIB-II) for use with network management protocols in TCP/IP-based internets (page 1, "Status of this Memo"; page 2, section "1. Abstract"; page 10, section "4. Objects"). Managed objects are accessed via the MIB. Objects in the MIB are defined using the subset of Abstract Syntax Notation One (ASN.1) defined in the Structure of Management Information (SMI). Each object has a name, a syntax and an encoding (page 10, section "4. Objects"). An object is essential for either fault or configuration management, and no object can be derived from others (page 11, points (1) and (5)).

7. The examining division argued that a key performance indicator (KPI) event was, for example, an object having a name "ifInOctets OBJECT-TYPE", having the syntax of a "Counter" and indicating the "total number of octets received on the interface, including framing characters". A (KPI) event of receiving data was disclosed by a (certain) number of octets received. Summing the number of octets during the time period the interface was up and active to obtain a "total number of octets" disclosed "aggregating" and an "aggregation rule" (D1, bottom of page 20 and top of page 21; see decision under appeal, point 15.1.1).
8. However, the board cannot agree that an object counting the number of received octets is a (KPI) "event". According to the application, a KPI event is a timestamp-dimension-value triplet, whereas data events typically consist of a set of name-value pairs (paragraph [0029] and [0034]; Figure 3). Even interpreting the term "(KPI) event" more broadly as something that happens (and of which a record is generated), a continuously updated counter object is not an event, let alone a "KPI event", i.e. an event "calculated from a stream of homogenous or heterogenous data events" as defined in paragraph [0025].
9. Since document D1 does not disclose generating KPI events, it also does not disclose aggregating KPI events.
10. The board concludes that document D1, in particular the paragraph bridging pages 20 and 21 on which the examining division relied, is not a suitable starting point for assessing inventive step.



11. The board notes that document D6 discloses a configurable and dynamically updatable/scalable rules-based thresholding engine for monitoring event records such as telecommunication event records of telephone calls to determine whether one or more thresholds have been exceeded. When a threshold is exceeded, an alarm is generated. For example, in a telecommunications environment, parameters for thresholds can include total number of calls in a day, number of calls less than one minute in duration, number of calls more than 1 hour in duration, calls to specific telephone numbers, calls to specific countries, calls originating from specific telephone numbers, etc. (D6, column 1, lines 18 to 30 and lines 49 to 57 and column 2, lines 19 to 24).

This is very similar to the context of a computer telephony system given in the current application: a data event may comprise a call detail record associated with a call (paragraph [0034]; Figure 2).

12. Hence, document D6 appears to be a suitable starting point for assessing inventive step. Therefore, the board considers it appropriate to give the appellant the opportunity to have novelty and inventive step having regard to document D6 discussed in two instances and therefore decides to remit the case to the examining division for further prosecution in accordance with Article 111(1) EPC.
13. Since the request for oral proceedings was withdrawn within one month of notification of the communication and no oral proceedings took place, the appellant is entitled under Rule 103(4) (c) EPC to a reimbursement of the appeal fee at 25%.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the examining division for further prosecution.
3. The appeal fee is reimbursed at 25%.

The Registrar:

The Chair:



S. Lichtenvort

J. Geschwind

Decision electronically authenticated