

BOEHMERT & BOEHMERT P.O.Box 150308 80043 München Germany

**Online filing**

Europäisches Patentamt  
80298 München

Ihr Zeichen / your ref.  
**19 160 813.2**

Ihre Nachricht / your letter

Unser Zeichen / our ref.  
**H12303WOEP-A**

München  
**07.11.2024**

Dr. Matthias Hofmann  
Pettenkoferstraße 22  
80336 München  
Germany

T +49-89 559680  
F +49-89-559685090  
hofmann@boehmert.de  
www.boehmert.de

**European Patent Application EP 19 160 813.2**  
**SERVICE CHAIN FAULT DETECTION METHOD AND**  
**APPARATUS**  
**Huawei Technologies Co., Ltd.**

On the communication pursuant to Art. 94(3) EPC dated 30.07.2024:

It is requested to proceed with the examination on the basis of new claims 1 to 23 replacing the claims on file and the remaining documents as currently on file.

**I. Amendments**

Firstly, claim 8 has been amended to specify that "*sending, by the SFE, the first fault tracing detection request packet to a service function, SF, node*". This is originally disclosed in par. [0114] of the original description and step 502 of Fig. 9.

Secondly, claim 8 has been further amended to specify "*adding, by the SF node, an ID of the SF node to the first fault tracing detection request packet*." This is disclosed in par. [0121] of the original description which discloses "*the SF node 121 adds an ID of the SF node 121 to the fault tracing detection request packet 1042 sent to the SFE 111*."

Thirdly, claim 8 has been further amended to specify that "*sending, by the SF node, the first fault tracing detection request packet to the SFE*". This is originally disclosed in par. [0118] of the original description and step 503 of Fig. 9.

BOEHMERT & BOEHMERT Anwaltspartnerschaft mbB • Patentanwälte Rechtsanwälte • AG Bremen-PR 358 HB  
München • Bremen • Berlin • Düsseldorf • Frankfurt • Bielefeld • Alicante • Paris • Shanghai

Information about data protection and your rights as data subjects:  
[www.boehmert.com/data-protection](http://www.boehmert.com/data-protection)

Dr. Ing. Karl Boehmert PA (1899–1973)  
Dipl.-Ing. Albert Boehmert PA (1902–1993)  
Wilhelm J. H. Stahlberg RA, Bremen  
Dr.-Ing. Walter Hoormann PA\*, Bremen  
Prof. Dr. Heinz Goddar PA\*, München, Shanghai  
Dr.-Ing. Roland Liesegang PA\*, München (1987–2023)  
Wolf-Dieter Kuntze RA, Bremen  
Dr. Ludwig Kouker RA, Bremen  
Dipl.-Ing. Eva Liesegang PA\*, München  
Dr.-Ing. Matthias Philipp PA\*, Bielefeld  
Dr. Martin Vitz RA, Düsseldorf, Berlin  
Dr. Carl-Richard Haarmann RA, München, Düsseldorf  
Dipl.-Phys. Christian W. Appelt PA\*, München  
Dipl.-Phys. Dr.-Ing. Uwe Manasse PA\*, Bremen  
Dipl.-Phys. Dr. Thomas L. Bittner PA\*, Berlin  
Dr. Volker Schmitz-Fohmann, M. JUR. RA, München, Paris  
Dipl.-Biochem. Dr. Markus Engelhard PA\*, München  
Dipl.-Chem. Dr. Karl-Heinz B. Metten PA\*, Frankfurt  
Dr. Florian Schwab, LL.M. RA, Lic. en droit, München  
Dr. Andreas Dustmann, LL.M. RA, Berlin, Alicante  
Dipl.-Chem. Dr. Volker Scholz PA\*, Bremen  
Dr. Martin Schaefer RA, Berlin  
Dipl.-Phys. Dr. Michael Hartig PA\*, München, Paris  
Dipl.-Phys. Dr. Steffen Schmidt PA\*, München  
Dr. Andreas Lucke PA\*, München  
Dipl.-Chem. Dr. Ute Kilger PA\*, Berlin  
Malte Nentwig, LL.M. RA, Bremen  
Dr. Rudolf Böckenholt, LL.M. RA, Bremen  
Peter Groß, LL.M. RA, München, Alicante  
Dipl.-Ing. Felix Hermann PA\*, München  
Dipl.-Phys. Dr. Dennis Kretschmann PA\*, München  
Dr. Michael Rüberg, LL.M. RA, München, Paris  
Dipl.-Phys. Christoph Angerhausen PA\*, Düsseldorf  
Dipl.-Inform. Dr. Jakob Valvoda PA\*, München  
Dipl.-Chem. Dr. Martin Erbacher PA\*, Bremen  
Dr. Daniel Herrmann PA\*, Frankfurt, München  
Dr. Sebastian Engels RA, Berlin  
Silke Freund RA, München  
Dipl.-Phys. Dr. Matthias Hofmann PA\*, München  
Dr. Eckhard Ratjen, LL.M. RA, Bremen  
Dipl.-Phys. Dr. Jin Jeon PA\*, München  
Dr. Mario Araujo\*\* PA\*, München  
—  
Dipl.-Phys. Dr. Klaus Seranski PA\*, Frankfurt, München (2017–2024)  
Dipl.-Ing. Oliver Tarvenkorn PA\*, Düsseldorf, Bielefeld  
Dr. Katrin Seibt RA, Bremen  
Dipl.-Biochem. Dr. Sibylla M. Grahm PA\*, München  
Dipl.-Phys. Dr. Xia Pfaffenzer PA\*, München  
Dipl.-Inform. Fritz Jetzek PA, Bremen  
Claudia Deppe RA, München  
Dr. Anja Ruge, LL.M. RA, Berlin, München  
Mehmet Bengi-Akyürek PA\*, München  
Dr. Lars Eggersdorfer RA, München  
Dipl.-Ing. Simon Comet PA\*, Düsseldorf  
Dipl.-Ing. Dr. Sebastian Schlegel PA\*, Berlin  
Dipl.-Chem. Robert Bernin PA\*, Bremen  
Dipl.-Ing. Jan Göring PA\*, Frankfurt  
Dr. Laura Haas, M.Sc. PA\*, München  
Dr. Hanno Flentje PA\*, München  
Dr. Lennart-Knud Liefelth PA\*, Frankfurt  
Dr. Lara Gwinner PA\*, München  
Dr. Alexander Thamer RA, Berlin  
Dr.-Ing. Michael Rübsamen PA\*, München  
Dipl.-Phys. Dr. Michael Lohse PA\*, München  
Dr.-Ing. Jonas Boschung, M.Sc., M.Sc. PA\*, Düsseldorf  
Dipl.-Phys. Dr. Adrian Steffens PA\*, Berlin  
Melanie Müller RA, Bremen  
Dipl.-Phys. Dr. Giulio Schöber PA\*, München  
Micheline Verwohlt RA, München  
Nina Rucker RA, München  
Dr. Makiko Maruyama\*, M.Sc., München  
Théodore Ley\*, München  
Dr. Oleg Lebedev\*, Berlin  
Fabio Adinolfi RA, München  
Dipl.-Chem. Dr. José M. Pfizer PA\*, Berlin, München  
Malte Windeler, LL.M. oec. RA, Bremen  
Dipl.-Ing. Bernhard Jochim PA, Düsseldorf  
Dr. Julian Wernicke, LL.M. (UCT) RA, Berlin  
Dipl.-Phys. Dr. habil. Daniel Niesner PA, München  
Hannah Eekermann, LL.M. RA, München  
  
PA Patentanwalt/Patent Attorney \*European Patent Attorney  
RA Rechtsanwalt/Attorney at Law (Germany)  
\*\* Agente de la Propiedad Industrial (Spain) / Spain)  
Vertretung vor dem EUIPO – Marken und Designs  
Representation at EUIPO – Trade marks and Designs

Finally, claim 8 has been amended to specify *"obtaining, by the SFE, the ID of the SF node from the first fault tracing detection request packet"*. This is directly and unambiguously derivable from par. [0123] of the original description which discloses *"the first obtaining unit 1107 may obtain the ID of the SF node 121 from the fault tracing detection request packet 1042."* The cited paragraph discloses that the first obtaining unit is in the SFE node. Therefore, the first obtaining unit in the SFE obtaining the ID of the SF node discloses *"obtaining, by the SFE, an ID of the SF node"*.

Claim 19 has been amended in an analogous manner.

Thus, all amendments meet the requirements of Art. 123(2) EPC.

## **II. Two-part form, Rule 43(1) EPC**

In response to the request for two-part form in section 4.1 of Office Action 5, OA5, it is submitted that the subject matter of new claims 1 and 8 relates to a method whose method steps are interrelated with each other, while the inventive step concerns changes in several of these interrelated method steps. Further, the subject matter of claims 12 and 19 relates to a complex apparatus of functionally inter-related parts, while the inventive step concerns changes in several of these parts of the apparatus. Therefore, the use of the two-part form is considered to be inappropriate, since it would give a distorted picture of the claimed invention and would lead to an artificial lack of clarity of the respective claim. Hence, it is requested to allow the one-part form in the present case.

## **III. Clarity**

The Examining Division in Section 3.1 of OA5 objects that *"Claims 8 and 19 define 'determining, by the device for initiating fault detection, that forwarding between the SFE and the SF node is normal based on the received ID of the SF node', without specifying how is actually achieved only by obtaining just one ID of an SF node"* and that *"The claims attempt to define the subject-matter in terms of the result to be achieved."*

To proceed with the application in a favorable manner, claims 8 and 19 have been amended to clarify how the forwarding between the SFE and the SF node is determined to be normal based on the received ID of the SF node.

Specifically, new claims 8 and 19 now clearly specify steps wherein a first fault tracing request packet must traverse from the device for initiating fault detection to the SFE, then to the SF node, and back. Furthermore, new claims 8 and 19 also provide include steps wherein the SFE obtains the ID of the SF node after the SF node adds the ID to the

first fault tracing request packet and sends the first fault tracing detection request packet back to the SFE. Finally, the SFE obtains the ID of the SF node from the returned first fault tracing detection request packet. As a result, the device for initiating fault detection can determine that the forwarding between the SFE and SF node is normal based on this obtained ID of the SF node as the SF node has to receive the first fault tracing detection request packet, add an ID of the SF node to it and then successfully send the packet back to the SFE.

Thus, it is clear to the skilled person that the ID of the SF node is an indicator of normal forwarding as it can only be obtained after the SF node receives the first fault tracing request packet, adds the ID of the SF node to the packet and sends it back to the SFE. Therefore, if an ID of the SF node is obtained, then that means the first fault tracing request packet traversed through the SFE and SF node and back, that is, the forwarding between the SFE and SF node is normal.

In other words, if there were a fault between the SFE and SF node, the SF node would not be able to receive and/or send back the first fault tracing request packet. As a result, the SFE would not be able to obtain an ID of the SF node from the packet and the forwarding between the SFE and SF would be determined to be not normal, indicating a fault, which can be any sort of fault, between the SFE and SF node.

Therefore, at least new claims 8 and 19 clarify the steps leading up to obtaining the ID of the SF node and how this ID is used to determine that the forwarding between the SFE and SF node is normal.

Thus, at least all new claims meet the requirements of Art. 84 EPC.

#### **IV. Novelty and Inventive Step**

The Examining Division in Section 1 of the Office Action concedes that claims 1, 12 and 23 are novel and inventive. Furthermore, the Examining Division seemingly concedes that claims 8 and 19 are also novel and inventive - the only clarity objection has been overcome.

#### **V. Conclusion**

In view of the amendments made and the above explanations, it is believed that the application is now in a state acceptable for grant. Should the Examining Division, nevertheless, still see deficiencies in the documents on file, it is kindly asked to give the applicant the opportunity to file further arguments and, if necessary, amendments. Minor issues could be discussed by telephone.

Only as a measure of precaution,

**Oral Proceedings**

are herewith requested. In this event, it is further requested that the Oral Proceedings be either held in Munich, or by videoconference.

BOEHMERT & BOEHMERT



Dr. Matthias Hofmann

**Enclosures:**

New claims 1 to 23, clean copy

New claims 1 to 23, marked-up version