REMARKS

Status of Claims

Claims 1–20 were pending.

Thus, claims 1–20 remain pending.

Applicant requests further examination of the presently-claimed application.

Allowable Subject Matter

Claims 2–8, 10, 12–14, 16, and 18–20[1] have been objected as being dependent upon a rejected base claim, but would be allowable if incorporated into their independent claims. Applicant thanks Examiner for the indication of allowability. However, Applicant believes claims 1, 9, and 15, which claims 2–8, 10, 12–14, 16, and 18–20 depend from, are allowable for the reasons provided below.

Double-Patenting Rejections

Claims 1–20 are rejected under the judicially-created doctrine of obviousness-type double-patenting as being unpatentable over claims 1–23 of U.S. Patent No. 11,032,174. Applicant defers filing a terminal disclaimer until prosecution completes.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 9, 11, 15, and 17 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent App. Pub. No. 2015/0227404 ("Rajagopal") in view of U.S. Patent App. Pub. No. 2016/0254998 ("Jokela"). Claim 11 depends from independent claim 9, and claim 17 depends from independent claim 15. Thus, claims 1, 9, 11, 15, and 17 will be allowable if independent claims 1, 9, and 15 are allowable over the combination of Rajagopal and Jokela. The United States Supreme Court in *Graham v. John Deere Co. of Kansas City* noted that an obviousness determination begins

[1] The Office Action indicates claims 2, 7–8, 10, 12–14, 16, and 18–20. Office Action, at 2. However, claims 3–6 depend from claim 2.

with a finding that "the prior art as a whole in one form or another contains all" of the elements of the claimed invention. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 22 (1966). The combination of Rajagopal and Jokela fails to disclose each element of claims 1, 9, and 15, and thus fails to render obvious claims 1, 9, 11, 15, and 17.

The combination of Rajagopal and Jokela fails to render obvious claim 1 because the combination of Rajagopal and Jokela fails to disclose: 1) obtaining a first fault tracing detection request packet comprising a path identifier (ID), wherein the path ID identifies a path of a service chain; and 2) sending a first fault tracing detection response packet to a device for initiating fault detection, wherein the first fault tracing detection response packet comprises the path ID and a first ID of a first SF node. Claim 1 reads:

> 1. A service forwarding entity (SFE) comprising:
> a memory configured to store instructions; and
> a processor coupled to the memory and configured to execute the instructions to cause the SFE to:
> **obtain a first fault tracing detection request packet comprising a path identifier (ID), wherein the path ID identifies a path of a service chain;**
> determine, after obtaining the first fault tracing detection request packet, to communicate with a first service function (SF) node on the service chain;
> obtain **a first ID of the first SF node**; and
> **send a first fault tracing detection response packet to a device for initiating fault detection,**
> **wherein the first fault tracing detection response packet comprises the path ID and the first ID.**

(Emphases added). First, claim 1 requires obtaining a first fault tracing detection request packet comprising a path ID, wherein the path ID identifies a path of a service chain. Claims 9 and 15 require similar limitations. The Office Action asserts that paragraph 4 of Rajagopal discloses "a first fault tracing detection request packet comprising a path identifier (ID), wherein the path ID identifies a path of a service chain." Office Action, at 9–10. Specifically, the Office Action cites Rajagopal's

"identifying one or more fault nodes and associated fault conditions." *Id.* at 9. While Rajagopal identifies fault nodes and fault conditions, Rajagopal does not identify a path of a service chain:

> In one embodiment, a smart diagnostic system is disclosed, comprising: a hardware processor; and a memory storing processor-executable instructions comprising instructions for: receiving an agent fault report, including one or more network-wide standardized fault codes, from an agent application executing on a remote device in a media network; aggregating one or more relevant fault reports related to the agent fault report; obtaining one or more fault classification rules; **identifying one or more fault nodes and associated fault conditions** in the media network using the one or more fault classification rules, by analyzing the aggregated relevant fault reports; and providing an agent configuration instruction for one or more agent applications using the identification of the one or more fault nodes and associated fault conditions.

Rajagopal, FIG. ¶ 4 (emphasis added). As shown, Rajagopal identifies fault nodes and fault conditions. Rajagopal does not identify a path of a service chain. Nowhere does Rajagopal even disclose the word "path." In addition, nowhere does Rajagopal disclose packets, much less fault tracing detection request packets. Thus, Rajagopal fails to disclose obtaining a first fault tracing detection request packet comprising a path ID, wherein the path ID identifies a path of the service chain. Jokela fails to remedy that deficiency.

Second, claim 1 requires sending a first fault tracing detection response packet to a device for initiating fault detection, wherein the first fault tracing detection response packet comprises the path ID and a first ID of a first SF node. The Office Action asserts that paragraph 52 of Rajagopal discloses those limitations. Office Action, at 10–11. Specifically, the Office Action cites Rajagopal's "use [of] service chain information and other received service faults to identify the nodes. *Id.* at 10. However, Rajagopal uses service chain information and received service faults to identify nodes, not a path:

> At step 474, SDS 400 may perform smart fault analysis. When SDS 400 receives a central fault report from SA 455, SDS 400 may perform service fault segregation to identify one or more fault nodes where a fault may have occurred, and rules to be executed by RE 404 to identify remediation measures. **SDS 400 may use service chain information and other received service faults to identify the nodes.** In

> particular, SDS 400 may be able to identify dependencies between central fault records submitted by different SAs. For example, a fault in one node (e.g., a device, application, etc.) may cause several SAs linked to nodes with which the faulty node communicates to generate and send central fault records. SDS 400 may use the segregation procedure to identify the faulty node based on the multiple central fault records from the multiple linked SAs.

Rajagopal, ¶ 52 (emphasis added). As shown, Rajagopal uses service chain information and other received service faults to identify nodes. Rajagopal does not use the service chain information and received service faults to identify a path. Thus, Rajagopal fails to disclose sending a first fault tracing detection response packet to a device for initiating fault detection, wherein the first fault tracing detection response packet comprises the path ID and a first ID of a first SF node. Jokela fails to remedy that deficiency. Consequently, the combination of Rajagopal and Jokela fails to disclose each element of claims 1, 9, and 15, and thus fails to render obvious claims 1, 9, 11, 15, and 17.

CONCLUSION

Consideration of the foregoing amendments and remarks, reconsideration of the application, and withdrawal of the rejections and objections is respectfully requested by Applicant. No new matter is introduced by way of the amendment. It is believed that each ground of rejection raised in the September 29, 2022 Office Action has been fully addressed. If any fee is due as a result of the filing of this paper, please appropriately charge such fee to Deposit Account Number 50-1515 of Conley Rose, P.C., Texas. If a petition for extension of time is necessary in order for this paper to be deemed timely filed, please consider this a petition therefor.

If a telephone conference would facilitate the resolution of any issue or expedite the prosecution of the application, then Examiner is invited to telephone the undersigned at the telephone number given below.

Respectfully submitted,
CONLEY ROSE, P.C.

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