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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/490,076	04/18/2017	Douglas C. Lawson	2012P084US1CON1/ ALBRP736B	7356
42981	7590	01/30/2020	EXAMINER	
ROCKWELL AUTOMATION / AT&W ATTENTION: Linda H. Kasulke, E-7F19 1201 SOUTH SECOND STREET MILWAUKEE, WI 53204			TANG, KAREN C	
			ART UNIT	PAPER NUMBER
			2447	
			NOTIFICATION DATE	DELIVERY MODE
			01/30/2020	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* DOUGLAS C. LAWSON, DOUGLAS J. REICHARD,  
JOSEPH A. HARKULICH, RAINER HESSMER, SUJEET CHAND,  
DAVID W. FARCHMIN, and MICHAEL JOHN PANTALEANO

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Appeal 2019-000797  
Application 15/490,076  
Technology Center 2400

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Before CARL W. WHITEHEAD JR., MIRIAM L. QUINN, and  
MICHAEL M. BARRY, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1–6 and 9–22, which constitute all of the pending claims. *See* Final Act. 1 *and* App. Br. 22–28 (Claims App'x).<sup>2</sup> We have jurisdiction under 35 U.S.C. § 6(b). We REVERSE.

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<sup>1</sup> We use “Appellant” to refer to the “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest Rockwell Automation Technologies, Inc. App. Br. 2.

<sup>2</sup> We refer herein to the Appeal Brief filed July 26, 2018 (“App Br.”), the Answer mailed Sept. 13, 2018 (“Ans.”), the Reply Brief mailed Nov. 9, 2018, the Final Office Action mailed Apr. 2, 2018 (“Final Act.”), and the original Specification filed May 28, 2010 (“Spec.”).

*Introduction*

Appellant describes that “the subject application relates generally to industrial automation, and, more particularly, to systems and methods for gathering and sending industrial data to a cloud platform.” Spec. ¶ 2. To interface with a cloud platform, the claimed invention uses a “cloud gateway device, [which] can collect industrial data generated by an industrial system, perform optional processing on the industrial data, and push the industrial data to [the] cloud platform for use by one or more cloud-based services or applications.” *Id.* ¶ 8; *see also id.* ¶ 9 (summarizing other functionality the cloud gateway device can provide). “In some embodiments, the cloud gateway 504 may also be integrated within a network interface device, such as a hub, switch, router, or firewall box.” *Id.* ¶ 59.

Claim 1 is representative of the independent claims:

1. A cloud gateway device, comprising:
  - a memory that stores executable components; and
  - a processor, operatively coupled to the memory, that executes the executable components, the executable components comprising:
    - a network infrastructure component configured to control routing of data packets between different networks;
    - a device interface component configured to retrieve data from one or more data tags of an industrial device associated with an industrial automation system, wherein the one or more data tags are defined in a configuration file associated with the cloud gateway device;
    - a transformation component configured to add contextual metadata to the data and to at least one of compress, aggregate, filter, or re-format the data to yield

transformed data, wherein the contextual metadata comprises at least an identifier of a production area at which the industrial device is located; and

a cloud interface component configured to couple the cloud gateway device to a cloud platform identified by the configuration file and to send the transformed data to at least one of a cloud-based service or a cloud-based application that executes on the cloud platform,

wherein the cloud gateway device is at least one of a firewall device, a network router, a network hub, or a network switch.

App. Br. 22 (Claims App'x).

*References and the Examiner's Rejections*

The Examiner's rejection relies on the following references:

<b>Name<sup>3</sup></b>	<b>Number</b>	<b>Published</b>	<b>Filed</b>
Narancic	US 2007/0244892 A1	Oct. 18, 2007	Apr. 17, 2006
Hood	US 2008/0082186 A1	Apr. 3, 2008	Sept. 29, 2006
Obitko	US 2010/0082669 A1	Apr. 1, 2010	Sept. 30, 2008

The Examiner rejected claims 1–6 and 9–22 under 35 U.S.C. § 103 as obvious over the combined teachings of Narancic, Hood, and Obitko. Final Act. 3–7.

ANALYSIS

Appellant contends the Examiner errs in finding the combination of Narancic, Hood, and Obitko teaches the recited functionality included in a cloud gateway device that “is at least one of a firewall device, network router, a network hub, or a network switch” (and that comprises “a network

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<sup>3</sup> All reference citations are to the first listed inventor's surname.

infrastructure component configured to control routing of data packets between different networks”), as recited in claim 1 (collectively, the “network routing infrastructure” limitations). *See* App. Br. 11–18. In particular, Appellant argues the Examiner errs in finding Narancic teaches or suggests the recited “network infrastructure component configured to control routing of data packets between different networks” in a gateway device that also processes industrial device “data tags” and in finding Hood teaches or suggests that the recited cloud gateway device “is at least one of a firewall device, a network router, a network hub, or a network switch.” *Id.* at 13–16; *see also id.* at 16–17 (also contending Obitko, which the Examiner relies on only for providing a motivation to combine the teachings of Narancic and Hood, does not remedy the deficiencies of Narancic and Hood).

The Examiner responds by finding that the computer in Narancic, which the Examiner relies on, *inter alia*, for teaching the processing of industrial data tag information, effectively serves as both a cloud gateway device and a router. Ans. 7–8 (citing Narancic ¶¶ 26, 56, 60) (also finding Hood teaches it is well known that a network device can be a firewall, router, hub, or switch); *see also* Final Act. 3–4 (citing Narancic ¶ 27; Hood ¶¶ 26, 71).

As Appellant contends, however, and we agree, Narancic discloses only that its industrial data tag processing computers are networked devices (i.e., end points outside of the network infrastructure), which do not include any routing functionality related to the network infrastructure, as recited. *See* Reply Br. 4–6. We find no disclosure in Narancic that suggests using its computers that perform industrial data tag processing to also serve within the network as “a network infrastructure component configured to control

routing of data packets between different networks,” as recited. *See Reply Br. 6–8.*

Network infrastructure and routing issues are an incidental part of the disclosure of Narancic. For example, paragraph 26 of Narancic discusses Figure 1, shown here:

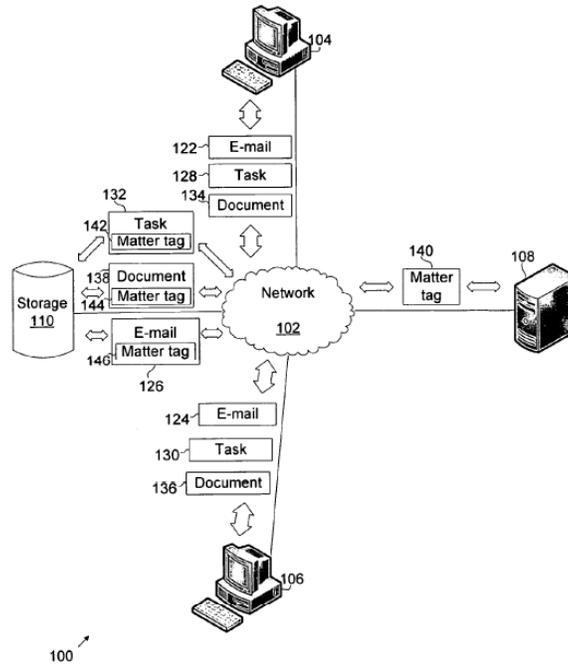


FIG. 1

“Fig. 1 illustrates an exemplary system for organizational data analysis and management. Here, system **100** includes network **102**, clients **104-106**, server **108**, and storage repository **110**. Items **122-138** are routed (i.e., sent, received, transmitted, and the like) between clients **104-106**, server **108**, and storage repository **110**.” Narancic ¶ 26.

Paragraph 26 of Narancic discloses only a single network, with no discussion of routing data between different networks. Paragraphs 56 and 60 of Narancic discuss Figure 8, which is a block diagram of an exemplary computer; these paragraphs similarly disclose only that such computers are networked, without reference to control of routing data packets between different networks. Appellant persuades us that artisans of ordinary skill

would have understood the networked computers and data repository in Narancic are not network infrastructure components, and, instead, are simply end points that communicate through a network infrastructure. *See* App. Br. 4–8. Thus, Appellant persuades us the Examiner errs in relying on Narancic’s disclosure of networked computers for teaching or suggesting the relied on limitations for both industrial device data tag processing and serving as a network infrastructure routing component.

Further, although we agree with the Examiner that Hood’s disclosure of network infrastructure components such as gateways, firewalls, routers, and switches teaches “a network infrastructure component configured to control routing of data packets between different networks,” as recited, this does not remedy the error in the findings from Narancic discussed above. The crux of this obviousness rejection is whether the combined disclosures of Narancic, Hood, and Obitko teach or suggest the claimed arrangement of elements. On this issue, as Judge Learned Hand long ago explained:

[a]ll machines are made up of the same elements; rods, pawls, pitmans, journals, toggles, gears, cams, and the like, all acting their parts as they always do and always must. All compositions are made of the same substances, retaining their fixed chemical properties. But the elements are capable of an infinity of permutations, and the selection of that group which proves serviceable to a given need may require a high degree of originality. It is that act of selection which is the invention.

*B.G. Corp. v. Walter Kidde & Co.*, 79 F.2d 20, 21–22 (2d Cir. 1935); *see also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) 418 (cautioning against conclusory determinations and requiring articulated reasoning and a supporting rational underpinning for the ultimate obviousness conclusion).

Regarding selecting components to combine from Narancic and Hood to arrive at claim 1, the Examiner determines “[i]t is well known in the art to

combine the teaching of Narancic with Hood because Hood’s teaching would allow the system of Narancic to easily interact with higher and lower level[s] of components in the industrial environment (as supported by Obitko, abstract).” Final Act. 5. We agree with Appellant that this determination is insufficient to demonstrate obviousness of claim 1. *See* App. Br. 17–18.

Similar to Narancic, Hood’s invention is directed to functionality that is separate from any network infrastructure components. *See, e.g.*, Hood ¶¶ 1, 20 (discussing Fig. 1), Figs. 1–2. In relevant part, Hood teaches that its inventive technology can communicate across any type of network and network component. *See, e.g.*, Hood ¶¶ 20–21 (discussing network 114 of Fig. 1 and explaining that a wide variety of standard network technologies are non-limiting examples). Thus, Hood, considered alone and in view of Narancic, does not fill the gap in Narancic’s teaching to teach the recited “network infrastructure component configured to control routing of data packets between different networks” in a gateway device that also processes industrial device “data tags.” Nor does Obitko fill the gap. Obitko’s abstract, which the Examiner relies on solely for providing motivation to combine, explains:

The invention provides a system and method for retrieving and storing industrial data, the system comprising a data retriever that includes a data retrieval manager and one or more watchers for monitoring data associated with one or more industrial devices, wherein if the data associated with the one or more industrial devices is new or modified, the one or more watchers notifies the data retrieval manager thereof and the data retrieval manager uploads the new or modified data. The system further includes a database manager for receiving the new or modified data in a first form from the data retrieval manager

and for storing the new or modified data in a structural data form in one or more databases.

Obitko, Abstract.

We discern nothing from this disclosure of Obitko, or from the Examiner’s explanation related to it, that explains how or why an artisan of ordinary skill would have been motivated to combine teachings from Narancic and Hood as necessary to arrive at the recited “network infrastructure component configured to control routing of data packets between different networks” in a gateway device that also processes industrial device “data tags.” “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006); *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. at 418 (quoting *Kahn*).

Accordingly, we do not sustain the rejection of claim 1. For the same reasons we do not sustain the rejection of independent claims 12 and 18, which recite limitations commensurate to those of claim 1 (*see* Ap. Br. 25, 26) and stand rejected on the same basis (*see* Final Act. 6). We also, accordingly, do not sustain the rejection of dependent claims 2–6, 9–11, 13–17, and 19–22.

## CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Reversed
1–6, 9–22	103	Narancic, Hood, Obitko	1–6, 9–22

REVERSED