

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HART COMMUNICATION FOUNDATION,
Petitioner,

v.

SIPCO, LLC,
Patent Owner.

Case IPR2014-00751
Patent 7,468,661 B2

Before FRANCISCO C. PRATS, NEIL T. POWELL, and
PATRICK M. BOUCHER, *Administrative Patent Judges*.

BOUCHER, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

HART Communication Foundation (“Petitioner”) filed a corrected Petition (Paper 7, “Pet.”) pursuant to 35 U.S.C. §§ 311–319 to institute an *inter partes* review of claims 1–14 of U.S. Patent No. 7,468,661 B2 (“the ’661 patent”). After consideration of a Preliminary Response (Paper 12) filed by Sipco, LLC (“Patent Owner”), the Board instituted trial with respect to claims 1–4 and 9–13 on November 17, 2014. Paper 15 (“Dec.”).

During the trial, Patent Owner timely filed a Patent Owner Response (Paper 22, “PO Resp.”), and Petitioner timely filed a Reply to the Patent Owner Response (Paper 25, “Reply”). Patent Owner also filed Observations on Cross Examination of Petitioner’s witness, Mr. Raymond Gannon (Paper 29), and Petitioner filed a Reply to the Observations (Paper 32). An oral hearing was held on July 15, 2015. Paper 35 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6(c). This Decision is a Final Written Decision under 35 U.S.C. § 318(a) as to the patentability of the claims on which we instituted trial. Based on the record before us, Petitioner has demonstrated, by a preponderance of the evidence, that claims 2–4 of the ’661 patent are unpatentable, but has not demonstrated that any other claim for which trial was instituted is unpatentable.

B. Related Proceedings

Petitioner asserts that it “is not a party in, nor a real-party-in-interest to a party in, any judicial or administrative matter that would affect, or be affected by, a decision in this proceeding.” Pet. 1. Patent Owner identifies the following judicial matters involving the ’661 patent: *Sipco, LLC v. Comcast Corp.*, 9:2011-cv-80999 (S.D. Fla.); *Sipco LLC v. Control4 Corp.*, 1:2011-cv-00612 (N.D. Ga.) (transferred from E.D. Tex., No. 6:2010-CV-0249); *Siemens Industry, Inc., v. Sipco, LLC*, 1:2010-cv-2478 (N.D. Ga.); *Sipco LLC v. Datamatic, Ltd.*, 6:2009-cv-00532 (E.D. Tex.); *Silver Spring Networks, Inc. v. Sipco, LLC*, 1:09-CV-2214 (N.D. Ga.); and *Sipco, LLC v. Florida Power & Light Co.*, 1:09-CV-22209 (S.D. Fla.). Paper 14, 2.¹

C. The ’661 Patent (Ex. 1001)

The ’661 patent claims the benefit of several earlier filing dates through a series of continuation and continuation-in-part applications through to provisional application No. 60/146,817, filed August 2, 1999. Patent Owner does not contest the availability of any of the references relied on by Petitioner as prior art. Petitioner also does not contend that any claim of the ’661 patent has an effective filing date later than August 2, 1999, which we accord as the effective filing date for each of the claims on which we instituted trial.

¹ The Petition identifies some, but not all, of these judicial matters. Pet. 1–2.

The '661 patent relates to “a computerized system for monitoring, reporting on, and controlling remote systems by transferring information signals through a wide area network (WAN) and using software applications hosted on a connected server to appropriately process the information.”

Ex. 1001, col. 1, ll. 34–38. Figure 2 of the '661 patent is reproduced below.

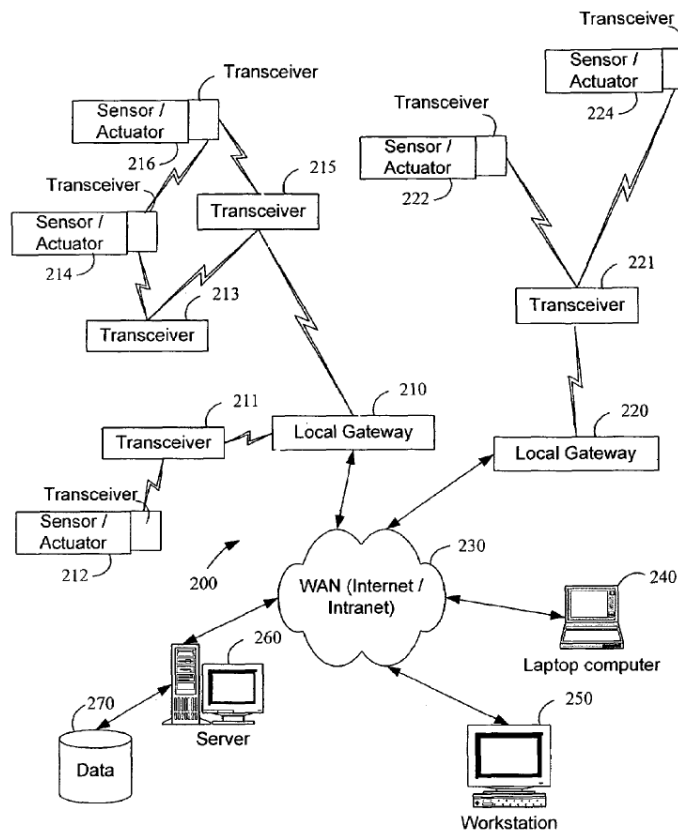


FIG. 2

Figure 2 is a block diagram that illustrates a control system. *Id.* at col. 6, ll. 50–53. Control system 200 includes one or more sensor/actuators 212, 214, 216, 222, and 224 that are integrated with a transceiver, as well as stand-alone transceivers 211, 213, 215, and 221. *Id.* at col. 6, ll. 53–55,

col. 7, ll. 3–4. Each of the stand-alone and integrated transceivers may be configured to receive an incoming radio-frequency (“RF”) transmission and to transmit an outgoing signal, which may be an RF or other type of signal. *Id.* at col. 7, ll. 4–12.

Local gateways 210 and 220 receive data transmissions from the various stand-alone or integrated transceivers, analyze the received transmissions, convert the transmissions to TCP/IP format, and communicate the transmissions via WAN 230. The local gateways may communicate information, service requests, control signals, etc. to remote sensor/actuator transceiver combinations from server 260, laptop computer 240, and workstation 250 across WAN 230.

D. Illustrative Claim

Independent claim 1 is illustrative of the claims at issue:

1. A system for remote data collection, assembly, storage, and event detection and reporting, comprising:
 - a computer configured to execute at least one computer program that formats and stores select information for retrieval upon demand from a remotely located device, said computer integrated with a wide area network (WAN);
 - a plurality of transceivers dispersed geographically at defined locations, each transceiver electrically interfaced with a sensor and configured to receive select information and identification information transmitted from another nearby wireless transceiver electrically interfaced with a sensor in a predetermined signal type and further configured to wirelessly retransmit in the predetermined signal type the select information, the identification information associated with the

nearby wireless transceiver, and transceiver identification information associated with the transceiver making retransmission; and

at least one gateway connected to the wide area network configured to receive and translate the select information, the identification information associated with the nearby wireless transceiver, and transceiver identification information associated with one or more retransmitting transceivers, said gateway further configured to further transmit the translated information to the computer over the WAN.

E. References relied upon

Petitioner relies on the following references.

<i>Network 3000 Communications Users Guide</i> , BRISTOL BABCOCK INC, February 5, 1993 ("Network 3000 CUG")	Ex. 1002
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<i>Enterprise Server Configuration Manual</i> , BRISTOL BABCOCK INC., June 1992 ("Enterprise Server CM")	Ex. 1003
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<i>Enterprise Operator Manual</i> , BRISTOL BABCOCK INC., June 1992 ("Enterprise OM")	Ex. 1004
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<i>Open Bristol System Interface Utilities Manual</i> , BRISTOL BABCOCK INC., July 1998 ("Open BSI UM")	Ex. 1005
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Bill Greeves, <i>SCADA Uses Radio to Bridge the Gap</i> , SENSOR REVIEW, 14 (1994) ("Greeves")	Ex. 1006
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Manuel Günter, <i>Virtual Private Networks over the Internet</i> , August 3, 1998 (Günter)	Ex. 1007
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KANTRONICS KPC-3 PLUS—*Users Guide: Introduction, Getting Started, Modes of Operation, Command Reference, and Hardware Specifications*, 1997(“Kantronics”)

Ex. 1008

We instituted trial based on the following grounds.

References	Basis	Claim(s) Challenged
Enterprise Server CM, Network 3000 CUG, and Greeves	§ 103(a)	1, 2, 12, and 13
Enterprise Server CM, Network 3000 CUG, Greeves, and Open BSI UM	§ 103(a)	3
Enterprise Server CM, Network 3000 CUG, Greeves, and Günter	§ 103(a)	3
Enterprise Server CM, Network 3000 CUG, Greeves, and Kantronics	§ 103(a)	4
Enterprise Server CM, Network 3000 CUG, Enterprise OM, and Greeves	§ 103(a)	9–11

II. ANALYSIS

A. Claim Construction

The Board interprets claims of an unexpired patent using the broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, at 1277–79 (Fed. Cir. 2015); Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012).

Neither party proffers an explicit construction of any term appearing in the claims of the ’661 patent, nor identifies any term that is expressly

defined in the Specification. For purposes of this Decision, we determine that no term requires explicit construction.

B. Enterprise Server CM and Network 3000 CUG

Enterprise Server CM describes a system in which “[r]eal time data from a plant or process is collected by process instruments and measuring devices, and sent to a network of Bristol Babcock remote process controllers.” Ex. 1003, 1-1. Figure 3-1 of Enterprise Server CM is reproduced below.

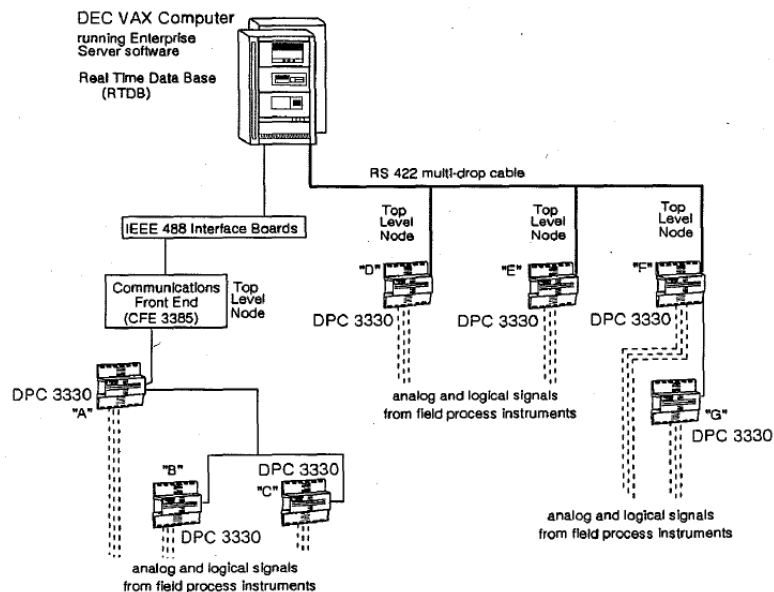


Figure 3-1 illustrates a hierarchical network structure used by the system in which nodes are connected in a master/slave relationship. *Id.* at 3-1. Signal information from the field arrives at each process controller either directly from process instruments or from a slave process controller below it in the

hierarchy, and is passed to a respective master process controller until the data reach a top-level node. *Id.* at 3-1 – 3-2.

Network 3000 CUG is a user manual describing certain network communications protocols, specifically “information pertaining to the Bristol Standard Asynchronous Protocol [(“BSAP”)] and the Remote Data Base Access message formats.” Ex. 1002, 3. Petitioner’s witness, Raymond Gannon, testifies that Enterprise Server CM and Network 3000 CUG “were, in fact, written to focus on different components and features of a Network 3000 network.” Ex. 1009 ¶ 52. Enterprise Server CM focuses on configuring the Enterprise server for use in the Network 3000 network, and Network 3000 CUG focuses on the communications protocols of the Network 3000 network. Network 3000 CUG explains that the Network 3000 network provides an inverted tree-structure topology in which one or more nodes in each level of a network has up to six levels of nodes. Ex. 1002, 4. Two types of modems may be used to communicate over links within the network: a dedicated line modem and a switched network modem connected to the public telephone system. *Id.* at 44. Figure 1 of Network 3000 CUG is reproduced below.

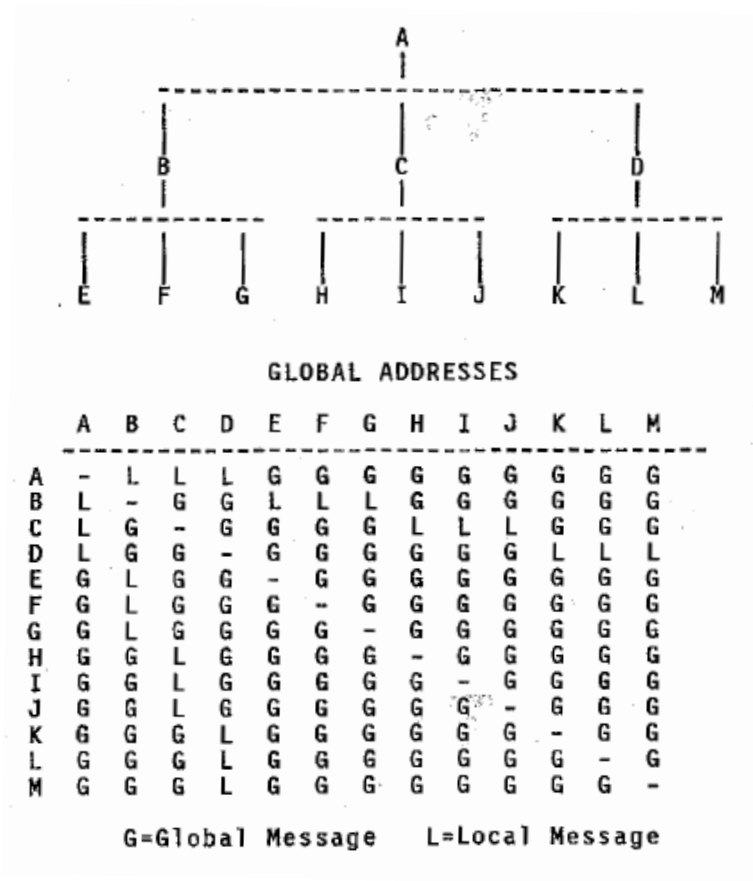


Figure 1 illustrates a simple network disclosed by Network 3000 CUG, and the global (“G”) and local (“L”) relationships between its nodes.

Ex. 1002, 5.

Mr. Gannon attests that he “was employed by Bristol Babcock for 33 years, in the positions of Software Engineer for 25 years, Director of Product Development for 3 years, and Vice President of Engineering for 5 years.”

Ex. 1009 ¶ 2. In his capacity as Software Engineer, Mr. Gannon “was involved in the design, development, testing, and deployment of firmware/software used in the various Network 3000 remote terminal units

(RTUs)/remote process controllers (RPCs) and transmitters.” *Id.* Mr. Gannon asserts that he has “personal knowledge and actual working experience with the operation of the [BSAP], the Remote Data Base Access (“RDB”) feature of the Network 3000, and the teachings of Network 3000 CUG, Enterprise Server CM, Enterprise OM, Open BSI UM, Greeves, and Günter.” *Id.* In light of this personal knowledge, we credit Mr. Gannon’s assertion that Enterprise Server CM and Network 3000 CUG were “written to focus on different components and features of a Network 3000 network,” and we conclude that one of skill in the art would reasonably combine their teachings. *Id.* ¶ 52.

C. Greeves

Greeves describes a large-scale supervisory control and data acquisition (“SCADA”) system that includes a central station connected to multiple clusters of outstations, each of which includes a gateway. Ex. 1006, 33. Land lines link the central control station to the gateway of each cluster, and the gateway communicates with its outstations by radio. *Id.* Telemetry information received by radio at gateway stations from outstations can be viewed from the central station. *Id.* Petitioner reasons that “[b]ecause each gateway communicates via land lines to the central station and via radio with its respective outstations, each gateway wirelessly receives and translates the telemetry information received from its outstations.” Pet. 20.

Petitioner notes several connections between Greeves and the Network 3000 network described by Network 3000 CUG and Enterprise Server CM: the Shearway station in Figure 1 of Greeves is a Network 3000 remote terminal unit (Pet. 21 (citing Ex. 1006, 33)); Greeves notes that Bristol Babcock is ““a market leader in the provision of radio telemetry systems within the water industry and has its own in-house radio telemetry expertise”” (Pet. 35 (citing Ex. 1006, 33)); and Greeves discusses an exemplary telemetry system installed by Bristol Babcock for Folkestone and Dover Water Services in the United Kingdom using radio communications (Pet. 35 (citing Ex. 1006, 33)). In light of these identified relationships, we conclude that one of skill in the art reasonably would combine the teachings of Greeves with those of Network 3000 CUG and Enterprise Server CM.

D. Claims 1 and 9–13

Challenged independent claim 1 recites a plurality of transceivers, “each transceiver electrically interfaced with a sensor and configured to receive select information and identification information transmitted from another nearby wireless transceiver electrically interfaced with a sensor in a predetermined signal type and further configured to wirelessly retransmit in the predetermined signal type the select information.” Ex. 1001, col. 18, ll. 39–45. Challenged independent claim 9 recites “a wireless transmitter coupled with the gateway for transmitting a wireless signal that contains the control signal; a first wireless transceiver electrically interfaced with an

actuator for receiving the wireless signal and further retransmitting the wireless signal to the target remote device.” *Id.* at col. 19, ll. 51–56. Similar to claim 1, challenged independent claim 12 recites a plurality of non-earth orbiting transceivers, “each transceiver integrated with a sensor and configured to receive select information and identification information transmitted from another nearby wireless transceiver in a predetermined signal type.” *Id.* at col. 20, ll. 31–35. We agree with Patent Owner that these limitations in independent claims 1, 9, and 12 are fairly characterized as “requir[ing] wireless transceivers receiving and transmitting information wirelessly.” PO Resp. 21. We note that Petitioner acknowledges this characterization by Patent Owner without challenging its accuracy. Reply 1; *see* Tr. 14:15–16:9. Challenged claims 10 and 11 depend from challenged independent claim 9, and challenged claim 13 depends from challenged independent claim 12, and, thus, include the same requirement.

In addressing these limitations, Petitioner identifies the tree topology disclosed by Network 3000 CUG as illustrated in Figure 1 reproduced above: “All nodes except for the lowest-level nodes are local masters to the nodes below and, therefore, receive RDB responses from their slaves, by wired or wireless connections.” Pet. 28 (citing Ex. 1002, 5–6, 44); *see id.* at 47–49, 53. Petitioner also identifies disclosure by Enterprise Server CM “that a node may receive data directly from a field instrument and also from lower-level nodes.” *Id.* at 29 (citing Ex. 1003, 3-2); *see id.* at 47–48, 53. In addressing claim 9, Petitioner additionally identifies disclosure in Greeves

that “[t]he gateway station of each cluster communicates with its outstations via radio,” but acknowledges that, in Greeves, “gateways communicate via land lines with the central control station and via radio with respective outstations.” *Id.* at 48–49. The Petition does not provide a specific explanation how the teachings of Enterprise Server CM, Network 3000 CUG, and Greeves are proposed by Petitioner to be combined, leaving details of the combination to inference.² See PO Resp. 6 (“Petitioner provided a description of each reference followed by a conclusory statement that the reference taught certain claim limitations, leaving the Board to figure out whether the primary or secondary reference best teaches the claim limitation.”).

Citing the testimony of its own witness, Kevin C. Almeroth, Ph.D., Patent Owner responds that ““a person of skill in the art would not be taught [by Enterprise Server CM and Network 3000 CUG] that there were multiple levels of devices using wireless communication.”” PO Resp. 23 (citing Ex. 2001 ¶ 92). Patent Owner further responds that “Greeves does not compensate for the deficiencies of Enterprise Server CM and Network 3000 CUG,” and asserts that “Greeves confirms that a multi-level network of wireless transceivers receiving and transmitting information wirelessly would not have been obvious to one of ordinary skill in the art.” *Id.* at 37 (citing Ex. 2001 ¶ 119).

² The ground on which we instituted for claim 9 additionally involves Enterprise OM. Petitioner does not rely on Enterprise OM for the feature of wireless receipt and retransmission.

Patent Owner supports these positions as follows. First, Patent Owner observes that “Enterprise Server CM, a document with 482 pages, mentions the word ‘radio’ only twice.” *Id.* at 24. One of these is part of a glossary: “In the context of Network 3000, the network includes computers and process controllers which are connected by some kind of communication link (such as cable or radio) for the purpose of exchanging data.” Ex. 1003, 16-6. Notwithstanding the definitional character of the indication that communication links within Enterprise Server CM may be by radio, i.e., wireless, Dr. Almeroth concludes from his review of the document that

Enterprise Server CM provides no examples describing the use of radio/wireless communication on any link. Rather, the examples provided in the reference describe the use of wired links, for example, in the glossary definition of “Gateway[,]” a figure describing wired links in the processor network and a LAN between the gateway and Enterprise Server VAX computer.

Ex. 2001 ¶ 97.

Second, although Dr. Almeroth acknowledges Network 3000 CUG’s disclosure of a tree hierarchy as illustrated in Figure 1, reproduced above, he testifies that he “can find nowhere in the Network 3000 CUG reference that describes the use of radio links at multiple levels of the network” such that transceivers both receive and transmit information wirelessly. *Id.* ¶ 103. His conclusion is consistent with Network 3000 CUG’s statement that “[o]nly *single master* protocols are supported on an Asynchronous network.” Ex. 1002, 44 (emphasis added); see PO Resp. 27–29.

Third, Dr. Almeroth provides reasons why a person of ordinary skill in the art would not understand Network 3000 CUG and Enterprise Server CM to teach or suggest transceivers both receiving and transmitting information wirelessly in light of other disclosures in the references. For example, Dr. Almeroth explains that the use of wireless transmissions in the network described by Network 3000 CUG would change its tree topology to a mesh topology. Ex. 2001 ¶¶ 108–109. According to Dr. Almeroth, the use of wireless links at multiple levels of the network described by Network 3000 CUG “would require some kind of dynamic routing algorithm that is able to account for a wide variety of dynamic link conditions” and which is not described in any of Enterprise Server CM, Network 3000 CUG, or Greeves. *Id.* ¶ 110. Dr. Almeroth further testifies that solutions to interference that would problematically arise in such a network were not developed until the mid-2000s, i.e. after the effective filing date of the claims. *Id.* ¶ 113 (citing K. Ramachandran, E. Belding, K. Almeroth, and M. Buddhikot, *Interference-Aware Channel Assignment in Multi-Radio Wireless Mesh Networks*, IEEE INFOCOM, Barcelona, Spain (April 2006)).

With respect to Greeves, Dr. Almeroth testifies that the reference does not teach “using radio links across multiple hops—not in the generic description; not for the Dover Water Services project; and not for any of the other projects mentioned. Rather, the entire reference is focused on the use of radio technology *only in a single hop, specifically the last hop.*” *Id.* ¶ 123 (emphasis added). Patent Owner provides further support to Dr. Almeroth’s

opinion by observing that Greeves discloses several different configurations of wireless radios that all use wireless communication in only a single hop in Figures 2, 3, 4, and 5. PO Resp. 38.

Our reviewing court has emphasized the need for an obviousness analysis to remain focused on the context of what was known *at the time of the invention*: “Obviousness is assessed at the time of the invention.” *Siemens Medical Solutions USA, Inc. v. Saint-Gobain Ceramics & Plastics, Inc.*, 637 F.3d 1269 (Fed. Cir. 2011). This is an instance when a contemporary perspective on the obviousness of modifications to the prior art may differ from the perspective of one of skill in the art *at the time of the invention*.

Dr. Almeroth’s testimony is largely un rebutted. In its Reply, Petitioner argues that “Greeves teaches a working example of a radio communications system” and that “[w]hen this disclosure is combined with the uncontested disclosure of radio modems in Network 3000^[3], it would be obvious to a [person of ordinary skill in the art] that the combination teaches” the relevant claim limitation. Reply 2. This argument was not

³ Petitioner frequently refers to “Network 3000” in its arguments as the network described by Network 3000 CUG and Enterprise Server CM. We note that the characteristics of the network as implemented and sometimes described by Mr. Gannon in his testimony are irrelevant to an *inter partes* review, which is limited to considering “prior art consisting of patents or printed publications.” 35 U.S.C. § 311(b). That is, we are limited by statute to considering only the disclosures of the references and not implementations that may be solely within Mr. Gannon’s personal knowledge.

articulated clearly in the Petition, and it is, nevertheless, unpersuasive in light of Dr. Almeroth's testimony. Nor are we persuaded by Petitioner's general argument that various of the references disclose wireless communications that a person of skill in the art would have found obvious to implement in the tree hierarchy disclosed by Enterprise Server CM. *See id.* at 2–4. That argument is insufficiently supported by evidence that responds to the several issues raised by Dr. Almeroth. *See In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974) (unsupported attorney argument in a brief cannot take the place of evidence).

Petitioner filed a second Declaration by Mr. Gannon with its Reply, indicating that Mr. Gannon had reviewed Dr. Almeroth's Declaration (Ex. 2001), the exhibits cited in Dr. Almeroth's Declaration, and the transcript of Dr. Almeroth's deposition (Ex. 1011). Ex. 1012 ¶ 2. Mr. Gannon's second declaration (Ex. 1012) does not address Dr. Almeroth's opinion that using wireless communication at multiple levels of the tree hierarchy disclosed by Enterprise Server CM would transform it into a mesh network, nor that techniques for addressing resulting interference had not yet been described to those of skill in the art at the time of the invention. Rather, Mr. Gannon emphasizes that “[o]ne of ordinary skill in the art would understand that [the] network would include nodes at multiple levels because of the tree hierarchy” and that “wired links may not be preferable where physical obstructions present difficulties in connecting the wire between the nodes, and radio links might not be preferable across very large

distances.” *Id.* ¶¶ 7, 6. Although we credit those opinions of Mr. Gannon, we find more compelling the bases for Dr. Almeroth’s opinion that one of skill in the art would be disinclined to use wireless communication at multiple levels of Enterprise Server CM’s tree hierarchy.

Petitioner also contends that “Dr. Almeroth testified that in a[t] least some limited circumstances, Network 3000 alone discloses wireless communication between nodes at multiple levels.” Reply 3–4 (citing Ex. 1011, 133:16–135:14; 10:2–22). In portions of Dr. Almeroth’s deposition testimony cited by Petitioner, he agrees that there may be circumstances under which “wired communication is more suitable than wireless communication.” Ex. 1011, 10:11–22. This is consistent with Mr. Gannon’s testimony. In other portions of Dr. Almeroth’s deposition testimony cited by Petitioner, he acknowledges that “[t]here might be instances where you could set it up . . . through physical placement of the nodes or transmit power such that you had no overlapping signal transmission ranges.” *Id.* at 133: 22–134:6. But Dr. Almeroth emphasizes with that testimony, “that would be a special case . . . and not indicative of the way the system would work as a whole generally.” *Id.* at 134:7–14. In the context of Dr. Almeroth’s testimony as a whole, and in the absence of any identified disclosure in the references or evidence of the understanding of a person of ordinary skill that such a special case is contemplated, we do not find that such acknowledgments discredit his opinion that one of skill in

the art would not use wireless communication at multiple levels of the tree hierarchy disclosed by Enterprise Server CM at the time of the invention.

Accordingly, we credit Dr. Almeroth's opinion and conclude that Petitioner has not demonstrated, by a preponderance of the evidence, that one of skill in the art would understand the combination of Network 3000 CUG, Enterprise Server CM, and Greeves to disclose or suggest a plurality of transmitters receiving and retransmitting information wirelessly. That is, we find that Petitioner has not demonstrated, by a preponderance of the evidence, that it would have been obvious over the combination of Network 3000 CUG, Enterprise Server CM, and Greeves to have a plurality of transceivers, "each transceiver electrically interfaced with a sensor and configured to receive select information and identification information transmitted from another nearby wireless transceiver electrically interfaced with a sensor in a predetermined signal type and further configured to wirelessly retransmit in the predetermined signal type the select information," as recited in independent claim 1 and as similarly recited in independent claim 12. Nor has Petitioner demonstrated, by a preponderance of the evidence, that it would have been obvious over the combination of Network 3000 CUG, Enterprise Server CM, and Greeves to have a plurality of non-earth orbiting transceivers, "each transceiver electrically integrated with a sensor and configured to receive select information and identification information transmitted from another nearby wireless transceiver [] in a predetermined signal type," as recited in independent claim 1.

Accordingly, we conclude that Petitioner has not demonstrated, by a preponderance of the evidence, that claim 1 is unpatentable under 35 U.S.C. § 103(a) over Enterprise Server CM, Network 3000 CUG, and Greeves; has not demonstrated, by a preponderance of the evidence, that claims 9–11 are unpatentable under 35 U.S.C. § 103(a) over Enterprise Server CM, Network 3000 CUG, Enterprise OM, and Greeves; and has not demonstrated, by a preponderance of the evidence, that claims 12 and 13 are unpatentable under 35 U.S.C. § 103(a) over Enterprise Server CM, Network 3000 CUG, and Greeves.

E. Claims 2–4

Unlike independent claims 1, 9, and 12, challenged independent claim 2 does not require transceivers receiving and transmitting information wirelessly. Claim 2 recites instead “adaptively configuring at least one transmitter electrically interfaced with a sensor where the transmitter generates an information signal consisting of a transmitter identification code and an information field, wherein the information signal is received by another nearby transmitter electrically interfaced with a sensor and repeated in the same signal type as received to additional transmitters each electrically interfaced with a sensor for communicating the information signal to a gateway, the gateway providing access to a WAN [wide-area network].” Ex. 1001, col. 18, l. 60 – col. 19, l. 2. Petitioner relies on its analysis for claim 1 for this limitation, and addresses additional limitations

that “the computer is configured to manipulate and store data provided in the information signal” and “granting client access to the computer” as disclosed by the combination of Network 3000 CUG and Enterprise Server CM.

Pet. 36–37. Patent Owner responds that “there is no disclosure of a gateway connected to a WAN in Enterprise Server CM, Network 3000 CUG, or Greeves.” PO Resp. 41. Patent Owner supports its position with testimony by Dr. Almeroth. *Id.* at 41–44 (citing Ex. 2001 ¶¶ 125, 128, 129, 131, 132, 135).

As Petitioner observes, Network 3000 CUG teaches two types of models that may be connected to the public telephone system, which Mr. Gannon testifies is a “well-known wide area network.” Reply 11 (citing Ex. 1002, 44; Ex. 1009 ¶ 8). In addition, Greeves teaches that each of its multiple clusters of outstations includes a gateway that receives data from a plurality of outstations. Ex. 1006, 33. We are persuaded that Petitioner has demonstrated that the cited art discloses “additional transmitters each electrically interfaced with a sensor for communicating the information signal to a gateway, the gateway providing access to a WAN.” PO Resp. 40.

Patent Owner’s response that Network 3000 CUG lacks “‘further description of what equipment is connected to the public telephone network, how this connection takes place, and what information is communicated over the network’” is not persuasive. PO Resp. 41–42 (citing Ex. 2001 ¶ 128). *Syntex LLC v. Apotex, Inc.*, 407 F.3d 1371, 1380 (Fed. Cir. 2005) (“What a reference teaches a person of ordinary skill is not . . . limited to

what a reference specifically ‘talks about’ or what is specifically ‘mentioned’ or ‘written’ in the reference.”); *In re Burckel*, 592 F.2d 1175, 1179 (CCPA 1979) (“Under 35 U.S.C. § 103, a reference must be considered not only for what it expressly teaches, but also for what it fairly suggests.”). We are also not persuaded by Patent Owner’s contention that the deployment described in Greeves is “‘a local area network, or at best a metropolitan area network, and not a wide area network.’” PO Resp. 44 (quoting Ex. 2001 ¶ 136). Patent Owner acknowledged at the oral hearing that such distinctions relate only to the scale of the network. Tr. 44:15–45:4. We find that a person of ordinary skill in the art would understand that the teachings identified by Petitioner would apply to larger-scale networks, particularly in light of Patent Owner’s implied recognition that the network in Greeves may reasonably be considered larger than a local-area network. See PO Resp. 44–45 (citing Ex. 2001 ¶ 136).

Accordingly, we conclude that Petitioner has demonstrated, by a preponderance of the evidence, that claim 2 is unpatentable under 35 U.S.C. § 103(a) over Enterprise Server CM, Network 3000 CUG, and Greeves.

With respect to claim 3, which recites that “the WAN is the Internet,” Petitioner identifies Open BSI UM’s disclosure of IP-compatible remote terminal units and Günter’s disclosure of replacing leased lines and dial-up remote access by Internet connections. Pet. 38. Patent Owner identifies a warning in Open BSI UM against use of the public Internet in the Bristol Babcock network because such use would raise security concerns. PO

Resp. 46–51. But the identified security concerns do not address the technical obviousness of using the public Internet to one of skill in the art. We conclude that Petitioner has demonstrated, by a preponderance of the evidence, that claim 3 is unpatentable under 35 U.S.C. § 103(a) over Enterprise Server CM, Network 3000 CUG, Greeves, and Open BSI UM, and that claim 3 is unpatentable under 35 U.S.C. § 103(a) over Enterprise Server CM, Network 3000 CUG, Greeves, and Günter.

With respect to claim 4, which recites inclusion of a global positioning system (“GPS”) receiver, Petitioner identifies Kantronics’s description of a node that may include a GPS device. Pet. 39–40. Patent Owner contends that “Kantronics mentioned GPS in the limited context of ‘adding the KPC-3 Plus and a computer *to your ham radio station.*’” PO Resp. 58 (quoting Ex. 1008, 15 (emphasis by Patent Owner)). We do not find this argument persuasive. “The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). We conclude that Petitioner has demonstrated, by a preponderance of the evidence that claim 4 is unpatentable under 35 U.S.C. § 103(a) over Enterprise Server CM, Network 3000 CUG, Greeves, and Kantronics.

III. ORDER

In consideration of the foregoing, it is hereby:

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ORDERED that, based on a preponderance of the evidence, claims 2–4 of U.S. Patent No. 7,468,661 B2 are unpatentable;

FURTHER ORDERED that, based on a preponderance of the evidence, claims 1 and 9–13 of U.S. Patent No. 7,468,661 B2 have not been shown to be unpatentable; and

FURTHER ORDERED that, because this is a final written decision, parties to this proceeding seeking judicial review of our decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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