UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE PATENT TRIAL AND APPEAL BOARD
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MOBOTIX CORP.,
Petitioner,

v.

e-WATCH, INC.,
Patent Owner.

_____

Case IPR2013-00337
Patent 7,023,913

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Before JAMESON LEE, MICHAEL W. KIM, and MATTHEW R. CLEMENTS,
Administrative Patent Judges.

KIM, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. *Background*

Mobotix Corporation ("Petitioner") filed a Petition requesting *inter partes* review of claims 1–11, 13, 14, 17, 19, and 31–33 of U.S. Patent No. 7,023,913 (Ex. 1001, "the '913 patent") pursuant to 35 U.S.C. §§ 311–319. Paper 5 ("Pet."). e-Watch, Inc. ("Patent Owner") waived the filing of a Preliminary Response. Paper 11. On November 13, 2013, we instituted an *inter partes* review of claims 1–11, 13, 14, 17, 19, and 31–33 on certain grounds of unpatentability alleged in the Petition. Paper 12 ("Dec."). After institution of trial, Patent Owner filed a Patent Owner Response (Paper 25, "PO Resp."), to which Petitioner filed a Reply (Paper 31). Petitioner also filed a Motion to Exclude. Paper 32 ("Mot."). An oral argument was not held.

The Board has jurisdiction under 35 U.S.C. § 6(c). In this final written decision, issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73, we determine Petitioner has shown by a preponderance of the evidence that all challenged claims, claims 1–11, 13, 14, 17, 19, and 31–33, are unpatentable.

B. *The '913 Patent*

The subject matter of the '913 patent relates to multimedia sensors for use in connection with a digital networked surveillance system. Ex. 1001, 1:7–9. Public facilities, such as schools, banks, airports, arenas, and the like, frequently employ monitoring and surveillance systems to enhance security. Ex. 1001, 1:12–21. One such system employs analog cameras that deliver video via coaxial cables to a centralized monitoring facility, but this type of system is generally of low quality, does not have the ability to "share" the video, and provides video that is viewable only on the system's control console. Ex. 1001, 1:37–43. More recently, security cameras have employed video compression technology, enabling individual

cameras to be connected remotely to a centralized system via telephone circuits. Ex. 1001, 2:5–7. However, due to bandwidth constraints imposed by public-switched telephone systems, such surveillance systems are typically limited to low-resolution images, or low frame rates, or both. Ex. 1001, 2:1–4.

To solve these and other problems, methods and systems are disclosed, according to the '913 patent, for using a fully digital camera system capable of providing high resolution still image and/or streaming video signals via a network to a centralized, server-supported security and surveillance system. Ex. 1001, 2:36–40. According to the '913 patent, the fully digital camera system is adapted for collecting an image from one or more image transducers, compressing the image, and sending the compressed digital image signal to one or more receiving stations over a digital network. Ex. 1001, 2:45–49.

According to the '913 patent, recent advances in the art have produced commercially available area sensors, as applied to security cameras, with improved resolution that provide significant improvement in the quality of captured images. Ex. 1001, 2:50–56. Such improved quality allows greater accuracy in recognizing persons or events. Ex. 1001, 2:56–57.

Visual information captured by these sensors commonly is converted to digital form either on the sensor itself, or by an immediate, subsequent analog to digital converter device. Ex. 1001, 2:58–61. In digital form, the captured visual information is largely immune to the degradations that plague analog systems. Ex. 1001, 2:61–63.

The described camera uses video compression techniques to reduce the amount of image data that must be conveyed by the network. Ex. 1001, 3:12–14. According to the '913 patent, a number of recently perfected image and video compression techniques may be employed to reduce significantly the amount of

visual data, while preserving the visual quality. Ex. 1001, 3:14–17. When used with adequate transmission bandwidth, or given adequate compression time, these compression techniques may produce low-loss results. Ex. 1001, 3:60–63. According to the '913 patent, a commonplace example is the DSS broadcast system, which produces broadcast-quality video at bit rates of 1 to 4 Mbits/sec using MPEG-2 compression. Ex. 1001, 3:60–65.

A variety of suitable audio compression methods also exist, when the captured audio is of sufficient quality that an attached monitoring server, upon analysis, may discern accurately sonic patterns indicative of various disturbances such as glass breakage, gunshots, and the like. Ex. 1001, 4:14–18

C.   Illustrative Claim

The '913 patent includes 37 claims, of which claims 1–11, 13, 14, 17, 19, and 31–33 are challenged. Of those, claims 1, 19, and 31 are independent claims. Independent claim 1 is reproduced below.

> 1.   A digital security camera capable of generating and transmitting digital high resolution image signals in both a full motion video format and a still image frame format, the camera comprising:
> a.   a plurality of image transducers each adapted for collecting digital high resolution image signals;
> b.   a motion video compressor associated with the image transducer for compressing full motion video images for generating a compressed full motion video image data signal;
> c.   a still frame compressor associated with the image transducer for compressing still frame images for generating a compressed still frame image data signal;
> d.   a first multiplexer for merging the compressed full motion video image data signal and the compressed still frame image data signal into a single, combined image data signal;
> e.   a second multiplexer for merging all of said signals into a combined data signal;

f.   a processor associated with the multiplexer for generating a conditioned output image signal suitable for transmission over a network;

g.   a motion compressor and a still frame compressor associated with each image transducer and positioned between the image transducer and the second multiplexer; and

h.   a network gateway,

wherein said camera may capture both full motion video and still frame video, alternately or simultaneously, and transmit both compressed full motion video and compressed still frame video, alternately or simultaneously.

D.   Prior Art References Alleged to Support Unpatentability

The following prior art references were asserted in the instituted grounds:

Seeley	US 6,069,655	May 30, 2000	Ex. 1005
Ohki	EP 0 920 211	June 2, 1999	Ex. 1006
Sorokin	US 6,522,325 B1	Feb. 18, 2003	Ex. 1007
Brusewitz	US 6,038,257	Mar. 14, 2000	Ex. 1008
Fernandez	US 6,697,103 B1	Feb. 24, 2004	Ex. 1010

E.   Grounds of Unpatentability Instituted for Trial

The following table summarizes the challenges to patentability that were instituted for *inter partes* review:

Reference(s)	Basis	Claims Challenged
Seeley	§ 103(a)	1–4, 6, 8, 9, 17, and 19
Seeley and Ohki	§ 103(a)	13
Seeley, Ohki, and Fernandez	§ 103(a)	5, 7, 10, and 11
Seeley, Ohki, and Sorokin	§ 103(a)	14 and 31–33
Brusewitz and Ohki	§ 103(a)	1–6, 8–10, 13, 17, and 19
Brusewitz, Ohki, and Fernandez	§ 103(a)	7 and 11
Brusewitz, Ohki, and Sorokin	§ 103(a)	14 and 31–33

II.   ANALYSIS

A.   Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b). Claim terms also are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech, Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

If an inventor acts as his or her own lexicographer, the definition must be set forth in the specification with reasonable clarity, deliberateness, and precision. *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998).

1.   Compressor

Independent claims 1, 19, and 31 each recite "compressor." Petitioner asserts that if an express construction is provided, "compressor" should be construed as "a device for reducing the number of bits needed to represent an item of digital data." Pet. 4; Reply 13–14. For support, Petitioner cites a definition of "compressor" from *Computer User's Dictionary*, as well as several portions of the '913 patent. Pet. 4; Reply 13–14 (citing Ex. 1001, 3:12–17, 5:64–66[1], 8:7–12, 10:25–28, 10:48–51). In particular, Petitioner asserts that a proper construction should be limited to hardware or a combination of hardware and software, because the Specification does not refer to a disembodied software implementation of "compressor." An exemplary use of "compressor" in the '913 patent is as follows: "the capability for placing multiple sensors in a single enclosure or unit greatly

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[1] Petitioner cites "Ex. 1001, 8:64–66," but the corresponding quotation listed at page 13 of the Reply Brief is from column 5, lines 64–66 of the '913 patent.

increases the resolution and/or viewing range of the camera without duplicating the per unit cost associated with prior art cameras by permitting all of the sensors to communicate directly to *a single processor, compressor, transmitter circuit*." Ex. 1001, 5:60–66 (emphasis added).

Patent Owner asserts that "compressor" does not require construction, or in the alternative that it should be construed as "hardware, software or a combination for performing data compression." Specifically, Patent Owner asserts that "compressor" should not be limited to hardware because the Specification does not exclude software-based compressors. PO Resp. 5–6. For support, Patent Owner cites to a Declaration of Michael Craner, which in turn refers to a webpage http://www.techterms.com/definition/media_compression (Ex. 2002, "Media Compression") and the following citations: Miyazaki, T.; Kuroda, I., "Real-time software video encoder on a multimedia RISC processor," Signal Processing Systems, 1998. SIPS 98. 1998 IEEE Workshop on, vol., no., pp. 33, 42, 8–10 Oct. 1998. Ex. 2001 ¶ 21 (citing Ex. 2003, "Miyazaki"). .

We determine that Petitioner's construction constitutes the broadest reasonable interpretation in light of the Specification. Specifically, Petitioner provides an extrinsic definition of "compressor" that is consistent with the Specification, especially the portion cited above which treats "compressor" as an equivalent of hardware, such as processors and circuits. Although Patent Owner asserts that the Specification does not expressly exclude software-based compressors, the fact that the Specification does not exclude a particular implementation does not indicate that it includes it. Instead, the proper inquiry is whether the Specification would lead one of ordinary skill to determine that a broadest reasonable construction of "compressor" would include disembodied

software implementations. To that inquiry, Patent Owner has not provided any analysis.

Concerning the Craner Declaration, it refers to two references that allegedly provide more pertinent definitions of "compressor." After considering both references, however, we are unpersuaded that they support Patent Owner's assertion that "compressor" should include disembodied software implementations. Specifically, while Media Compression does discuss software, it does not define "compressor" as excluding hardware. Moreover, Miyazaki appears to discuss exclusively compression software implemented on processor hardware. Ex. 2003, 1 ("[a] real-time software MPEG1 video encoder on *a multimedia RISC processor, VS3OR/AV*, is presented. *The VS3OR/AV processor provides 64-bit SIMD media-enhanced instructions*") (emphasis added).

Additionally, the Craner Declaration itself recites the following:

> a compressor or multiplexor need not be limited to a specific circuit, but would be understood to a POSITA at the time of the filing of the Monroe patent to alternatively be a function that could be implemented in firmware or software on a general purpose processor or signal processor, such as a digital signal processor, graphics processor, vector processor, or similar.

Ex. 2001 ¶ 21. This is consistent with Petitioner's proposed construction, as even when viewed in a light most favorable to Patent Owner, the Craner Declaration asserts that "compressor" is software implemented on a processor, rather than disembodied software.

2. *Multiplexer*

Independent claims 1, 19, and 31 each recite "multiplexer." Petitioner asserts that if an express construction is provided, that "multiplexer" should be construed as "a device for combining two or more input signals into at least one output signal." Pet. 4; Reply 14. For support, Petitioner cites a definition of

"multiplexer" from *McGraw-Hill Dictionary of Scientific and Technical Terms*, several portions of the '913 patent, and cites several cases that construed "multiplexer." Pet. 4; Reply 13–14 (citing Ex. 1001, Fig. 2, 9:19–24, 10:28–30, 16:12–18). In particular, Petitioner asserts that a proper construction should be limited to hardware or a combination of hardware and software, because the Specification does not refer to a disembodied software implementation of "multiplexer." An exemplary use of "multiplexer" in the '913 patent is as follows: "A binary signal DAY/-NIGHT 334 controls the state of *a multiplexer consisting of transmission gates 360 and 362*, so as to select the output of either color imager 327a or monochrome imager 327b." Ex. 1001, 16:13–16 (emphasis added).

Patent Owner asserts that "compressor" does not require construction, or in the alternative that it should be construed as "hardware, software or a combination for performing data compression." Specifically, Patent Owner asserts that "compressor" should not be limited to hardware because the Specification does not exclude software-based compressors. PO Resp. 6–7. For support, Patent Owner cites to the Craner Declaration, which in turn refers to the following citations: Vyden, B., "A software-implemented baseband processor for digital communications," TENCON '92. "Technology Enabling Tomorrow: Computers, Communications and Automation towards the 21st Century," 1992, IEEE Region 10 International Conference, vol., no., pp. 31, 35, vol. 1, 11–13, Nov. 1992 (Ex. 2004, "Vyden.")

We determine that Petitioner's construction constitutes the broadest reasonable interpretation in light of the Specification. Specifically, Petitioner provides an extrinsic definition of "multiplexer" that is consistent with the Specification, especially by the portion cited above which treats "multiplexer" as consisting of transmission gates 360, 362, which are hardware. Although Patent

Owner asserts that the Specification does not exclude software-based multiplexers, the fact that the Specification does not exclude a particular implementation does not indicate that it includes it. Instead, the proper inquiry is whether the Specification would lead one of ordinary skill to determine that a broadest reasonable construction of "multiplexer" would include disembodied software implementations. To that inquiry, Patent Owner has not provided any analysis.

Concerning the Craner Declaration, it refers to the Vyden reference that allegedly provides a more pertinent definition of "multiplexer." After considering the Vyden reference, however, we are unpersuaded that it supports Patent Owner's assertion that "multiplexer" should include disembodied software implementations. Specifically, while Vyden does discuss software, it appears to exclusively discuss multiplexer software implemented on microprocessor hardware. Ex. 2004, 1 ("[f]or reasons of flexibility and versatility, *a microprocessor was chosen as the heart of the multiplexer,* with all of the signal processing being done in software") (emphasis added).

Additionally, the Craner Declaration itself recites the following:

a compressor or multiplexor need not be limited to a specific circuit, but would be understood to a POSITA at the time of the filing of the Monroe patent to alternatively be a function that could be implemented in firmware or software on a general purpose processor or signal processor, such as a digital signal processor, graphics processor, vector processor, or similar.

Ex. 2001 ¶ 21. This is consistent with Petitioner's proposed construction, as even when viewed in a light most favorable to Patent Owner, the Craner Declaration asserts that "multiplexer" is software implemented on a processor.

3.   Network

Independent claims 1, 19, and 31 each recite "network." Through their positions concerning the prior art, Patent Owner asserts that "network" should be

construed as limited to those associated with Internet protocols, such as TCP/IP.

We are not persuaded by Patent Owner's assertions.

The Specification does not set forth a definition of "network," but does

provide the following guidance:

> The camera described herein is designed to transport the captured and compressed visual information over a modern digital network. Modem data networks provide connected devices with high bit rates and low error rates, suitable for the transport of compressed visual data streams. Modern networks also employ protocols that render such data streams suitable for addressing and routing over interconnected networks. Modern protocols also allow connected devices to send their data to more than one destination address. These techniques, applied to security and monitoring cameras, overcome the limitation of prior-art systems that supported only one monitoring console.

Ex. 1001, 3:18–29.

> In the invention, the digitized and compressed audiovisual signals are fed into a digital network, capable of flexible routing and transport of the signals. While the described invention uses Ethernet as a transport medium for the audiovisual signals, any equivalent digital network may be used.

> In addition, the communication protocols used by the network and attachments thereunto embed addressing and routing information into the individual signals. This allows the digital information, produced by the attached cameras, to be efficiently routed and disseminated. *An example of this protocol is TCP/IP, commonly used in the Internet*.

Ex. 1001, 3:18–29 (emphasis added). Accordingly, we construe "network" as "a

series of interconnected devices that employ protocols for sending and receiving

digital data," but decline to limit such "networks" to those associated with Internet

protocols, such as TCP/IP.

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B.   *Principles of Law*

To prevail in its challenges to the patentability of the claims, Petitioner must prove unpatentability by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). To establish obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *See CFMT, Inc. v. Yieldup Int'l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003); *In re Royka*, 490 F.2d 981, 985 (CCPA 1974). A patent claim composed of several elements, however, is not proved obvious merely by demonstrating that each of its elements was known, independently, in the prior art. *KSR Int'l Co.*, 550 U.S. at 419. In that regard, for an obviousness analysis it can be important to identify a reason that would have prompted one of skill in the art to combine prior art elements in the way the claimed invention does. *Id.* However, a precise teaching directed to the specific subject matter of a challenged claim is not necessary to establish obviousness. *Id.* Rather, obviousness must be gauged in view of common sense and the creativity of an ordinarily skilled artisan. *Id.* Moreover, obviousness can be established when the prior art itself would have suggested the claimed subject matter to a person of ordinary skill in the art. *In re Rinehart*, 531 F.2d 1048, 1051 (CCPA 1976).

We analyze the instituted grounds of unpatentability in accordance with the above-stated principles.

C. *Claims 1–4, 6, 8, 9, 17, and 19 — Alleged Obviousness over Seeley*

Petitioner asserts that claims 1–4, 6, 8, 9, 17, and 19 are unpatentable under 35 U.S.C. § 103(a) as obvious over Seeley. Pet. 7–15. Patent Owner disagrees with Petitioner's assertions. PO Resp. 7–14.

1. *Seeley (Exhibit 1005)*

Seeley discloses a video security system having components physically located at a premises being protected, and components located at a central station from which a number of premises can be monitored simultaneously. Ex. 1005, 1:25–28. Figure 7, shown below, illustrates one embodiment of such a system.
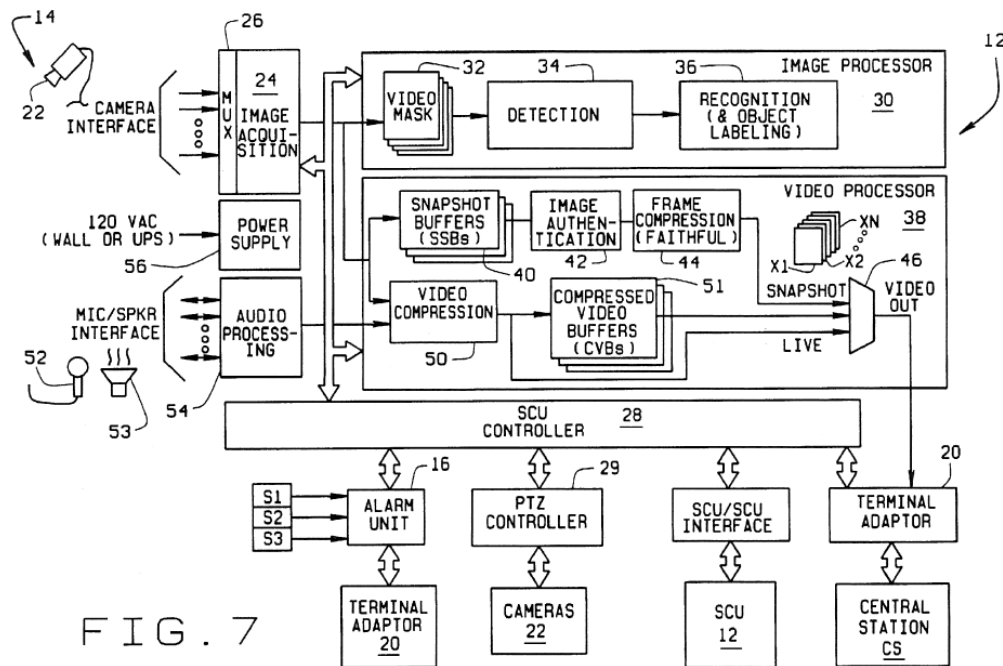

Fig. 7 is a block diagram of a site control
unit ("SCU") installed on a premises.

Figure 7 shows SCU 12, including cameras 22. Ex. 1005, 10:43–46. A function of SCU 12 is to look intelligently at video acquired from each of cameras 22 to determine if an intruder is present within any of the scenes viewed by cameras 22. Ex. 1005, 9:24–27. SCU 12 includes image acquisition section 24

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which receives video signals from each of cameras 22, these signals representing images of scenes observed by respective cameras 22. Ex. 1005, 10:43–46.

When motion is detected, cameras 22 take full frame images of the scene. Ex. 1005, 12:66–67. Motion may be detected by sensors S1–S3 via alarm unit 16. Ex. 1005, 12:23–24. The full frame images then are sent to and compressed at frame compression module 44, before being supplied to central station CS via video output 46 of SCU 12 and terminal adapter 20. Ex. 1005, 13:27–30. Images from cameras 22 also are supplied to video compression module 50. Ex. 1005, 18:26–28. From compression module 50, compressed images may be sent directly (i.e., live) through video output 46 to central station CS via terminal adaptor 20. Ex. 1005, 18:34–36; Fig. 7. An example of terminal adaptor 20 is shown below in Figure 12.
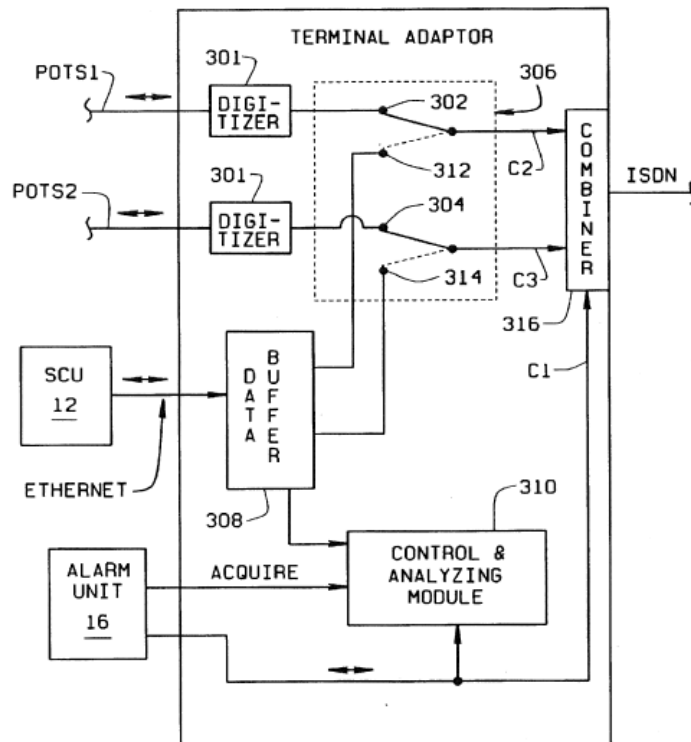

Fig. 12 is a block diagram of a terminal adaptor.

Figure 12 shows that video signals transmitted from SCU 12 now flow through data buffer 308 and switch 306 to communication lines C2, C3. Ex. 1005, 14:19–22. Communication lines C2, C3 are combined with communication line C1 at combiner module 316 to form an Integrated Services Digital Network ("ISDN") communication path. Ex. 1005, 14:31–33.

  2.   *Petitioner's Position*

Petitioner asserts that claims 1–4, 6, 8, 9, 17, and 19 are unpatentable under 35 U.S.C. § 103(a) as obvious over Seeley. Pet. 7–15. In support of this asserted ground of unpatentability, Petitioner provides detailed explanations as to how the subject matter of each claim is at least suggested by Seeley, and relies on a Declaration of Dr. Stephen B. Wicker. Pet. 7–15 (citing Ex. 1003 ¶¶ 37–39). Specifically, Petitioner cites portions of Seeley as disclosing every limitation of claims 1–4, 6, 8, 9, 17, and 19, except for certain features, and then proposes modifying Seeley in view of Dr. Wicker's Declaration with regard to the level of ordinary skill in the art so as to render obvious the claimed invention as a whole. *Id.*

For example, independent claim 1 requires a plurality of image transducers. Seeley discloses cameras 22. Ex. 1005, 10:43–46. Independent claim 1 requires further a motion video compressor and a still frame compressor. Seeley discloses video compression module 50 and frame compression module 44. Ex. 1005, 13:27–30, 18:26–28. Independent claim 1 requires also a first multiplexer and a second multiplexer. Seeley discloses video out 46 and combiner module 316. Ex. 1005, 13:27–30; 14:31–33. Independent claim 1 requires additionally a network gateway. Seeley discloses an ISDN communication path. Ex. 1005, 14:31–33. Independent claim 1 requires "wherein said camera may capture both full motion video and still frame video, alternately or simultaneously, and transmit

both compressed full motion video and compressed still frame video, alternately or simultaneously." Seeley discloses that during an alarm condition, snapshots, compressed video, live video, and audio are sent back and forth over the ISDN communication path. Ex. 1005, 14:35–37.

Petitioner sets forth similar analyses for claims 2–4, 6, 8, 9, 17, and 19.

3. *Patent Owner's Response and Analysis*

Patent Owner asserts the following: "in Seeley the only compressors (50 & 44), multiplexor (46 and 316) and processor (30) reside in an SCU 12, which is apart from camera 22." Presumably Patent Owner asserts that this is relevant, because independent claim 1 recites "a motion compressor and a still frame compressor associated with each image transducer," and independent claim 19 requires a motion video compressor, a still frame compressor, and a first multiplexer "associated with each image transducer." Patent Owner's assertions are misplaced, though, because neither independent claim 1 nor independent claim 19 requires that any compressor or multiplexer reside within an image transducer. Independent claims 1 and 19 only require that the compressor or multiplexer be "associated with each image transducer." To that end, all of compressors 44, 50 and multiplexer 46, 316 of Seeley are associated with each of cameras 22, in that transmissions from each of cameras 22 are processed by compressors 44, 50 and multiplexer 46, 316.

Insofar as Patent Owner may be asserting that each image transducer must have its own exclusive compressor or multiplexer, such a limitation is not set forth in the claims, and appears to be an attempt by Patent Owner to improperly import a limitation from the Specification. *CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 1231 (Fed. Cir. 2005) (while the specification can be examined for proper context of a claim term, limitations from the specification will not be imported into

the claims). Similarly, insofar as Patent Owner may be asserting that all recited components must be enclosed in a single housing, such a limitation is also not set forth in the claims.

Patent Owner asserts further that Seeley does not disclose a "second multiplexer," as recited in independent claims 1 and 19, because combiner 316 of Seeley does not include an associated processor. PO Resp. 10–11 (citing Ex. 2001 ¶ 26). Specifically, the Craner Declaration asserts that any processor associated with combiner 316 is not configured "for generating a conditioned output image signal suitable for transmission over a network," as recited in independent claims 1 and 19, because Seeley only discloses circuitry for a point-to-point ISDN interface, and not for an Internet protocol network. We are not persuaded by Patent Owner's assertions, because as set forth above, we construe "network" as "a series of interconnected devices that employ protocols for sending and receiving digital data," and decline to limit such "networks" to only those associated with Internet protocols, such as TCP/IP. Combiner 316 of Seeley processes digital signals for transmission over an ISDN communication path (Ex. 1005, 14:19–33), and thus we are persuaded that Seeley discloses a processor associated with a multiplexer "for generating a conditioned output image signal suitable for transmission over a network," as recited by independent claims 1 and 19.

Patent Owner asserts also that Seeley does not disclose a "network," as recited in independent claims 1 and 19. Specifically, the Craner Declaration asserts that Seeley does not disclose an Internet protocol network, such as TCP/IP. Ex. 2001 ¶¶ 28–41. Patent Owner's assertions are misplaced because, as set forth above, we construe "network" as "a series of interconnected devices that employ protocols for sending and receiving digital data," and decline to limit such "networks" to only those associated with Internet protocols, such as TCP/IP.

Accordingly, we are persuaded that Seeley's ISDN corresponds properly to the "network" recited in independent claims 1 and 19.

Patent Owner asserts additionally that Petitioner does not provide any reasoning or evidence as to how the prior art is modified or combined in the way the claimed invention is arranged. As an initial mater, we note that Patent Owner does not identify any specific modifications or combinations set forth by Petitioner with which they disagree for lack of reasoning or evidence. Moreover, we are not persuaded by Patent Owner's assertions, because Petitioner has provided such reasoning and evidence in the form of the Wicker Declaration and the prior art references. For example, Petitioner asserts the following concerning claim 17:

> Although Seeley does not explicitly reference an MPEG chip, as noted in claim 17, MPEG was a well-known video compression standard at the time of the invention. It would have been obvious to a person having ordinary skill in the art at the time of the invention that the video compression module 50 could use the MPEG compression standard, as MPEG was one of a limited number of well known, commonly used video compression standards at that time. Wicker Decl., ¶ 37.

Pet. 13 (citing Ex. 1003 ¶ 37). In setting forth this position, Petitioner cites video compression module 50 of Seeley, a fact from the prior art, and provides articulated reasoning as to why one of ordinary skill would have known that video compression module 50 could use the MPEG compression standard.

4. Conclusion

After considering Petitioner's and Patent Owner's positions, as well as their supporting evidence, we determine that, by a preponderance of the evidence, Petitioner has met its burden for showing that claims 1–4, 6, 8, 9, 17, and 19 of the '913 patent are unpatentable over Seeley.

>   D.   *Claims 1–6, 8–10, 13, 17, and 19 — Alleged Obviousness over*
>   *Brusewitz and Ohki*

Petitioner asserts that claims 1–6, 8–10, 13, 17, and 19 are unpatentable
under 35 U.S.C. § 103(a) as obvious over Brusewitz and Ohki. Pet. 23–34. Patent
Owner disagrees with Petitioner's assertions. PO Resp. 11–14.

>   1.   *Brusewitz (Exhibit 1008)*

Brusewitz discloses systems and methods for improving display of high
resolution still images through integration with a corresponding lower resolution
video image. Ex. 1008, 1:11–14. An example of a system of Brusewitz is shown
below in Figure 1.

FIG. 1

Figure 1 is a block diagram of an electronic imaging system.
Figure 1 shows camera 10 forwarding digital image data to subsampler device 14
of imaging system 6. Ex. 1008, 2:67–3:2. Encoder 16 then encodes and
compresses the digital image data into a video signal stream. Ex. 1008, 3:14–22.

The video signal stream then may be transmitted wirelessly over GSM channels. Ex. 1008, 7:66–8:8.

Brusewitz discloses that conventional video imaging capabilities may be combined with still image management. Ex. 1008, 5:5–8. For example, imaging system 6 may operate in normal video mode, displaying a conventional 30 frames per second sequence of images at a conventional video resolution. Ex. 1008, 5:8–11. However, when a user observes something of interest, the user may request a higher resolution still image. Ex. 1008, 5:11–14. Since high resolution images require a much greater number of bits than conventional video image frames, transmission of such a high resolution image usually takes much longer than transmission of video image frames. Ex. 1008, 5:26–32. While the high resolution image is being processed, production of video image frames either is suspended or continues at a lower bit rate, e.g., through interleaving with the high resolution image. Ex. 1008, 5:32–35. Conventional video systems employing still picture capabilities handle the two images differently and independently. Ex. 1008, 5:36–38.

2.   *Ohki (Exhibit 1006)*

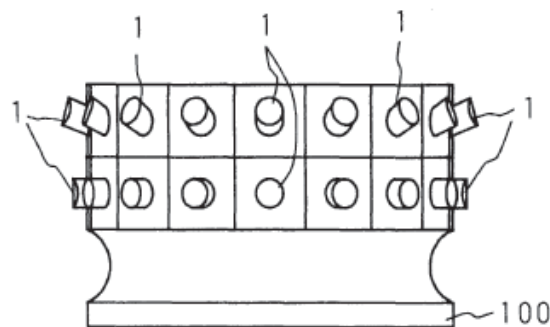Figure 12 of Ohki is shown below.

Figure 12 is a front view that shows a layout of cameras on an image forming apparatus.

Ohki discloses a plurality of cameras 1 placed on an upper side face of camera mounting base 100 in a circumferential direction. Ex. 1006, col. 4, ¶ 15. Such a configuration allows images to be collected simultaneously and joined or synthesized to form an image stretching over at least a portion of a region in a circumferential direction. Ex. 1006, col. 2, ¶ 8.

3. Petitioner's Position

Petitioner asserts that claims 1–6, 8–10, 13, 17, and 19 are unpatentable under 35 U.S.C. § 103(a) as obvious over Seeley. Pet. 23–34. In support of this asserted ground of unpatentability, Petitioner provides detailed explanations as to how the subject matter of each claim is at least suggested by Brusewitz and Ohki, and relies on Dr. Wicker's Declaration. Pet. 23–34 (citing Ex. 1003 ¶¶ 54–58). Specifically, Petitioner cites portions of Seeley as disclosing every limitation of claims 1–6, 8–10, 13, 17, and 19, except for certain features, and then proposes modifying Brusewitz in view of Ohki so as to render obvious those features.

For example, independent claim 1 recites "a plurality of image transducers each adapted for collecting digital high resolution image signals." Brusewitz discloses camera 10, which collects high resolution images. Ex. 1008, 5:26–32, Fig. 1. Petitioner then cites Ohki for disclosing a plurality of image transducers, and contends the following:

> It would have been obvious to a person having ordinary skill in the art at the time of the invention to mount multiple cameras of the type taught by Brusewitz in an arrangement as taught by Ohki in order to provide a larger viewing area such as a complete or panoramic view of an area. This combination would be a simple well-known substitution of multiple cameras for a single camera in order to obtain predictable results. Wicker Decl., ¶¶ 56–57.

Pet. 25 (citing Ex. 1003 ¶¶ 56–57).

Independent claim 1 recites the following:

b.   a motion video compressor associated with the image transducer for compressing full motion video images for generating a compressed full motion video image data signal;

c.   a still frame compressor associated with the image transducer for compressing still frame images for generating a compressed still frame image data signal.

Brusewitz discloses encoder 16, which handles video image capabilities and still image capabilities differently and independently. Ex. 1008, 3:14–22, 5:36–38, Fig. 1. Concerning encoder 16, Petitioner cites Dr. Wicker's Declaration for the following:

> Brusewitz further teaches a compressor that compresses both still frame and video images. The compression, however, can occur separately— such that still frame image compression and video image compression occur as separate steps. Indeed, Brusewitz indicates that "encoder 16 encodes the captured high resolution image." *See* Brusewitz, 6:7–9. Yet, Brusewitz also teaches in Figure 2 that compression (or encoding) of the video images—step 58—is a separate step from compression of the still images—step 62. Because these encoding steps are disclosed by Brusewitz as occurring separately, a POSITA at the time of invention of the '913 patent would understand that the encoder can use separate compression algorithms for still image compression and motion video compression, respectively. For instance, Brusewitz associates compression algorithms such as MPEG with the video signal stream. Brusewitz, 3:14–43. And Brusewitz does not otherwise exclude separate algorithms for still image compression, such as JPEG, which was a well-known still image compression standard and one of a limited number of options for still image compression.

Ex. 1003 ¶ 54.

Independent claim 1 further recites "a first multiplexer for merging the compressed full motion video image data signal and the compressed still frame image data signal into a single, combined image data signal." Brusewitz discloses

that production of video image frames may continue at a lower bit rate, e.g.,

through interleaving with the high resolution image. Ex. 1008, 5:32–35.

Independent claim 1 additionally recites "a second multiplexer for merging

all of said signals into a combined data signal." Concerning this limitation,

Petitioner contends the following:

> Brusewitz does not expressly disclose a second multiplexer.
> However, Brusewitz discloses that the cameras may be networked
> where beneficial, giving exemplary applications as videoconferencing
> and surveillance systems. *See e.g.*, Brusewitz, 7:65-8:11. It would
> have been known to one of ordinary skill in the art at the time of the
> invention of the '913 Patent that surveillance systems using multiple
> cameras, such as the multiple cameras used with the housing of Ohki,
> were commonly connected to a network. Wicker Decl., ¶ 58[.] Thus,
> it would have been obvious to a person having ordinary skill in the art
> at the time of the invention to include a second multiplexer to
> combine data signals from the multiple cameras mounted in the Ohki
> housing into a single signal for network transmission, as was well-
> known in the art at the time of the invention of the '913 Patent.
> Wicker Decl., ¶ 58.

Pet. 26–27 (citing Ex. 1003 ¶ 58).

Independent claim 1 also recites "a processor associated with the multiplexer

for generating a conditioned output image signal suitable for transmission over a

network." Brusewitz discloses that digital image data may be transmitted

wirelessly over GSM channels via the video signal stream. Ex. 1008, 7:66–8:8.

Independent claim 1 further recites "a motion compressor and a still frame

compressor associated with each image transducer and positioned between the

image transducer and the second multiplexer." Brusewitz discloses encoder 26

associated with camera 10.

Independent claim 1 additionally recites "wherein said camera may capture

both full motion video and still frame video, alternately or simultaneously, and

transmit both compressed full motion video and compressed still frame video, alternately or simultaneously." Brusewitz discloses that digital image data may be transmitted wirelessly over GSM channels via the video signal stream. Ex. 1008, 7:66–8:8. Brusewitz also discloses that the video signal stream may include video image frames interleaved with high resolution images. Ex. 1008, 5:32–35.

Petitioner sets forth similar analyses for claims 2–6, 8–10, 13, 17, and 19.

4. *Patent Owner's Response and Analysis*

Patent Owner asserts the following:

> Ohki does not disclose a camera that includes "an image transducer," "a motion video compressor," "a still frame compressor," "a first multiplexor," and "a second multiplexor" because Ohki paragraph 34 states that the compression (step s13) is performed by the microcomputer 18 and then sent to personal computer 14 in FIG. 5, but FIG. 5 shows that there is only 1 microcomputer for all 16 "cameras" (item 1 in FIG. 5), yet claims 1 and 19 have a "compressor" for each camera.

PO Resp. 11 (citing Ex. 2001 ¶ 47). As an initial matter, we are not persuaded because Patent Owner attacks Ohki individually while the ground of unpatentability is based on a combination of Brusewitz and Ohki. *In re Keller*, 642 F.2d 413, 426 (CCPA 1981) ("one cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references."). To that end, Brusewitz, and not Ohki, is cited for disclosing each of "an image transducer," "a motion video compressor," "a still frame compressor," "a first multiplexor," and "a second multiplexor."

Moreover, Patent Owner asserts that "there is only 1 microcomputer for all 16 'cameras' (item 1 in FIG. 5 [of Ohki]), yet claims 1 and 19 have a 'compressor' for each camera." PO Resp. 11. The cited portion of the Craner Declaration asserts something similar as follows: "[t]he invention of Monroe, however, not only requires a 'compressor' for each camera but that the compressor be part of the

camera." Ex. 2001 ¶ 47. As in our analysis set forth above with respect to comparable arguments related to Seeley, we are not persuaded, because (1) none of independent claims 1 and 19 requires that one compressor cannot be associated with each of multiple image transducer, (2) none of independent claims 1 and 19 recites that compressors must be enclosed in the same housing as other camera components, and (3) Petitioner's proffered combination of Brusewitz and Ohki does account for multiple cameras (Ohki), each with their own compressors (Brusewitz).

Patent Owner asserts additionally that Petitioner does not provide any reasoning or evidence as to how the prior art is modified or combined in the way the claimed invention is arranged. As an initial mater, we note that Patent Owner does not identify any specific modifications or combinations set forth by Petitioner with which they disagree for lack of reasoning or evidence. Moreover, we are not persuaded by Patent Owner's assertions because Petitioner has provided such reasoning and evidence in the form of the Wicker Declaration and the prior art references, for example, as set forth above in its analysis as to how encoder 16 of Brusewitz at least suggests both the "motion video compressor" and "still frame compressor" recited in independent claim 1.

5. *Conclusion*

After considering Petitioner's and Patent Owner's positions, as well as their supporting evidence, we determine that, by a preponderance of the evidence, Petitioner has met its burden for showing that claims 1–6, 8–10, 13, 17, and 19 of the '913 patent are unpatentable over Brusewitz and Ohki.

E.   Claim 13 — Alleged Obviousness over Seeley and Ohki;
Claims 5, 7, 10, 11 — Alleged Obviousness over Seeley, Ohki, and Fernandez;
Claims 14 and 31–33 — Alleged Obviousness over Seeley, Ohki, and Sorokin

Petitioner asserts that claims 5, 7, 10, 11, 13, 14, and 31–33 are unpatentable under 35 U.S.C. § 103(a) as obvious over various combinations of Seeley, Ohki, Fernandez, and Sorokin. Pet. 15–23. In support of these asserted grounds of unpatentability, Petitioner provides detailed explanations as to how the subject matter of each claim is disclosed or suggested by various combinations of Seeley, Ohki, Fernandez, and Sorokin, and relies on a Declaration of Dr. Stephen B. Wicker. Pet. 15–23 (citing Ex. 1003 ¶¶ 42–52). Specifically, Petitioner cites portions of Seeley as disclosing every limitation of claims 5, 7, 10, 11, 13, 14, and 31–33, except for certain features, and then proposes modifying Seeley in view of one or more of Ohki, Fernandez, Sorokin, and Dr. Wicker's Declaration so as to render obvious those features.

Patent Owner disagrees with Petitioner's assertions for the same reasons as set forth above with respect to the ground of unpatentability based on Seeley alone. PO Resp. 7–14. We are not persuaded for the same reasons as set forth above, and thus our analysis need not be repeated here.

After considering Petitioner's and Patent Owner's positions, as well as their supporting evidence, we determine that, by a preponderance of the evidence, Petitioner has met its burden for showing that claim 13 of the '913 patent is unpatentable over Seeley and Ohki; claims 5, 7, 10, and 11 of the '913 patent are unpatentable over Seeley, Ohki, and Fernandez; and claims 14 and 31–33 of the '913 patent are unpatentable over Seeley, Ohki, and Sorokin.

> F.   *Claims 7 and 11 — Alleged Obviousness over Brusewitz, Ohki, and Fernandez;*
> *Claims 14 and 31–33 — Alleged Obviousness over Brusewitz, Ohki, and Sorokin*

Petitioner asserts that claims 7, 11, 14, and 31–33 are unpatentable under 35 U.S.C. § 103(a) as obvious over various combinations of Brusewitz, Ohki, Fernandez, and Sorokin. Pet. 34–40. In support of these asserted grounds of unpatentability, Petitioner provides detailed explanations as to how the subject matter of each claim is at least suggested by various combinations of Brusewitz, Ohki, Fernandez, and Sorokin, and relies on a Declaration of Dr. Stephen B. Wicker. Pet. 34–40 (citing Ex. 1003 ¶¶ 59–62, 64–66). Specifically, Petitioner cites portions of Brusewitz as disclosing every limitation of claims 7, 11, 14, and 31–33, except for certain features, and then proposes modifying Brusewitz in view of one or more of Ohki, Fernandez, and Sorokin so as to render obvious those features.

Patent Owner disagrees with Petitioner's assertions for the same reasons as set forth above with respect to the ground of unpatentability based on Brusewitz and Ohki. PO Resp. 11–14. We are not persuaded for the same reasons as set forth above, and thus our analysis need not be repeated here.

After considering Petitioner's and Patent Owner's positions, as well as their supporting evidence, we determine that, by a preponderance of the evidence, Petitioner has met its burden for showing that claims 7 and 11 of the '913 patent are unpatentable over Brusewitz, Ohki, and Fernandez; and claims 14 and 31–33 of the '913 patent are unpatentable over Brusewitz, Ohki, and Sorokin.

G. *Petitioner's Motion to Exclude*

Petitioner's Motion to Exclude seeks to exclude Mr. Craner's Declaration (Ex. 2001) and Exhibits 2002–2009. Paper 32. Patent Owner did not file an opposition.

The current situation does not require us to assess the merits of Petitioner's motion to exclude. As discussed above, even without excluding the identified evidence, we have concluded that Petitioner has demonstrated by a preponderance of the evidence that the challenged claims are unpatentable. Accordingly, Petitioner's motion to exclude is *dismissed* as moot.

III.   CONCLUSION

We conclude Petitioner has shown by a preponderance of the evidence that:

(1) claims 1–4, 6, 8, 9, 17, and 19 are unpatentable under 35 U.S.C. § 103(a) as obvious over Seeley;

(2) claim 13 is unpatentable under 35 U.S.C. § 103(a) as obvious over Seeley and Ohki;

(3) claims 5, 7, 10, and 11 are unpatentable under 35 U.S.C. § 103(a) as obvious over Seeley, Ohki, and Fernandez;

(4) claims 14 and 31–33 are unpatentable under 35 U.S.C. § 103(a) as obvious over Seeley, Ohki, and Sorokin;

(5) claims 1–6, 8–10, 13, 17, and 19 are unpatentable under 35 U.S.C. § 103(a) as obvious over Brusewitz and Ohki;

(6) claims 7 and 11 are unpatentable under 35 U.S.C. § 103(a) as obvious over Brusewitz, Ohki, and Fernandez; and

(7) claims 14 and 31–33 are unpatentable under 35 U.S.C. § 103(a) as obvious over Brusewitz, Ohki, and Sorokin.

IV.   ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–11, 13, 14, 17, 19, and 31–33 of the '913 patent are held unpatentable;

FURTHER ORDERED that Petitioner's Motion to Exclude is *dismissed*; and

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

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