United States Court of Appeals for the Federal Circuit

MPHJ TECHNOLOGY INVESTMENTS, LLC,
Appellant

v.

RICOH AMERICAS CORPORATION, XEROX CORPORATION, LEXMARK INTERNATIONAL, INC.,
Appellees

2016-1243

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2014-00538.

Decided: February 13, 2017

VIVEK GANTI, Hill Kertscher & Wharton LLP, Atlanta, GA, argued for appellant. Also represented by STEVEN G. HILL.

JON WRIGHT, Sterne Kessler Goldstein & Fox, PLLC, Washington, DC, argued for appellees. Also represented by MICHAEL D. SPECHT, RICHARD M. BEMBEN.

Before NEWMAN, LOURIE, and O'MALLEY, *Circuit Judges.*

Opinion for the court filed by *Circuit Judge* NEWMAN.

Opinion concurring in part, dissenting in part filed by *Circuit Judge* O'MALLEY.

NEWMAN, *Circuit Judge.*

MPHJ Technology Investments, LLC appeals the decision of the Patent Trial and Appeal Board ("Board" or "PTAB"), on Inter Partes Review, that claims 1–8 of MPHJ's U.S. Patent No. 8,488,173 ("the '173 Patent") are invalid on the grounds of anticipation or obviousness.[1] On appellate review, we affirm the Board's decision.

To determine the validity of a patented invention, the meaning and scope of the claims are first determined. *See Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1353 (Fed. Cir. 1999) ("[T]he first step in any validity analysis is to construe the claims of the invention to determine the subject matter for which patent protection is sought."). As ratified by the Supreme Court in *Cuozzo Speed Technologies, LLC v. Lee*, 136 S. Ct. 2131 (2016), when unexpired patents are reviewed by the Board, the claims are given their broadest reasonable interpretation consistent with the specification and the prosecution history, from the viewpoint of persons skilled in the field of the invention.

BACKGROUND

The '173 Patent, entitled "Distributed Computer Architecture and Process for Document Management," describes a system and method that "extends the notion of copying from a process that involves paper going through a conventional copier device, to a process that involves paper being scanned from a device at one location and

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[1] *Ricoh Ams. Corp. v. MPHJ Tech. Invs.,* No. IPR2014-00538, 2015 WL 4911675, (P.T.A.B. Aug. 12, 2015) ("Bd. Op.").

copied to a device at another location." '173 Patent, col. 5, ll. 51–55. The '173 Patent calls its invention a "Virtual Copier" ("VC") whose purpose is "to enable a typical PC user to add electronic paper processing to their existing business process." '173 Patent, col. 5, ll. 47–50. The patent states that its VC replicates an image "using a single GO or START button, to do a similar operation in software so that the image gets seamlessly replicated into other devices or applications or the Internet." '173 Patent, col. 6, ll. 38–43. Patent Figure 28 illustrates various input devices and destinations, moving by software through the virtual copier:

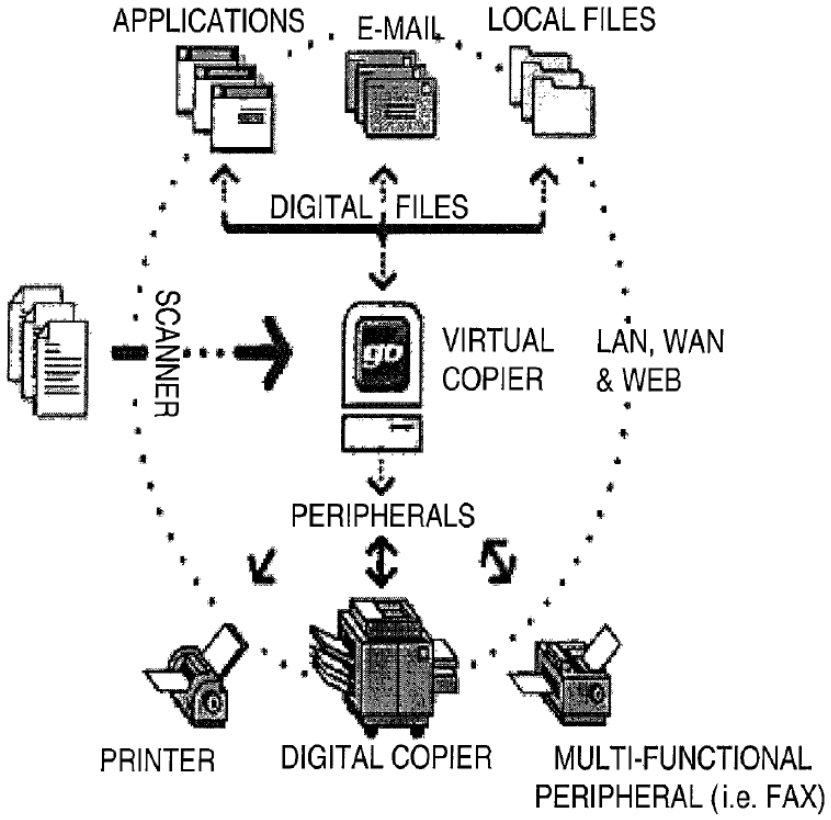

FIG. 28

The challengers, Ricoh Americas Corporation, Xerox Corporation, and Lexmark International, Inc. (collectively, "Petitioner"), requested Inter Partes Review of claims 1–8, all of the '173 Patent claims, in accordance with 35 U.S.C. § 311 *et seq*. The PTAB instituted review, construed the claims, conducted a hearing, and held the claims unpatentable based on several prior art references. The PTAB found claims 1–8 anticipated by the *Xerox Network Systems Architecture General Information Manual* dated April 1985 ("XNS") and the XNS features in *Xerox 150 Graphic Input Station Operator and Reference Manual* dated January 1985 ("GIS 150"). The PTAB also found claims 1–8 anticipated by U.S. Patent No. 5,513,126 to Harkins, and/or obvious in view of the combination of Harkins and U.S. Patent No. 5,818,603 to Motoyama. On this appeal MPHJ argues that the Board incorrectly broadly construed the claims and that on the correct narrow claim construction the claims are neither anticipated nor obvious.

System claim 1 and method claim 4, the independent claims, were deemed representative:

> 1. A system capable of transmitting at least one of an electronic image, electronic graphics and electronic document to a plurality of external destinations including one or more of external devices, local files and applications responsively connectable to at least one communication network, comprising:
>
> at least one network addressable scanner, digital copier or other multifunction peripheral capable of rendering at least one of said electronic image, electronic graphics and electronic document in response to a selection of a Go button;
>
> at least one memory storing a plurality of interface protocols for interfacing and communicating;

at least one processor responsively connectable to said at least one memory, and implementing the plurality of interface protocols as a software application for interfacing and communicating with the plurality of external destinations including the one or more of the external devices and applications,

wherein one of said plurality of interface protocols is employed when one of said external destinations is email application software;

wherein a second of said plurality of interface protocols is employed when the one of said external destinations is a local file;

wherein a plurality of said external destinations is in communication with said at least one network addressable scanner, digital copier or other multifunction peripheral over a local area network;

wherein at least one of said external destinations receives said electronic image, electronic graphics and electronic document as a result of a transmission over the at least one communication network;

a printer other than said at least one network addressable scanner, digital copier or other multifunction peripheral;

wherein, in response to the selection of said Go button, an electronic document management system integrates at least one of said electronic image, electronic graphics and electronic documentusing software so that said electronic image, electronic graphics and electronic document gets seamlessly replicated and transmitted to at least one of said plurality of external destinations;

wherein at least one of said electronic image, electronic graphics and electronic document is pro-

> cessed by said at least one network addressable scanner, digital copier or other multifunction peripheral into a file format, and wherein a plurality of said external destinations are compatible with said file format without having to modify said external destinations; and
>
> wherein upon said replication and seamless transmission to at least one of said external destinations, said electronic image, electronic graphics and electronic document is communicable across a network to at least three other of said external destinations, and is optionally printable by said printer.

'173 Patent, col. 86, ll. 9–63. MPHJ states that the claimed "seamless" transmission requires a one-step operation without human intervention, and that this system is not shown in the prior art.

For method claim 4, MPHJ emphasizes the provision for "interfacing between at least one of said scanner, digital copier or other multifunction peripheral and email application software" in claim section (d), and argues that this means that the operation from scanner to email destination occurs in a single step. Claim 4 states:

> 4. A method of managing at least one of an electronic image, electronic graphics or electronic document comprising the steps of, in any order:
>
> (a) transmitting a plurality of any of said electronic image, electronic graphics or electronic document from a source address to a plurality of external destinations including one or more of external devices, local files and applications responsive to said source address using at least one communication network;
>
> (b) rendering said plurality of any of said electronic image, electronic graphics or electronic docu-

ment by a network addressable scanner, digital copier or other multifunction peripheral located at said source address;

(c) communicatively linking said scanner, digital copier or other multifunction peripheral with said plurality of said external destinations via application-level interface protocols;

(d) interfacing between at least one of said scanner, digital copier or other multifunction peripheral and email application software using a first of said interface protocols;

(e) interfacing between at least one of said scanner, digital copier or other multifunction peripheral and a local file using a second of said interface protocols;

(f) communicating over a local area network between said at least one of said scanner, digital copier or other multifunction peripheral and said plurality of said external destinations;

(g) transmitting a first electronic image, electronic graphics or electronic document from said at least one of said scanner, digital copier or other multifunction peripheral to at least one of said external destinations where at least a portion of said transmitting of step (g) occurs by communicating via Internet, and using one or more of said interface protocols;

(h) integrating via at least one processor communicatively coupled with said at least one of said scanner, digital copier or other multifunction peripheral, a second electronic image, electronic graphics or electronic document so that said second electronic image, electronic graphics or electronic document gets seamlessly replicated and

> transmitted to at least one of said plurality of said external destinations;
>
> (i) processing via said at least one processor said plurality of any of said electronic image, electronic graphics or electronic document into a uniform file format, wherein said plurality of said external destinations are compatible with said format without having to modify said external destinations; and
>
> (j) seamlessly transmitting said first or second electronic image, electronic graphics or electronic document over said network from a first external destination to another of said external destinations.

'173 Patent, col. 87, l. 10–col. 88, l. 20. MPHJ stresses that "seamless" transmission means that "no user intervention is needed" between copying and destination. MPHJ Br. 16. MPHJ states that it is "irrelevant . . . [w]hether intermediate components exist between the scanner and application software." MPHJ Br. 17.

The PTAB construed the claims as including scanning and emailing, whether in separate steps or in a single step, with or without user intervention by human or by machine. On this construction, the PTAB invalidated the claims.

Claim Construction

MPHJ states that the terms "interfacing" and "Go button" represent a single-step operation, and that the PTAB erred in construing the claims as not limited to single-step operation.

The PTAB construed "interfacing" to mean "making a direct or indirect connection between two elements so they can work with each other or exchange information." Bd. Op. 15. MPHJ argues that "interfacing" requires

direct single-step transfer from the scanner or other peripheral device, to email or the Internet or other destination, and that the '173 Patent's system "is direct because it excludes additional user intervention beyond initiating the process." MPHJ Br. 17. MPHJ describes the Xerox prior art system as "drag and drop" in two steps. Responding to these arguments, the Board held that "nothing limits an 'interface' to a connection between two components." Bd. Op. 15.

MPHJ argued similarly that the term "Go button" in the claims requires "an operation that begins a process and requires no further action from the user to complete," Prelim. Resp. at 14, and is implemented by the claim term "application" as "a discrete software program executable on an operating system for the purpose of accomplishing a task." *Id.* at 7–11. The Board ruled that the claims are not limited to a single-step transfer from scanner to email or other destination, and found the claims anticipated by the button in the XNS system that "can initiate a scan in one step and send a document via email in another." Bd. Op. 24–25.

MPHJ states that a passage from the '173 Patent "leaves no doubt that the scope of the 'GO button' is a single function that permits copying a document and integrating it into a software application (*e.g.*, third party software) in one step." MPHJ Br. 20. That passage states:

> VC extends the notion of a copier, which simply replicates the image of an original document onto another piece of paper using a single GO or START button, to do a similar operation in software so that the image gets seamlessly replicated into other devices or applications or the Internet.

'173 Patent, col. 46, ll. 36–40. MPHJ states that "seamlessly" means an automatic transfer in one step. Howev-

er, the Board held that the specification and claims do not require only a single-step operation.

MPHJ argues that its claim interpretation is supported by and required by its Provisional Application No. 60/108,798 ("the '798 Provisional"), citing two statements in the Provisional on "one step" operation using a single button:

> Patent: The IMAGinE Virtual Copier Interface: A Simple Method of Presenting to a User the Complex Operation of Copying Files or Electronic Images to and from Digital Imaging Devices and/or Software Applications in One Step.

'798 Provisional at 7. The Provisional states:

> The IMAGinE Virtual Copier can copy paper from a physical device directly into a third-party software application in one step. Using other applications, such as Visioneer's Paperport or Xerox's Pagis, the user must first "import" or scan paper into the capture application and then drag or direct the output to another location. With the IMAGinE Virtual Copier, a single button (the Go button) directly copies paper from a scan-like device (either a copier with a scan attachment or a scanner) and places it within the third-party application.

'798 Provisional at 6. MPHJ argues that these statements "expressly limited the scope of the invention" to a one-step copying and sending process, MPHJ Br. 14, and that the claims cannot reasonably be construed as the separate steps of copying and sending. MPHJ states that such prior art was distinguished in the '798 Provisional.

Petitioner points out that the statements in the '798 Provisional on which MPHJ now relies were omitted from the final application. MPHJ responds that these omitted sections were not explicitly disclaimed, and therefore that

they are part of the prosecution history and are properly relied on to explain and limit the claims, even if the passages do not appear in the issued patent.

We agree that a provisional application can contribute to understanding the claims. *See Trs. of Columbia Univ. in New York v. Symantec Corp.*, 811 F.3d 1359, 1365 (Fed. Cir. 2016) (looking to the provisional application for guidance as to claim construction); *Vederi, LLC v. Google, Inc.*, 744 F.3d 1376, 1383 (Fed. Cir. 2014) (same). In this case, it is the deletion from the '798 Provisional application that contributes understanding of the intended scope of the final application.

We conclude that a person of skill in this field would deem the removal of these limiting clauses to be significant. The '173 Patent in its final form contains no statement or suggestion of an intent to limit the claims to the deleted one-step operation. Neither the specification nor the claims state that this limited scope is the only intended scope. Instead, the '173 Patent describes the single-step operation as "optional."

The '173 Patent's abstract states, "[t]he system and/or method is software that manages paper so that it can be electronically and seamlessly copied in and out of devices and business applications with an optional single-step operation." The '173 Patent specification states, "I have further determined that it is desirable to enable software that manages paper so that it can be electronically and seamlessly copied in and out of devices and business applications (such as Microsoft Office, Microsoft Exchange, Lotus Notes) with an optional single-step Go operation." '173 Patent, col. 3, ll. 35–39.

These statements that single-step operation is "optional" accord with the change from the '798 Provisional to the final patent. A person skilled in this field would reasonably conclude that the inventor intended that single-step operation would be optional, not obligatory.

We affirm the Board's claim construction as not limited to single-step operation of copying and transmitting.

Anticipation

The Board found the claims anticipated by the Xerox XNX system and also by the Xerox-owned Harkins patent.

Petitioner's expert Dr. Melen explained that the Xerox GIS 150 is "an XNS system element which uses XNS protocols to communicate with other devices and services on the internet." Melen Decl. 28 (citing XNS at 122). The XNS reference states that "[t]he Xerox 150 scanner uses this model in providing scanned image service to XNS users," and that the XNS system "enables a user to digitize a hardcopy image by scanning it at the scanner." XNS at 122. "The digitized image (in RES [Raster Encoding Standard]) may be sent to a specific file in a File Service for storage, or to a Print Service for printing . . . ." *Id.* The XNS reference states that scanned documents can be "distributed with XNS mail, edited at a workstation, or sent to any device that is directly or indirectly connected to the internet (including remote facsimile machines)." XNS at 125.

MPHJ did not dispute that "the GIS 150 does support scanning to a file, a file server, and it does support scanning to a print server." Hr'g Tr. at 30:24–31:2. MPHJ argued that the Xerox system scans to email only in two steps. *Id.* at 35:22–36:11. The Board found that "XNS discloses scanning and distribution of documents [in] two steps," Bd. Op. 25, and that these steps include direct or indirect connection. On the Board's correct construction that claims 1 and 4 are not limited to a single-step operation, the Board's finding of anticipation by the XNS system is supported by substantial evidence and is sustained.

The Board also found anticipation by the Harkins patent, owned by Xerox, which shows a network "having

interconnected printers, scanners, facsimile devices or file servers." Harkins, col. 5, ll. 32–col. 6, ll. 36. The record states that Harkins relates to the XNS System. Harkins describes "a method for a sender to automatically distribute information to a receiver on a network using devices (such as printers and facsimile machines) and communication channels (such as electronic mail) defined in a receiver profile." Harkins, col. 4, ll. 40–46. The Board found that "Harkins discloses both scanning and email transmission," and "discloses a plurality of interface protocols." Bd. Op. 35. The Board credited Petitioner's expert witness' testimony that Harkins inherently discloses employing email protocols to transmit email. Bd. Op. 35–36. Substantial evidence supports the Board's finding that Harkins contemplates the same sequential scanning and transmission as discussed for the XNS system, and anticipates the '173 Patent's claims as construed by the Board.

Other Claim Terms

MPHJ also argues that the Board erred in its constructions of the claim terms "application" and "rendering." The Board construed "application" as it did in separate IPR proceedings on a related patent with the same specification and different claims. We discern no error in adopting this construction.

The Board did not construe "rendering." MPHJ argues that the Board misapplied the prior art by finding that "the claims do not preclude rendering from occurring after the 'electronic image' is transmitted." Bd. Op. 34. MPHJ states that the "rendering" step must be "performed by the network addressable scanner, digital copier, or other multifunction peripheral." MPHJ Br. 24. According to MPHJ, "a proper construction of 'rendering' would tie this operation to the scanner/copier," MPHJ Br. 37, for "[i]t is technically impossible for a scanner to transmit a document before it has a chance to render that

document." MPHJ Br. 23. The Petitioner does not disagree. However, the Petitioner states that Harkins shows "rendering" performed by the fax machine when the electronic document is transmitted; thus Petitioner argues that MPHJ's proposed definition of "rendering" does not avoid anticipation.

The Board found that "Harkins teaches that the recipient of a document may set up a 'profile describing the preferred form (facsimile, electronic mail, voice mail, hard copy, color or black, file server, etc.) and service (the specific printer, facsimile machine etc.) documents should take to be rendered.'" Bd. Op. 34. The Board held that no claim limits "rendering" to single-step operation. Substantial evidence supports the finding that Harkins shows rendering of electronic documents.

We have considered MPHJ's additional arguments, and deem them unpersuasive of reversible error in the Board's conclusion of anticipation.

Obviousness

As an alternative ground, the PTAB invalidated claims 1–8 on the ground of obviousness. The PTAB combined the Motoyama reference with Harkins, citing Motoyama for its teaching of the connection of devices such as copiers, printers, and fax machines, to an office network. Bd. Op. 37. Motoyama states that different machines communicate with each other according to different protocols, and describes a "control/diagnostic system" that includes a database of communication protocols for various network machines. Motoyama, col. 1, ll. 41–43; col. 1, ll. 47–58.

Although MPHJ argued at trial that a person of ordinary skill would not have combined Harkins and Motoyama, this argument is not pressed on appeal. On our sustaining the Board's finding of anticipation, we do not decide the Board's alternative ruling of obviousness.

CONCLUSION

The ruling of invalidity of claims 1–8 of the '173 Patent is

AFFIRMED.

United States Court of Appeals for the Federal Circuit

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2016-1243

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2014-00538.

O'MALLEY, *Circuit Judge*, concurring in part, dissenting in part.

I agree that the Board correctly construed the term "anticipation" in U.S. Patent No. 8,488,173 ("the '173 patent"). I would find, though, that the Board misconstrued the terms "Go button" and "interfacing" to permit the use of manual intervention to render and transmit a scanned document. *See Ricoh Ams. Corp. v. MPHJ Tech. Invs., LLC*, No. IPR2014-00538, 2015 WL 4911675, at *1, *10–22 (P.T.A.B. Aug. 12, 2015). Under the construction of the disputed claim terms comporting with this limitation, I would affirm the Board's finding that claims 1–3

are anticipated, but reverse its finding that claims 4–8 are anticipated. From the majority's conclusions otherwise, I respectfully dissent.

BACKGROUND

A. The '173 Patent

The '173 patent is titled "distributed computer architecture and process for document management." In short, the '173 patent "manages paper so that it can be electronically and seamlessly copied in and out of devices and business applications . . . with an optional single-step operation." '173 patent, at Abstract. The '173 patent describes the invention in terms of a system, software, and processes for implementing a "Virtual Copier" ("VC"). The VC "[i]n its simplest form . . . extends the notion of copying from a process that involves paper going through a conventional copier device, to a process that involves paper being scanned from a device at one location and copied to a device at another location." *Id.* col. 45, ll. 48–53. The patent covers copying of both physical and electronic paper. *See, e.g.*, *id.* col. 6, ll. 46–48 ("This GO button can copy paper, whether physical or electronic, from one device and or application to another device and/or application.").

On November 13, 1998, Laurence Klein, the named inventor of the '173 patent, filed Provisional Patent App. No. 60/108,798 ("the '798 provisional application"). The '798 provisional application is incorporated by reference into the '173 patent. *Id.* col. 1, ll. 14–16.

Independent claims 1 and 4 of the '173 patent are at issue on appeal. The dependent claims rise and fall with the independent claims.

Claim 1 reads:

> A system capable of transmitting at least one of an electronic image, electronic graphics and elec-

> tronic document to a plurality of external destinations including one or more of external devices, local files and applications responsively connectable to at least one communication network, comprising:
>
> at least one network addressable scanner, digital copier or other multifunction peripheral *capable of rendering* at least one of said electronic image, electronic graphics and electronic document in response to a selection of a *Go button*;
>
> . . .
>
> at least one processor responsively connectable to said at least one memory, and implementing the plurality of interface protocols as a software *application* for interfacing and communicating with the plurality of external destinations including the one or more of the external devices and *applications*,
>
> . . .
>
> *wherein* one of said plurality of interface protocols is employed *when one* of said external destinations is *email application software*;
>
> . . .
>
> wherein, in response to the selection of said *Go button*, an electronic document management system integrates at least one of said electronic image, electronic graphics and electronic document using software so that said electronic image, electronic graphics and electronic document gets seamlessly replicated and *transmitted* to at least one of said plurality of external destinations . . .

Id. col. 86, ll. 9–50 (emphases added). Claim 4 is a method claim, and the relevant limitations recite:

> A method of managing at least one of an electronic image, electronic graphics or electronic document comprising the steps of, in any order:
>
> . . .
>
> (c) communicatively linking said scanner, digital copier or other multifunction peripheral with said plurality of said external destinations via application-level interface protocols;
>
> (d) *interfacing* between at least one of said scanner, digital copier or other multifunction peripheral and *email application software* using a first of said interface protocols . . .

Id. col. 87, ll. 11–27 (emphases added).

B. Prior Art References

The Board instituted inter partes review based on three prior art references: (1) Xerox Corporation, *Xerox Network Systems Architecture General Information Manual*, Apr. 1985 ("XNS") (with inherent features evidenced by GIS 150, Xerox Corporation, *Xerox 150 Graphic Input Station Operator And Reference Manual* 150, Jan. 1985 ("GIS 150")); (2) U.S. Patent No. 5,513,126 to Harkins ("Harkins"); and (3) U.S. Patent No. 5,818,603 to Motoyama ("Motoyama").

i. XNS

The XNS manual discusses computer networking, particularly in the context of integrated office systems and document management. XNS "provides information on the standards and protocols that comprise the architecture" of Xerox Network Systems. J.A. 413. XNS also describes "document management," which involves creating, capturing, replicating, and printing electronic or paper documents at the office. J.A. 416. XNS discloses a "Graphic input station" ("GIS") as one networked device in its "Graphic input model." "The Xerox 150 scanner

uses [the Graphic input] model in providing scanned image service to XNS users." J.A. 520.

The GIS 150 manual describes the inherent capabilities of the Xerox 150 scanner. The GIS 150 manual discloses a "START button" that "causes the 150 GIS to begin scanning. . . . After scanning is complete the image is automatically sent to the selected destination, and the display will flash SENDING while transmission is taking place." J.A. 633. The GIS 150 manual also states that "[t]here can be a maximum of five destinations from which to choose. The destination device can be either a file server or a print server." J.A. 738. Scanned documents can be "distributed with XNS mail, edited at a workstation, or sent to any device that is directly or indirectly connected to the internet (including remote facsimile machines)." J.A. 523. The GIS 150 manual discloses scanning a document and sending it to some electronic repository, and XNS discloses accessing the repository and emailing the documents to an external destination in two steps.

ii. Harkins

Harkins discloses a Xerox network "having interconnected printers, scanners, facsimile devices or file servers." Harkins, col. 5, ll. 47–48. The invention enables a sender to "automatically distribute information to a receiver on a network using devices (such as printers and facsimile machines) and communication channels (such as electronic mail)" defined by a receiver's user profile. *Id.* at Abstract. Similar to XNS, Harkins teaches scanning a document and transmitting it directly to a local file.

Harkins also teaches transmitting a document to an external device or application that renders the document in the manner specified by the recipient's user profile. *Id.* col. 10, ll. 37–45. To initiate the transmission, the sender of a document "select[s] a document from document source 45 (e.g. report 34) and move[s] it to [the desired] commu-

nication channel." *Id.* col. 10, ll. 56–63. The manual intervention of the sender is what the parties refer to as "Harkins's drag-and-drop operation."

iii. Motoyama

Motoyama relates to communicating with and monitoring, diagnosing, and controlling machines—including a facsimile machine or different copiers—using multiple communication protocols. J.A. 37. It is undisputed that Motoyama discloses some of the claim limitations at issue, including "at least one memory" and "at least one processor."

C. Procedural History

On March 25, 2014, Ricoh Americas Corporation, Xerox Corporation, and Lexmark International Corporation, Inc. (collectively, "Appellees") petitioned for inter partes review, challenging all '173 patent claims for anticipation by both XNS and Harkins, and obviousness over Harkins in view of Motoyama. The Board instituted on all asserted grounds and construed several terms, including "Go button," "interfacing," and "application." MPHJ appeals these constructions.

The Board found claims 1–8 to be anticipated by both XNS and Harkins. The Board also held claims 1–8 unpatentable over the combination of Harkins and Motoyama for obviousness. MPHJ appeals these determinations.

DISCUSSION

"Under 28 U.S.C. § 1295(a)(4), we have jurisdiction to review the Board's final written decisions in IPRs." *Shaw Indus. Grp., Inc. v. Automated Creel Sys., Inc.*, 817 F.3d 1293, 1297 (Fed. Cir. 2016). We review the Board's factual findings for substantial evidence and its legal conclusions de novo. *In re Gartside*, 203 F.3d 1305, 1315–16 (Fed. Cir. 2000). "Substantial evidence is something less than the weight of the evidence but more than a mere

scintilla of evidence." *In re Mouttet*, 686 F.3d 1322, 1331 (Fed. Cir. 2012). It is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *In re Applied Materials, Inc.*, 692 F.3d 1289, 1294 (Fed. Cir. 2012) (quoting *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938)).

A. Claim Construction

When reviewing the Board's claim construction, "[w]e review underlying factual determinations concerning extrinsic evidence for substantial evidence and the ultimate construction of the claim de novo." *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1061 (Fed. Cir. 2016) (quoting *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1280 (Fed. Cir. 2015), *aff'd sub nom.*, *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131 (2016)). "[C]laim construction in IPRs is not governed by *Phillips*. Under *Cuozzo*, claims are given their broadest reasonable interpretation consistent with the specification, not necessarily the correct construction under the framework laid out in *Phillips*." *PPC Broadband, Inc. v. Corning Optical Commc'ns RF, LLC*, 815 F.3d 734, 742 (Fed. Cir. 2016) (citation omitted).

i. "Go Button"

The term "Go button" is used in claim 1 of the '173 patent and its dependent claims. The Board construed "Go button" to mean "an operation that begins a process." J.A. 12. MPHJ proposes adding the following language to the Board's construction: "and requires no further action from the user to complete." MPHJ Opening Br. at 18.

MPHJ's construction precludes manual or user intervention to render a scanned document or to transmit it to an external destination. Instead, both "rendering" and transmission must take place in direct response to the selection of the "Go button," in a single step. Under MPHJ's construction, selecting the "Go button" must be both necessary *and sufficient* to "render" the document to

be copied, and rendering must take place before any transmission of the document to an external destination.

Relatedly, MPHJ argues that the Board erred in applying the "rendering" limitation of claim 1 which reads, "at least one network addressable scanner, digital copier or other multifunction peripheral capable of *rendering* at least one of said electronic image, electronic graphics and electronic document *in response to a selection of a Go button*." '173 patent, col. 86, ll. 15–19 (emphases added). According to MPHJ, the Board erred because, under its interpretation, the scanner, copier, or other multifunctional peripheral does not need to perform the "rendering"; instead, the "rendering" can take place as a result of a "drag-and-drop" operation, requiring a second step. MPHJ also argues that, under the Board's interpretation, *transmitting* the document can take place *before* rendering it.

Appellees assert that, absent lexicography or disavowal, we should not depart from the plain meaning of the term "Go button." *See Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). "The standards for finding lexicography and disavowal are exacting." *GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014). To act as a lexicographer, a patentee must "clearly set forth a definition of the disputed claim term" and "clearly express an intent to redefine the term." *Thorner*, 669 F.3d at 1365 (internal quotation marks omitted). Appellees also argue that claim 1 merely requires a device "capable of rendering" a document and does not require actual rendering. Appellees contend that, even if "rendering" is limiting, claim 1 broadly requires both "rendering" and transmission in response to the selection of the "Go button," but does not require the two actions to occur in a particular order or in a single step.

Claim 1 requires "*a* selection of a Go button" and then further specifies what happens in response to "*the* selection of said Go button"; in effect, claim 1 requires (1) rendering an electronic document in response to a selection of a "Go button," and (2) integrating the electronic document so that it is replicated and transmitted to an external destination in response to the same selection of the "Go button." Thus, the antecedent basis for "the selection" requiring transmission is "a selection" requiring rendering. While I agree with Appellees that the claims do not appear to require a particular order between "rendering" and transmission, that is where my agreement with Appellees ends with respect to the claim terms.

The central dispute over these terms is whether, regardless of order, both "rendering" and "transmi[ssion]" must take place (1) in a single step, and (2) without manual intervention. The language of the '173 patent and the '798 provisional application, incorporated by reference into the '173 patent, provides guidance on this point. *See Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1365–66 (Fed. Cir. 2016) (using statements in the provisional application to guide claim construction); *Vederi, LLC v. Google, Inc.*, 744 F.3d 1376, 1383 (Fed. Cir. 2014) (same); *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000) (explaining that a provisional application incorporated by reference is "effectively part of the host document as if it were explicitly contained therein."). The majority acknowledges that a provisional application may contribute to understanding the claims. Maj. Op. at 11.

In explaining the function of the VC and "Go button" in comparison to "other applications" in the prior art, the '798 provisional application states:

> The IMAGinE Virtual Copier can copy paper from a physical device directly into a third-party software application in one step. Using other applica-

> tions, such as Visioneer's Paperport or Xerox's Pagis, the user must first "import" or scan paper into the capture application and then drag or direct the output to another location. With the IMAGinE Virtual Copier, a single button (the Go button) *directly* copies paper from a scan-like device (either a copier with a scan attachment or a scanner) *and* places it within the third-party application.[1]

J.A. 1819 (emphases added). The emphasized words indicate that copying and transmission both take place in response to *only* the selection of the "Go button." Further, this passage makes distinctions between "other applications" in the prior art requiring manual intervention and the claimed VC. The '798 provisional application additionally supports the single-step nature of the operation by stating that the purpose of the patent "is to protect our new 'Go' operation that designates a *single-step copying function* for copying . . . between disparate digital imaging devices." J.A. 1818 (emphasis added). In addition, the '798 provisional application describes the user's experience as "Patent: The IMAGinE Virtual Copier Interface: A Simple Method of . . . the Complex Operation of Copying Files . . . in *One Step*." J.A. 1820 (emphasis added).

The '173 patent specification reiterates this notion, stating that the "VC extends the notion of a copier, which simply replicates the image of an original document onto another piece of paper *using a single GO or START but-*

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[1] The '798 provisional application also explains that the "Go button" can be used to directly copy paper "from a third-party application directly to a printer, and makes sure that the image is translated into the proper format (either Windows GOI or proprietary image language) for outputting to a printer device (standard Windows printer or specialty RIP printer)." J.A. 1819.

ton, to do a similar operation in software so that the image gets *seamlessly* replicated into other devices or applications or the Internet." '173 patent, col. 46, ll. 36–40 (emphases added). The '173 specification also explains that the VC "will accomplish all translations between device and applications *automatically and seamlessly*." *Id.* col. 7, ll. 3–5; col. 47, ll. 1–3; col. 70, ll. 37–39 (emphasis added). The '173 patent uses the terms "automatically" and "seamlessly" in describing the action of the VC and "Go button" throughout the specification. In addition, the '173 patent explains that "[t]he virtual copy operation can be cancelled prior to its completion by calling the Cancel method." *Id.* col. 78, ll. 58–63. The "Go button" therefore triggers a process that is carried out to completion unless it is cancelled.

I conclude that these statements collectively rise to the level of clear and unmistakable disavowal of claim scope. Disavowal requires that "the specification makes clear that the invention does not include a particular feature." *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed. Cir. 2001).

In support of its construction, the majority argues that the patentee "deleted" the single-step nature of the operation from the '173 patent. Maj. Op. at 11. I disagree with this characterization. Not only does the '173 patent in fact make repeated references to a single-step operation, but the '173 patent specification *incorporates in full* the '798 provisional application, including *all of the statements the patentee made about the single-step nature of the VC invention*. Despite the majority's assertions to the contrary, the incorporation of these statements is significant for understanding the intended scope of the claims. In fact, by incorporating the '798 provisional application, the patentee did the *opposite* of deleting any references to a single-step operation.

The majority also contends that the '173 patent's use of the term "optional" in two places in the specification, when referring to the "single-step Go operation," makes irrelevant the clear indications in the '798 provisional application *and* in the '173 patent that the patentee intended to claim a single-step operation in which the patentee has disavowed the use of manual intervention between use of the "Go button" and the rendering and transmission of a document to an external destination. *See* Maj. Op. at 11. I disagree with the majority's conclusion. First, Appellees failed to brief the meaning of the term "optional" in the '173 patent, instead arguing generally that the '798 provisional application and the '173 patent merely describe some single-step embodiments, and that MPHJ failed to point to any "language of exclusion . . . to suggest that the patentee intended to preclude multi-step rendering and transmitting in response to the Go button." Appellees Br. at 39–40. As I have explained above, I disagree with Appellees' argument on this issue based on the clear language of the '173 patent, including the incorporated statements from the '798 provisional application. Second, it is not clear in either instance whether the term "optional" is intended to modify "single-step" rather than the "operation" itself. Read in the context of the entirety of the specification, the more logical conclusion is that the term "optional" modifies the entire term "single-step operation," meaning that implementing the operation is optional, not that how the operation, once implemented, works is optional. Third, nowhere do the claims themselves use "optional" language, or, indeed, any language inconsistent with the conclusion that the patentee has disavowed manual intervention. The majority further fails to explain how an "optional" single-step Go operation comports with the repeated references to the "seamless" and "automatic" operation of the "Go button" in the '173 patent.

MPHJ explains correctly that the claim language requires a "multifunction peripheral" to be "capable of rendering" a document in response to the selection of the "Go button." Given that the ability to render must exist, "rendering" cannot be read out of the claim just because an actual rendering need not take place. In addition, both parties agree that "rendering" and transmission to an external destination must occur "in response" to the selection of the "Go button." For these reasons, I find that the proper construction of "Go button" is "an operation that begins a process and requires no further action from the user to complete." Claim 1 therefore excludes the use of a "drag-and-drop" operation to complete the rendering and transmission process.

ii. "Interfacing"

MPHJ also argues that the Board misconstrued "interfacing," found in claims 4–8 of the '173 patent. The Board construed this term to mean "making a direct or indirect connection between two elements so they can work with each other or exchange information." J.A. 15. According to MPHJ, the Board erred because the broadest reasonable interpretation of "interfacing" is "making a direct or indirect connection between two elements so they can *directly* work with each other or *directly* exchange information." MPHJ Opening Br. at 9 (emphases added).

MPHJ asserts that the Board's construction erroneously captures indirect communications between a scanner and an email system comprised of the intervening manual steps of accessing a previously-scanned document and loading it into an email as an attachment. In support, MPHJ cites to the inter partes review oral hearing, in which counsel for MPHJ recited the '798 provisional application's statement that, "using other applications such as Visioneer's PaperPort or Xerox's Pages, which are prior art systems, the user must first import or scan

paper into a capture application and then drag and direct the output to another location." J.A. 367, l. 25–J.A. 368, l. 4. In addition, MPHJ notes that the '798 provisional application provides an express definition of the VC interface:

> The IMAGinE Virtual Copier *Interface*: A Simple Method of Presenting to a User the Complex Operation of Copying Files or Electronic Images to and from Digital Imaging Devices and/or Software Applications *in One Step*.

J.A. 1820 (emphases added).

As with the "Go button" term discussed above, I conclude that MPHJ has met its burden to show prosecution history disclaimer and lexicography as to this term. When the specification distinguishes the prior art, the invention should not be construed to encompass the prior art features. *See SciMed*, 242 F.3d at 1341 ("Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question."). Appellees' only real argument in response to MPHJ on this point is their contention that MPHJ's construction is improper because it is not based on statements explicitly in the '173 specification. Because the '798 provisional application was incorporated in full into the '173 specification, however, this argument is unavailing.

For these reasons, "interfacing" and "Go button" should be construed consistently, such that, as to both terms, MPHJ has disclaimed manual user intervention and additional steps before a document is both rendered and transmitted.

iii. "Application"

The terms "application" or "applications" appear in all claims at issue. Claim 1 recites "implementing the plurality of interface protocols as a software application for interfacing and communicating with the plurality of external destinations including the one or more of the external devices and applications." '173 patent, col. 86, ll. 23–27. The Board construed "application" as follows:

> [A] program, or group of programs, which operate together in a system to perform a function or functions, and the programs can be stored in a variety of places on a variety of devices, and operate in a distributed manner. An application may include software and hardware and performs a function or functions.

J.A. 10–11. MPHJ asserts that "application" should be construed as "a discrete software program executable on an operating system for the purpose of accomplishing a task." MPHJ Opening Br. at 31. In suggesting a narrower construction than the construction adopted by the Board, MPHJ contends that "applications" must be separate and discrete.

Appellees respond that MPHJ's construction is not the broadest reasonable interpretation of "application," and I agree. The specification offers several examples of an "application," including: "Lotus Notes, Microsoft Exchange, the Internet, or an electronic filing system." '173 patent, col. 6, ll. 61–63. Notably, the internet is not "a discrete software program executable on an operating system for the purpose of accomplishing a task." In context, this specification passage reads that:

> The power of Virtual Copier is the fact that the [source] can be a physical device . . . or an application (e.g. Lotus Notes, Microsoft Exchange, *the Internet*, or an electronic filing system). The

> [destination] can also be a physical device . . . or an application (e.g. Lotus Notes, Microsoft Exchange, *the Internet*, or an electronic filing system).

Id. col. 6, ll. 60–66 (emphases added). Even the list of potential sources of the document, not just the destinations, includes the internet.

Based on the plain language of the specification, I concur with the majority that MPHJ's proposed construction is improper. Appellees correctly note that MPHJ's construction also improperly excludes a distributed architecture. The '173 patent teaches that the VC "engine object layer and the engine may be optionally located in a distributed environment on different machines, servers, and the like." *Id.* col. 67, ll. 62–64. The terms "distributed component interaction" and "distributed environment" are used throughout the specification. *See, e.g.*, *id.* col. 65, l. 4; *id.* col. 66, ll. 13–14; *id.* col. 67, ll. 27–36. Adopting MPHJ's construction would exclude embodiments where the VC application is distributed across various devices, contrary to the language of the patent. MPHJ's construction, requiring that an "application" be discrete, is also contrary to its argument that the specification requires different source and destination applications.

B. Anticipation

"Anticipation under 35 U.S.C. § 102 is a question of fact, while obviousness under § 103 is a question of law based on underlying findings of fact." *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015). What the prior art discloses is a factual inquiry. *Para-Ordnance Mfg., Inc. v. SGS Imps. Int'l, Inc.*, 73 F.3d 1085, 1088 (Fed. Cir. 1995). Where our claim construction differs from that of the Board, we determine questions of anticipation and obviousness under our claim construction. *See, e.g.*, *In re Man Mach. Interface Techs. LLC*, 822 F.3d 1282, 1287–89 (Fed. Cir. 2016).

i. Anticipation by XNS[2]

a. XNS Anticipates Claims 1–3

The Board found that XNS anticipated claims 1–3 because XNS teaches a "'Go button' or START button of GIS 150 [that] can initiate a scan in one step and send a document via email in another." J.A. 24–25. MPHJ claims that, under its construction of "Go button," rendering and transmission must be performed in response to the same selection of the "Go button." XNS does not disclose this concept, according to MPHJ. Appellees assert that the Board correctly found that XNS discloses that the GIS 150 scanner has a "START button" that is capable of scanning a document and sending it to a file service for storage, or a printer service for printing.

There is no dispute that XNS discloses document distribution by email after a rendering step. Additionally, I conclude that both rendering and transmission to a file server take place in response to a single selection of a "Go button" in XNS.

MPHJ does not really dispute these conclusions. Instead, MPHJ argues that, even if XNS discloses use of a single-step process for sending a document to a file service or printer service, it does not anticipate claim 1 because XNS employs a second step with manual intervention to access email as an external source.

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[2] As a threshold issue, the Board held that XNS and GIS 150 constituted an "application" under its broad construction. As I would affirm the Board's construction of "application," and MPHJ does not dispute that XNS (including GIS 150) meets the "application" limitation under the Board's construction, I would affirm the Board in this respect.

A system practicing claim 1 must have an external destination that may be "email application software." Based on claim 1's clause, "wherein one of said plurality of interface protocols is employed when one of said external destinations is email application software," MPHJ asserts that email must be a possible external destination. Otherwise, MPHJ claims that the Board would be reading that "wherein" language out of the claim.

The Board did not expressly resolve whether email application software is a required destination because it determined that claim 1 does not even require a single step. Appellees contend that claim 1 does not require the external destination to be email application software, because the language to which MPHJ points is merely conditional: "*when one* of said external destinations is email application software." '173 patent, col. 86, ll. 28–30 (emphasis added). Appellees therefore assert that this "wherein" clause is a conditional, non-limiting, non-specific clause that does not narrow the claim. Under this reasoning, Appellees assert that MPHJ's anticipation argument fails *even if* MPHJ is correct in asserting that claim 1 requires a single-step operation. Appellees are correct on this point.

"As a matter of linguistic precision, optional elements do not narrow the claim because they can always be omitted." *In re Johnston*, 435 F.3d 1381, 1384 (Fed. Cir. 2006). The determination of whether a "wherein" clause imposes a limitation in a claim must be determined on a case-by-case basis. *See, e.g.*, *Griffin v. Bertina*, 285 F.3d 1029, 1033–34 (Fed. Cir. 2002) (finding that a "wherein" clause limited a claim where the clause gave "meaning and purpose to the manipulative steps" of the claim); *Tex. Instruments Inc. v. ITC*, 988 F.2d 1165, 1172 (Fed. Cir. 1993) (holding that "[a] 'whereby' clause that merely states the result of the limitations in the claim adds nothing to the patentability or substance of the claim." (citation omitted)).

MPHJ fails to meet its burden on this issue. First, MPHJ asserts that the '798 provisional application supports the position that email application software is a required external destination: "a single button (the Go button) directly copies paper from a scan-like device (either a copier with a scan attachment or a scanner) and places it within the third-party application." J.A. 1819. This statement notably *does not* reference email application software, and email application software is not mentioned elsewhere in the '798 provisional application. There is no indication that the "wherein" clause limits this claim by stating a restriction that was "an integral part of the invention" based on the specification and prosecution history. *See, e.g.*, *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1330 (Fed. Cir. 2005) (per curiam).

Furthermore, the "wherein" limitation at issue is conditional; it explains that a specific protocol is used *when one* of said external destinations is email application software. Under the broadest reasonable interpretation of claim 1, the limitations in the "wherein" clause would not apply because email application software is not required to be the external destination in all embodiments.

Thus, I would find that rendering and transmission to a file server do take place in response to the selection of the "Go button" in XNS, and that email application software is not a required external destination in claim 1. I would therefore affirm the Board's finding that XNS anticipates claim 1 and its dependent claims.

b. XNS Does Not Anticipate Claims 4–8

Unlike claim 1, claim 4 does not recite a "Go button" and the "interfacing" limitation of claim 4 requires interfacing between a "multifunction peripheral and email application software." The Board found MPHJ's argument, that XNS does not disclose the "interfacing" limitation because the GIS 150 scanner does not "interface" with email application software, to be unpersuasive.

XNS does not teach interfacing the GIS 150 scanner with the separate email system described in the XNS architecture. Instead, the GIS 150 scanner can only communicate a scanned document to a file server or a print server. As XNS does not teach single-step interfacing between the GIS 150 scanner and the separate email system of XNS, I would find that XNS does not meet the "interfacing" limitation, and therefore, does not anticipate claims 4–8 of the '173 patent.

ii. Anticipation under Harkins

a. Harkins Does Not Anticipate Claims 1–3

The Board held that the Harkins user interface discloses the "Go button" of claim 1 because it allows a user to select a document to scan. The Board also held that "rendering" and "transmitting" can occur separately, and the claim language did not preclude rendering from beginning with a "drag-and-drop" step, such as that disclosed in Harkins.

According to MPHJ, the Board found anticipation of claim 1 by Harkins because its construction of "Go button" and understanding of "rendering" did not preclude a manual step of digitally moving documents residing in a repository, even though the repository is "unrelated to the scanner/copier." MPHJ disputes this finding, because it is not consistent with MPHJ's narrower proposed claim construction. Under MPHJ's construction, MPHJ asserts that the multifunction peripheral cannot be both the device that renders the document and the device that receives a transmitted document.

Appellees respond that Harkins anticipates the '173 patent even under MPHJ's construction of "Go button," because the "drag-and-drop" operation of Harkins initiates the process of transmitting the document to the recipient associated with the communication channel. Harkins, col. 10, ll. 56–59. When the document arrives,

Appellees assert that it is rendered according to the recipient's profile without requiring further action from either the sender or the recipient. *Id.* col. 10, ll. 37–47 (explicitly teaching that a profile describes the form and service "documents should take to be rendered"). Appellees argue that Harkins's "drag-and-drop" operation requires no further action from the user to both transmit and render.

The "capable of rendering" limitation of claim 1 requires "at least one network addressable scanner, digital copier or *other multifunctional peripheral capable of rendering*" a document. '173 patent, col. 86, ll. 15–16 (emphasis added). Claim 1 requires that "a plurality of said *external destinations* is in communication with said at least one network addressable scanner, digital copier or other *multifunction peripheral* over a local area network." *Id.* col. 86, ll. 34–37 (emphases added). The external destination must receive the document after transmission over a communication network. *Id.* col. 86, ll. 44–50.

Appellees argue that the '173 patent uses a fax machine as an example of a multifunction peripheral, and therefore Harkins anticipates because it teaches that a user may invoke the "drag-and-drop" operation to transmit and automatically render the document according to the user's pre-established profile, using a fax machine. Harkins, fig. 28 ("MULTI-FUNCTIONAL PERIPHERAL (i.e. FAX)").

The language of claim 1 requires that an external destination is in communication with a multifunction peripheral over a local area network. Appellees' argument therefore fails because the language of the claim makes clear that a single fax machine cannot be both the device that renders the document and the external destination device that receives a transmitted document.

The '173 patent teaches a "Go button" that renders and transmits a document to an external destination in a

single step, without the need for manual intervention such as the "drag-and-drop" taught in Harkins. Harkins therefore does not anticipate the "Go button" limitation of claim 1 and its dependent claims.

b. Harkins Does Not Anticipate Claims 4–8

With respect to claim 4, the Board rejected MPHJ's argument that the scanner and email application are not "interfacing" in Harkins, because Harkins teaches that scanned documents are stored in an intermediary location before they are emailed.

MPHJ argues that Harkins does not satisfy the "interfacing" limitation of claim 4 and its dependent claims because Harkins teaches moving previously-scanned documents using simple operations, not interfacing a scanner to email application software. MPHJ asserts that the language of the '798 provisional application essentially requires more than permitting a user to "drag-and-drop" a previously scanned document to a new location.

Appellees assert that Harkins discloses "interfacing" because the user can interact with the Harkins UI to automatically distribute a document over the network, including email. There is no dispute that one of the destinations available to the user in the "drag-and-drop" operation of Harkins is "electronic mail." Rather, Appellees argue that the Harkins "drag-and-drop" operation is actually itself a single step that results in both the "rendering" and transmission of a digital scan to an external destination.

The "interfacing" limitation at issue reads "interfacing *between* . . . [a] multifunction peripheral and email application software using a first of said interface protocols." '173 patent, col. 87, ll. 27–29 (emphasis added). The use of the word "between" in this limitation strongly suggests that the "multifunction peripheral" cannot also be the "email application software," given that there is no indica-

tion that either of these entities can interface with itself. Because "multifunction peripheral" and "email application software" must be distinct, I conclude that Harkins does not anticipate claim 4. Though Harkins discloses a single "drag-and-drop" operation, as discussed above, this operation need not result in both "rendering" and transmission.

Because Harkins does not meet the "interfacing" limitation of claim 4, I would reverse the Board's finding of anticipation of claims 1–8 under Harkins.

c. Obviousness in Light of Harkins and Motoyama

The Board found claims 1–8 to be obvious in light of Harkins in view of Motoyama. On appeal, MPHJ challenges the Board's application of its claim construction and anticipation findings to its obviousness determination.

The petition used Motoyama solely to address the storage of protocols in memory:

> Motoyama explicitly discloses a database storing a plurality of communication protocols used for communicating with a variety of networked machines. It would have been obvious to a [person of ordinary skill] at the time of the invention to include the database storing a plurality of communication protocols disclosed by Motoyama in the "multimedia device information system or network" disclosed by Harkins.

J.A. 195. Motoyama does not teach concepts, such as a form of "Go button" or "interfacing," that would be impacted by reversal of the Board's claim construction rulings on these terms. Obviousness, therefore, is dependent on agreement with the Board's decision that Harkins anticipates the challenged claims. Because Harkins does not anticipate claims 1–8 of the '173 patent, I would reverse the Board's finding of obviousness.

CONCLUSION

I conclude that the Board misconstrued the terms "Go button" and "interfacing" by finding that those terms encompassed the use of manual intervention to render and transmit a scanned document. But I concur with the majority that the Board properly construed "application." Under these constructions, XNS does anticipate claims 1–3 of the '173 patent, but does not anticipate claims 4–8. As Harkins does not anticipate claims 1–8 of the '173 patent, I would reverse the Board's obviousness determination. I would therefore affirm in part and reverse in part the Board's judgment in this IPR.