

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RICOH AMERICAS CORP., XEROX CORP., and
LEXMARK INTERNATIONAL, INC.,
Petitioner,

v.

MPHJ TECHNOLOGY INVESTMENTS, LLC,
Patent Owner.

Case IPR2015-01178
Patent 7,477,410 B1

Before MICHAEL P. TIERNEY, KARL D. EASTHOM, and
GREGG I. ANDERSON, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

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

I. INTRODUCTION

Ricoh Americas Corp., Xerox Corp., and Lexmark International, Inc. (collectively “Petitioner”) filed a Petition requesting an *inter partes* review of claims 3, 5, 10, 12, 17, 19, 24, 26, 29–33, 36, 38, 43, and 45 of U.S. Patent No. 7,477,410 B1 (the “’410 patent”). Paper 4 (“Pet.”).¹ MPHJ Technology Investments, LLC (“Patent Owner”) did not file a Preliminary Response.

Based on the Petition, we instituted trial for claims 3, 5, 10, 12, 17, 19, 24, 26, 29–33, 36, 38, 43, and 45 of the ’410 patent on most of the grounds of unpatentability alleged in the Petition. Paper 10 (“Institution Decision” or “Inst. Dec.”).

After institution of trial, Patent Owner filed a Patent Owner Response. Paper 12 (“PO Resp.”). Petitioner filed a Reply. Paper 14 (“Pet. Reply”). Petitioner relies upon the Declaration of Dr. Roger Melen, Ex. 1005 (“Melen Declaration”). Patent Owner relies upon the Declaration of Martin Kaliski originally filed in a related case, *Ricoh Americas Corp. v. MPHJ Technology Investments LLC*, Case IPR2014-00539 (PTAB Aug. 14, 2015) (generally “’539 IPR”). Ex. 2001 (“Kaliski Declaration”). The record includes a transcript of an Oral Hearing. Paper 72 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision issues pursuant to 35 U.S.C. § 318(a). Petitioner has shown by a preponderance of the evidence that claims 3, 5, 10, 12, 17, 19, 24, 26, 29–33, 36, 38, 43, and 45 of the ’410 patent are unpatentable.

¹ In addition to the parties listed in the case heading, Petitioner lists several other real parties in interest. Pet. 3–4.

A. Related Proceedings

Patent Owner alleges infringement of the '410 patent in three district court actions. Inst. Dec. 8. U.S. Patent No 8,488,173 ("'173 patent") is a continuation of U.S. Patent No. 7,986,426 ("'426 patent"), which is a continuation of the '410 patent, which is a continuation of U.S. Patent No. 6,771,381 ("'381 patent"). The Board rendered final written decisions in *inter partes* challenges to each of those four patents, including with respect to claims 1, 2, 4, 6–9, 11, 13–16, 18, 20–23, 25, 27, 28, 34, 35, 37, 39–42, 44, 46, and 47 (not challenged here) of the '410 patent in the '539 IPR. See *Ricoh Ams. Corp. v. MPHJ Tech. Investments, LLC*, Case IPR2014-00539 (PTAB Aug. 14, 2015) (Paper 23) ("'539 FWD," Ex. 3001) (holding all challenged claims unpatentable); *Ricoh Ams. Corp. v. MPHJ Tech. Investments, LLC*, Case IPR2013-00302 (PTAB Nov. 19, 2014) (Paper 52) ("'302 FWD," Ex. 1015) (generally "'302 IPR") ('426 patent, holding all challenged claims except claim 6 unpatentable); *Hewlett-Packard Co. v. MPHJ Tech. Investments, LLC*, Case IPR2013-00309 (PTAB Nov. 19, 2014) (Paper 35) ("'309 FWD," Ex. 1019) (generally "'309 IPR") ('381 patent, holding all challenged claims except claim 13 unpatentable, notice of appeal filed by petitioner), *aff'd*, 817 F.3d 1339 (Fed. Cir. 2016); *Ricoh Ams. Corp. v. MPHJ Tech. Investments, LLC*, Case IPR2014-00538 (PTAB Aug. 12, 2015) (Paper 25) ("'538 FWD") (generally "'538 IPR") ('173 patent, holding all challenged claims unpatentable, notice of appeal filed by patent owner). The '302 FWD, '309 FWD, and '539 FWD are final judgments.²

² The '538 FWD is not a final judgment, as Patent Owner appealed that decision to The United States Court of Appeals for the Federal Circuit.

B. The '410 patent

The '410 patent describes a “Virtual Copier” (VC) system. The system enables a personal computer user to scan paper from a first device and copy an electronic version of it to another remote device, or integrate that electronic version with a separate computer application in the network. *See* Ex. 1001, Abstract.

According to the '410 patent, “VC can be viewed as a copier. Like a copier, VC takes paper in, and produces paper going out. The only difference is that VC does not distinguish between electronic and physical paper.” *Id.* at 7:61–64.

The VC extends from “its simplest form” to its “more sophisticated form”:

In its simplest form it 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. In its more sophisticated form, VC can copy paper from a device at one location directly into a business application residing on a network or on the Internet, or [vice] versa.

Id. at 5:45–52.

The VC includes “five essential modules”: input module, output module, process module, client module, and server module. *Id.* at 70:62–71:43. “Each module is a counterpart to an aspect that is found on a conventional copier.” *Id.* at 70:56–58. Notwithstanding that the latter sentence refers to “each” module, the '410 patent ambiguously states that “[t]here is no counterpart to VC’s Server Module on a conventional copier.” *Id.* at 71:42–43. In any event, the other four modules have “counterparts” on “conventional” copiers: “The Input Module manages paper or electronic paper entering VC. . . . The counterpart to VC’s Input Module on a conventional copier is the scanner subsystem.” *Id.* at 70:63–71:2. “The Output Module manages paper or electronic paper exiting VC. . . . The counterpart to VC’s Output Module on a conventional copier is the printer or fax subsystem.” *Id.* at 71:3–10. “The Process Module applies processing to the

electronic paper as it is being copied. . . . The counterpart to VC's Process Module on a conventional copier is the controller." *Id.* at 71:11–19. "The Client Module presents the electronic paper as it is being copied, and any relevant information related to the input or output functions. . . . The counterpart to VC's Client Module on a conventional copier is the panel." *Id.* at 71:20–28. "Unlike conventional copiers, VC's Server Module is a unique subsystem that can communicate with the other modules as well as third-party applications." *Id.* at 71:29–43.

Figure 28 of the '410 patent, reproduced below, represents an embodiment of the VC:

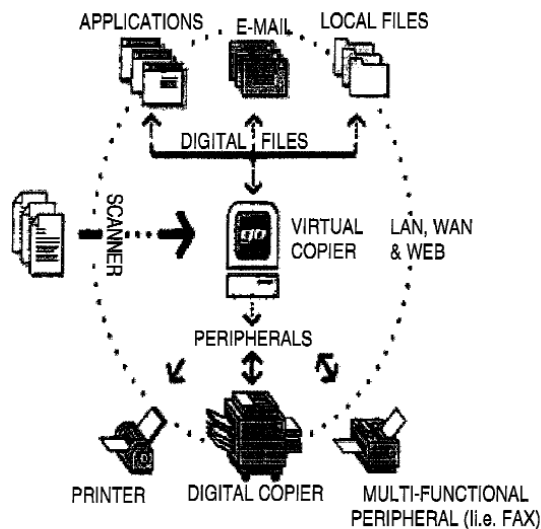


FIG. 28

Figure 28 depicts various peripheral devices attached to a Virtual Copier on a network. *Id.* at 69:29–30. The interface of the Virtual Copier has a "Go button" used to copy paper, whether physical or electronic. *Id.* at 69:31–32.

C. Illustrative Claims

Unchallenged independent claim 15, previously held unpatentable in the '539 IPR, is provided for context below along with challenged dependent claim 17:

15. A computer data management system including at least one of an electronic image, graphics and document management 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 and applications responsively connectable at least one of locally and via the Internet, comprising:

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 the computer data management system includes an interface that enables copying images between physical devices, applications, and the Internet using a single 'GO' operation.

17. A computer data management system according to claim 15, wherein the computer data management system includes the capability of initiating, canceling, and resetting; and wherein the computer data management system includes the capability of maintaining a registry containing a list of inputs, outputs, and processes that can be used in said computer data management system, and maintaining information regarding files.

D. References Relied Upon

Petitioner relies on the following references:

Reference	Description	Publication Date	Exhibit No.
XNS Manual	<i>Xerox Network Systems Architecture General Information Manual</i>	Apr. 1985	Ex. 1002
GIS 150 Manual	<i>Xerox 150 Graphic Input Station Operator And Reference Manual</i>	Jan. 1985	Ex. 1003
Harkins	U.S. Patent No. 5,513,126	Apr. 30, 1996	Ex. 1004

E. Instituted Grounds of Unpatentability

We instituted trial on the following grounds of unpatentability:

Claims	Grounds	Reference(s)
3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45	§ 102	XNS Manual ³
3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45	§ 102	Harkins
31 and 33	§ 103	XNS Manual or Harkins

Inst. Dec. 28.

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, the Board construes claims by applying the broadest reasonable interpretation in light of the specification. *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016); 37 C.F.R. § 42.100(b). Under this standard, absent any special definitions, claim terms or phrases

³ As it also did in the '302 IPR and '539 IPR, Petitioner refers to the “GIS 150” Manual (Ex. 1003) as evidence to show inherent features of the Xerox 150 GIS scanner, which is described in the XNS Manual (Ex. 1002) generally as a graphic input station, and specifically as “[t]he Xerox 150 scanner,” and “Xerox 150 GIS.” See Ex. 1002, 122, 124; Pet. 20 (discussing the two documents, citing *Schering Corp. v. Geneva Pharmaceuticals*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) and '302 FWD (Ex. 1019) 8 n.1). Similar to our determination in the '302 FWD and '539 FWD (final judgments), we determine that Petitioner properly employs the GIS 150 Manual as extrinsic evidence of the properties of the Xerox 150 GIS scanner, to support anticipation by the XNS Manual. See *In re Baxter Travenol Labs*, 952 F.2d 388, 390 (Fed. Cir. 1991) (extrinsic evidence may be used to explain what a reference discloses); Ex. 1015, 8 & n.1; Ex. 3001, 7 & n.1. Accordingly, we refer to the XNS Manual in general as including the 150 GIS Manual as it relates to the 150 GIS scanner unless otherwise specified.

generally carry 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).

Any special definition for a claim term must be set forth in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a special definition or other consideration, “limitations are not to be read into the claims from the specification.” *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

The Board previously construed a number of claim terms in the Institution Decision and in the ’302, ’309, and ’539 IPRs that appear in the claims challenged here. Patent Owner did not file an appeal challenging the Board’s final decisions in those three listed IPRs, and the judgments are final. Petitioner primarily agrees to the Board’s prior claim constructions in those IPR proceedings. Petitioner relies on the Melen Declaration (Ex. 1005) to support its claim construction and challenges.

Patent Owner challenges our prior construction of two of the terms in this proceeding, “software application,” and “GO Operation.” PO Resp. 6–14. The analyses of these two disputed terms, and the related term “application,” appear below.

Claim Term	Construction	Citation
software application	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	<i>See infra</i> ; Inst. Dec. 10; Ex. 1015, 9–13; Ex. 1019, 7–11

Claim Term	Construction	Citation
application	includes software and/or hardware and performs a function or functions	<i>See infra</i> ; Inst. Dec. 10; Ex. 1015, 9–13; Ex. 1019, 7–11
GO operation	an operation that begins a process	<i>See infra</i> ; Inst. Dec. 10; Ex. 3001, 10–12

1. Application, Software Application

Independent claims 1, 15, 34, and 41, which the Board determined to be unpatentable in the '539 FWD, recite a “software application” and “applications.” *See* Ex. 3001, 7–9. The '410 patent Specification supports, and we adopt, as we did in the Institution Decision, the prior construction as set forth in the '302 FWD and the '309 FWD.⁴ *See* Ex. 1015, 9–13; Ex. 1019, 7–13; Inst. Dec. 10; Ex. 3001, 8–9; Ex. 1005 ¶¶ 32–37 (citing the Specification and analyzing the terms). We incorporate our claim construction findings and analyses from the '302 FWD and '309 FWD. Ex. 1015, 9–13; Ex. 1019, 7–11.

Patent Owner disagrees with the prior claim construction. *See supra* Claim Construction Table. Patent Owner contends that a software application should be construed as “a discrete software program executable on an operating system for the purpose of accomplishing a task.” PO Resp. 8 (citing Ex. 2001 ¶ 17). Petitioner agrees with the prior claim construction as reproduced above, and also asserts that “MPHJ is estopped from ‘taking action inconsistent’ with the '539 Final Decision.” *See* Pet. Reply 8 (citing 37 C.F.R. § 42.73(d)(3)).

⁴ In the '539 FWD, the Board cited and noted with approval the '302 FWD and '309 FWD constructions in construing “application” and “software application,” explicitly adopting the former and implicitly adopting the latter. *See* Ex. 3001, 8–9.

In support of its construction, Patent Owner cites to U.S. Provisional Application 60/108,798 (Ex. 2002) (“provisional application”), which is incorporated by reference in the ’410 patent, and maintains that that “the 410 Patent’s disclosure separates a capture application from the destination application. These are two discrete software applications.” PO Resp. 9. Patent Owner contends that our claim construction includes “both the capture application and the destination application.” *Id.* at 9. That argument mischaracterizes our claim construction. Nothing in our claim construction requires the claimed software application to include other third-party applications that otherwise may be claimed.

Patent Owner fails to show support for a “discrete” “software application,” and the claims do not recite “discrete.” The Specification supports our construction. The Specification states that “[t]he VC software can reside on a PC, LAN/WAN server, digital device (such as a digital copier), or on a web server to be accessed over the Internet.” Ex. 1001, 45:41–43. When discussing applications, the Specification refers to “an application (e.g., Lotus Notes, Microsoft Exchange, *the Internet*, or *an electronic filing system*).” *Id.* at 6:57–58 (emphasis added). Also, it states that VC can copy “in and out of devices and business applications (such as Microsoft Office, Microsoft Exchange, Lotus Notes).” *Id.* at 45:38–40. It also states that “external devices and applications include, for example, a printer, a facsimile, and a scanner.” *Id.* at 19:16–17.

The disclosure also equates an “accounting system” with a “business application,” and shows that the invention allows a “document management system,” including the software application claimed therein, to coordinate with the existing “accounting system”: “Accounting systems, like most business applications, typically have no way of maintaining an electronic copy of the

physical invoice and adding a document management system to an accounting system is cumbersome . . . and . . . difficult . . . to coordinate.” *Id.* at 47:1–6.

The examples of “Microsoft Office,” the “Internet,” “accounting system,” and a “filing system,” as applications, and the example of an application as a printer, facsimile, or scanner, verifies that the ’410 patent refers to an application as including systems, software, and/or hardware. *See id.* at 6:57–61, 45:38–40, 47:1–6. The business application such as Microsoft Office, or accounting systems as a business application, generally show that the inventors considered a software application to include a suite of programs. *Id.* at 45:38–40, 47:1–6. As the Board noted in the ’309 FWD, during the oral hearing of that trial, Patent Owner conceded that that “one of ordinary skill in the art would understand that [Microsoft Office is] . . . as an example as a destination that could include multiple discrete software applications,” in response to a question by Judge Tierney. Ex. 1019, 10 (’309 FWD (quoting ’309 Tr. 26:16–19)). Other disclosures, discussed below, show software distributed over the system—i.e., without being limited to a single discrete software application.

Patent Owner’s Declarant, Dr. Kaliski, testifies that claim 15 “implies that ‘application’ is a short hand expression for “software application.”” Ex. 2001 ¶ 20. We do not agree with the specific thrust of this testimony because it renders the modifying term “software” redundant and fails to account for the broader disclosure of an application, as discussed above. *See* Ex. 1005 ¶¶ 32–37; Ex. 1019, 8 (’309 FWD discussing similar reasoning). As also discussed above and further below, a “software application” need not be a discrete application, because, as noted, the ’410 patent broadly discloses “application” as including whole systems (and hardware). *See* Ex. 1001, 6:57–58; 62:9–15, 67:1–6. The title of the ’410 patent is “Distributed Computer Architecture and Process for Virtual Copying.”

Ex. 1001 [54]. The Specification states that “the architecture can be implemented in many other languages (e.g., Java) and distributed architectures (e.g., CORBA).” *Id.* at 52:66–67. The ’410 patent also discloses “combin[ing] with any . . . suitable processing circuits, including programmable logic devices, such as PALs (programmable array logic) and PLAs (programmable logic arrays), DSPs (digital signal processors) . . . ASIC’s (application specific integrated circuits), VLSIs (very large scale integrated circuits) or the like.” *Id.* at 62:9–15. As Petitioner also maintains, the ’410 patent discloses that the “horse power” or “processing power” described with respect to the disclosed invention resides in “the engine object layer and the engine may be optionally *located in a distributed environment on different machines, servers, and the like.*” Pet. Reply 10 (quoting Ex. 1001, 67:12–18) (emphasis added). The ’410 patent states that “the purpose of the computer architecture and process described herein is to . . . generate reusable software *components* from sophisticated core software *technologies.*” Ex. 1001, 49:39–42 (emphases added).

Patent Owner also maintains that “the application cannot be an operating system.” *Id.* (citing Ex. 2001 ¶ 21). Patent Owner repeats its Declarant’s testimony and reasons that “the fact that the input and output modules of an application may register with the operating system implies that the application cannot be an operating system.” *Id.* The argument lacks factual support. As discussed in the preceding paragraph, the invention includes the “processing power” as part of the engine object layer. The disclosed invention includes a processing system and nothing precludes that functionality, or other software functions, from being part of, or included in, the claimed “software application.” In other words, a software application may include the processing system. The disclosed processing system can include “any multitude or combination of

processors or storage devices” and may be “*combined with*, any suitable processing system operative in accordance with the principles of the present invention, including . . . mainframe and super computers, as well as processing system network combinations of the same.” *Id.* at 61:44–51; Fig. 17.

Claims 1 and 15 recite “at least one processor . . . implementing the plurality of interface protocols as a software application.” This “implementing” requirement implies, in line with the different disclosures above that show software applications as a suite of programs, that the claimed “software application” may include various aspects, including the interface protocol functionality, and does not exclude the processing system of at least one processor. In similar fashion, claims 34 and 41 recite “an interface comprising a software application that enables copying images,” and nothing limits the software application to a discrete application. Even a single module, which Patent Owner contends is part of the claimed “software application,” constitutes a “sub-system.” *See supra* Section I.A (citing Ex. 1001, 71:29–43 (describing one VC module as “a unique *subsystem* that can communicate with the other modules as well as third-party applications”)). Moreover, claim 34 recites at least three (“first,” “second,” and “third”) different “application system[s],” and another “software application,” as part of its “data management system,” further showing that the invention employs a suite of various applications. *See* Ex. 1001, 89:53–90:6.

Relying on broad discussions of applications in the ’410 patent that include some of the above described disclosures, Dr. Melen persuasively supports the construction set forth in the earlier Board final decisions. *See* Ex. 1005 ¶¶ 32–37. The record shows that that the disclosed invention generally contemplates a software application that may be configured in a distributed manner as a suite of

programs, in different machines and on different memory locations, to accomplish various functions.

The disclosure of the '410 patent, as discussed above, also shows that the invention may include distributed firmware, or local firmware, which accomplishes a single function or a group of functions. Local and/or distributed firmware, designed for a specific function or functions, itself would be a discrete “software application” and satisfy even Patent Owner’s claim construction: “a discrete software program executable on an operating system for the purpose of accomplishing a task.” *See* PO Resp. 8. As described above in the Introduction, the disclosure includes modules that have “counterparts” in conventional copiers, i.e., including the counterpart firmware associated with specific input, output, and other processes. *See id.* at 70:63–71:2. As also noted, Patent Owner concedes that “the software application may be distributed.” *Id.* at 10.

Based on the foregoing discussion, we maintain the same claim construction that we employed in the '302 IPR, '309 IPR, and '539 IPR, which each resulted in final judgments.

2. GO Operation

Claims 15, 34, and 41 recite “copying images between physical devices, applications, and the Internet using a single ‘GO’ operation.” As Patent Owner notes, in the '539 FWD, a final judgment finding those independent claims unpatentable, we construed a “GO operation” as “an operation that begins a process.” *See* PO Resp. 11; Ex. 3001, 10–13.

Patent Owner disagrees with that construction and contends the claim term should be construed as “an operation that begins a process and requires no further action from the user to complete.” PO Resp. 11. Patent Owner cites to the provisional application which describes “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.” *Id.* at 12 (citing Ex. 2002, 2). Patent Owner also cites the ’410 patent. *See id.* Patent Owner implies that the provisional, but not the ’410 patent disclosure itself, limits the “GO operation.” *See id.*

To support its narrow view of the “GO operation,” Patent Owner describes a “drag and drop” feature, allegedly described in the provisional as prior art, and contends that the GO operation also described in the prior art passage distinguishes over the “drag and drop” feature, thereby precluding that feature from falling within the scope of the claimed GO operation. *See* PO Resp. 13 (citing Ex. 2002, 6). Patent Owner does not mention how a skilled artisan would know that a description in the provisional, but not in the ’410 patent, would amount to a clear disavowal of claim scope, when the ’410 patent provides a broader description of the GO operation (which more closely tracks the claims at issue here), without discussing, let alone disparaging, a drag and drop feature. *See* PO Resp. 13.

Nevertheless, Patent Owner relies on the following passage in the provisional as “expressly precluding” the prior art “drag and drop” feature:

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 Pages, 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.

Ex. 2002, 6; *see* PO Resp. 13.

Petitioner replies that Patent Owner’s construction is too narrow. Pet. Reply 11–12. Petitioner explains that at best, Patent Owner merely relies on disclosed embodiments that do not limit the claims. *See id.* Petitioner also contends that

Patent Owner is estopped from “taking action inconsistent” with the ’539 FWD. Pet. Reply 12 (citing 37 C.F.R. § 42.73(d)(3)).

Patent Owner fails to support its proffered claim construction. First, with respect to an alleged disclaimer that involves prior art scanning and use of an alleged “drag and drop” feature, the prior art feature described in the passage above looks more like a *scan* and *drag* feature. The above-quoted passage does not mention any drag and drop feature. It describes “dragg[ing] or direct[ing]” a document into a third-party application after *scanning* the document, but the claims attempted to be re-litigated here, claims 15, 34, and 41, do not require any scanning, let alone placing a document within a third-party application: Claims 15, 34, and 41 broadly require “copying images between physical devices, applications, and the Internet using a single ‘GO’ operation.” Copying in the context of the ’410 patent simply means transferring image data that may already be stored as electronic data. *See supra* Section I.B. Hence, with respect to such a stored document (i.e., after it is scanned, originally copied, or otherwise transmitted), a drag (or drop) operation would amount to a single-step copying operation that involves dragging/dropping a stored copy to a user-specified drop destination. Even Patent Owner’s claim construction does not preclude a single-step drag/drop operation of a previously copied document (i.e., one that requires no further steps).

Second, the ’410 patent describes managing the copying of paper “in and out of devices and business applications . . . with an optional single-step GO operation.” Ex. 1001, 45:38–41. The claims at issue here do not recite a “single-step” operation, although they do recite a “single ‘GO’ operation.” In the paragraph immediately preceding the passage just quoted, the ’410 patent also

states that “embodiments are provided by way of explanation of the invention, which is not intended to be limited thereto.” *Id.* at 45:13–15.

Third, according further to the ’410 patent, “[t]his Go button can copy paper, whether physical or electronic, from one device and[/]or application to another device and/or application.” Ex. 1001, 6:41–43. The “Virtual Copier *has a Go button much like a physical copier.*” *Id.* at 6:40–41 (emphasis added). “[T]he user simply has *one sequence to execute*: select From, select To, and then press GO.” *Id.* at 69:56–59 (emphasis added). After selecting “where the user wants to copy to,” the user “press[es] a GO button to actually carry out the photocopy process.” *Id.* at 46:33–35. The “process feels the same because the sequence is the same.” *Id.* 46:36–38.

Therefore, the ’410 patent describes “*one sequence*” (i.e., group) of actions that go hand-in-hand with the *single GO button operation*—to use the GO operation, a user necessarily must enter the “From” and “To” data, as the above-quoted passage shows. This description in the ’410 patent does the opposite of disparaging prior art copy features—rather, the “*process feels the same because the sequence is the same.*” *Id.* at 46:36–38 (emphasis added). Even though the described sequence involves pressing the GO button last, the ’410 patent does not limit the claims to a particular order of steps—especially where the “sequence is the same” as prior art copiers. *Id.* The “drag and drop” prior art feature described in the provisional does not mention how it relates to the disclosed sequence of steps, much less that it precludes the disclosed sequence of steps, and vice versa, the disclosed sequence of steps feature as described in the ’410 patent does not mention whether or not a sequence of steps precludes the “drag and drop” feature as described as prior art in the provisional. *See* Ex. 2002, 6. Necessarily, at some point, the transmitting copy machine must be informed of the desired recipient

destination. Describing the prior art “drag and drop” feature in the provisional in terms of a limited and unclaimed scanning feature, not mentioning it in the ’410 patent, and describing a sequence of steps as similar to a prior art GO button feature, sets up, at most, an unclear disavowal of claim scope, because the inventors do not give sufficient notice of what they allegedly disavow, much less sufficient notice of an intent to carry any alleged disavowal into the ’410 patent.

Based partly on the discussion above, we also credit Petitioner’s expert, Dr. Melen, that the person of ordinary skill in the art would understand the “Go operation” as the same operation performed by the “Go button,” which is the equivalent to pushing the button on a prior art copier to make a copy. Ex. 1006 ¶ 44. Dr. Melen cites to similar portions of the Specification that support his view. For example, Dr. Melen provides and analyzes the following passage from the Specification:

When a user photocopies a document [using a conventional copier], he/she selects where they want to copy from ([e.g.,] the sheet feeder), where the user wants to copy to ([e.g.,] 6 copies collated and stapled) and then press a GO button to actually carry out the photocopy process. With Virtual Copier the process feels familiar because the sequence is the same with just the Power VC portion of the main Virtual Copier window.

Ex. 1005 ¶ 44 (quoting Ex. 1001, 46:31–38).

Based on the foregoing discussion, the Specification does not preclude a sequence of actions, manual or otherwise, that would limit the term as Patent Owner proposes. *See, e.g., In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (omitting an extraneous limitation unnecessary for the purpose of making sense of the claim). Accordingly, we maintain the same claim construction employed in the ’539 IPR, which resulted in a final judgment.

B. Grounds of Unpatentability

1. The XNS Manual, Anticipation, Obviousness

We instituted trial on the basis that the XNS Manual anticipates claims 3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45, and renders obvious claims 31 and 33.

i. The XNS Manual (Exhibit 1002)

The XNS Manual describes computer networking, especially in the context of integrated office systems and document management. Ex. 1002, 11–16. It “describes the architecture of Xerox Network Systems” and “provides information on the standards and protocols that comprise the architecture.” *Id.* at 15.

The XNS Manual also describes document management: “The general objective[] of XNS is . . . to increase the ROIA [“return-on-information assets”] by facilitating the creation, capture, storage, communication, printing, and replicating of electronic or paper documents within the office, especially at the work group and department levels. This is what Xerox calls document management.” *Id.* at 18.

Among other capabilities, the overall XNS network architecture includes a local area network (LAN) and wide area network (WAN) communication. *Id.* at 31–52. Disclosed protocols interface with other systems, equipment, and services, including e-mail and network scanning services. *Id.* at 75–80, 93–100, 117–126. In general, the XNS Manual describes network configurations for connecting office equipment such as scanners, printers, facsimile machines, workstations, and mainframe computers. *Id.* at 27, 48, 77, 82, 104, 122, 123, 128, 132, 134, 140, 141, 145.

The XNS architecture consists of a hierarchy of protocols. *Id.* at 27. Thus, XNS discloses transmission protocols and application protocols for different types

of communication services as well as for different functions performed within the architectural boundaries. *Id.* at 24.

Figure 2-4 of XNS is reproduced below.

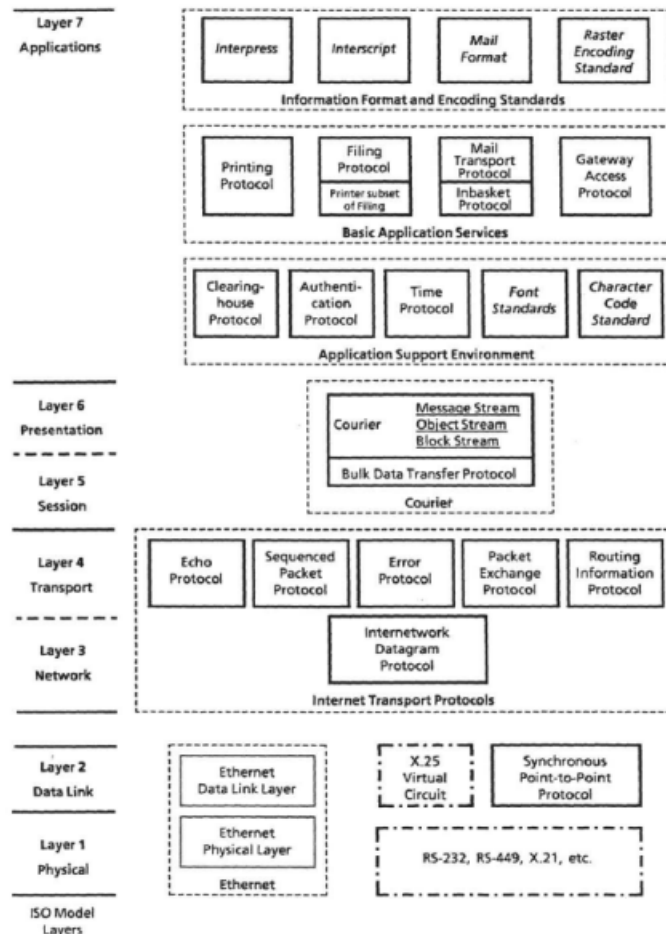


Figure 2-4 Overview of Xerox Network Systems

Figure 2-4 provides an overview of the XNS system and illustrates the numerous protocols supported and used in the system. *Id.* at 25–26. The application protocols are implemented in both hardware and software, and include protocols for mailing, printing, filing, and gateway access. *Id.* at 25. The XNS Manual refers to “devices that use XNS protocols and connect to the network” as “system elements” and explains “[t]he significance of direct XNS connection is that ordinarily a directly-connected device is expected to implement all the layers of XNS appropriate to its function, which would include *at least* all the layers

upward through Courier (*see* Fig. 2-4), plus selected application protocols.” *Id.* at 27–28.

“Courier,” occupying a middle layer in the XNS architecture, resides between application-layer protocols and network/transport layer protocols. *Id.* at 53. Courier specifies the manner in which a workstation or other active system elements invoke operations used by a server or other passive system element. *Id.*

ii. Petitioner’s Showing

Claims 3, 5, 10, 12, 17, 19, 24, 26, 29–33, 36, 38, 43, and 45

The Board finally determined in the ’539 IPR that the XNS Manual anticipates, in addition to some dependent claims, independent claims 1, 8, 15, 22, 34, and 41, from which challenged claims 3, 5, 10, 12, 17, 19, 24, 26, 36, 38, 43, and 45 in this proceeding depend. *See* Ex. 3001, 29. Petitioner contends that challenged independent claim 29 is broader than claim 5 of the ’426 patent, and that Patent Owner acknowledged that the XNS Manual discloses the functions recited in claim 5 of the ’426 patent—which the Board held anticipated by the XNS Manual in the ’302 FWD. *See* Pet. 30 (reading claim 29 on XNS); Ex. 1005 ¶ 49; Ex. 1015, 18 (noting that Patent Owner admitted that the XNS Manual “would have all the functions” set forth in claims 1–5).

To address the challenged dependent claims in this proceeding, Petitioner repeats its analysis from its petition in the ’539 IPR for the independent claims, noting that “a dependent claim includes all the limitations of the claim it depends on [under] 35 U.S.C. § 112, ¶ 4.” Pet. 21. Petitioner also relies upon the Melen Declaration (Ex. 1005) to support its showing that the XNS Manual anticipates or renders obvious the challenged claims. *See* Pet. 20–42.

Claims 1 and 15 are similar. The preambles of these claims recite, among other things, a “computer data management system including at least one of an electronic image, graphics and document management system.” The XNS

document management system facilitates “creation, capture, storage, communication, printing, and replicating of electronic or paper documents within the office.” Ex. 1002, 18. Petitioner’s claim chart cites to this disclosure of the XNS Manual as meeting the recited claim language. Pet. 21. Petitioner’s claim chart also sets forth how the remaining portions of the preamble, relating to transmitting the electronic images to an external destination over a local network or the Internet, read on XNS. *Id.* at 21.

Claims 1 and 15 also recite “at least one memory storing a plurality of interface protocols for interfacing and communicating.” The XNS system architecture includes multiple transmission and application protocols corresponding to different functions performed. Ex. 1002, 24–30, Fig. 2-4. Petitioner cites this disclosure, among others, as meeting the limitation regarding protocols. Pet. 21–22.

Claims 1 and 15 recite processor and memory elements that Petitioner contends inherently would be a part of the XNS “system elements,” which include workstations and servers, which use protocols to connect to the XNS network. *See* Pet. 22–23 (citing Ex. 1005 ¶ 59; Ex. 1002, 26–27). On this record, the memory and processor elements are inherent in the architecture disclosed in the XNS Manual. *See In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (extrinsic evidence “must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill”) (quoting *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991)).

The XNS Manual discloses “protocols” for “mailing, printing, filing, and gateway access . . . implemented in hardware [and] software.” Ex. 1002, 26. Petitioner relies on this disclosure, “XNS protocols” (*id.* at 27), and the Courier

protocol, among others, to meet the “plurality of interface protocols as a software application” limitations of claims 1 and 15. Pet. 21; Ex. 1005 ¶¶ 57–59; Ex. 1002, 26–27.

Unlike claim 15, claim 1 includes a wherein clause that recites the “capability to integrate an image using software so that the image gets seamlessly replicated” and transmitted via the Internet. The XNS Manual discloses scanning and digitizing images and sending the images to any number of remote devices and services. Ex. 1002, 122–125. “The scanned image may be combined with text to form a composite document.” *Id.* at 122. Petitioner contends that in general, the Xerox scanner performs the function, citing the XNS system’s automatic integration of scanning with editing, for example. See Pet. 23. Dr. Melen provides additional support. Ex. 1005 ¶¶ 61–67.

The remaining independent claims, 8, 15, and 22, recite similar features. To the extent the claims differ, Petitioners persuasively shows how the XNS Manual discloses the claimed features. See Pet. 24–26. For example, Petitioner addresses the “GO” operation of claims 15, 34, and 41, as discussed above and further below. See Pet. 14.

Dependent claims 3, 10, 17, 24, 36, and 43 recite that the computer data management system or method includes the capability of initiating, canceling, and resetting. Petitioner relies on the XNS Manual’s disclosure related to the Xerox 150 GIS Scanner, including that scanner’s disclosed START button and function, STOP button and function, and the ability to RESET the process by pressing the STOP button during certain times of the process. See Pet. 26 (citing Ex. 1003, 20, 43–44, 113; Ex. 1021 ¶ 74). The GIS 150 Manual supports Dr. Melen’s testimony, including, for example, that pressing STOP a second time resets features to default settings. See Ex. 1003, 44; Ex. 1005 ¶ 74.

Claims 3, 10, 17, 24, 36, and 43 also require the computer data management system or method to include the capability of maintaining a registry containing a list of inputs, outputs, and processes that can be used in the computer data management system or method. Petitioner maintains that the XNS Clearinghouse constitutes a database that maintains a list of objects (e.g., devices or services), and thereby satisfies the recited limitation. Pet. 27; Ex. 1005 ¶ 75; Ex. 1017, 44–45. The claims further require maintaining information regarding files. Petitioner reads that limitation on attributes and information about storage of files that Clearinghouse stores. *See id.* (citing Ex. 1002, 59–63, 81–86; Ex. 1003, 148; Ex. 1005 ¶ 76).

Claim 5 depends from claim 4 and recites “wherein the at least one application programmer interface (API) comprises at last [sic] one of the following interfaces: at least one modules object . . . at least one program object . . . [and] at least one system management event object.” Claims 12, 19, 26, 38, and 45 recite the same or similar limitations.

Petitioner contends “at last one” means “at least one,” and requires at least one of a recited “modules object,” “program object,” “document object,” “system management method object,” and “system management event object.” Pet. 27–28. Petitioner contends that the XNS Manual discloses each recited object. Pet. 28–29. For example, claim 5 recites “at least one document object maintaining information regarding a current document being copied.” Petitioner contends that XNS uses a Filing Protocol and stores attributes about a file regarding copying. *See* Pet. 29 (citing Ex. 1002, 81–86; Ex. 1005 ¶ 80); Ex. 1003, 148. With respect to APIs, Dr. Melen contends that XNS discloses inherent APIs necessary to link the various programs and layers so that they may interact. *See* Ex. 1005 ¶¶ 59–60. Petitioner notes that the ’302 FWD finds that the XNS Manual anticipates similar

limitations in a similar claim (claim 8 in the '426 patent). *See* Pet. 28 (citing Ex. 1015, 46–48). Although the '410 patent Specification does not specify what an “application programmer interface” is, it admits that “[m]any, if not most, core software technologies, such as OCR (Optical Character Recognition) or barcode recognition, are designed and implemented using a ‘C’-language API (Application Program Interface). The technology is often complex” Ex. 1001, 49:42–46. The '410 patent discloses “creat[ing] a component out of an existing API” by a wrapping process, but the claims at issue do not require such creation or preclude existing APIs. *See id.* at 49:63. Relying on similar evidence in the '302 final decision, the Board determined that “[t]he record shows that some form of at least a generic type of API is necessary for communication between nodes or software services.” Ex. 1015, 47.

Petitioner contends that the XNS Manual discloses a Filing Protocol, and the GIS150 Manual discloses copying to specific files on print and file servers. Ex. 1005 ¶ 80. On this record, the XNS Manual discloses the claimed APIs, with, for example, filing protocols and copying attributes as accessible functions or services necessary to communicate with different layers, services, programs, or functions, for example, in order to file a document. *See id.* at 29; Ex. 1005 ¶¶ 59–60, 79–80.

Claim 29, listed above, recites nearly identical limitations to claim 5 of the '426 patent. Petitioner points out that during the hearing in the '302 IPR, Patent Owner acknowledged that the XNS Manual discloses the functions recited in claim 5 of the '426 patent. *See* Pet. 30 (citing Ex. 1016; Ex. 1017, 18, 32–42). As noted above, the '410 patent Specification implies that disclosed modules, which support those recited in claim 29, have separate counterparts in known prior art copy systems. In addition, according to our claim construction and the holdings in the '302, '309, and '539 IPRs, modules may include other modules and may overlap in

function—in essence, modules are defined by the recited functions they perform. The Petition separately outlines, with added references to the '302 FWD, how Petitioner contends the XNS Manual discloses the limitations of claim 29. *See* Pet. 30–34 (citations omitted).

The Petition also outlines how Petitioner contends that the XNS Manual anticipates claims 31 and 32, alternatively renders claim 31 obvious, and renders claim 33 obvious. Pet. 16, 34–41. Claim 31 depends from claim 29 and requires the server module to read a list of available module means on start-up. Dr. Melen testifies that reading such a list on start-up would have constituted a well-known design choice, and that it would have been obvious to read the list during startup so that users would not have to wait for the list to be read each time a user requests a device or service. Pet. 40; Ex. 1005 ¶¶ 100–105 (discussing Ex. 1002, 61–62; Ex. 1003, 148–149, 177). Petitioner sets forth similar reasons (i.e., efficiency/information for users) alleging why the remaining limitations in claim 31 would have been obvious. *See* Ex. 1005 ¶ 105. Based on Petitioner's obviousness contentions, it is not necessary to reach the anticipation ground of claim 31.

Claim 33 depends from claim 32, which depends from claim 29. Claim 32 further requires the server module recited in claim 29 to “include at least one server module application programmer interface (API),” and claim 33 requires the API to comprise five “COM-based interfaces.” Petitioner refers to its analysis of the server module API recited in claim 4 and the five objects recited in claim 5. *See* Pet. 41 (referring back to Pet. 28–29); Pet. 28 (referring to '302 IPR final decision, Ex. 1015, 46–48 (holding that the XNS Manual discloses materially the same API based objects, albeit not necessarily COM-based interfaces, as recited in claim 8 of the '426 patent)). As indicated above, Petitioner contends that the

software described in XNS necessarily must have some type of an API in order to communicate with another layer or program. Pet. 24 (citing Ex. 1005 ¶¶ 59–60 (discussing Ex. 1002, Fig. 2-4)). Petitioner also sets forth reasons why COM based interfaces were well-known and admitted in the '410 patent Specification to be a standard Microsoft design published in the literature, and would have been obvious to implement in the XNS system, because the XNS Manual teaches implementing XNS to be compatible with known software and hardware products “as they emerge into the market.” *Id.* at 41–42 (quoting Ex. 1002, 156; citing Ex. 1005 ¶¶ 106–08; Ex. 1001, 52:45–67).

iii. Patent Owner's Arguments, Dependent Claims 17, 19, 36, 38, 43, and 45

Patent Owner argues that “[c]laims 17, 19, 36, 38, 43, and 45 each depend from a base claim that requires interfacing via a software application enabling copying images between physical devices, applications, and the Internet using a single ‘GO’ operation.” PO Resp. 17. Claims 17, 19, 36, 38, 43, and 45 depend from claims 15, 34, and 41, which the Board determined to be anticipated by XNS in the '539 FWD in a final judgment. *See* Ex. 3001. Grouping the claims together, Patent Owner makes several arguments that all relate to limitations recited in claims 15, 34, and 41. *See* PO Resp. 17. Contrary to the arguments, claim 15, from which claims 17 and 19 depend, does not require “interfacing via a software application,” although Patent Owner is correct with respect to independent claims 34 and 41, from which claims 36, 38, 43, and 45 depend.

Patent Owner also argues that “under the proper construction of the claim terms,” the XNS Manual does not disclose “rendering and transmitting . . . performed in response to the same selection of the ‘Go Operation.’” *Id.* To support its argument, Patent Owner points to its “provisional application, which describes how a user [in the prior art] must ‘first ‘import’ or scan paper into the

capture application and then drag or direct the output to another location.” *Id.* (citing Ex. 2002, 6).

These arguments are not on point. Challenged claims 17, 19, 36, 38, 43, and 45 do not recite “rendering and transmitting” in the context of the claimed “GO operation,” and the functions also do not appear in claims 15, 34, and 41. Also, Patent Owner does not urge that functionality as part of its claim construction. Patent Owner criticizes language in the Board’s ’538 FWD (currently on appeal) as impermissibly including a claim construction that embraces a prior art “scan” and then “drag” functionality (as discussed in its provisional application) in the context of dragging the output to an e-mail application. *See* PO Resp. 17.

Patent Owner’s arguments obscure the issues involved here for reasons discussed above in the claim construction of the GO operation. *See supra* Section II.A.2. As noted, the challenged claims here do not recite scanning or e-mail. During the Oral Hearing in this case, when pressed for a distinction between its claimed “‘GO’ operation” and the prior art, Patent Owner conceded “that printers and scanners had push button start buttons in the prior art. That’s something that was known. And that’s all the Petitioners have pointed to, that there *was some firmware in the printer that provided a start button functionality.*” Tr. 68:21–24 (emphasis added). According to Patent Owner, the difference between the GIS 150 start button and the claimed invention is that “nothing . . . connects that [firmware] and integrates that into the other XNS architecture that allows it to send it directly to something like an e-mail application.” *Id.* at 69:1–3.

After the panel informed Patent Owner that the claims do not require an “e-mail application,” but rather require “send[ing information] to the destination, an application or the Internet,” Patent Owner responded with a different argument

(also presented in the Patent Owner Response)—i.e., that the claims required a “software application” that “can’t be the firmware in a printer.” Tr. 69:4–6, 20–21.

In other words, Patent Owner contends, presumably in the context of claim 15, that “Petitioner[] . . . fail[s] to show how the scanner in GIS 150 implements the plurality of interface protocols as **a software application**, under a proper construction of software application.” PO Resp. 18. Patent Owner explains that

Patentee of the 410 Patent did not intend for the claimed software application to be the hardware *or low level code in a conventional scanner/copier*, as evidenced by the manner in which the 410 Patent’s provisional application distinguished itself over the prior art. (Ex. 2002, p.6). Any interpretation of “software application,” as construed in light of the specification, that includes the firmware of a scanner is unreasonably broad.

Id. (emphasis added).

Patent Owner’s “software application” arguments, which apply to independent claims 15, 34, and 41 already determined to be unpatentable in a final judgment of the ’539 FWD, again turn on claim construction. The argument quoted above further conflates an alleged disparagement of a prior art scan and drag feature with a conflated disparagement of firmware that exists nowhere in this record. Nothing in the ’410 patent, and nothing cited by Patent Owner in the provisional application, precludes a “software application” from including the firmware or other low level code that Patent Owner characterizes as the XNS Manual software related to the start button on the GIS 150 scanner. *See id.; supra section II.A (Claim Construction)*.

In other words, the “software application” argument turns on claim construction, and is not persuasive, because that term does not preclude firmware, as construed above. *See supra* Section II.A.2. Also, as noted above, although claim 15 recites a “software application,” it is not related to the GO operation.

Rather it recites “at least one processor . . . implementing the plurality of interface protocols as a software application.” With respect to the latter limitation, Petitioner relies on XNS as disclosing various protocols for interfacing, including mailing, printing, and filing protocols, and gateway services. See Pet. 22–23 (addressing a similar limitation in claim 1). In other words, challenged dependent claim 17 depends from independent claim 15, but claim 15 recites “wherein *the computer data management system* includes *an interface* [not a software application] that enables copying images between physical devices, applications, and the Internet using a single “GO” operation.” Ex. 1001, 86:56–59 (emphasis added). Firmware for transmitting documents to various destinations reasonably corresponds to, or includes, an interface. Patent Owner does not argue otherwise.

On the other hand, challenged claims 36, 38, 43, and 45 depend from claims 34 and 41, which tie a “software application” to the GO operation. That is, claim 34 recites “a computer data management system including . . . a system . . . wherein the system comprises . . . ; a first application system . . . ; a second application system . . . ; [and] an interface comprising a software application that enables copying images between physical devices, applications, and the Internet using a single ‘GO’ operation.” Claim 41 is similar to claim 34.

As indicated above, and as Patent Owner notes, Petitioner relies on the GIS 150 START button and its associated firmware and interfacing for sending scanned documents to up to five different destinations as the claimed “software application” or “system” “interface.” See Pet. 25–26; PO Resp. 18. At one of the cited passages, the GIS 150 Manual states that “pressing the START button causes the 150 GIS to begin scanning,” and “[a]fter scanning is complete the image is automatically sent to the selected destination.” See Pet. 25 (quoting Ex. 1003, 43). Patent Owner does not address this disclosure, which satisfies even its narrow

claim construction of the “GO operation” that precludes subsequent actions, and the firmware also satisfies Patent Owner’s narrow construction of “software application” that requires a discrete software application of an interface with respect to claims 34 and 41. *See* PO Resp. 17–18.

The GIS 150 Manual implies in other places that it sends scanned documents “[a]fter options and values have been set.” In other words, this disclosure of the GIS 150 “START” process appears to be virtually the same as the GO operation as described in the ’410 patent, and as described above in the Claim Construction section—each process allows the destination to be set before pressing the GO button, thereby satisfying the “single ‘GO’ operation” limitation of the challenged claims, according to both Petitioner’s and Patent Owner’s proposed claim constructions.

Therefore, Petitioner shows by a preponderance of evidence that the GIS 150 START button includes a computer data management system interface and software application that “enables copying images between physical devices, applications, and the Internet using a single ‘GO’ operation,” as set forth in claims 15, 34, and 41 (and the challenged dependent claims).

Patent Owner also contends that

[a]s a separate matter, relying on GIS 150 in this manner is outside the scope of this trial. (Institution Decision, Paper 10, p.28). The Petition limited its reliance on GIS 150 to support its alleged “inherency” argument. (Pet., p.16, characterizing Ground 1 as “XNS (Ex. 1[1002]), with inherent features evidenced by GIS 150 (Ex. 1003)”).

PO Resp. 18.

It is not clear what Patent Owner means by reliance on GIS 150 “in this manner,” as Patent Owner appears to accept the determination by the Board that the GIS 150 Manual may be relied upon for its disclosure of features of the GIS 150 machine. The XNS Manual refers to the GIS 150 scanner, and the GIS 150

Manual shows features of the GIS 150 scanner. *See* note 3. In other words, we initially determined that “Petitioner properly employs the GIS 150 Manual as extrinsic evidence to support anticipation by the XNS Manual.” *See* note 3 (citing *In re Baxter Travenol Labs*, 952 F.2d 388, 390 (Fed. Cir. 1991) (extrinsic evidence may be used to explain what a reference discloses)). We made this same determination in the ’539 FWD and the ’302 FWD (final judgments). *See supra* note 3; Ex. 3001, 7 n.3; Ex. 1015, 8 n.1. Assuming for the sake of argument that it would be proper for Patent Owner effectively to upset those two final judgments here, Patent Owner does not introduce new and sufficient persuasive argument to support the upset. For the reasons indicated above and in those final judgments, we independently determine here that the use is proper to support the anticipation and also to support obviousness challenges. *See supra* note 3; Ex. 1015, 8 n.1.

Finally, as Petitioner argues, the Board already determined in the ’539 FWD that the XNS Manual anticipates independent claims 15, 34, and 41, which recite the “Go operation” and “software application.” Pet. Reply 15–16. Petitioner persuasively argues that Patent Owner’s arguments, although facially applied with respect to dependent claims 17, 19, 36, 38, 43, and 45, which depend from unpatentable independent claims 15, 34, and 41, are improper under 37 C.F.R. § 90.3 and 37 C.F.R. § 42.73(d)(3). *Id.* (arguing that Patent Owner “is estopped from ‘taking action inconsistent’” with the ’539 FWD, a final judgment) (quoting 37 C.F.R. § 42.73(d)(3)). Patent Owner not only had an opportunity to make the same arguments in the ’539 IPR that culminated in a final judgment, it made the same material arguments that it makes here. *See* ’539 Paper 12 (“’539 PO Resp.”), 5–6 (proposing that an “application” means “a discrete software program

executable on an operating system for the purpose of accomplishing a task”),⁵ 7–8 (proposing that “Go operation” means “an operation that begins a process and requires no further action from the user to complete”), 11–12 (arguing the XNS Manual and GIS 150 Manual do not disclose a “GO operation” or an “application”—which it contended is “a short hand expression for ‘software application’”).

Based on the foregoing discussion, Petitioner establishes, by a preponderance of evidence, that the XNS Manual discloses the argued GO operation and software application limitations of challenged dependent claims 17, 19, 36, 38, 43, and 45.

iv. Patent Owner’s Arguments, Dependent Claims 3, 10, 17, 24, 36, and 43

Claims 3, 10, 17, 24, 36, and 43 require a registry that contains a list. Patent Owner acknowledges that in the ’302 FWD the Board determined in a final judgment that the XNS Manual discloses the list as recited in the dependent claims at issue in that case. *See* PO Resp. 14–15. Patent Owner argues that “the Board did not need to reach the issue of whether [the] XNS [Manual] discloses the registry limitation” in the ’302 FWD. *Id.* at 15. Patent Owner also argues that the “XNS [Manual] does not disclose at least a registry containing a list of processes.” *Id.* at 14.

Petitioner disagrees and contends that the XNS Manual’s “Clearinghouse maintains a registry containing such a list,” including a list of objects (i.e., devices and services). Pet. 27 (citing Ex. 1002, 59–63; Ex. 1015, 44–45; Ex. 1005 ¶ 75). During the Oral Hearing, Patent Owner contended that the term registry carries its plain and ordinary meaning. Tr. 41:18–19 (“I think plain and ordinary meaning is

⁵ Patent Owner also noted that it made the same claim construction argument in the ’302 IPR and the ’309 IPR. ’539 PO Resp. 6 n.2.

fine. I think registry is something that can stand on its own in light of the specification.”). Petitioner’s contention that the Clearinghouse server maintains or constitutes a “registry” conforms with the plain meaning of a “registry” as “a place where a register is kept,” where a “register” is “[a] formal or official recording of items, names, or actions” and includes “[a]n entry in a register.” Ex. 3003.⁶

Patent Owner also appears to argue that the XNS Clearinghouse only lists the names of hardware server devices instead of processes: “The concept of ‘processes’ is not equivalent to a server and a list of processes is not the same as a list of servers.” PO Resp. 17. At one of the pages cited by Petitioner, the XNS Manual states that “Clearinghouse is essentially a data base of objects. The entry for each object consists of a name and a set of one or more groups of data items that encode the object’s properties.” Ex. 1002, 60; Pet. 27. Another cited page states that “[i]f a workstation does not know how to gain access to a printer . . . it can’t get something printed. If another work station cannot locate a communication *service*, it can’t gain access to the mainframe connected to that *service*.” Ex. 1002, 59, Pet. 27. The XNS Manual describes the “Clearinghouse Service” as “conceptually similar to a telephone directory service, but with more powerful capabilities. Ex. 1002, 60. On the same page, leading up to the just-described Clearinghouse section, the XNS Manual describes “important support services” and “[e]nsuring that only authorized individuals have access to sensitive processes and files” in a distributed XNS environment, indicating that the XNS Clearinghouse helps provide the necessary access. Ex. 1002, 59.

Accordingly, Petitioner shows by a preponderance of evidence that XNS discloses a list of processes, i.e., a list of services, in a registry. In addition, as

⁶ THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE, 1096 (1976).

Petitioner notes, the Board determined in a final judgment that the XNS Manual anticipates claims carrying the same limitations at issue here in a list, albeit not specifically in a registry. *See* Pet. Reply 14 (citing Ex. 1019 and claim 10 of the '426 patent); Ex. 1019, 43–44, 47–48 (XNS Manual anticipates '426 patent claims 8 and 10, which each recite a similar type of list).

v. Summary, Claims 3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45

The Petition, supported by Dr. Melen's testimony, provides a detailed analysis explaining how the XNS Manual anticipates claims 3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45. *See* Pet. 21–35, 39 (citing Ex 1002; Ex. 1003, Ex. 1005). We adopt Petitioner's analysis, summarized above and in the Petition, as our own.

According to the discussion above, Patent Owner's arguments with respect to claims 3, 10, 17, 19, 24, 36, 38, 43, and 45 are not persuasive. Patent Owner does not present independent arguments directed to claims 5, 12, 26, 29, 30, and 32. Based on the record, Petitioner has shown by a preponderance of evidence that the XNS Manual anticipates 3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45.

2. Anticipation/Obviousness, Harkins

Petitioner argues that Harkins anticipates claims 3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45, and renders obvious claims 31 and 33. Pet. 16.

i. Harkins (Ex. 1004)

Harkins discloses 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)” in a manner controlled by the receiver. Ex. 1004, Abstract. Harkins's network includes a variety of computing devices, including a scanner or digital copier, a

printer, a workstation, and a server, which can be used in an office environment.
Id. at 6:4–23.

Figure 1 of Harkins is reproduced below.

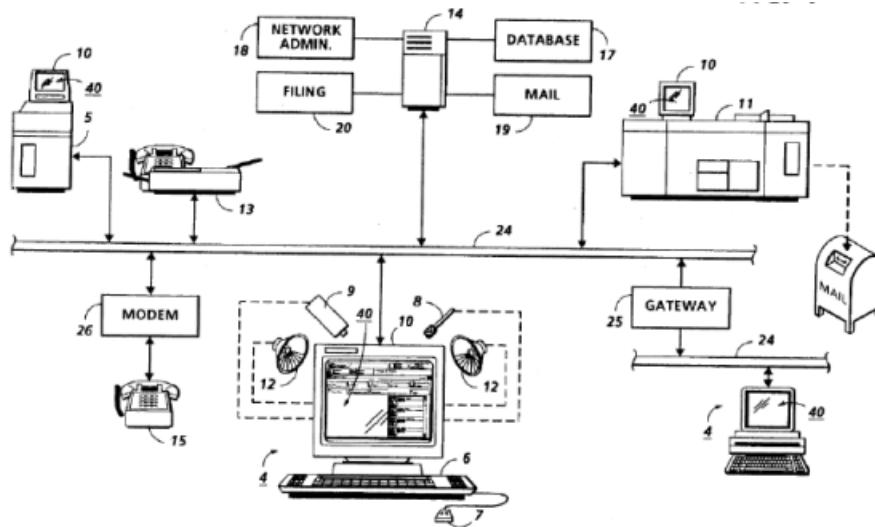


Fig. 1

Figure 1 illustrates Harkins’s network. The networked computing devices implement protocols, including protocols for local area network (LAN) communication and communication via the Internet. *Id.* at 1:22–49; 6:30–37; Ex. 1005 ¶ 119. More specifically, Harkins discloses that

[p]rotocols defining integrated system behavior for devices such as printers, scanners, workstations and facsimiles, are well known. These protocols define how the systems should integrate across networks. Operational transparency across networks and device platforms, provide users with an increasingly integrated and transparent system environment. In this environment the manipulation of information (such as documents) is transparent to users as a result of the various network protocols that define the manner in which devices manipulate information.

Id. at 1:22–31.

Harkins also describes a user interface (UI), which “can operate remotely from any system,” that is or is part of a software application that implements

interface protocols to achieve networking functions. *Id.* at 6:37–7:63. Users interact with the UI to send and receive documents/graphics/images to a variety of networked devices and applications via the network. *Id.* at 5:23–6:2, 6:37–7:63, 10:55–11:17.

Harkins discloses that a sender can “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.” *Id.* at 4:40–44. Harkins explains that a “receiver profile establishes the properties and mode for receipt of information for receivers on the network and the profile is published in a network repository for all network users or is accessible by selected groups or individuals on the network.” *Id.* at 4:44–48.

Figures 2 and 4 of Harkins are reproduced below.

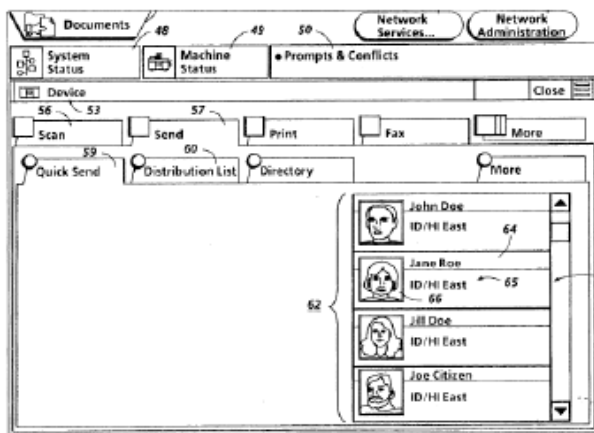


Fig. 2

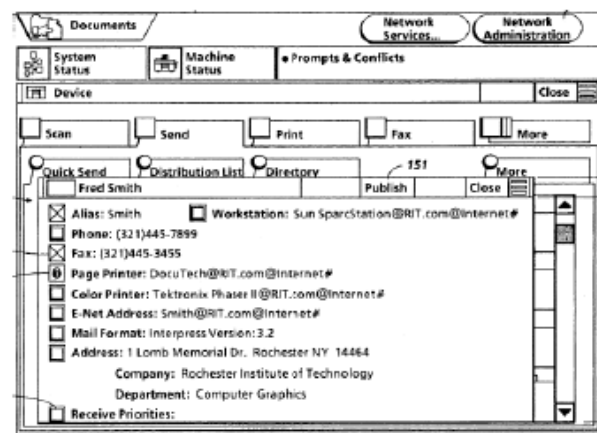


Fig. 4

Figure 2 shows a UI to transmit documents to desired receivers. *See* Ex. 1004, 6:49–7:63. Figure 4 shows how receivers interact with a user interface to generate receiver profiles. *Id.* at 8:28–10:54.

ii. Petitioner's Showing
Claims 3, 5, 10, 12, 17, 19, 24, 26, 29–33, 36, 38, 43, and 45

The Board finally determined in the '539 IPR that Harkins anticipates, among other claims of the '410 patent, independent claims 1, 8, 15, 22, 34, and 41, from which challenged claims 3, 5, 10, 12, 17, 19, 24, 26, 36, 38, 43, and 45 in this proceeding depend. *See* Ex. 3001 ('539 FWD), 29. Petitioner repeats its prior analysis from its petition in the '539 IPR for the independent claims challenged in that case, noting that “a dependent claim includes all the limitations of the claim it depends on [under] 35 U.S.C. § 112, ¶ 4.” Pet. 43–49. Petitioner also relies upon the Melen Declaration to support its assertion that Harkins anticipates or renders obvious the challenged claims. *Id.* at 43–60.

The preamble of claims 1 and 15 relate generally to a data management system and the transmission of electronic images to external devices over a local network or the Internet. The Petition relies in part on Harkins's Figure 1, which discloses a “multimedia device information system or network” for communication in a “transparent and device independent manner.” Ex. 1004, 6:4–14, Fig. 1; Pet. 44.

Claims 1 and 15 include a memory for “storing a plurality of interface protocols for interfacing and communicating.” Petitioner provides quotes from Harkins as disclosing well-known protocols for integrating printers, scanners, workstations and facsimiles. Pet. 45 (citing Ex. 1004, 1:21–31). Petitioner contends that disclosed computer device hardware in Harkins necessarily includes memory and processors. *Id.* (citing Ex. 1005 ¶ 113).

Claims 1 and 15 also require that the interface protocols to be implemented as “a software application for interfacing and communicating” with the external devices. Petitioner cites to Harkins UI, “which can operate remotely from any system.” Pet. 46 (citing Ex. 1004, 6:37–7:63). Citing Harkins's specific disclosure

of protocols, Dr. Melen concludes the UI is part of “a software application that implements interface protocols to achieve networking functions” as claimed. Ex. 1005 ¶ 112 (Ex. 1004, 1:21–31); Pet. 46.

Claim 1 further recites that the system has the “capability” to have the image “seamlessly replicated and transmitted” to other devices over the network. As discussed above in connection with the preamble, Harkins “enables users to communication in a transparent and device independent manner.” Ex. 1004, 6:5–7. Harkins also discloses operation across networks and devices in an “integrated and transparent system environment.” *Id.* at 1:25–31. Petitioner cites to the preceding disclosure for the limitation in question. Pet. 46. Petitioner sets forth a similar showing for independent claims 8, 15, and 22. *See* Pet. 47–49.

Dependent claims 3, 10, 17, 24, 36, and 43 recite that the computer data management system or method includes the capability of initiating, canceling, and resetting. Petitioner relies on Harkins’s disclosure related to “User Interface (UI) 40” as enabling the recited functions. Pet. 49 (citing Ex. 1004, 6:49–60, 7:1–63, Figs. 2, 4, 5, 7–11; Ex. 1005 ¶ 120). The UI initiates or starts scans, sends, prints, etc. Figure 10 discloses a “Cancel Job” action. Pet. 49; Ex. 1004, Fig. 10. Harkins supports Dr. Melen’s testimony that the UI allows a user to change (reset) a variety of features or preferences before transmitting a document. *See* Ex. 1004, 6:49–60, 7:1–63, 8:26–9:60; Ex. 1005 ¶ 120. Dr. Melen also maintains that “a PHOSITA would have understood that each device (*e.g.*, workstation, printer, scanner) that provides the UI . . . can inherently be initiated by applying power (*e.g.*, turning the device on), canceled by removing power (*e.g.*, turning the device off), and reset by toggling power to the device.” Ex. 1005 ¶ 120 (Harkins, 6:49–58).

Claims 3, 10, 17, 24, 36, and 43 also require the computer data management system or method to include the capability of maintaining a registry containing a list of inputs, outputs, and processes that can be used in the computer data management system or method. The claims further require maintaining information regarding files. Petitioner contends that

Harkins's "Network Services menu" maintains a list of "any networked service such as printer 11, facsimile 13, scanner 5, file server 20 (private, shared and public file storage), database server 17, mail servers (e.g. voice mail, email, etc.) 19, ports (such as modem 26, network gateway 25), and other workstations 4." Harkins 7:1–20; *See also id.* at 7:64–8:25 (client-server architecture). Harkins also discloses "*maintaining information regarding files.*" For example, "[s]uitcase 45 stores active and editable documents for easy movement across network services, or it is a transitional space where documents are stored." *Id.* at 6:64–67.

Pet. 50 (quoting Ex. 1004 (i.e., Harkins as noted) (emphasis by Petitioner); citing Ex. 1005 ¶ 121).

Claim 5 depends from claim 4 and recites "wherein the at least one application programmer interface (API) comprises at last [sic] one of the following interfaces: at least one modules object . . . at least one program object . . . [and] at least one system management event object." Claims 12, 19, 26, 38, and 45 recite the same or similar limitations. Although Petitioner correctly points out that claim 5 only requires one of the listed objects, Petitioner contends that Harkins discloses each of the five objects as APIs. *See* Pet. 50–52; Ex. 1005 ¶¶ 123–127. The '410 patent Specification lists various interfaces as objects, methods, and events.

According to the discussion above, and as discussed further below, claims 15, 34, and 41 recite a "GO" operation and software application. Citing Harkins's user interface and quick-send features, Petitioner contends that Harkins discloses these features, as discussed further below. *See* Pet. 45–46, 48.

Relying further on Dr. Melen's Declaration, Petitioner also sets forth details contending that Harkins anticipates claims 29, 30, and 32, and renders obvious claims 31 and 33. Pet. 53–60.

iii. Patent Owner's Arguments, Dependent Claims 17, 19, 36, 38, 43, and 45

Patent Owner argues that “[c]laims 17, 19, 36, 38, 43, and 45 each depend from a base claim that requires interfacing via a software application enabling copying images between physical devices, applications, and the Internet using a single ‘GO’ operation.” PO Resp. 20. Claims 17, 19, 36, 38, 43, and 45 depend from claims 15, 34, and 41, which the Board determined to be anticipated by Harkins in the ’539 FWD (a final judgment). Ex. 3001, 23–25. Grouping the claims together, Patent Owner makes several arguments that all relate to the GO limitations (and not the software application limitations) as recited in unpatentable claims 15, 34, and 41. See PO Resp. 20–21.

Patent Owner cites to its previous arguments that the Board dismissed in the ’539 FWD. PO Resp. 20–21 (characterizing the Board's “finding of anticipation” as “rest[ing] on its flawed construction”). *Id.* at 21. As another example, in the ’539 IPR, as it does here, Patent Owner cited the provisional application as supporting a narrow GO operation claim construction precluding an alleged prior art “drag/drop” feature—i.e., materially making similar arguments. See ’539 PO Resp. (Paper 12), 14–16.

For reasons similar to those discussed in connection with the XNS Manual, Patent Owner's arguments are not persuasive. As Petitioner contends, these arguments constitute “nothing more than a veiled attempt to re-litigate the patentability of independent claims 15, 34, and 41, which the Board held are anticipated by Harkins in the ’539 IPR.” Pet. Reply 18. Quoting 37 C.F.R.

§ 42.73(d)(3), Petitioner argues that Patent Owner “is estopped from ‘taking action inconsistent’” with the ’539 FWD, a final judgment. *Id.* at 18–19.

In similar fashion, Patent Owner argues that the claim construction of “GO operation” precludes a “drag and drop” feature allegedly disclosed in Harkins, but we adopted a broader construction as set forth above. *See supra* Section II.A.2; PO Resp. 21 (citing Ex. 2002, 6). In addition, Petitioner also relies on Harkins’s “quick-send” feature. Pet. 48 (Ex. 1004, 7:47–63). Petitioner also cites Harkins’s communication channel feature that includes providing default preferences for a facsimile receipt, voice mail, email, or specifying other physical devices for receiving documents such as a printer. *See id.* (citing Ex. 1004, 8:39–44, 10:38–54, Figs. 2, 4).

Assuming for the sake of argument the claim construction precludes some variation of a drag and drop feature, Patent Owner’s mere allegation that the claim construction precludes that feature does not rebut Petitioner’s showing that Harkins’s quick-send features constitute the GO operation claimed. *See* Ex. 1004, 7:42–63 (describing quick-send feature), Fig. 2 (depicting “Quick Send”). In the ’539 FWD, a final judgment, Patent Owner did not characterize Harkins’s quick-send feature as a “drag and drop” feature. *See* ’539 PO Resp. 16.⁷ Patent Owner also does not argue here that Harkins’s quick-send feature involves a drag and drop feature, and also does not re-litigate its argument in the ’539 IPR that the quick-

⁷ In the ’539 FWD, the Board cited Harkins’s quick-send feature. *See* Ex. 3001, 24. The Board also relied on Petitioner’s citation to Harkins’s “communication channel” features and characterized it as a “drag/drop” operation after the parties characterized it as such. *See id.* The Board found that the claim construction of the GO operation as “an operation that begins a process” reads on Harkins’s “‘drag/drop’ process that is followed by transmission of the ‘electronic image’ and the copying of it at a receiving device.” *Id.*

send feature of Harkins does not include scanning. *See* '539 PO Resp. 16. As discussed above in the Claim Construction section, the claims at issue do not require scanning, they require “copying.” *Supra* Section II.A.2.

Setting aside the quick-send option, Patent Owner cites to the '538 FWD as showing that Harkins involves a drag and drop feature. PO Resp. 21. Nevertheless, the so-called “drag and drop” feature of Harkins, in which a user can “select a document from document source 45 (e.g. report 34) and move it to communication channel 63 as shown in FIG 9” (e.g., a selected recipient’s icon) so that it transmits immediately (based on a priority or default setting) to a device or application over the Internet⁸ to the desired recipient, does not require any subsequent actions. *See* Ex. 1004, 10:57–62, Fig. 5 (Internet), Fig. 9 (document drop to communication channel 63), 11:8–12 (sending selected document in channel 63 according to a default or priority setting “without accessing Jane Roe’s profile”).⁹ Therefore, Harkins’s “drag and drop” feature satisfies Petitioner’s and Patent Owner’s claim construction, as the challenged claims do not require scanning—Patent Owner points to its provisional application to allege a disavowal of scanning and then a subsequent drag and drop. *See supra* Section II.A.2 (Claim Construction); PO Resp. 20–21 (citing Ex. 2002, 6).

⁸ We assume that “copy[] images between . . . the Internet,” as challenged claims 15, 34, and 41 recite, means sending images over the Internet.

⁹ All of the computer devices of Harkins have various applications, including email, voice mail, etc., with the printers, facsimile and other multifunction devices having software or firmware applications therein, as they must, to send and receive a document. *See, e.g.*, Ex. 1004, 5:53–62, Figs. 4, 11. As indicated above in the Claim Construction section (Section II.A), the '410 patent blurs distinctions between applications and hardware devices by stating, for example, that “external devices and applications include, for example, a printer, a facsimile, and a scanner.” Ex. 1001, 19:16–17.

Based on the foregoing discussion, Petitioner establishes, by a preponderance of evidence, that Harkins discloses the GO operation under Petitioner's and Patent Owner's claim construction.

iv. Patent Owner's Arguments, Dependent claims 3, 10, 17, 24, 36, and 43

Challenged claims 3, 10, 17, 24, 36, and 43 require a registry containing a list of inputs, outputs, and processes. Petitioner contends that

Harkins's "Network services menu" maintains a list of "any networked service such as printer 11, facsimile 13, scanner 5, file server 20 (private, shared and public file storage), database server 17, mail servers (e.g. voice mail, email, etc.) 19, ports (such as modem 26, network gateway 25), and other workstations 4."

Pet. 50 (quoting Ex. 1004, 7:1–20; citing 7:64–8:25).

Patent Owner responds that

[n]othing about Harkins' menu demonstrates that items are registered and Petitioners' expert does not explain how a menu equates to a registry. In addition, Harkins[] is merely a list of network services. Harkins[] does not mention any process that is registered and maintained in a list.

PO Resp. 19–20.

Patent Owner explains that "the concept of 'processes' [disclosed in the '410 patent as] discussed above is not equivalent to network resources." *Id.* (citing Ex. 1001, 71:11–18).

Patent Owner's arguments are not persuasive. Harkins's menu and the software supporting it holds a list of services that are processes—i.e., it is a registry containing a list of processes. *See* Ex. 1004, 7:1–20; 7:64–8:25, Fig. 2. Patent Owner points to disclosed "[e]xamples of a process" as "OCR [optical character recognition] and ICR [image character recognition]" as limiting the term "process." *See* PO Resp. 19 (quoting Ex. 1001, 71:11–18). But the quoted examples disclosed in the '410 patent are not claim limitations, and the cited

passage also describes “non-imaging functionality as well, such as workflow or other relevant tie-ins to the electronic paper as it is being copied.” *See id.* (quoting Ex. 1001, 71:11–18).

These examples and “relevant tie-ins” do not preclude Harkins’s processes employed by a printer, fax machine, or e-mail service, which include printing, faxing, and e-mail, and other input and output functions. Petitioner notes that Harkins specifically describes that “[p]rinting occurs as a background process.” Pet. Reply 18 (citing Ex. 1004, 2:55). At another passage cited by Petitioner, Harkins refers to many services, including “voice mail, email, etc.” accessible via “[n]etwork services menu 46” on resource bar 42 associated with user interface bar 40. Ex. 1004, 6:58–60, 7:1–7; Fig. 2; Pet. 50. Addressing what a “service” means, Harkins states that “‘multifunction systems or ‘devices’ combine printing, scanning, editing, facsimile and message receiving printing capability, where one such capability is *defined as a ‘service.’* The term ‘printer’ encompasses hard copy output from a various input sources, including facsimile, scanners, keyboard entry, and electronic document images input.” *Id.* at 5:55–61. In other words, the user relied-upon interface bar provides access to a variety of listed “services” that are processes. *Id.* at 6:49–7:19; Fig. 2.

To the extent that Patent Owner’s argument implies that listing a “printer” in Harkins would be patentably distinct from listing the function or process of “printing,” the record shows that this would amount to a distinction resting on nonfunctional descriptive material, because, for example, a printer implies a printing process, and a scanner provides a scanning process, etc., as Harkins explicitly discloses. *Id.* at 5:55–61. Similarly, Harkins specifically describes that in a “client-server relationship . . . clients access exported server functionality.” *Id.* at 7:65–8:2 (emphasis added). The challenged claims at issue do not require

the claimed “computer . . . system” to do anything with a listed process or otherwise to treat a listed “process” name (e.g., printing) differently than that name listed in the form of a device (e.g., printer) that actually performs that service. *See, e.g., supra* claim 17 (“the computer . . . system includes the capability of maintaining a registry containing a list of inputs, outputs, and processes that can be used in said . . . system).” The ’410 patent further blurs a distinction between application processes and a hardware devices by stating, for example, that “external devices and applications include, for example, a printer, a facsimile, and a scanner.” Ex. 1001, 19:16–17. In any event, even if listing various printers and facsimiles does not constitute listing a processes, inputs, and outputs, by way of example, in Harkins, the listed e-mail and voice mail services constitute listed processes, and the listed scanners, printers, and facsimile machines constitute listed inputs and outputs (or processes), all contained in the menu registry, and all “can be used in said computer data management system,” as challenged claims 3, 10, 17, 24, 36, and 43 require. *See* Ex. 1004, 6:58–60, 7:1–7; Fig. 2, Fig. 11; Pet. 50

Based on the foregoing discussion, Petitioner establishes, by a preponderance of evidence, that Harkins discloses the argued registry limitation of challenged claims 3, 10, 17, 24, 36, and 43.

v. Summary, Claims 3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45

The Petition, supported by Dr. Melen’s testimony, provides a detailed analysis explaining how Harkins anticipates claims 3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45. *See* Pet. 43–56 (citing Ex 1002; Ex. 1003, Ex. 1005). We adopt Petitioner’s analysis, summarized above, and in the Petition, as our own.

According to the discussion above, Patent Owner’s arguments with respect to claims 3, 10, 17, 19, 24, 36, 38, 43, and 45 are not persuasive. Patent Owner does not present independent arguments directed to claims 12, 26, 29, 30, and 32.

Based on the record, Petitioner has shown by a preponderance of evidence that Harkins anticipates 3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45.

3. Dependent claim 31, Obviousness, the XNS Manual, Harkins

Petitioner contends that the XNS Manual would have rendered claim 31 obvious and also contends that Harkins would have rendered claim 31 obvious. Pet. 40, 56. In response, Patent Owner contends that Petitioner is estopped, under “the common law doctrine of issue preclusion,” from asserting the unpatentability of claim 31, because “Xerox and Ricoh challenged claim 6 of the 426 [patent] and in a final written decision [in the ’302 IPR], the Board held that Xerox and Ricoh failed to meet their burden.” PO Resp. 22–23 (citing Ex. 1015 (’302 FWD) and Ex. 1017 (’302 rehearing decision)). According to Patent Owner, “[r]ecognizing that their first patentability challenge was unsuccessful, Petitioners adjust their challenge from a theory of anticipation to a theory of obviousness.” *Id.* at 23 (citing Pet. 24).

Patent Owner’s contention is not persuasive. As Petitioner contends, the instant proceeding involves different patentability issues than those involved in the ’302 IPR. See Pet. Reply 20–21. Although Patent Owner recognizes that the instant case involves two different obviousness theories instead of the anticipation theory at issue in the ’302 IPR, Patent Owner frames the allegedly precluded “same issue” as one of patentability as to the same claim limitations. See PO Resp. 22–23.¹⁰

¹⁰ The two claims have virtually identical language with slight variances. Claim 6 of the ’426 patent appears to be slightly narrower than claim 31 of the ’410 patent, because claim 6 depends from claim 5 which recites “comprising: at least one scanner, digital copier or other multifunctional peripheral capable of” basic imaging functions. See ’302 IPR Ex. 1001 (’426 patent, 86:8–11); see also Ex. 1015, 5–6 (’302 FWD listing claim 5 of the ’426 patent). On the other hand, claim

In the '302 FWD, the Board found that “Petitioner does not explain persuasively, if at all, how the XNS Manual discloses the claimed list being read on start-up. Based on the foregoing discussion, Petitioner does not show by a preponderance of evidence that the XNS Manual *anticipates* claim 6” in the '426 patent.” Ex. 1015, 42–43 (emphasis added). Therefore, Petitioner challenges different patents under different theories in the two cases—obviousness of claim 31 of the '410 patent over each of Harkins and the XNS Manual in this proceeding, versus anticipation by the XNS Manual of claim 6 of the '426 patent in the '302 IPR. In other words, as Petitioner contends, and Patent Owner does not dispute:

claim 31 of the '410 patent is challenged under a different standard of patentability (obviousness) than claim 6 of the '426 patent (anticipation); and, in the case of Harkins, claim 31 is challenged with different prior art. Thus, the '302 Petitioners did not dispute whether claim 31 of the '410 patent is obvious, let alone obvious over XNS or obvious over Harkins. Nor did the Board decide these issues.

Pet. Reply. 22.

Therefore, we determine that even if somehow the common law doctrine of issue preclusion otherwise applies to *inter partes* review, Petitioner is not precluded by that doctrine under the facts presented here.¹¹ The issues are not

31 depends from claim 29 which does recite those components directly, but recites managing similar components (as at most, an intended use of them): “software application comprises: at least one input module . . . managing at least one imaging device to input the data through at least one of a scanner and a digital copier.” Slight differences also exist in the similar input module recitation of claim 5 of the '410 patent. Patent Owner contends that “the [p]atentability of claim 31’s claim scope was actually litigated” in the 302 IPR, and at the Oral Hearing stated that “[t]he claim scope is identical.” Tr. 30:19. Given our holding that obviousness is a different issue than anticipation, we need not decide if the claims have the same material scope that actually was litigated.

¹¹ *HP Inc. v. MPHJ Tech. Investments, LLC*, 817 F.3d 1339, 1347 (Fed. Cir. 2016) addressed a different but related issue, the issue of statutory estoppel under

identical in the two IPR proceedings, the issue of obviousness here was not actually litigated in the first IPR proceeding, and resolution of obviousness was not essential (or even considered) in the final judgment of the first IPR proceeding—the ’302 IPR. *See* Pet. Reply 20–23 (listing and addressing factors necessary for common law issue preclusion).¹²

Petitioner’s showings of the obviousness of claim 31 based on the XNS Manual and based on Harkins are persuasive, and we adopt them as our own. *See* Pet. 40–41, 56–59. Based on the foregoing discussion and a review of the record, Petitioner has shown by a preponderance of evidence that each of the XNS Manual and Harkins would have rendered claim 31 obvious.

5. Dependent claim 33, Obviousness, the XNS Manual, Harkins

The Petition, supported by Dr. Melen’s testimony, provides a detailed analysis explaining how the XNS Manual, combined with admitted prior art, would have rendered claims 33 obvious, and also, how Harkins, combined with admitted

35 U.S.C. § 315(e)(1), which the court stated “estops a petitioner from requesting review on the basis of any ground that the petitioner ‘raised or reasonably could have raised’ during a previous IPR [*inter partes* review] that led to a final written decision.” The court reasoned that the *same* petitioner would not be estopped under the statute from challenging the *same* claim of the *same* patent for obviousness in a subsequent IPR even though that petitioner raised that same obviousness challenge prior to institution (in the previous IPR and the Board did not institute it), and even if the same petitioner fails in its anticipation challenge of the same claim in the previous IPR. *See id.* (reasoning “the noninstituted grounds were not raised, and as review was denied, could not be raised in the [prior] IPR”).

¹² Patent Owner contends that Lexmark (who was not a party in the ’302 IPR) was a privy of the petitioners in the ’302 IPR. *See* Paper 20 (Patent Owner providing supplemental authority to support its position that the Board may determine “retroactively” the alleged privy status of Lexmark in the ’302 IPR); Pet. Reply 23 (arguing “Lexmark was not even a party to the ’302 IPR”); Tr. 29:8–6 (Patent Owner alleging Lexmark was a privy in the ’302 IPR). Given our holding, we need not decide if different parties were involved in the two proceedings.

prior art, would have rendered claim 33 obvious. Pet. 41–42, 59–60 (citing Ex. 1005 ¶¶ 106–08, 147–49). We adopt Petitioner’s analysis as our own. Patent Owner relies on arguments presented with respect to claims 3, 10, 17, 24, 36, and 43 above. See PO Resp. 21–22 (arguing “[a]s discussed above, neither XNS nor Harkins discloses ‘a list of processes’”). Based on our discussion of challenged claims 3, 10, 17, 24, 36, and 43 above, and a review of the record, Petitioner shows by a preponderance of evidence that each of the XNS Manual and Harkins, in view of admitted prior art, would have rendered claim 33 obvious.

C. Summary

Petitioner has shown by a preponderance of evidence the following:

- 1) the XNS Manual anticipates claims 3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45;
- 2) the XNS Manual would have rendered claims 31 and 33 obvious;
- 3) Harkins anticipates claims 3, 5, 10, 12, 17, 19, 24, 26, 29, 30, 32, 36, 38, 43, and 45; and,
- 4) Harkins would have rendered claims 31 and 33 obvious.

III. ORDER

In consideration of the foregoing, it is hereby

ORDERED that claims 3, 5, 10, 12, 17, 19, 24, 26, 29, 30–33, 36, 38, 43, and 45 of the ’410 patent are unpatentable; and

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

IPR2015-01178
Patent 7,477,410 B1

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